



Exam : 070-305

**Title : Developing and Implementing Web
Applications with Microsoft Visual
Basic.NET**

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QUESTION 1

You work as the Web developer at Certkiller .com. You are developing an ASP.NET application which will be used on the intranet site of Certkiller .com. All Certkiller .com's employees use Internet Explorer on the company intranet.

Multiple controls that postback to the server for event processing are contained in a page named UserAccount.aspx. To complete processing, the event handlers of the controls require access to a database.

Whenever the UserAccount.aspx page executes a postback to the server, the browser window goes blank for a few moments while the page is being refreshed. The specific control which has the focus before the postback was performed does not have the focus once the page is re-rendered. This tends to be very confusing to users, and often results in users making invalid data entries.

You want to configure the UserAccount.aspx page so as to prevent the browser window from being blank after a postback. You also want to maintain the correct control focus once events are processed.

You want to use the the minimum amount of development effort to accomplish these tasks.

How will you accomplish the task?

A. For controls that perform the postbacks, include the following attribute with the HTML code:

RunAt="client"

B. For controls that perform the postbacks, include the following attribute with the HTML code:

EnableViewState="True"

C. Insert the following attribute to the Page directive for the UserAccount.aspx page:

SmartNavigation="True"

D. Insert the following attribute to the OutputCache directive for the UserAccount.aspx page:

Location="client"

Answer: C

Explanation: When a page is requested by an Internet Explorer 5 browser, or later, smart navigation enhances the user's experience of the page by performing the following:

- eliminating the flash caused by navigation.
- persisting the scroll position when moving from page to page.
- persisting element focus between navigations.
- retaining only the last page state in the browser's history.

Smart navigation is best used with ASP.NET pages that require frequent postbacks but with visual content that does not change dramatically on return.

Reference: .NET Framework Class Library, Page.SmartNavigation Property [Visual Basic]

QUESTION 2

You work as the Web developer at Certkiller .com. You have developed a financial application named Certkiller App01, which is written in Visual Basic .NET. Certkiller App01 consists of a page named AnnualFigures.aspx and a page class named AnnualFigures. AnnualFigures.aspx exists in the Finance namespace.

A Certkiller .com employee named Andy Reid works as a developer in the IT department. One morning you notice that FirstQuarter.aspx is not functioning correctly. You investigate the issue and find out that Andy has accidentally deleted the Page directive for FirstQuarter.aspx. You must create

a new Page directive to configure FirstQuarter.aspx to function correctly.
Choose the Page directive which you should use to accomplish the task.

- A. <% @ Page Language="vb"
Codebehind="AnnualFigures.aspx.vb"
Inherits="AnnualFigures"%>
- B. <% @ Page Language="vb"
Codebehind="AnnualFigures.aspx.vb"
ClassName="Finance.AnnualFigures"%>
- C. <% @ Page Language="vb"
Codebehind="AnnualFigures.aspx.vb"
Inherits="Finance.AnnualFigures"%>
- D. <% @ Page Language="vb"
Codebehind="AnnualFigures.aspx.vb"
ClassName="Finance.AnnualFigures"
Inherits="AnnualFigures"%>

Answer: C

Explanation: The Inherits attribute in the @ Page directive defines a code-behind class for the page to inherit. As AnnualFigures.aspx resides within the Finance namespace we should use

Inherits="Finance.AnnualFigures"

Note: The @ Page directive defines page-specific (.aspx file) attributes used by the ASP.NET page parser and compiler.

Reference: .NET Framework General Reference, @ Page

Incorrect Answers

A: As AnnualFigures.aspx resides within the Finance namespace we should use

Inherits="Finance.AnnualFigures"

B, D: The ClassName attribute specifies the class name for the page that will be dynamically compiled automatically when the page is requested. We should not use ClassName here.

QUESTION 3

You work as the Web developer at Certkiller .com. You develop an ASP.NET page named Enlist.aspx.

Enlist.aspx will be used by Certkiller .com's users to subscribe to Certkiller .com's e-mail lists.

The Enlist.aspx page contains an existing user control named ListEnlist. ListEnlist consists of two constituent controls, and is specified in the ListEnlist.ascx file. The TextBox control is named listNameText and the Button control is named enlistButton.

You want to include ListEnlist in the Enlist.aspx page. You do this by configuring this tag:

<email: ListEnlist id="ctlEnlist" runat="server"/>

You now want the page to display the list name in ListNameLabel when a user subscribes to Certkiller .com's e-mail lists by providing a list name in listNameText, and then clicking the enlistButton.

Which two actions should you perform to achieve your goal in these circumstances? Choose two correct answers. Each answer presents only part of the complete solution?

A. Include this statement in the declaration section of ListEnlist.aspx:

Public listNameText As TextBox

B. Include this statement in the declaration section of Enlist.aspx:

Public listNameText As TextBox

C. Include this statement in the Page.Load event handler for Enlist.aspx:

If Not Page.IsPostBack Then

listNameLabel.Text = ctlEnlist.listNameText.Text

End If

D. Include this statement in the Page.Load event handler for Enlist.aspx:

If Page.IsPostBack Then

listNameLabel.Text = ctlEnlist.listNameText.Text

End If

E. Include this statement in the Page.Load event handler for ListEnlist.ascx:

If Not Page.IsPostBack Then

listNameLabel.Text = listNameText.Text

End If

F. Include this statement in the Page.Load event handler for ListEnlist.ascx:

If Page.IsPostBack Then

listNameLabel.Text = listNameText.Text

End If

Answer: A, D

Explanation:

A: We must expose the listNameText control by declaring it as public The ListEnlist.aspx file contains the listNameText control so we expose it in this file.

Note: The controls that make up a user control are called constituent controls. These controls are normally declared private, and thus cannot be accessed by the developer. If you want to make properties of these controls available to future users, you must expose them to the user.

D: If the control is reloaded in the Enlist.aspx file due to a response to a client postback we should set the listNameLabel.Text property.

Note: The UserControl.IsPostBack property gets a value indicating whether the user control is being loaded in response to a client postback, or if it is being loaded and accessed for the first time.

Reference:

Visual Basic and Visual C# Concepts, Exposing Properties of Constituent Controls

.NET Framework Class Library, UserControl.IsPostBack Property

Incorrect Answers

B: The listNameText control is defined in ListEnlist.aspx, not in Enlist.aspx.

C: This would only copy the text when the page is initially loaded.

E, F: We should use the Page.Load event of Enlist.aspx, not for ListEnlist.aspx.

QUESTION 4

You work as the Web developer at Certkiller .com. You develop an ASP.NET page named Region.aspx. Region.aspx includes a Web user control named CountryList that contains countries in a drop-down list box. The DropDownList control in CountryList.ascx is named CKCountry.

You want to configure a code segment for the Page.Load event handler for Region.aspx. You find though that you are unable to access CKCountry from code in Region.aspx.

What should you do next to enable the code in Region.aspx to access the properties of CKCountry?

A. In the code-behind file for CountryList.ascx, include this code:

Protected CKCountry As DropDownList

B. In the code-behind file for CountryList.ascx, include this code:

Public CKCountry As DropDownList

C. In the code-behind file for RegionList.aspx, include this code:

Protected CKCountry As DropDownList

D. In the code-behind file for Region.aspx, include this code:

Public CKCountry As DropDownList

Answer: B

Explanation: We must declare the CKCountry as public in the file in which it is defined (CountryList.ascx).

Note: The Public keyword in the Dim statement declares elements to be accessible from anywhere within the same project, from other projects that reference the project, and from an assembly built from the project.

Reference: Visual Basic Language Concepts, Accessibility

Incorrect Answers

A, C: The Protected keyword in the Dim statement declares elements to be accessible only from within the same class, or from a class derived from this class. However, you do not want to protect MyCount, at the contrary we must make it public.

D: We must declare it public in the file in which it is defined, not Region.aspx where it is only used.

QUESTION 5

You work as the Web developer at Certkiller .com. You develop a new user control named PostalAddress. PostalAddress is defined in the PostalAddress.ascx file and is configured to exhibit address fields in an HTML table.

Certain container pages consist of multiple instances of the PostalAddress user control. To differentiate between these instances, you create a public property named Description for the user control.

You must perform the configuration that will result in the description appearing in the first <td> element of the HTML table containing the address fields.

Choose the code which you should include in the <td> element of the HTML table to exhibit the description.

A. <td><%=Description%></td>

B. <td><script runat="server">Description</script></td>

C. <td><script>document.write("Description");</scripts></td>

D. <td>=Description</td>

Answer: A

Explanation: CKDescription is a public property contained on the Web server. We reference it with the <%=CKDescription> element.

Incorrect Answers

B, C: Scripts are not called for. We just want to display a property.
D: To access the public property we must use an <% %> element.

QUESTION 6

You work as the Web developer at Certkiller .com. You develop a new ASP.NET page for an application named Certkiller App01. The new ASP.NET page will be used to indicate areas where a user can click to set off various functions. Users that use Certkiller App01 use Internet Explorer. You want to perform the necessary configuration which will result in a pop-up window being displayed when the user moves the mouse pointer over an image. The pop-up window should detail the function which will be started should the user proceed to click the particular image. How will you accomplish the task?

- A. For each specific image, configure the AlternateText property to list the text which should be displayed to the user.
Change the ToolTip property to True.
- B. For each specific image, configure the ToolTip property to list the text which should be displayed to the user.
- C. For each specific image, in the onmouseover event handler, include code which calls the RaiseBubbleEvent() method of the System.Web.UI.WebControls.Image class.
- D. For each specific image, in the onmouseover event handler, include code which calls the ToString() method of the System.Web.UI.WebControls.Image class.

Answer: B

Explanation: WebControl.ToolTip property gets or sets the text displayed when the mouse pointer hovers over the Web server control. The use of the ToolTip property meets the requirement of this scenario.

Reference: .NET Framework Class Library, WebControl.ToolTip Property [Visual Basic]

Incorrect Answers

A: The AlternateText property is used to specify the text to display if the image is not available.

C: The RaiseBubbleEvent is not useful here.

Note: ASP.NET server controls such as the Repeater, DataList and DataGrid Web controls can contain child controls that raise events. Rather than each button raising an event individually, events from the nested controls are "bubbled"-that is, they are sent to the control's parent.

D: The ToStringMethod() would not by itself provide the functionality required.

QUESTION 7

You work as the Web developer at Certkiller .com. You develop a new class named CkFormat. CkFormat contains two public properties named Size and Color respectively. You plan to use the CkFormat class in custom server controls to expose format properties to container pages.

You configure the following code for a custom control named MessageRepeater:

```
Private _formatter As CkFormat = New CkFormat()  
Public ReadOnly Property Format As CkFormat  
Get  
Return _formatter  
End Get  
End Property
```


To test the custom control, you define a container page named MessageContainer.aspx, and then use this code to register it:

```
<% @ Register Tagprefix=" CertK ctl" Namespace="MessageControls"
Assembly="MessageControls"%>
```

You want the custom server control instance of the control to test page with the following parameters set: a size property of 12; a color of green.

Choose the code segment which you should use to accomplish the task

- A. < CertK ctl:MessageRepeater Format-Color="green" Format-Size="12"/>
- B. < CertK ctl:MessageRepeater Format-Color="green" Format-Size="12" runat="server"/>
- C. < CertK ctl:MessageRepeater Color="green" Size="12" runat="server"/>
- D. < CertK ctl:MessageRepeater Format="color:green;size:12"/>

Answer: B

Explanation: ASP.NET has a special syntax for setting subproperties. The "-" syntax denotes a subproperty. The Format.Color and Format.Size properties are denoted by Format-Color and Format-Size respectively. We should also specify that the control should run at the server.

Incorrect Answers

A: As this is a custom server control we should specify that it should run at the server.

C, D: We must use the "-" syntax denotes a subproperties

QUESTION 8

You work as the Web developer at Certkiller .com. You develop a custom server control to exhibit date and time information. You want all other Certkiller .com developers that use the custom server control to modify the style properties of a Label control named timeLabel, which shows the date and time information.

You decide to create custom property procedures to accomplish your task. You create a custom property procedure that changes the BackColor property of the constituent controls, and you create a custom property procedure that changes the ForeColor property of the constituent controls. You also want to provide users with the choice of choosing between two predefined styles.

You use the following function to create the required predefined styles, but you still need to configure a method that will apply the styles:

```
Function GetStyle(styleType As Integer) As Style
Dim ckStyle As Style = New Style()
Select Case styleType
Case 1
ckStyle.ForeColor = System.Drawing.Color.White
ckStyle.BackColor = System.Drawing.Color.Black
Case 2
ckStyle.ForeColor = System.Drawing.Color.Black
ckStyle.BackColor = System.Drawing.Color.White
End Select
```

```
Return ckStyle  
End Function
```

You want to configure your method so that the ForeColor property and BackColor property of the Label control is not overwritten when they were previously set via the custom property procedures. Choose the code segment you should use to accomplish the task.

```
A. Public Sub PickStyle(styleType As Integer)  
Dim ckStyle As Style = GetStyle(styleType)  
timeLabel.ApplyStyle(ckStyle)  
End Sub  
B. Public Sub PickStyle(styleType As Integer)  
Dim ckStyle As Style = GetStyle(styleType)  
TimeLabel.MergeStyle(ckStyle)  
End Sub  
C. Public Sub PickStyle(styleType As Integer)  
Dim ckStyle As Style = GetStyle(styleType)  
timeLabel.ForeColor = ckStyle.ForeColor  
timeLabel.BackColor = ckStyle.BackColor  
End Sub  
D. Public Sub PickStyle(styleType As Integer)  
Dim ckStyle As Style = GetStyle(styleType)  
TimeLabel.CssClass = ckStyle.CssClass  
End Sub
```

Answer: B

Explanation: The WebControl.MergeStyle method copies any nonblank elements of the specified style to the Web control, but will not overwrite any existing style elements of the control. This method is used primarily by control developers.

Reference: .NET Framework Class Library, WebControl.MergeStyle Method [Visual Basic]

Incorrect Answers

A: WebControl.ApplyStyle Method copies any nonblank elements of the specified style to the Web control, overwriting any existing style elements of the control. We don't want to overwrite any existing style elements however.

C: We don't want to overwrite any existing style elements.-

D: The WebControl.CssClass Property gets or sets the Cascading Style Sheet (CSS) class rendered by the Web server control on the client. It not useful in this scenario though.

QUESTION 9

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App01. Certkiller App01 will be used for the Internet Web site of Certkiller .com. You must develop a toolbar for Certkiller App01. The toolbar must not be used by any other application, and must contain only static HTML code. The toolbar must be exhibited at the top of each page in the Internet Web site. You also want to develop the toolbar as quickly as feasible. To achieve your goals, you decide to configure the toolbar as a reusable component for Certkiller App01.

What should you do next?

- A. Develop a new Web Control Library project, and then create the toolbar within a Web custom control.
- B. Configure a new Web user control for the ASP.NET project, and then create the toolbar within the Web user control.
- C. Configure a new Web Form for the ASP.NET project, and then use HTML server controls to create the required toolbar within the Web Form. Save the Web Form by using an .ascx extension.
- D. Configure a new component class for the ASP.NET project, and then use HTML server controls to create the required toolbar within the designer of the new component class.

Answer: B

Explanation: Web user controls enable you to easily define controls as you need them for your applications, using the same programming techniques that you use to write Web Forms pages.

Reference: Visual Basic and Visual C# Concepts, Introduction to Web User Controls

Incorrect Answers

A: You can use the Web Control Library project template to author custom Web server controls.

However, since the toolbar is only going to be used in this application there is no need of the complexity of a Web customer control.

C: An HTML server control would be inadequate.

D: The Component class provides the base implementation for the IComponent interface and enables object-sharing between applications. It does not fit in this scenario.

QUESTION 10

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App21. Certkiller App21 will be used for the online vehicle cover site of Certkiller .com. You have configured the following Page directive for the VehicleInformation.aspx page:

```
<% @ Page Language="VB"
CodeBehind="VehicleInformation.aspx.vb"
AutoEventWireup="false" inherits="InsApp.VehicleInfo"%>
```

The VehicleInformation.aspx page contains a TextBox control named vehicleIDNumber. Users use the vehicleIDNumber control to enter the vehicle registration number of a vehicle. The code segment for the vehicleIDNumber control is as follows:

```
<asp:TextBox ID="vehicleIDNumber" Columns="20"
Runat="server"/>
```

You must configure a TextChanged event handler for the vehicleIDNumber control. You must ensure that the TextChanged event handler retrieves information on vehicles via an XML Web service that charges for each data access attempt. Each page displayed will contain information on the specific vehicle retrieved from the XML Web service.

What should you do next to implement the TextChanged event handler? Choose the two actions which you should perform. Each correct answer presents only part of the complete solution.

- A. Access the Page directive for VehicleInformation.aspx and set the AutoEventWireup attributes to "true".
- B. Access the Page directive for VehicleInformation.aspx and set the EnableViewState attribute to

"true".

C. Access the vehicleIDNumber HTML element and set the AutoPostBack attribute to "false". Add the necessary code for the client-side onserverchange event to submit the Web Form for processing by the server.

D. In the vehicleIDNumber HTML element, ensure that the AutoPostBack attribute is set to "true". Add the necessary code in the TextChanged event handler to query the XML Web service.

Answer: B, D

Explanation:

B: The Page.EnableViewState property value indicates whether the page maintains its view state, and the view state of any server controls it contains, when the current page request ends.

D: The AutoPostBack property is used to specify whether an automatic postback to the server will occur whenever the user changes the content of the text box. As we want we want to use an XML Web service we must set the attribute to true.

Reference:

.NET Framework Class Library, Control.EnableViewState Property [Visual Basic]

.NET Framework Class Library, TextBox.AutoPostBack Property [Visual Basic]

Incorrect Answers

A: AutoEventWireup is used to automatically associate page events and methods. It does not provide a solution for this scenario.

C: We are required to use a XML Web service. The AutoPostBack attribute must be set to false.

QUESTION 11

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App05. Certkiller App05 will be used by the Sales department to process customers' orders for goods and services.

Certkiller App05 contains a DeliveryInformation.aspx page. DeliveryInformation.aspx provides a Web Form that has controls to gather information on delivery locations. The Web Form consists of the TextBox controls, a Button control, and a DropDownList control. There are four TextBox controls that are used to specify name, street address, city, and postal code information. The DropDownList control contains the names of several countries.

The Button control is named deliveryItButton. The Click event handler for the deliveryItButton control resides within the code-behind file for DeliveryInformation.aspx, and is the only control that defines server-end event handlers. The Click event handler works by redirecting the user to a page named DeliveryConfirmation.aspx, which provides the confirmation status of the delivery request.

A Certkiller .com user named Mia Hamm is a member of the Sales department. One morning Mia and other users complain that when they click the deliveryItButton, DeliveryInformation.aspx processes the request for a long time. Mia is using a dial-up connection to access Certkiller App05. You investigate the complaint and discover that the slow performance issue only pertains to users that use dial-up connections to access Certkiller App05. Users that use high-bandwidth network connections are experiencing no performance issues.

What should you do next to improve performance for users using dial-up connection to access Certkiller App05?

A. Include this attribute to the Page directive for DeliveryInformation.aspx:

EnableViewState="False"

B. Include this attribute to the Page directive for DeliveryInformation.aspx:

SmartNavigation="True"

C. Include this attribute to the OutputCache directive for DeliveryInformation.aspx:

Location="server"

D. Include this attribute to the OutputCache directive for DeliveryInformation.aspx.

Location="client"

Answer: A

Explanation: The Page.EnableViewState property gets or sets a value indicating whether the page maintains its view state, and the view state of any server controls it contains, when the current page request ends. You can use the ViewState property to save your values independent of control state between round trips to the server. The ViewState property is stored in the page in a hidden form field. However, this introduces higher network load when the page is redisplayed.

Reference: .NET Framework Class Library, Page.EnableViewState Property [Visual Basic]

Incorrect Answers

B: The SmartNavigation property does not affect problems of this scenario.

C: Server side caching would not decrease network traffic.

Note: The OutputCache directive declaratively controls the output caching policies of an ASP.NET page or a user control contained in a page.

D: Client side caching would not so useful in this scenario.

QUESTION 12

You work as the Web developer at Certkiller .com. All of Certkiller .com's users on the intranet make use of Internet Explorer. You configure a new ASP.NET page named Schedule.aspx. Schedule.aspx will be used by the Project office to maintain information on the time-frames and status of various projects. Users can access Schedule.aspx from several ASP and ASP.NET pages hosted throughout Certkiller .com's intranet.

Schedule.aspx contains a Calendar control located close to the top of the page. Below this, users are presented with information on the project schedules on the date which they have selected. After a user clicks a specific date within the calendar, Schedule.aspx refreshes to display schedule information for the specified date.

You have received several complaints from users complaining that once they have selected to view information on two or more dates on Schedule.aspx, they are forced to click the Back button of the browser multiple times to return to the page which they were looking at before accessing Schedule.aspx.

You must configure Schedule.aspx in order that users only need to click the browser's Back button once.

What should you do next?

A. Insert this statement to the Page.Load event handler for Schedule.aspx:

Response.Expires(0)

B. Insert this statement to the Page.Load event handler for Schedule.aspx:

Response.Cache.SetExpires (DateTime.Now())

C. Insert this attribute to the Page directive for Schedule.aspx:

EnableViewState="True"

D. Insert this attribute to the Page directive for Schedule.aspx:
SmartNavigation="True"

Answer: D

Explanation: the user's experience of the page by performing the following:

- retaining only the last page state in the browser's history.

This is what is required in this scenario.

- eliminating the flash caused by navigation.
- persisting the scroll position when moving from page to page.
- persisting element focus between navigations.

Reference: .NET Framework Class Library, Page.SmartNavigation Property [Visual Basic]

Incorrect Answers

A: This is not a page expiration problem.

B: This is not a caching problem.

C: The Page.EnableViewState property Gets or sets a value indicating whether the page maintains its view state, and the view state of any server controls it contains, when the current page request ends.

QUESTION 13

You are creating an e-commerce site for Certkiller . Your site is distributed across multiple servers in a Web farm.

Users will be able to navigate through the pages of the site and select products for purchase. You want to use a DataSet object to save their selections. Users will be able to view their selections at any time by clicking a Shopping Cart link.

You want to ensure that each user's shopping cart DataSet object is saved between requests when the user is making purchases on the site.

What should you do?

A. Create a StateBag object.

Use the StateBag object to store the DataSet object in the page's ViewState property.

B. Use the HttpSessionState object returned by the Session property of the page to store the DataSet object.

Use the Web.config file to configure an out-of-process session route.

C. Use the Cache object returned by the page's Cache property to store a DataSet object for each user. Use an HttpCachePolicy object to set a timeout period for the cached data.

D. Use the Session_Start event to create an Application variable of type DataSet for each session. Store the DataSet object in the Application variable.

Answer: B

Explanation: An HttpSessionState object provides access to session-state values as well as session-level settings and lifetime management methods. We should use an out-of-process session to ensure that each user's shopping cart DataSet object is saved between requests

Note: ASP.NET provides three distinct ways to store session data for your application: in-process session state, out-of-process session state as a Windows service, and out-of-process session state in a SQL Server

database. The out-of-process solutions are primarily useful if you scale your application across multiple processors or multiple computers, or where data cannot be lost if a server or process is restarted.

Reference:

.NET Framework Class Library, HttpSessionState Class [Visual Basic]

.NET Framework Developer's Guide, Developing High-Performance ASP.NET Applications [Visual Basic]

Incorrect Answers

A: A StateBag object manages the view state of ASP.NET server controls, including pages. This object implements a dictionary. It would not be useful in this scenario however.

C: A cache is not a secure storage location.

D: As multiple servers are going to be used an Application variable is not the best solution.

QUESTION 14

You work as the Web developer at Certkiller .com. You configure a new ASP.NET page to save insurance information on new employees. To be included in Certkiller .com's insurance plan, employees must be minimally 65 years old.

You have received instruction from the CIO to have each new member provide the following information:

- A name in the TextBox control named nameTextBox.
- Date of birth information in a TextBox control named birthTextBox.
- You must also ensure that all new members meet the minimum age requirement.

What should you do to achieve your goal in these circumstances?

A. Add a CustomValidator to your page and in the Properties window; specify the ControlToValidate property to birthTextBox. Configure the code segment to validate date of birth information.

Add a RegularExpressionValidator control to your page and in the Properties window; specify the ControlToValidate property to nameTextBox. Configure a regular expression to validate name information.

B. Add a CompareValidator control to your page and in the Properties window; specify the ControlToValidate property to birthTextBox. Configure the code segment to specify the Operator and ValueToCompare properties to validate date of birth information.

Add a RequiredFieldValidator control to your page and in the Properties window; specify the ControlToValidate property to nameTextBox.

C. Add a RangeValidator control to your page and in the Properties window; specify the ControlToValidate property to birthTextBox. Configure the code segment to set the MinimumValue and MaximumValue properties to validate date of birth information.

Add a CompareValidator control to your page and in the Properties window; specify the ControlToValidate property to nameTextBox.

Add another CompareValidator control to your page and in the Properties window, specify the ControlToValidate property to birthTextBox.

Configure the code segment that sets the Operator and ValueToCompare properties of each CompareValidator control to validate name and date of birth information.

D. Add a CustomValidator control to your page and in the Properties window, specify the ControlToValidate property to birthTextBox. Configure a code to validate date of birth information.

Add a RequiredFieldValidator control to your page and in the Properties window, specify the ControlToValidate property to nameTextBox.

Add another RequiredFieldValidator control to the page and in the properties window, specify the ControlToValidate property to birthTextBox.

Answer: D

Explanation: To check the data of the birthTextBox we can use a CustomValidator control page and add appropriate program code to validate that the birth date is in the correct range.

We use two RequiredFieldValidators to ensure that both textboxes are non-empty.

Note: The CustomValidator Control evaluates the value of an input control to determine whether it passes customized validation logic.

The RequiredFieldValidator Control evaluates the value of an input control to ensure that the user enters a value.

Reference: .NET Framework General Reference, RequiredFieldValidator Control

Incorrect Answers

A: The RegularExpressionValidator control evaluates the value of an input control to determine whether it matches a pattern defined by a regular expression. It is not useful in this scenario.

B: We should use two RequiredFieldValidtor, one for each textbox.

C: It would be hard to use a RangeValidator for the birthday Textbox. It is better to use a CustomerValidator control.

QUESTION 15

You work as the Web developer at Certkiller .com. You configure a new ASP.NET page to save contact details. Your ASP.NET page consists of the following controls:

- A TextBox control named emailTextBox.
- A TextBox control named phoneTextBox.
- A RequiredFieldValidator control named emailRequired.
- A RequiredFieldValidator control named phoneRequired.

Information must be provided in emailTextBox and in phoneTextBox. The ControlToValidate property of emailRequired is set to emailTextBox, and the ControlToValidate property of phoneRequired is set to phoneTextBox. You also include a ValidationSummary control close to the end the page.

You want to perform the following configurations:

- When a user attempts to submit your page, and emailTextBox is left blank, you want the word 'Required' to pop-up next to the associated text box.
- When a user attempts to submit the page, and phoneTextBox is left blank, you want the word 'Required' to pop-up next to the associated text box.
- When a user attempts to submit the page, and emailTextBox and phoneTextBox are left blank, you want word 'Required' to pop-up at the end of the page.
- You want a user to be presented with a bulleted list that indicates which information is required, and is missing:

When emailTextBox is left blank, the bulleted list must display this: "E-mail is required"

When phoneTextBox is left blank, the bulleted list must display this: "Phone number is required"

What should you do to achieve your goal in these circumstances?

- A. Configure the InitialValue property of each RequiredFieldValidator control as "Required".
Configure the ErrorMessage property of emailRequired as "E-mail is required."
Configure the ErrorMessage property of phoneRequired as "Phone number is required."
- B. Configure the Display property of each RequiredFieldValidator control to Dynamic.
Configure the ErrorMessage property of emailRequired and phoneRequired to Dynamic.
Configure the Text property of emailRequired to "E-mail is required."
Configure the Text property of phoneRequired to "Phone number is required."
- C. Configure the InitialValue property of each RequiredFieldValidator control to "Required".
Configure the Text property of emailRequired to "E-mail is required."
Configure the Text property of phoneRequired to "Phone number is required."
- D. Configure the Text property of each RequiredFieldValidator control to "Required".
Configure the ErrorMessage property of emailRequired to "E-mail is required."
Configure the ErrorMessage property of phoneRequired to "Phone number is required."

Answer: D

Explanation: The Text property of the RequiredFieldValidator is used to specify the text to display in the validation control. We want to display "Required".

The ErrorMessage property is used to specify the text to display in the validation control when validation fails.

Reference:

Visual Basic and Visual C# Concepts, Validating Required Entries for ASP.NET Server Controls
.NET Framework Class Library, RequiredFieldValidator Members

Incorrect Answers

A: We should use the Text property, not the InitialValue property, to specify the text to display in the validation control.

B: The ErrorMessage property should be set to the text to display in the validation control, not to dynamic.

C: We must use the ErrorMessage property.

QUESTION 16

You work as the Web developer at Certkiller .com. You configure a new ASP.NET page to enable Certkiller .com's customers to supply payment information on goods purchased.

Your page includes a DropDownList control named CardTypeList. CardTypeList will be used by customers to choose the type of credit card they are using to make payment. CardTypeList must have a default value of Select. It is compulsory for all customers to specify a credit card type. To ensure that this requirement is adhered to, you want the page validation to fail when a customer fails to select a credit card type.

How will you accomplish your goal?

A. Include a RequiredFieldValidator control for your page and set its ControlToValidate property to CardTypeList.

Configure the InitialValue property of the RequiredFieldValidator control as Select.

B. Include a RequiredFieldValidator control for your page and set its ControlToValidate property to CardTypeList.

Configure the DataTextField property of the CardTypeList control as Select.

- C. Include a CustomValidator control for your page and set its ControlToValidate property to CardTypeList.
Configure the DataTextField property of the CardTypeList control as Select.
- D. Include a RegularExpressionValidator control for your page and set its ControlToValidate property a CardTypeList.
Configure the ValidateExpression property of the RegularExpressionValidator control as !Select.

Answer: A

Explanation: We use a RequiredFieldValidator control to ensure that users enter a CardTypeList. We use the InitialValue property of the RequiredFieldValidator control to specify the default or initial value of the CardTypeList control.

Note: The RequiredFieldValidator Control evaluates the value of an input control to ensure that the user enters a value.

RequiredFieldValidator.InitialValue property gets or sets the initial value of the associated input control.

QUESTION 17

You work as the Web developer at Certkiller .com. You configure a new ASP.NET page to enable Certkiller .com's users to supply requested delivery date information. The TextBox control named requestCKDate must be used to enter this delivery information.

The requested delivery date must adhere to these requirements:

- Cannot be earlier than three business days after the order date
- Cannot be later than fifty business days after the order date

You want to perform the configuration which will ensure that the requested delivery date meets these requirements. You also want to minimize the number of round trips to the server

What should you do next?

- A. Specify the AutoPostBack property of requestDate as False.
Configure a code segment in the ServerValidate event handler to validate the delivery date.
- B. Specify the AutoPostBack property of requestDate as True.
Configure a code segment in the ServerValidate event handler to validate the delivery date.
- C. Specify the AutoPostBack property of requestDate as False.
Specify the ClientValidationFunction property to the name of a script function contained in the HTML page that is passed to the browser.
- D. Specify the AutoPostBack property of requestDate as True.
Specify the ClientValidationFunction property to the name of a script function contained in the HTML page that is passed to the browser.

Answer: C

Explanation: Set CustomValidator.ClientValidationFunction property to the name of the function that performs the client-side validation. Because the client validation function runs on the target browser, the function must be written using a scripting language supported by the browser, such as JScript or VBScript. The AutoPostBack property gets or sets a value indicating whether an automatic postback to the server will occur whenever the user changes the content of the text box. We should set it to false as we want to avoid server round trips.

Reference:

.NET Framework Class Library, CustomValidator.ClientValidationFunction Property [Visual Basic]

.NET Framework Class Library, TextBox.AutoPostBack Property [Visual Basic]

Incorrect Answers

A, B: We want to validate the control with client side script to save a server round-trip.

D: If the AutoPostBack is set to true an automatic postback to the server will occur whenever the user changes the text in the text box. This is what we want to avoid.

QUESTION 18

You work as the Web developer at Certkiller .com. You develop a new ASP.NET application named Certkiller App12. Certkiller App12 will run on the Internet Web site of the company, and will contain a substantial number of Web pages.

You want to configure Certkiller App12 to display customized error messages to users when an HTTP code error occurs, and you want the error logged when ASP.NET exceptions occur. You want to use the minimum amount of development effort to implement these configurations.

Choose the two actions which you should perform. Each correct answer presents only part of the complete solution.

- A. Create an Application_Error procedure in the Global.asax file to enable Certkiller App12 to deal with ASP.NET code errors.
- B. Create an applicationError section in the Web.config file to enable Certkiller App12 to deal with ASP.NET code errors.
- C. Create a CustomErrors event in the Global.asax file to enable Certkiller App12 to deal with HTTP errors.
- D. Create a customErrors section in the Web.config file to enable Certkiller App12 to deal with HTTP errors.
- E. Add the Page directive to each page in Certkiller App12 to deal with ASP.NET code errors.
- F. Add the Page directive to each page in Certkiller App12 to deal with HTTP errors.

Answer: A, D

Explanation:

A: Any public event raised by the HttpApplication class is supported using the syntax Application_EventName. For example, a handler for the Error event can be declared protected void Application_Error(Object sender, EventArgs e).

D: The <customErrors> element, which is used in the Web.config file, provides information about custom error messages for an ASP.NET application.

Reference:

.NET Framework Developer's Guide, Handling Public Events

.NET Framework General Reference, <customErrors> Element

Incorrect Answers

B: There is no such thing as a applicationError section in the Web.config file.

C: There is no such thing as CustomErros event in the Global.asax file.

E, F: It is not necessary to add a Page Directive to each page.

QUESTION 19

You work as the Web developer at Certkiller .com. You have been tasked with migrating Certkiller .com's ASP-based Web page named Booklist.asp to ASP.NET.

Booklist.asp consists of a COM component named Company.BookList, which is written in Microsoft Visual Basic 6.0. You want the migration to take place as quickly as possible, and you want to use the minimum amount of development effort to perform it.

After opening the new page, you are presented with this error message: "Server error - The component 'Company.BookList' cannot be created."

What should you do next so that the new page is successfully opened?

- A. Configure a managed component to perform the functions currently performed by the Company.BookList component.
- B. Configure the AspCompat attribute of the Page directive as True.
- C. Include this code to the Page.Load event handler:
RegisterRequiresPostBack("Company.BookList";
- D. Include this attribute to the processModel element of the Web.config file:
comImpersonationLevel = Delegate

Answer: B.

Explanation: If the older file contains calls to COM components - for example, ADO code then we must add the AspCompat attribute to the page directive in HTML view. The aspcompat attribute forces the page to execute in single-threaded (STA) mode.

Note: You can work with and run existing ASP pages (.asp files) as-is in Visual Studio. You can use ASP pages and ASP.NET pages in the same project. It is useful to convert ASP pages to ASP.NET Web Forms pages so that you can take advantage of the enhanced features of the newer architecture.

Reference: Visual Basic and Visual C# Concepts, Migrating ASP Pages to Web Forms Pages

QUESTION 20

You work as the Web developer at Certkiller .com. You develop a new ASP.NET page that will be used by Certkiller .com's users to choose a destination. After selecting a destination, users must be presented with tourist information pertaining to that specific destination. To specify a destination, users select the destination by using the countryList list box. countryList has hidden country code information.

You configure the necessary code to retrieve a cached DataTable object named touristTable. This DataTable object holds the tourist description and a numeric country code named CountryID.

You must extract an array of DataRow objects from the DataTable object, and want to only include tourist information for the selected county.

How will you accomplish the task?

- A. Dim result As DataRow() = _
touristTable.Select(_
"CountryID = " & countryList.SelectedItem.Text)
- B. Dim result As DataRow() = _
touristTable.Select(_
"CountryID = " & countryList.SelectedItem.Value)
- C. Dim result As DataRow = _

```
touristTable.Rows.Find( _  
"CountryID = " & countryList.SelectedItem.Value)  
D. Dim result As DataRow = _  
touristTable.Rows.Find( _  
countryList.SelectedItem.Value)
```

Answer: B

Explanation: The DataTable.Select method gets an array of all DataRow objects that match the filter criteria in order of primary key (or lacking one, order of addition.). The filter will compare CountryID values. We should use Country codes and not country names. We should therefore use the Value of the selected item, not the Text.

Reference: .NET Framework Class Library, DataTable.Select Method (String) [Visual Basic]
.NET Framework Class Library, ListControl.SelectedItem Property [Visual Basic]

Incorrect Answers

A: The ListBox.Text property gets or searches for the text of the currently selected item in the ListBox. However, this would retrieve names of countries, but the filter use comparison to a CountryID column. We must use the country code, not the country name.

C, D: The DataRowCollection.Find method is not appropriate in this scenario. It retrieves only a single row, not an array of rows.

QUESTION 21

You work as the Web developer at Certkiller .com. You develop a new ASP.NET application named Certkiller App03. Certkiller App03 will be used to send Certkiller .com news over the Internet. Certkiller .com users select news content from an ASP.NET page. You have configured code that creates a DataSet object named NewsItems. NewsItems holds the news content that meet the requirements specified by the user

You write this code to create a style sheet named NewsStyle.xsl. NewsStyle.xsl will place the data in NewsItems in HTML format:

```
Dim doc As XmlDocument = new XmlDocument(NewsItems)  
Dim tran As XslTransform = New XslTransform()  
tran.Load("NewsStyle.xsl")
```

Choose the code that must be appended to the end of the code segment to show the transformed data as HTML text.

- A. tran.Transform(doc, Nothing, Response.OutputStream)
- B. tran.Transform(doc, Nothing, Request.InputStream)
- C. NewsItems.WriteXml(Response.OutputStream)
- D. NewsItems.WriteXml(tran.ToString())

Answer: A

Explanation: The XslTransform.Transform method transforms the XML data in the XPathNavigator using the specified args and outputs the result to a Stream. We should use the Response.OutputStream to enable output of text to the outgoing HTTP response stream.

Reference: .NET Framework Class Library, XslTransform.Transform Method (XPathNavigator,

XsltArgumentList, Stream) [Visual Basic]

Incorrect Answers

B: We want to display data, not read data, so we must use Response.OutputStream not Request.InputStream.

C, D: We want to generate HTML, not XML data. We should use the XslTransform.Transform method, not the DataSet.WriteXml method.

QUESTION 22

You work as the Web developer at Certkiller .com. You develop a new ASP.NET application named Certkiller App11. Certkiller App11 will be used to present results to users of the company Web site. You specify a DataGrid control to present a list of questions and the number of responses received for each question. You must change the control with the result being that the total number of responses received is shown in the footer of the grid. You want to use the minimum amount of development effort to achieve your goal.

What should you do next?

A. Override the OnPreRender event and then show the total number of responses received when the footer row is created.

B. Override the OnItemCreated event and then show the total number of responses received when the footer row is created,

C. Override the OnItemDataBound event and then show the total number of responses received when the footer row is bound.

D. Override the OnLayout event and then show the total number of responses received in the footer row.

Answer: C

Explanation: The ItemDataBound event is raised after an item is data bound to the DataGrid control. This event provides you with the last opportunity to access the data item before it is displayed on the client. After this event is raised, the data item is nulled out and no longer available.

Reference: .NET Framework Class Library, DataGrid.ItemDataBound Event [Visual Basic]

Incorrect Answers

A: The OnPreRender method notifies the server control to perform any necessary prerendering steps prior to saving view state and rendering content.

B: The ItemCreated event is raised when an item in the DataGrid control is created, both during roundtrips and at the time data is bound to the control.

D: The OnLayout Method raises the Layout event that repositions controls and updates scroll bars.

QUESTION 23

You work as the Web developer at Certkiller .com. You configure a new ASP.NET page. Your page will be used to show purchasing information on Certkiller .com's customers. The page uses the System.Data.SqlClient namespace and System.Data namespace.

Your new page consists of two separate DataGrid controls. One DataGrid control shows this year's purchasing information, and one DataGrid control shows all previous years purchasing information. All purchasing information is contained in a Microsoft SQL Server Database. To retrieve a specific customer's purchasing information from the SQL database, the customer's identification number is

specified, and a stored procedure named GetPurchases is called. After the GetPurchases stored procedure runs, the Page.Load event handler populates a DataView object named CKDataView with the information.

You have configured this code in the Page.Load event handler to bind the two DataGrid controls to CKDataView:

```
dataGridCurrentYear.DataSource = CKDataView
CKDataView.RowFilter = "PurchaseDate >= #01/01/" & _
Now.Year & "#"
dataGridCurrentYear.DataBind()
dataGridPreviousYears.DataSource = CKDataView
CKDataView.RowFilter = "PurchaseDate < #01/01" & _
Now.Year & "#"
dataGridPreviousYears.DataBind()
Page.DataBind
```

You test your configuration and find that each DataGrid control is showing purchasing information for only previous years.

What should you do next to ensure that one DataGrid control shows this year's purchasing information, the other DataGrid control shows all previous years purchasing information?

- A. Delete the Page.DataBind() statement.
- B. Delete the dataGridPreviousYears.DataBind() statement.
- C. Set a Response.Flush() statement immediately prior to the Page.DataBind() statement.
- D. Set a Response.Flush() statement immediately prior to the dataGridPreviousYears.DataBind() statement.

Answer: A

Explanation: Both datagrids use the same DataView. The Page.Databind method binds a data source to the invoked server control and all its child controls. We should remove this statement.

Reference: .NET Framework Class Library, Control.DataBind Method [Visual Basic]

Incorrect Answers

B: We must bind each data grid control to its data source

C, D: The HttpResponse Flush method sends all currently buffered output to the client. It is not useful in this scenario.

QUESTION 24

You work as the Web developer at Certkiller .com. You configure a new ASP.NET page. Your new page contains a DataGrid control that will be used to show all previous orders placed by users. An existing database populates the DataGrid control when your page is created.

Your ASP.NET page contains various TextBox controls, which are used by users to change personal contact information. You must implement the code that will result in the page being refreshed as quickly as possible when users update contact information.

What should you do next?

- A. Change the Enable property of the DataGrid control to false.
- B. Change the EnableViewState property of the DataGrid to false.

- C. Add code in the Page.Load event handler that populates the DataGrid control only if the IsPostBack property of the page is false.
- D. Add code in the Page.Load event handler that populates the DataGrid control only if the IsPostBack property of the page is true.

Answer: D

Explanation: The Page.IsPostBack property gets a value indicating whether the page is being loaded in response to a client postback, or if it is being loaded and accessed for the first time. The value is true if the page is being loaded in response to a client postback; otherwise, false. By adding code in the Page Load event handler that populates the Data Grid control when the IsPostBack property is true we ensure that the page is refreshed as quickly as possible.

Reference: .NET Framework Class Library, Page.IsPostBack Property [Visual Basic]

Incorrect Answers

- A: The DataGrid control has an Enabled property, but no Enable property. Furthermore, the Enable property only indicates if the control is enabled or not.
- B: The Control.EnableViewState property indicates whether the server control persists its view state, and the view state of any child controls it contains, to the requesting client.
- C: The DataGrid should only be populated when the user updates the contact information. This occurs when the IsPostBack property is true, not false. This suggested solution would only populate the DataGrid when the page is loaded the first time.

QUESTION 25

You work as the Web developer at Certkiller .com. You develop a new ASP.NET application named Certkiller App03. Certkiller App03 includes a page that is used by the Sales department employees to change the prices of products and services offered by Certkiller .com. The code you configure uses the System.Data namespace.

Your application works by retrieving product numbers and names, and prices from a database. All of this information is available on the Web page, and is contained within a DataSet object named productInfo. All Sales employees update product prices. All modifications are saved to productInfo when the Save button is clicked.

You developed code in the Click event handler for the Save button to store changed prices to the database, and now want to retrieve the changed rows in productInfo before performing the update.

To accomplish this, you configure an additional DataSet object named productChanges to store all changed product information.

You must move the edited rows from productInfo into productChanges. Choose the line of code which you should use.

- A. productChanges = _productInfo.GetChanges(DataRowState.Detached)
- B. productChanges = productInfo.GetChanges()
- C. productChanges.Merge(productInfo, true)
- D. productChanges.Merge(productInfo, false)

Answer: B

Explanation: The DataSet.GetChanges method gets a copy of the DataSet containing all changes made to it

since it was last loaded, or since AcceptChanges was called.

Reference: .NET Framework Class Library, DataSet.GetChanges Method [Visual Basic]

Incorrect Answers

A: The DataRowState is not relevant since we have not created any DataRows in this scenario.

C, D: We only want to extract the changes rows from the DataSet, not merge the two DataSet.

QUESTION 26

You work as the Web developer at Certkiller .com. You develop a new ASP.NET page. Your page displays information to users via a DataGrid control. Users are able to update the information contained within the grid. The code you configure uses the System.Data namespace and the System.Data.OleDb namespace.

Currently, data updates made up users are saved in an ADO.NET DataTable object. You create a procedure that will save all user modifications to a database after the updates are made:

```
Public Shared Sub Update CertK Data(_  
ByVal sql As String,_  
ByVal connectionString As String,_  
ByVal dataTable As DataTable)  
Dim da As New OleDb.OleDbDataAdapter()  
Dim cnn As New OleDb.OleDbConnection(_  
connectionString)  
dataTable.AcceptChanges()  
da.UpdateCommand.CommandText = sql  
da.UpdateCommand.Connection = cnn  
da.Update(dataTable)  
da.Dispose()  
End Sub
```

After implementing the procedure, you discover that after the code executes, no update data is saved to the database. You verify that both the update query and the connection string that you are passing to the procedure is functioning as expected.

What changes should you make to your code so that all user data updates are added to the database?

A. Include these lines of code before calling the Update method:

```
Dim cb As New OleDb.OleDbCommandBuilder(da)  
cd.GetUpdateCommand()
```

B. Include this lines of code before calling the Update method:

```
da.UpdateCommand.Connection.Open()
```

C. Remove the following line of code:

```
dataTable.AcceptChanges()
```

D. Remove the following line of code:

```
da.Dispose()
```

Answer: C

Explanation: The DataTable.AcceptChanges method commits all the changes made to this table since the last time AcceptChanges was called. We should only use AcceptChanges after the updates has been made to the dataset.

Reference: .NET Framework Class Library, DataTable.AcceptChanges Method [Visual Basic]

Incorrect Answers

A: The OleDbCommandBuilder provides a means of automatically generating single-table commands used to reconcile changes made to a DataSet with the associated database. It is not useful here.

B: The OleDbConnection.Open method opens a database connection with the property settings specified by the ConnectionString.

D: The DataAdapter.Dispose method Releases the resources used by the DataAdapter. It is a good practice to use it when the dataadapter no longer will be used.

QUESTION 27

You work as the Web developer at Certkiller .com. You are writing code for an ASP.NET application named Certkiller 06. Certkiller 06 will be used for booking flights to various destinations for Sales employees. A Microsoft SQL Server 2000 database is used to hold information on all destinations. You configure Certkiller 06 so that users can request information on various destinations. You must ensure that users can view the data in a DataGrid control, and in read-only form. The destinations specified by the user are stored in a form-level string variable named destinationCode. You create a SqlConnection object named SqlConnection1 in the Page.Load event handler. You initialize SqlConnection1 and then call its Open() method.

You define a local variable to store the destination code:

```
Dim dest As String = destinationCode
```

You want the data to be retrieved as quickly as possible. What should you do next?

A. Create a stored procedure named GetDestinations. Use this code to return the data:

```
Dim cmd As SqlCommand = _  
New SqlCommand("GetDestinations", _  
SqlConnection1)  
cmd.CommandType = CommandType.StoredProcedure  
Dim parm As SqlParameter = _  
New SqlParameter("@DestinationCode", dest)  
cmd.Parameters.Add(parm)  
dim sqlDataReader1 As SqlDataReader = _  
cmd.ExecuteReader()
```

B. Create a stored procedure named GetDestinations. Implement this code to return the data:

```
Dim qry As String = _  
"EXEC GetDestinations WHERE DestID = " _  
& "" & dest & ""  
Dim da As SqlDataAdapter = _  
New SqlDataAdapter (qry, SqlConnection1)  
Dim ds As DataSet = New DataSet()  
da.Fill(ds)
```

C. Implement this code to return the data:

```
Dim qry As String = _  
"SELECT * FROM Destinations WHERE DestID = " _  
& "" & dest & ""  
Dim cmd As SqlCommand = _  
New SqlCommand(qry, SqlConnection1)
```

```
cmd.CommandType = CommandType.Text
Dim sqlDataReader1 As SqlDataReader = _
cmd.ExecuteReader()
D. Implement this code to return the data:
Dim qry As String = _
"SELECT" * FROM Products WHERE DestID = @DestID"
Dim cmd As SqlCommand = _
New SqlCommand(qry, sqlConnection1)
cmd.CommandType = CommandType.Text
Dim parm As SqlParameter = _
New SqlParameter("@DestID", dest=
cmd.Parameters.Add(parm)
Dim SqlDataReader1 As SqlDataReader = _
cmd.ExecuteReader()
```

Answer: A

Explanation:

Creating a stored procedure and calling it with a SqlCommand object, SqlParameter object, and an SqlDataReader would be the fastest way to access this data.

Incorrect Answers:

B, C, D: Creating a query string in code would work, but is not the fastest way to

QUESTION 28

You work as the Web developer at Certkiller .com. You are writing code for an ASP.NET page. Your page holds a DataGrid control and a Button control. The DataGrid control shows the prices of resources purchased by Certkiller .com, and the Button control is used to refresh the information displayed within the DataGrid control.

Currently, the DataGrid control is repopulated whenever the page is displayed. All data being viewed is accessed via a DataView object within the Session object.

What should you do next to ensure the fastest possible load time for the page?

A. Enable the DataSource property.

Call the DataBind method of the DataGrid control in the Click event handler for the Button control.

B. Enable the DataSource property.

Call the DataBind method of the DataGrid control in the Start event handler for the Session object.

C. Update the EnableViewState property of the DataGrid control to false.

D. Update the EnableViewState property of the DataGrid control to true.

Answer: C

Explanation: There are times when it is appropriate to disable view state, particularly to improve application performance. As in this scenario, where we are loading a database request into a server control, set this property to false. If you do not, processor time will be wasted loading view state into the server control that will only be overridden by the database query.

Reference: .NET Framework Class Library, Control.EnableViewState Property [Visual Basic]

Incorrect Answers

A, B, D: We disable the ViewState to improve performance. ViewState is enabled by default.

QUESTION 29

You work as the Web developer at Certkiller .com. You are writing code for an ASP.NET page. Your page holds a CheckBoxList control. The CheckBoxList control contains various destinations, and is associated with a database that stores all destinations. Each destination is rated based on attractiveness and previous customer feedback.

You plan to change the page so that destinations are listed based on the ratings. You define your list and set three columns. The higher rated destinations must be listed first, with the poorly rated destinations must be listed last. All higher rated destinations must be exhibited on the top row of the check box list at run time.

Choose the property setting which you should use for the CheckBoxList control.

- A. Change the RepeatDirection property to Vertical.
- B. Change the RepeatDirection property to Horizontal.
- C. Change the RepeatLayout property to Flow.
- D. Change the RepeatLayout property to Table.

Answer: B

Explanation: The DataList.RepeatDirection property is used to get or select whether the DataList control displays vertically or horizontally. If this property is set to RepeatDirection.Horizontal, the items in the list are displayed in rows loaded from left to right, then top to bottom, until all items are rendered.

Reference:

.NET Framework Class Library, DataList.RepeatDirection Property [Visual Basic]

.NET Framework Class Library, DataList.RepeatLayout Property [Visual Basic]

Incorrect Answers

A: If the DataList.RepeatDirection property is set to RepeatDirection.Vertical, the items in the list are displayed in columns loaded from top to bottom, then left to right, until all items are rendered.

C, D: DataList.RepeatLayout Property gets or sets whether the control is displayed in a table or flow layout. It does not affect the order in which the items are displayed.

QUESTION 30

You work as the Web developer at Certkiller .com. You are writing code for an ASP.NET page which will be used to pass vouchers for various gyms to users. A user must first specify a country and then choose a city from a list of cities in their designated country. After this, the names and street addresses of gyms in their city will be shown to the user.

The list of countries, cities, and gym names and addresses are stored in a database table. You want to reduce the time it takes to retrieve and display the list of gym names after a user chooses the country and city.

What should you do next?

- A. Change the connection string to add the packet size property and set its values to 8192.
- B. Add this directive to your page:
OutputCache VaryByParam="city"

C. Add this directive to your page:

`OutputCache VaryByControl="country;city"`

D. Change the connection string to maintain your database's connection pool as small as possible.

Answer: B

Explanation: You can vary user control output to the cache by specifying the user control name and the parameter. We use the `VaryByParam` attribute of the `@ OutputCache`

Reference: .NET Framework Developer's Guide, Caching Multiple Versions of a User Control, Based on Parameters [Visual Basic]

Incorrect Answers

A: The `Packet Size` property of the `Connection string` is the size in bytes of the network packets used to communicate with an instance of data provider. It is not an optimal property to change to optimize data retrieval.

C: The company database does not seem to include a region column.

D: If we keep the connection pool small we would allow less simulation connections. However, this would not minimize the required to retrieve and display the data.

QUESTION 31

You work as the Web developer at Certkiller .com. You are writing code for an ASP.NET application named Certkiller App23. Certkiller App23 will be used to track employee attendance at the company premises. All employees must use Certkiller App23 to indicate whether they are in-office or out-of-office. The primary page of the Certkiller App23 contains a Repeater control named `employeeStatus`. `employeeStatus` is bound to the results of a procedure in the back-end database. This procedure returns information on the staff numbers and names of employees, and specifies whether an employee is in-office or out-of-office.

The code of for `employeeStatus` is shown here:

```
<asp:repeater id="employeeStatus" runat="server">
<ItemTemplate>
<%# Container.DataItem("EmployeeName")%>
(<%# Container.DataItem("Status")%>)<br/>
</ItemTemplate>
</asp:repeater>
```

The code-behind file for your page holds a private procedure named `ChangeInOutStatus`.

`ChangeInOutStatus` changes the status for an employee by using the ID number of the employee.

You want add a button for each employee listed by `employeeStatus`, so that when an employee clicks it, `ChangeInOutStatus` is called and the employee ID is passed to change the status for the specific employee.

Choose the two possible actions which you can use to achieve this goal. Each answer presents a complete solution to achieving your goal.

A. Include this HTML code in the `ItemTemplate` element of `employeeStatus`:

```
<input type="button" id="changeStatusButton"
alt=<%# Container.DataItem("EmployeeID")%>
OnClick="changeStatusButton" Runat="server"
Value="Change Status"/>
```

Include this subroutine in the code-behind file for your page:

```
Public Sub changeStatusButton(_  
ByVal sender As System.Object,_  
ByVal e As System.EventArgs)  
ChangeInOutStatus(CInt(sender.Attributes("alt")))  
End Sub
```

B. Include this HTML code in the ItemTemplate element of employeeStatus:

```
<input type="button" id="changeStatusButton"  
alt=<%# Container.DataItem("EmployeeID")%>  
OnServerClick="changeStatusButton" Runat="server"  
Value="Change Status"/>
```

Include this subroutine in the code-behind file for your page:

```
Public Sub changeStatusButton(_  
ByVal sender As System.Object,_  
ByVal e As System.EventArgs)  
ChangeInOutStatus(CInt(sender.Attributes("alt")))  
End Sub
```

C. Include this HTML code in the ItemTemplate element of employeeStatus:

```
<asp:Button id="changeStatusButton" Runat="server"  
Text="Change Status"  
CommandArgument=<%# Container.DataItem("EmployeeID")%>  
</>
```

Include this HTML code in the ItemCommand event of employeeStatus:

```
If source.id = "changeStatusButton" Then  
ChangeInOutStatus(CInt(e.CommandSource.CommandArgument))  
End If
```

D. Include this HTML code in the ItemTemplate element of employeeStatus:

```
<asp:Button id="changeStatusButton" Runat="server"  
Text="Change Status"  
CommandArgument=<%# Container.DataItem("EmployeeID")%>  
</>
```

Include this HTML code in the ItemCommand event of employeeStatus:

```
If e.CommandSource.id = "changeStatusButton" Then  
ChangeInOutStatus(CInt(e.CommandArgument))  
End If
```

Answer: B, D

Explanation:

B: The ServerClick event is raised when the HtmlButton control is clicked. This event causes a roundtrip to occur from the client to the server and back. It is deliberately different from the clientside OnClick event. In the event that a conflict exists between code run with a ServerClick event and code run by a client-side OnClick event, the server-side event instructions will override the client-side code.

D: The CommandSource property is used to determine the source of the command.

Reference: .NET Framework Class Library, HtmlButton.OnServerClick Method [Visual Basic]

QUESTION 32

You work as the Web developer at Certkiller .com. You are writing code for an ASP.NET application named Certkiller 06. Certkiller 06 will be used to store and display information on merchandise offered by Certkiller .com. Certkiller 06 uses a SQL database.

Your ASP.NET page contains two DropDownList controls. The Merchandise drop-down list box is used to exhibit merchandise information and the Class drop-down list box is used to exhibit class information. The open SqlConnection object you use is named con.

To populate the drop-down list by binding the SqlDataReader, the code listed here is used. Line numbers are only shown for reference purposes:

```
01 Dim cmd1 as New SqlCommand("SELECT * FROM "_  
& "Merchandise",con  
02 Dim dr1 as SqlDataReader  
03 dr1 = cmd1.ExecuteReader()  
04 Merchandise.DataTextField = "MerchandiseName"  
05 Merchandise.DataValueField = "MerchandiseID"  
06 Merchandise.DataSource = CK1  
07 Merchandise.DataBind()  
08 Dim dr2 as SqlDataReader  
09 cmd1.CommandText = "SELECT * FROM Class"  
10 dr2 = cmd1.ExecuteReader()  
11 Class.DataTextField = "ClassName"  
12 Class.DataValueField = "ClassID"  
13 Class.DataSource = CK2  
14 Class.DataBind()
```

When you test your configuration, the page raises an invalid operation exception.

What should you do next to ensure that the page successfully?

- A. Substitute the code for line 03 of the code segment with this code:
CK1 .ExecuteReader(CommandBehavior.CloseConnection)
- B. Include this code between line 07 and line 08 of the code segment:
ckl.Close()
- C. Substitute the code for line 09 and line 10 of the code segment with this code:
Dim cmd2 as New SqlCommand("SELECT * FROM Class ",con)
CK2 = cmd2.ExecuteReader()
- D. Delete the code for line 07 of the code segment.
Replace the code for line 14 of the code segment with this code:
Page.DataBind()

Answer: B

Explanation: You must explicitly call the Close method when you are through using the SqlDataReader to use the associated SqlConnection for any other purpose.

Reference: .NET Framework Class Library, SqlDataReader.Close Method [Visual Basic]

QUESTION 33

You work as the Web developer at Certkiller .com. You develop a new ASP.NET application. Certkiller .com uses a XML Web service that retrieves a list of encyclopedia articles that hold requested keywords.

What should you do next to create a class that calls the XML Web service?

- A. Choose Add Web Service from the Project menu in Visual Studio .NET and then browse to the XML Web service.
- B. Choose Add Reference from the Project menu in Visual Studio .NET and then browse to the XML Web service.
- C. Choose Add Web Reference from the Project menu in Visual Studio .NET and then browse to the XML Web service.
- D. Run the Type Library Importer (Tlbimp.exe) and specify the URL for the XML Web service.
- E. Run the Web Services Discover tool (Disco.exe) and specify the URL for the XML Web service.

Answer: C

Explanation: You can add a Web reference to projects that use XML Web services that are published on the Internet or on your local Web servers.

To add a Web reference to a project

1. In Solution Explorer, select a project that supports adding Web references.
2. On the Project menu, choose Add Web Reference.
3. In the Add Web Reference dialog box, type the URL for the XML Web service in the Address text box, and then choose the Arrow Icon.
4. Verify that the items in the Available References box are the items you want to reference in your project, and then choose Add Reference.
5. In Solution Explorer, expand the Web References folder to note the namespace for the Web reference classes that are available to the items in your project.

Reference: Visual Studio, Adding and Removing Web References

Incorrect Answers

A, B: We should use the Add Web reference command, not Add Web Service or Add Reference.

D: The Type Library Importer converts the type definitions found within a COM type library into equivalent definitions in a common language runtime assembly.

E: The Web Services Discovery tool discovers the URLs of XML Web services located on a Web server and saves documents related to each XML Web service on a local disk.

QUESTION 34

You work as the Web developer at Certkiller .com. You develop a new ASP.NET application named Certkiller App08. Certkiller App08 will be used by customers to manage their vehicle insurance premiums.

The PolicyCKLibrary.dll, written in Visual Basic 6.0, is the COM component which stores the code for calculating renewal premiums. The class named cPolicyActions calculates the premium values. cPolicyActions includes a CalculateRenewal function that takes the policy identification number and returns a premium as a Double.

You must use PolicyCKLibrary.dll in Certkiller App08. Certkiller App08 must be configured to use the cPolicyActions class.

How will you accomplish the task?

A. Run this command in a command window:

TLBIMP.EXE PolicyLibrary.DLL /out:PolicyCKLibrary.NET.DLL

Move the original PolicyLibrary.dll to the /bin directory of Certkiller App08.

B. Run this command in a command window:

TLBEXP.EXE PolicyLibrary.DLL /out:PolicyCKLibrary.NET.DLL

Move the original PolicyLibrary.dll to the /bin directory of Certkiller App08.

C. Choose Add Existing Item from the Project menu in Visual Studio .NET and then browse to PolicyCKLibrary.dll.

D. Choose Add Reference from the Project menu in Visual Studio .NET. Then click the COM tab and browse to PolicyCKLibrary.dll.

Answer: D

Explanation: To add a reference to a COM object from a .NET application:

1. Open a new or existing Microsoft Visual C# .NET project in Visual Studio .NET.

2. Click the Project menu and select Add Reference.

3. In the Add Reference window, click the COM tab.

4. Scroll down the list of components and select the one you want to reference, such as Microsoft CDO For Exchange 2000 Library. Click Select. After the component name appears in the Selected Components window, click OK.

Note: The COM component must have been previously registered on the server for this to succeed.

Reference: Using COM Interoperability in Visual Basic .NET

Incorrect Answers

A: TBLIMP is required if Visual Studio .NET macros must reference COM components. TLBIMP "wraps" the component, enabling Visual Studio .NET macros to reference it. However, TLBIMP is not required if we are going to reference a COM object from a Visual Studio .NET application.

B: Tlbexp.exe generates a type library that contains definitions of the types defined in the assembly. Applications such as Visual Basic 6.0 can use the generated type library to bind to the .NET types defined in the assembly. However, the requirement of this scenario is the opposite: we want to reference a COM object from a Visual Studio .NET application.

C: We must specify that we are referencing a COM object.

QUESTION 35

You work as the Web developer at Certkiller .com. You develop a new ASP.NET application named Certkiller App09. Certkiller App09 will be used by the Vehicle Purchases department's employees to produce all the required documentation for processing a new vehicle purchase transaction.

The Certkiller .com Bank contains a component written in Visual Basic .NET, which determines the precise forms to be generated. The criterion specified by the employee is used as a basis for generating the correct documentation. The name of the component namespace is Certkiller .Finance and the name of the class is Closing.

You define a new ASP.NET page named VehiclePurchase.aspx, and add a reference to the assembly that contains the Certkiller .Finance namespace. The code of the code-behind file for

VehiclePurchase.aspx is as follows:

Imports Certkiller .Finance

You define a method to the code-behind file to instantiate the Closing class. Choose the code below which should be configured for the method to instantiate the class

- A. Dim myClosing As New Closing()
- B. Dim myClosing As Closing
closing = Server.CreateObject("Closing")
- C. Dim myClosing As System.Object
closing = Server.CreateObject("Closing")
- D. Dim myType As Type = _
Type.GetTypeFromProgID(" Certkiller .Finance.Closing" _
, "localhost", True)

Answer: A

Explanation: We simply instantiate an object with the class with the New constructor.

Note: Web Forms pages have code-behind files associated with them. These files are created automatically when you create a new Web form. They have the same base name as the Web form with the .vb or .cs filename extension added

Incorrect Answers

B, C: The CreateObject function creates and returns a reference to a COM object. CreateObject cannot be used to create instances of classes in Visual Basic unless those classes are explicitly exposed as COM components.

D: The Type.GetTypeFromProgID method is provided for COM support. Program IDs are not used in Microsoft .NET Framework because they have been superseded by the concept of namespace.

QUESTION 36

You work as the Web developer at Certkiller .com. You develop a new ASP.NET application named Certkiller App05. You configure Certkiller App05 to display geographical information; and to support localization for users from the United States, Milan, London, Paris, and Athens.

Users can view geographical information by selecting the location from a drop-down list box on the Location.aspx page. You want to ensure that information is displayed to users based on the language spoken by the specific user.

What should you do next?

A. Create a database table named Locations, and add three columns named LocationID, LocaleID, and Description respectively.

Use SqlCommand.ExecuteReader to query the table for the locale specified in the user's request.

Based on the locale specified in the request, translate the text by using the TextInfo.OEMCodePage property, and then populate the drop-down list box with the newly translated text.

B. Create a DataTable object named Locations.

Populate the Locations DataTable object by using string constants.

Based on the locale specified in the request, translate the text by using a UnicodeEncoding object, and then bind the DataSource property of the drop-down list box to the DataTable object.

C. Create a database table named Locations and add two columns named LocationID and Description respectively.

Use a SqlDataAdapter to populate the location information into a DataSet object.

Based on the locale specified in the request, use the String format provider to translate the text, and then bind the DataSource property of the drop-down list box to the DataSet.DefaultView object.
D. Create string resources assemblies for each locale, and then based on the locale specified in the request, use a ResourceManager to load the appropriate assembly.
Populate an array with the string values from the assembly, and then bind the DataSource property of the drop-down list box to the array.

Answer: D

Explanation: The ResourceManager class provides convenient access to culture-correct resources at run time.

Reference: .NET Framework Tutorials, ResourceManager

QUESTION 37

You work as the Web developer at Certkiller .com. Certkiller .com has its headquarters in Chicago and a branch office in New Zealand. You develop a new ASP.NET application named Certkiller App12. You configure Certkiller App12 to display company news and policy information to employees located at the New Zealand branch office.

The Default.aspx page contains a Web Form label control named currentDateLabel. The following code is specified in the Page.Load event handler for Default.aspx:
currentDateLabel.Text = DateTime.Now.ToString("D")

You want to ensure that the date information is displayed correctly for the New Zealand branch office employees.

How will you accomplish the task?

- A. In the Web.config file for Certkiller App12, configure the culture attribute of the globalization element as en-NZ.
- B. In the Web.config file for Certkiller App12, configure the uiCulture attribute of the globalization element as en-NZ.
- C. In Visual Studio .NET, configure the responseEncoding attribute in the page directive as Default.aspx to UTF-8.
- D. In Visual Studio .NET, save the Default.aspx page for each version of Certkiller App12 by choosing Advanced Save Options from the File menu and then selecting UTF-8.

Answer: A

Explanation: The culture attribute of the globalization element specifies the default culture for processing incoming Web requests.

Reference: .NET Framework General Reference, <globalization> Element

Incorrect Answers

B: The uiculture attribute of the globalization specifies the default culture for processing localedependent resource searches. It does not apply in this scenario.

C, D: The UTF8 Encoding Class encodes Unicode characters using UCS Transformation Format, 8-bit form (UTF-8). This encoding supports all Unicode character values and surrogates. However, it does not help in displaying data in New Zealand format.

QUESTION 38

You work as the Web developer at Certkiller .com. Certkiller .com has its headquarters in Chicago and a branch office in Berlin. You are currently developing an online stock Web site which will be used by employees at the Chicago and Berlin offices.

You must ensure that when an employee selects an item of stock, the cost of the specific item is shown in the United States currency and in the German currency. For each locale, the appropriate cost must be exhibited.

Which code should you use to ensure that the currency is returned in the proper format by using the input parameter?

A. Function MyGetDisplayValue(value As Double, _
inputRegion As String) As String
Dim display As String
Dim region As RegionInfo
region = New RegionInfo(inputRegion)
display = value.ToString("C")
display += region.CurrencySymbol
Return display
End Function

B. Function MyGetDisplayValue(value As Double, _
inputCulture As String) As String
Dim display As String
Dim LocalFormat As NumberFormatInfo = _
CType(NumberFormatInfo.CurrentInfo.Clone(), _
NumberFormatInfo)
display = value.ToString("C", LocalFormat)
Return display
End Function

C. Function MyGetDisplayValue(value As Double, _
inputRegion As String) As String
Dim display As String
Dim region As RegionInfo
region = New RegionInfo(inputRegion)
display = value.ToString("C")
display += region.ISOCurrencySymbol
Return display
End Function

D. Function MyGetDisplayValue(value As Double, _
inputCulture As String) As String
Dim display As String
Dim culture As CultureInfo
culture = New CultureInfo(inputCulture)
display = value.ToString("C", culture)
Return display
End Function

Answer: D

Explanation: We create a new CultureInfo object based on the inputCulture parameter. We then produce the result with "C" constant, representing the current culture, and the new CultureInfo object: display = value.ToString("C", culture)

Note: The CultureInfo Class contains culture-specific information, such as the language, country/region, calendar, and cultural conventions associated with a specific culture. This class also provides the information required for performing culture-specific operations, such as casing, formatting dates and numbers, and comparing strings.

Reference:

.NET Framework Developer's Guide, Formatting Numeric Data for a Specific Culture [Visual Basic]

Incorrect Answers

B: The NumberFormatInfo class defines how currency, decimal separators, and other numeric symbols are formatted and displayed based on culture. However, we should create a CultureInfo object, not a NumberFormatInfo object).

A, C: We should use the CultureInfo class not the RegionInfo class.

Note: In contrast to CultureInfo, RegionInfo does not represent preferences of the user and does not depend on the user's language or culture.

QUESTION 39

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App06. Certkiller App06 will be available on the company intranet, and will be used by users to schedule rooms for meetings.

Your main page contains a Calendar control which employees must use to specify the date for which to reserve a specific meeting room. The code for the Calendar control is as follows:

```
<asp:calendar id="WorkDays" runat="server"
OnDayRender="WorkDays:DayRender"/>
```

You must ensure that a message stating "Employee Meeting" is shown beneath each Friday displayed in the calendar. You must also ensure that each weekday of the current month is shown in a green highlight in the calendar.

You decide to write the configuration which will result in the WorkDays.DayRender event handler performing these functions. Your code is as follows:

```
1 Sub WorkDays_DayRender(sender As Object, _
e As DayRenderEventArgs)
2
3 End Sub
```

Choose the code which you should add at line 2 of the event handler?

```
A. If e.Day.Data.DayOfWeek = _
DayOfWeek.Friday Then
e.Cell.Controls.Add( _
New LiteralControl("Employee Meeting"))
End If
If Not e.day.IsWeekend Then
e.Cell.BackColor = _
System.Drawing.Color.Green
```

```
End If
B. If e.Day.Date.Day = 6 _
And e.Day.IsOtherMonth Then
e.Cell.Controls.Add( _
New LiteralControl("Employee Meeting"))
e.Cell.BackColor = _
System.Drawing.Color.Green
End If
C. If e.Day.Date.Day = 6 Then
e.Cell.Controls.Add( _
New LiteralControl("Employee Meeting"))
End If
If Not e.Day.IsWeekend And Not _
e.Day.IsOtherMonth Then
e.Cell.BackColor = _
System.Drawing.Color.Green
End If
D. If e.Day.Date.DayOfWeek = _
DayOfWeek.Friday Then
e.Cell.Controls.Add( _
New LiteralControl("Employee Meeting"))
End If
If Not e.Day.IsWeekend And Not
e.Day.IsOtherMonth Then
e.Cell.BackColor = _
System.Drawing.Color.Green
End If
```

Answer: D

Explanation: We need two "if" statements to correctly achieve our goal. This statement:

```
If e.Day.Date.DayOfWeek = DayOfWeek.Friday
```

```
Then e.Cell.Controls.Add(New LiteralControl("Employee Meeting"))
```

will allow us to display a message that reads "Employee Meeting" below every Friday displayed in the calendar. While this:

```
If Not e.Day.IsWeekend And Not e.Day.IsOtherMonth
```

```
Then e.Cell.BackColor = System.Drawing.Color.Green
```

will find all the weekdays for the current month displayed in the calendar and show them with a yellow highlight.

Incorrect Answers

A: We should check whether it falls on the next month, by using `IsOtherMonth`

B: We need to check for the day of the week using `DayOfWeek`

C: We need to check for the day of the week using `DayOfWeek`

QUESTION 40

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application

named Certkiller App12. Certkiller App12 will be used by customers to obtain vehicle insurance online. The InsuredVehicle.aspx page is used to obtain information on the designated vehicle to be insured. InsuredVehicle.aspx holds a TextBox control named vehicleRegNumber. Users must provide the vehicle identification number in vehicleRegNumber. Users must then click a button named submitButton to start the vehicle insurance purchasing process. Once a user pushes submitButton, information is retrieved on the vehicle identification number. The page is then refreshed to display the additional information.

The following HTML tag is specified for vehicleRegNumber:

```
<asp:TextBox id="vehicleRegNumber" runat="server"
EnableViewState="True"/>
```

All valid vehicle identification numbers consist of only uppercase letters and numbers. You must configure the code which will change all lowercase letters to uppercase letters.

Choose the two actions which you can perform to accomplish your task. Each correct answer presents a complete solution to accomplishing your task.

- A. Include this code in the vehicleRegNumber.TextChanged event handler for InsuredVehicle.aspx:
vehicleRegNumber.Text = vehicleRegNumber.Text.ToUpper()
- B. Include this code in the submitButton.Click event handler for InsuredVehicle.aspx:
vehicleRegNumber.Text = vehicleRegNumber.Text.ToUpper()
- C. Include this code in the Page.Init event handler for InsuredVehicle.aspx:
vehicleRegNumber.Text = vehicleRegNumber.Text.ToUpper()
- D. Include this code in the Page.Render event handler for InsuredVehicle.aspx:
vehicleRegNumber.Text = vehicleRegNumber.Text.ToUpper()

Answer: A, B

Explanation:

A: The TextBox.TextChanged event occurs when the content of the text box is changed upon server postback.

B: When the user hits the submit button additional information is obtained for the vehicle identification number. We must therefore convert the text to upper case.

Reference: .NET Framework Class Library, Page Members

Incorrect Answers

C: The Page.Init event only occurs when the server control is initialized, which is the first step in its lifecycle. This occurs only when the page is loaded.

D: The Page class does have a rerender event, but it does not have a render event.

QUESTION 41

You work as the Web developer at Certkiller .com. You are developing new ASP.NET application named Certkiller App15. Certkiller App15 will be used by customers to create information portals customized to their specific lines of business. Certkiller App15 stores frequently used text strings in application variables for use by the page in the application.

You want the application to initialize the frequently used text strings only when the first user accesses the application.

What should you do next?

- A. Configure code for the Application_OnStart event handler in the Global.asax file to set the values of the frequently used text strings.
- B. Configure code for the Application_BeginRequest event handler in the Global.asax file to set the values of the frequently used text strings.
- C. Configure code for the Session_OnStart event handler in the Global.asax file to set the values of the frequently used text strings.
- D. Configure code in the Page.Load event handler for the default application page that sets the values of the frequently used text strings when the IsPostBack property of the Page object is defined as False.
- E. Configure code in the Page.Load event handler for the default application page that sets the values of the frequently used text strings when the IsNewSession property of the Session object is defined to True.

Answer: A

Explanation: The OnStart event only occurs when the first user starts the application.

Reference: .NET Framework Class Library, ServiceBase Class [Visual Basic]

Incorrect Answers

B: The HttpApplication.BeginRequest event occurs as the first event in the HTTP pipeline chain of execution when ASP.NET responds to a request.

C: This would set the values every time a new session is started.

D, E: We should use the OnStart event handler of the application, not the Page.Load event handler.

QUESTION 42

You work as the Web developer at Certkiller .com. You are developing a new DataGrid control named Grid1. All rows defined in Grid1 hold purchase information and an Edit command button. All fields that contain purchase information are set as read-only labels.

You decide to perform the configuration which will result in the fields converting to text boxes after a user clicks the Edit command button in any row. You write the following event handler for the EditCommand event. Line numbers are only provided for reference purposes:

```
1 Sub DoItemEdit(sender As Object, _  
  e As DataGridCommandEventArgs) _  
  Handles Grid1.EditCommand
```

```
2
```

```
3 End Sub
```

Choose the code segment which should be included at line 2 of the event handler.

- A. Grid1.EditItemIndex = e.Item.ItemIndex
- B. Grid1.DataKeyField = e.Item.AccessKey
- C. Grid1.SelectedIndex = e.Item.ItemIndex
- D. Grid1.CurrentPageIndex = e.Item.ItemIndex

Answer: A

Explanation: The EditItemIndex property is used to programmatically control which item is being edited. Setting this property to an index of an item in the DataGrid control will enable editing controls for that item

in the EditCommandColumn.

Reference: .NET Framework Class Library, DataGrid.EditItemIndex Property [Visual Basic]

Incorrect Answers

B: The DataKeyField is used to get or set the key field in the data source specified by the DataSource property.

C: The SelectedIndex property is used to determine the index of the item selected by the user in the DataGrid control.

D: The CurrentPageIndex property is used to determine the currently displayed page in the DataGrid control when paging is enabled. This property is also used to programmatically control which page is displayed.

QUESTION 43

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App11. Certkiller App11 will be used on the online sales site. Certkiller App11 contains a page named SaleVerify.aspx. SaleVerify.aspx shows information on products purchased, including the quantity and unit price of each product. The final purchase total is shown the bottom of the page. SaleVerify.aspx contains a Web Form that has a Web server control button for submission. This control contains the following HTML element generate by Visual Studio .NET.

```
<asp:button id="submitSalesButton" runat="server"
Text="Submit Order"></asp:button>
```

The main event handler for submitSalesButton is named submitSalesButton_Click and runs at the server. A client-end function named verifyBeforeSubmit() shows a dialog box that requires the user to verify submission of a request.

What should you do next to ensure that verifyBeforeSubmit() runs prior to submitSalesButton_Click.

A. Change the HTML element as follows:

```
<asp:button id="submitSalesButton" runat="server"
Text="Submit Sale"
onClick="verifyBeforeSubmit()"></asp:button>
```

B. Change the HTML elements as follows:

```
<asp:button id=" submitSalesButton" runat="server"
Text="Submit Sale"
ServerClick="verifyBeforeSubmit()"></asp:button>
```

C. Include the following code to the Page.Load event handler for SaleVerify.aspx:

```
submitSalesButton.Attribute.Add("onclick",
"verifyBeforeSubmit()")
```

D. Include the following code to the Page.Load event handler for SaleVerify.aspx:

```
submitSalesButton.Attribute.Add("ServerClick",
"verifyBeforeSubmit()")
```

Answer: C

Explanation: The proposed solution demonstrates how to specify and code an event handler for the Click event in order to display a simple message on the Web page.

Reference: .NET Framework Class Library, Button.OnClick Method [Visual Basic]

Incorrect Answers:

The OnClick property of the button control is for server side procedures not client side ones (not A)

QUESTION 44

You work as the Web developer at Certkiller .com. You are developing a new Web Form for employees of Certkiller .com. Employees will use the Web Form to update employee information. Each instance of the control on your Web Form stores information on a specific employee.

You create a Web user control named Employee to enable this, and place the control on the Web Form. You name the control Employee1. You then include the Employee control to the ItemTemplate of a Repeater control. The Repeater control is named repeaterEmployees. Each Employee control in repeaterEmployees consists of a number of TextBox controls

You want to use an event handler that can deal with TextChanged events which are raised by the TextBox controls.

Choose the event handler which you should use to accomplish your task.

- A. Private Sub Employee1_TextChanged _
(ByVal sender as Object, _
ByVal e as EventArgs) _
Handles Employee1.TextChanged
- B. Private Sub repeaterEmployees_ItemDataBound _
(ByVal sender as Object, _
ByVal e as RepeaterItemEventArgs) _
Handles repeaterEmployees.ItemDataBound
- C. Private Sub repeaterEmployees_DataBinding _
(ByVal sender as Object, _
ByVal e as RepeaterItemEventArgs)
Handles repeaterEmployees.DataBinding
- D. Private Sub repeaterEmployees_ItemCommand _
(ByVal source as Object, _
ByVal e as RepeaterCommandEventArgs) _
Handles repeaterEmployees.ItemCommand

Answer: D

Explanation: To handle the events, we must supply the event publisher information, which is, the ItemCommand event of the repeaterEmployees (repeaterEmployees.ItemCommand).

Incorrect Answers

A: Use TextChanged when the text of the Employee's control itself changes

B: ItemDataBound will not handle TextChanged events that are raised by these TextBox controls

C: DataBinding handles data binding events only

QUESTION 45

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App12. Certkiller App12 will be used by customers to obtain vehicle insurance online. The VehicleInfo.aspx page contains this Page directive:

<% @ Page Language="VB"

```
CodeBehind="VehicleInfo.aspx.vb"
```

```
AutoEventWireup="false" inherits="InsApp.VehicleInfo"%>
```

The VehicleInfo.aspx page contains a TextBox control named vehicleRegNumber. Users insert the vehicle identification number of a vehicle in vehicleIDNumber. The HTML code for vehicleRegNumber is:

```
<asp:TextBox ID="vehicleRegNumber" Columns="20"
Runat="server"/>
```

You want to use an event handler to retrieve information on a vehicle via an XML Web service which charges for each access. Once the information is retrieved, the page must be refreshed to display the additional information. To accommodate this function, you decide to implement a TextChanged event handler for vehicleRegNumber.

Choose the two actions which you should perform when implementing the TextChanged event handler. Each correct answer presents only part of the complete solution.

A. In the Page directive for VehicleInfo.aspx, set the AutoEventWireup attributes to "true".

B. In the Page directive for VehicleInfo.aspx, set the EnableViewState attribute to "true".

C. In the vehicleRegNumber HTML element, set the AutoPostBack attribute to "false".

Add code for the client-side onserverchange event to pass the Web Form for processing by the server.

D. In the vehicleRegNumber HTML element, set the AutoPostBack attribute to "true".

Add code in the TextChanged event handler to query the XML Web service.

Answer: B, D

Explanation:

B: The Page.EnableViewState property value indicates whether the page maintains its view state, and the view state of any server controls it contains, when the current page request ends.

D: The AutoPostBack property is used to specify whether an automatic postback to the server will occur whenever the user changes the content of the text box. As we want we want to use an XML Web service we must set the attribute to true.

Reference:

.NET Framework Class Library, Control.EnableViewState Property [Visual Basic]

.NET Framework Class Library, TextBox.AutoPostBack Property [Visual Basic]

Incorrect Answers

A: AutoEventWireup is used to automatically associate page events and methods. It does not provide a solution for this scenario.

C: We are required to use a XML Web service. The AutoPostBack attribute must be set to false.

QUESTION 46

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application that contains a page named Collections.aspx. Your ASP.NET application uses a Microsoft SQL Server database.

Collections.aspx will be used in the Finance department, and contains a DataGrid control named AgedCollections. AgedCollections is used to show collections aging information. The HTML code for AgedCollections is:

```
<asp:DataGrid id="AgedCollections" Runat="server"
```

```
AutoGenerateColumns="True"></asp:DataGrid>
```

A Page.Load event handler is implemented for Collections.aspx. AgedCollections is bound by the SQL statement shown here:

```
SELECT AccountName, TotalAmountDue, DaysPastDue FROM  
tblCollections ORDER BY AccountName
```

You want to modify the display formatting of Collections.aspx with the aim of improving how users identify account collections which are overdue by three months. All account collections that are older than 90 days must be displayed in green.

What should you do next?

A. Add this code to the ItemDataBound event handler for AgedCollections:

```
If CType(CType(e.Item.Controls(2), TableCell).Text,_  
Integer)>90 Then  
CType(e.Item.Controls(2), TableCell).ForeColor=_  
System.Drawing.Color.Green  
End If
```

B. Add this code to the DataBinding event handler for AgedCollections:

```
Dim dg As DataGrid  
dg = CType(sender,DataGrid)  
If CType(CType(dg.Controls(2), TableCell).Text,_  
Integer)>90 Then  
CType(dg.Controls(2), TableCell).ForeColor=_  
System.Drawing.Color.Green  
End If
```

C. In the asp:DataGrid HTML element for AgedCollections, update the AutoGenerate attribute to "False".

Add this HTML code within the open and close tags of AgedCollections:

```
<Columns>  
<asp:BoundColumn DataField="AccountName"/>  
<asp:BoundColumn DataField="TotalAmountDue"/>  
<asp:BoundColumn DataField="DaysPastDue"  
DataFormatString="If DataItem(2).Value>90 Then  
ForeColor=System.Drawing.Color.Green"/>  
</Columns>
```

D. In the asp:DataGrid HTML element for AgedCollections, update the AutoGenerate attribute to "False".

Add this HTML code within the open and close tags of AgedCollections:

```
<Columns>  
<asp:BoundColumn DataField="AccountName"/>  
<asp:BoundColumn DataField="TotalAmountDue"/>  
<asp:TemplateColumn>  
<ItemTemplate>  
<%# DataBinder.Eval(Container.DataItem, "DaysPastDue",  
"If DataItem.Value>90 Then ForeColor=  
System.Drawing.Color.Green")%>  
</ItemTemplate>
```

```
</asp:TemplateColumn>  
</Columns>
```

Answer: A

Explanation: The ItemDataBound event is raised after an item is data bound to the DataGrid control. This event provides you with the last opportunity to access the data item before it is displayed on the client. We add code to the event handler for this event which displays entries older than 90 days in green.

Reference: .NET Framework Class Library, DataGrid.ItemDataBound Event [Visual Basic]

QUESTION 47

You work as the Web developer at Certkiller .com. You are developing a new Web custom control named Toggle, which contains a Button control named toggleButton. Users will be able to turn Toggle off and back on. You develop an event handler named toggleButton_Click, which changes the BorderStyle property to indicate if the Button is on or off.

You decide to configure code for the Toggle class. Your code must ensure that when toggleButton is clicked by users, all pages that have instances of Toggle are able to process custom event handling code. To perform this task, you implement this code for the Toggle class:

```
Public Event ChangedValue(sender As Object, e As EventArgs)
```

```
Protected OnChangedValue(e As EventArgs)
```

```
RaiseEvent ChangedValue(Me, e As EventArgs)
```

```
End Sub
```

To complete your code segment, you must write code for toggleButton_Click to ensure the following:

- Pages that have instances of Toggle must be able to process the ChangedValue event.
- Pages that have instances of Toggle must be able to process custom event handling code.

Which code should you add to the toggleButton_Click? Choose two correct answers. Each correct answer presents only part of the complete solution.

- A. AddHandler sender.click, AddressOfChangedValue
- B. AddHandler sender.Click, AddressOfOnChangedValue
- C. OnChangedValue(EventArgs.Empty)
- D. ChangedValue(Me, EventArgs.Empty)

Answer: B, C

Explanation:

B: To wire your event handler to the instance, you must create an instance of EventHandler that takes a reference to OnChangedValue in its argument and add this delegate instance to the Click event.

C: We can invoke the OnChangedValue event. We must use only the EventArgs parameter.

Note: To consume an event in an application, you must provide an event handler (an event-handling method) that executes program logic in response to the event and register the event handler with the event source. This process is referred to as event wiring.

Reference:

C# Programmer's Reference, Events Tutorial

.NET Framework Developer's Guide, Consuming Events [Visual Basic]

Incorrect Answers

- A: We must use the OnChangedValue event.
D: We should specify only the EventArgs parameter.
-

QUESTION 48

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App15. Certkiller App15 will be used to supply information to customers of the company. Half of the information will be presented to customers through images.

Some customers will be accessing the information by using various browsers that can vocalize the textual content of your Web pages. You must ensure that for these specific customers, content of the images are obtained in the vocalized form.

You must configure Certkiller App15 to ensure that all Certkiller .com customers can access it. You want to use the minimum amount of development effort.
What should you do next?

- A. Change all ASP.NET pages in Certkiller App15 to enable the view state.
- B. Change all ASP.NET pages in Certkiller App15 to add custom logic that passes the demographic information in either textual or graphical format.
- C. Change all images in Certkiller App15 to ensure that the ToolTip property passes the same demographic information as the image.
- D. Change all images in Certkiller App15 to ensure that the AlternateText property passes the same demographic information as the image.

Answer: D

Explanation: The AlternateText property is used by accessibility utilities such as the Windows XP narrator in order to present graphics as speech.

QUESTION 49

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App05. Certkiller App05 will be used to print insurance estimates.

Your application contains a main page which will be used by users to insert the vehicle identification number. This page contains information on all vehicle classes. It is this information which will be used to rate the vehicle for insurance purposes.

The main page contains a TextBox control. This TextBox control is used to insert the vehicle identification number. You add an event handler that will perform the vehicle information lookup in the database for the change event of the TextBox control. You set the AutoPostBack attribute of the TextBox as True.

When you test your configuration, you find that after entering a valid vehicle identification number and using the TAB key to clear from the text box, no information is displayed on that specific vehicle. You investigate the problem and find that the issue is only relevant on the test computer which you are using. No other test computers have the problem.

What should you do next to ensure that information on the vehicle is displayed after you enter a vehicle identification number?

- A. Enable Internet Explorer to allow scripting.
- B. Enable Internet Explorer to allow page transitions.

- C. In the Page directive, change the SmartNavigation attribute to "True".
- D. In the Page directive, change the AutoEventWireup attribute to "True".

Answer: A

Explanation: For the AutoPostBack property to work properly, the user's browser must be set to allow scripting. This is the default in most cases. However, some users disable scripting for security reasons.
Reference: Visual Basic and Visual C# Concepts, ASP.NET Server Control Event Model

QUESTION 50

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App04. Certkiller App04 will be published in a number of languages. You create a satellite assembly that will contain the localized resources for one of the other languages, and that will contain code that accesses Enterprise Services.

All software applications must be digitally signed with a public/private key pair. You have access to the private key, and not the public key. You want to test the localized satellite assembly, but to do this; you need to digitally sign the assembly.

What should you do next? Choose two possible solutions. Each correct answer presents a complete solution for accomplishing your task.

- A. Use the Software Publisher Certificate Test tool (Cert2spc.exe) to create a test certificate for the satellite assembly.
- B. Use the Resource File Generator (Resgen.exe) with the /compile switch to compile the satellite assembly.
- C. Use the Assembly Linker (Al.exe) with the /delay+ switch to compile the satellite assembly.
- D. Use the Global Assembly Cache tool (Gacutil.exe) to deploy the assembly in the global assembly cache.
- E. Use the Strong Name tool (Sn.exe) to generate a new public/private key pair, and then use the new key pair to sign the assembly temporarily for testing purposes.

Answer: C, E

Explanation:

C: The /delay switch specifies whether the assembly will be fully or partially signed. When an assembly is delay signed, Al.exe does not compute and store the signature, but just reserves space in the file so the signature can be added later.

E: The Strong Name tool helps sign assemblies with strong names. Sn.exe provides options for key management, signature generation, and signature verification.

The -R and -Rc options are useful with assemblies that have been delay signed. In this scenario, only the public key has been set at compile time and signing is performed later when the private key is known.

Reference:

- .NET Framework Tools Strong Name Tool (Sn.exe)
- .NET Framework Tools, Assembly Linker (Al.exe)
- .NET Framework Tools, Software Publisher Certificate Test Tool (Cert2spc.exe)

Incorrect Answers

A: The Software Publisher Certificate Test tool creates a Software Publisher's Certificate (SPC) from one or more X.509 certificates. Cert2spc.exe is for test purposes only. However, there is no need of a SPC since we already have access to the company's public key.

B: Resgen is not useful for signing assemblies.

Note: The Resource File Generator converts .txt files and .resx (XML-based resource format) files to common language runtime binary .resources files that can be embedded in a runtime binary executable or compiled into satellite assemblies.

D: The Global Assembly Cache tool allows you to view and manipulate the contents of the global assembly cache and download cache. However, it cannot be used to digitally sign an assembly.

QUESTION 51

You work as the Web developer at Certkiller .com. You are developing a new assembly that will be used by all ASP.NET applications on the Web server. Your new assembly will access data stored within a relational database.

You want to enable all ASP.NET applications on the Web server to access your new assembly.

What should you do next to ensure that all ASP.NET applications can access the assembly? Choose two solutions to achieving your goal. Each correct answer presents only part of the complete solution.

- A. You must run the Assembly Registration tool (Regasm.exe).
- B. You must run the Strong Name tool (Sn.exe).
- C. You must run the Installer tool (Intallutil.exe).
- D. You must run the Global Assembly Cache tool (Gacutil.exe).

Answer: B, D

Explanation:

B: The Strong Name tool helps sign assemblies with strong names.

D: There are two ways to install an assembly into the global assembly cache:

- Using Microsoft Windows Installer 2.0. This is not an option here.
- Using the Global Assembly Cache tool (Gacutil.exe).

Reference:

.NET Framework Developer's Guide, Working with Assemblies and the Global Assembly Cache

.NET Framework Developer's Guide, Installing an Assembly into the Global Assembly Cache

Incorrect Answers

A: The Assembly Registration tool reads the metadata within an assembly and adds the necessary entries to the registry, which allows COM clients to create .NET Framework classes transparently.

C: The Installer tool allows you to install and uninstall server resources by executing the installer components in a specified assembly.

QUESTION 52

You work as the Web developer at Certkiller .com. You are developing a new Web site for Certkiller .com. Your Web site will be used by customers who enter a competition to win flights to other countries.

The competition consists of three levels of prizes, named Bronze, Silver, and Gold respectively. Each prize level has content on the page which pertains to only that specific level. The user controls named Bronze.ascx, Silver.ascx, and Gold.ascx hold the content of each specific level.

Your page contains a variable named awardLevel. You want to ensure that appropriate page is automatically loaded and displayed, based on awardLevel's value. You also want to minimize the amount of memory resources that will be used by each page.

Which code must you use in the Page.Load event handler to achieve your goal?

A. Dim headerControl as UserControl
Select Case awardLevel
Case "Bronze"
headerControl = LoadControl("Bronze.ascx")
Case "Silver"
headerControl = LoadControl("Silver.ascx")
Case "Gold"
headerControl = LoadControl("Gold.ascx")
End Select
Controls.Add(headerControl)

B. Dim headerControl As UserControl
Select Case awardLevel
Case "Bronze"
headerControl = LoadControl("Bronze.ascx")
Case "Silver"
headerControl = LoadControl("Silver.ascx")
Case "Gold"
headerControl = LoadControl("Gold.ascx")
End Select

C. BronzeHeaderControl.Visible = False
SilverHeaderControl.Visible = False
GoldHeaderControl.Visible = False
Select Case awardLevel
Case "Bronze"
BronzeHeaderControl.Visible = True
Case "Silver"
SilverHeaderControl.Visible = True
Case "Gold"
GoldHeaderControl.Visible = True
End Select

D. Dim BronzeHeaderControl As UserControl
Dim SilverHeaderControl As UserControl
Dim GoldHeaderControl As UserControl
BronzeHeaderControl = LoadControl("Bronze.ascx")
SilverHeaderControl = LoadControl("Silver.ascx")
GoldHeaderControl = LoadControl("Gold.ascx")
Select Case awardLevel
Case "Bronze"
Controls.Add(BronzeHeaderControl)
Case "Silver"
Controls.Add(SilverHeaderControl)

Case "Gold"

```
Controls.Add(GoldHeaderControl)
```

```
End Select
```

Answer: A

Explanation: The TemplateControl.LoadControl method obtains a UserControl object from a user control file.

Reference: .NET Framework Class Library, TemplateControl.LoadControl Method [Visual Basic]

Incorrect Answers

B: We must add the control in order to display it.

C: We must load the user controls.

D: Loading all three controls increase the demand on the system resources.

QUESTION 53

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App04. Certkiller App04 will be used to sell products online to customers.

You have received instruction from the CIO to display the name of the company at the top pf each page. To comply with this requirement, you create a Web custom control to encapsulate the Certkiller .com name in a heading element. The control class named CompanyName inherits from the Control class.

You write this HTML code to display the company name:

```
<h2> Certkiller .com</h2>
```

Which code must you use in the CompanyName class to display the company header?

A. Protected Overrides Sub Render(ByVal output As _
System.Web.UI.HtmlTextWriter)

```
output.Write("<h2> Certkiller .com</h2>")
```

```
End Sub
```

B. Protected Overrides Sub OnPreRender(ByVal e As _
System.EventArgs)

```
Me.Controls.Add _
```

```
(New LiteralControl("<h2> Certkiller .com </h2>"))
```

```
End Sub
```

C. Protected Overrides Sub RenderChildren(writer As _
System.Web.UI.HtmlTextWriter)

```
writer.Write("<h2> Certkiller .com</h2>")
```

```
End Sub
```

D. Protected Overrides Sub OnInit(e As EventArgs)

```
Me.Controls.Add _
```

```
(New LiteralControl("<h2> Certkiller .com</h2>"))
```

```
End Sub
```

Answer: A

Explanation: You create a rendered custom control's appearance by overriding the base class's Render

method and writing to the method's output argument using the `HtmlTextWriter` utility methods. The most direct approach is to use the `Write` methods to add the HTML directly to the `HtmlTextWriter`.

The `Control.RenderChildren` method outputs the content of a server control's children to a provided `HtmlTextWriter` object, which writes the content to be rendered on the client. This method notifies ASP.NET to render any Active Server Pages (ASP) code on the page. If no ASP code exists on the page, this method renders any child controls for the server control.

Reference: 70-305/70-315 Training kit, Creating the Rendered Control's Appearance, pages 544-547
.NET Framework Class Library, `Control.RenderChildren` Method [Visual Basic]

Incorrect Answers

B, D: We should not add controls to the web page, just a header.

C: We should override the render method, not the `RenderChildren` method, as we want to add content to the page itself, not the controls of the page.

QUESTION 54

You work as the Web developer at Certkiller .com. You are developing three new ASP.NET applications named Certkiller App01, Certkiller App02, and Certkiller App03 respectively. Each one of your applications must use a reusable toolbar that will appear at the top of each page displayed to users. The actual content of toolbar will differ, based on which option a user selects when creating a profile.

What should you do next to add the toolbar to the ASP.NET toolbox for all developers on the Certkiller .com Development team?

- A. Create a new Web Control Library project, and then create the toolbar within a Web custom control.
- B. Insert a new Web user control in your ASP.NET project, and then create the toolbar within the Web user control.
- C. Insert a new Web Form in your ASP.NET project, configure the toolbar within the Web Form, and then save the Web Form by using an .aspx extension.
- D. Insert a new component class in your ASP.NET project, and then configure the toolbar within the designer of the component class.

Answer: A

Explanation: Web custom controls are compiled code, which makes them easier to use but more difficult to create. You can add a Web custom control to the Toolbox and display it in a visual designer with full Properties window support and all the other design-time features of ASP.NET server controls.

Reference: Visual Basic and Visual C# Concepts, Recommendations for Web User Controls vs. Web Custom Controls

Incorrect Answers

B: Web user controls are easy to make, but they can be less convenient to use in advanced scenarios such as this. Because Web user controls are compiled dynamically at run time they cannot be added to the Toolbox

C: A Web form would be inadequate.

D: The Component class provides the base implementation for the `IComponent` interface and enables object-sharing between applications. It does not fit in this scenario.

QUESTION 55

You work as the Web developer at Certkiller .com. You configure a new ASP.NET page to retrieve merchandise information from a Microsoft SQL Server database named Certkiller DB05. You want to show a listing of available merchandise in a Repeater control named repeaterMerchandise. You create this procedure to obtain the merchandise information from Certkiller DB05

```
Private Sub RepeaterBind( _  
ByVal ConnectionString As String, _  
ByVal SQL As String)  
Dim da As SqlDataAdapter  
Dim dt As DataTable  
da = New SqlDataAdapter(SQL, ConnectionString)  
dt = New DataTable()
```

You must write the code which will populate repeaterMerchandise with the information obtained from Certkiller DB05.

Choose the code which you should use.

- A. repeaterMerchandise .DataSource = dt
repeaterMerchandise .DataBind()
da.Fill(dt)
- B. da.Fill(dt)
repeaterMerchandise .DataBind()
repeaterMerchandise .DataSource = dt
C. repeaterMerchandise .DataBind()
da.Fill(dt)
repeaterMerchandise .DataSource = dt
- D. da.Fill(dt)
repeaterMerchandise .DataSource = dt
repeaterMerchandise .DataBind()

Answer: D

Explanation: First we must fill the data set. Then we specify the data source, and finally we bind the data to the control.

Note: Using data-access objects in code follows the sequence:

1. Create the data connection object.
2. Create a data adapter object.
3. Create a data set object.
4. Invoke methods on the adapter object to fill or update the data set.

This scenario: da.Fill(dt)

5. Use data binding or another technique to display the data from the data set.

This scenario:

```
repeaterMerchandise .DataSource = dt  
repeaterMerchandise .DataBind()
```

Reference: 70-305/70-315 Training kit, Creating a Database Connection at Run Time, pages 222-223

Incorrect Answers

A: We must start by filling the data set.

B: We must specify the data source before we bind the control to the data.

C: We must start by filling the data set.

QUESTION 56

You work as the Web developer at Certkiller .com. You configure a new ASP.NET application named Certkiller App12. Certkiller App12 will be used by customers to place new orders to purchase goods and services offered by the company. All customer orders reside in a Microsoft SQL Server database table named Certkiller DB3. Certkiller DB3 contains an IDENTITY column named PurchaseID.

The code you write uses a DataTable object, which contains a column named PurchaseNo, to manage the purchase information. A stored procedure inserts each new purchase placed into Certkiller DB3, and uses a parameter to return the new PurchaseID value for each purchase that is placed. The Update method of a SqlDataAdapter object calls the stored procedure.

You designate a SqlCommand object to the InsertCommand property of the SqlDataAdapter object,

and then add a SqlParameter object to the Parameters collection of the SqlDataAdapter object. You define the name and data type of the parameter.

You must configure the SqlParameter object's properties to retrieve the new PurchaseID values from Certkiller DB3 into the PurchaseNo column of the DataTable object.

How will you accomplish the task?

A. Configure the Direction property as ParameterDirection.ReturnValue.

Configure the SourceColumn property as "Purchase ID".

B. Configure the Direction property as ParameterDirection.ReturnValue.

Configure the SourceColumn property as "Purchase No".

C. Configure the Direction property as ParameterDirection.Output.

Configure the SourceColumn property as "Purchase ID".

D. Configure the Direction property as ParameterDirection.Output.

Configure the SourceColumn property as "Purchase No".

Answer: D

Explanation: As the stored procedure uses a parameter to return the new Purchase ID value we need to use an output parameter. This is accomplished by setting the Direction property to ParameterDirection.Output. The SqlParameter.SourceColumn property gets or sets the name of the source column that is mapped to the DataSet and used for loading or returning the Value. The source column, where the value will be stored, is the Purchase Number column.

Note: SqlParameter.Direction property gets or sets a value indicating whether the parameter is input-only, output-only, bidirectional, or a stored procedure return value parameter.

Reference:

.NET Framework Class Library, SqlParameter.Direction Property [Visual Basic]

.NET Framework Class Library, ParameterDirection Enumeration

.NET Framework Class Library, SqlParameter.SourceColumn Property

Incorrect Answers

A, B: The scenario clearly states that the stored procedure uses a parameter, not a return value, to return the new Purchase ID value. We should not set the Direction property to ParameterDirection.ReturnValue

C: The output parameter should be stored in the Purchase Number column. We must set the SourceColumn property to the Purchase Number column.

QUESTION 57

You work as the Web developer at Certkiller .com. You create a new ASP.NET page which users will use to provide proposals for names for new goods developed by Certkiller .com. Users can specify numerous names for one product. Each name proposed is stored in a Microsoft SQL Server database, which contains a table containing a UserID column, a GoodsID column and a Proposal column.

A user must log on by providing a UserID and password in order to insert a proposal on your page.

After logging on to the page, the user selects a GoodsID from a drop-down list box and then specifies his proposals by using a grid. The Microsoft SQL Server database table contains a unique index that contains the UserID, GoodsID and Proposal columns. This unique index only allows the same proposed name to be recorded once for the same product by the same user.

You use SqlDataAdapter object to add all proposals into the database. You discover that when a proposed name for a product is duplicated, an error is returned. You want to avoid this type of error from occurring, but you want to be able to access all suggested names that were skipped because of errors. You want to ensure though that all remaining proposals inserted by a user are added to the database.

How will you accomplish these tasks?

A. Change the SqlDataAdapter object's ContinueUpdateOnError property to True prior to calling the object's Update method.

B. Enclose the call to the SqlDataAdapter object's Update method in a try/catch block.

In the Catch code, configure the object's ContinueUpdateOnError property as True.

C. Set an event handler for the RowUpdated event of the SqlDataAdapter object.

In the event handler, when the SqlRowUpdatedEventArgs object's UpdateStatus property has a value of UpdateStatus.ErrorsOccured, set the SqlDataAdapter object's ContinueUpdateOnErrorProperty to True.

D. Set an event handler for the RowUpdated event of the SqlDataAdapter object.

In the event handler, when the SqlRowUpdatedEventArgs object's Errors property returns a non-null value, set the SqlDataAdapter object's ContinueUpdateOnError property to True.

Answer: A

Explanation: The SqlDataAdapter.ContinueUpdateOnError property gets or sets a value that specifies whether to generate an exception, or the row in error when an error is encountered during a row update. If ContinueUpdateOnError is set to true, no exception is thrown when an error occurs during the update of a row. The update of the row is skipped and the error information is placed in the RowError property of the row in error.

Reference: .NET Framework Class Library, SqlDataAdapter Members

Incorrect Answers

B: We should set the ContinueUpdateOnError property to true beforehand, not the Catch code.

C, D: An event handler is not needed. The required functionality is inherent in the SqlDataAdapter class.

QUESTION 58

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App08. Multiple users will use Certkiller App08 simultaneously to print reports. A Microsoft SQL Server 2000 database contains all data used by Certkiller App08.

You decide to optimize the response time of Certkiller App08 when more than one user is retrieving data to print reports. To do this, you create a procedure to obtain the data from the database, and you store a valid connection string in a variable named connString in it.

Which code segment must you use to add code to the procedure to connect to the database?

- A. Dim cnn As New OleDb.OleDbConnection(connString)
- B. Dim cnn As New SqlConnection(connString)
- C. Dim cnn As New ADODB.Connection()
- D. Dim cnn As New SQLDMO.Database()

Answer: B

Explanation: We use SqlConnections to connect to SQL Server with Version 7.0 and later.

Reference: .NET Framework Developer's Guide, .NET Data Providers [Visual Basic]

Incorrect Answers

A: For SQL Server 7.0 and later we should use a SqlConnection, not an OleDbConnection, for highest efficiency.

C, D: ADODB and SQLDMO are legacy formats, which should be avoided.

QUESTION 59

You work as the Web developer at Certkiller .com. You create a new ASP.NET page. Users will use your page to obtain information on customer purchases. Users must first select a customer's name to display specific information on that customer. A Microsoft SQL Server database currently stores all customer information.

You define a stored procedure to return the data from the database and display it on your page. All orders for products which a customer has not yet received and all current sales of the customer are returned as a result set of the stored procedure. All current purchases of a customer is returned in a parameter named @purchases.

You configure code to run the stored procedure and return data on a selected customer. The stored procedure uses a SqlCommand object named cmd and a SqlDataReader object named reader. You proceed to bind reader to a DataGrid control on the ASP.NET page to list all orders which were not dispatched. You want customer purchase information to be shown a Label control named purchasesLabel.

Choose the code segment that will achieve your goals.

- A. reader.NextResult()
purchasesLabel.Text = cmd.Parameters("@purchases").Value.ToString()
reader.Close()
- B. reader.Close()
purchasesLabel.Text = reader.NextResult().ToString()
- C. reader.Close()
purchasesLabel.Text = cmd.Parameters("@purchases").Value.ToString()
- D. purchasesLabel.Text =
cmd.Parameters("@RETURN_VALUE").Value.ToString()
reader.Close()

Answer: C

Explanation: The purchases parameter is an output parameter that contains the information we want to display in the Label control. We fetch this value from the parameters collection, convert it to a string, and save it the label control.

Reference: .NET Framework Developer's Guide, Input and Output Parameters, and Return Values [Visual Basic]

Incorrect Answers

A, B: The SqlDataReader.NextResult method advances the data reader to the next result, when reading the results of batch Transact-SQL statements. However, in this scenario the reader only provides a single result set.

D: Purchase information is returned in a parameter named @purchases. It is not returned as a return value of the stored procedure.

QUESTION 60

You work as the Web developer at Certkiller .com. You create a new ASP.NET page. Your ASP.NET page will exhibit stock information on selected products. The code you have written will create ad hoc SQL queries and then retrieve information from a Microsoft SQL Server database named Certkiller DB05.

A variable named SQL contains the SQL statement for the SQL query. A string variable named StockID contains the identification number of a product.

To define the SQL query, you use this code:

```
SQL = "SELECT UnitsOnHand, UnitsOnOrder FROM Inventory"  
+ " WHERE ProductID = " + StockID;
```

You use the SqlDataReader object named reader to retrieve the stock data, and all columns that you use are of type int.

Choose the line of code you should use to assign the UnitsOnHand quantity to a variable named CKHand.

- A. CKHand = reader.GetInt16(0)
- B. CKHand = reader.GetInt16(1)
- C. CKHand = reader.GetInt32(0)
- D. CKHand = reader.GetInt32(1)

Answer: C

Explanation: The SQL Server datatype int corresponds to 32-bit Visual Basic .NET integers. We must therefore use the GetInt32 method which gets the value of the specified column as a 32-bit signed integer. We must specify the 1st column as we want to retrieve the value of the UnitsOnHand column which is listed first in the SQL SELECT statement. The GetInt32 parameter, which specifies the ordinal of the column, is 0 based. We should use 0 value of the parameter to retrieve the appropriate column.

Note: The SQL Server datatype int (Integer, whole number) represents data from -2^{31} (-2,147,483,648) through $2^{31} - 1$ (2,147,483,647). Storage size is 4 bytes. The SQL-92 synonym for int is integer.

Reference:

SQL Server Books Online, Transact-SQL Reference, int, bigint, smallint, and tinyint
.NET Framework Class Library, SqlDataReader.GetInt32 Method [Visual Basic]

Incorrect Answers

- A: SqlDataReader.GetInt16 method gets the value of the specified column as a 16-bit signed integer.
D: GetInt32(1) would retrieve the second column named UnitsOrder.
-

QUESTION 61

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App11. Certkiller App11 uses role-based security to control which pages users are able to access. A user is only allowed to view pages that they are authorized to access.

You use a Microsoft SQL Server database that consists of a Roles table, Users table, and UserRoles table; to manage roles and users for Certkiller App11. The Roles table has a column named RoleID and a column named RoleName. The Users table has a column named UserID, a column named UserName and a column named Password. The UserRoles table has a column named UserID and a column named RoleID.

You write a stored procedure that returns all users who are members of a specific role:

```
CREATE PROCEDURE GetRoleMembers
```

```
@RoleID int
```

```
AS
```

Which code segment would complete the stored procedure?

- A. SELECT UserRoles.UserID, Users.UserName
FROM Users
INNER JOIN
Roles UserRoles On UserRoles.RoleID = Users.UserID
WHERE UserRoles.RoleID = @RoleID
- B. SELECT UserRoles.UserID, Users.UserName
FROM UserRoles
INNER JOIN
Roles On UserRoles.RoleID = Roles.RoleID, Users
WHERE UserRoles.RoleID = @RoleID
- C. SELECT UserRoles.UserID, Users.UserName
FROM UserRoles
INNER JOIN
Users On Users.UserID = UserRoles.UserID
WHERE UserRoles.RoleID = @RoleID
- D. SELECT Users.UserID, Users.UserName
FROM Users, UserRoles
INNER JOIN
Roles On UserRoles.RoleID = Roles.RoleID
WHERE UserRoles.RoleID = @RoleID

Answer: C

Explanation: We need to join the UserRoles and the Users tables as we want to match the users with the roles of the users.

Reference:

SQL Server Books Online, Transact-SQL Reference, FROM Clause

Incorrect Answers

A, B: We have no need of the Roles tables. We want to match the users with the roles of the users.
D: The FROM clause, FROM Users, UserRoles, indicates a cross join between the User and UserRoles tables. However, we want to make an inner join on the UserRoles and the Users tables.

QUESTION 62

You work as the Web developer at Certkiller .com. You create a new ASP.NET page. Your ASP.NET page will be used to pull sales information on products from a Microsoft SQL Server database named Certkiller DB11. A method named GetYTDPProduct is configured to run a stored procedure in Certkiller DB11. This stored procedure only contains a single input parameter of product. You declare a numeric variable in the GetYTDPProduct method, and now want to assign the return value of the stored procedure to GetYTDPProduct. What should you do next?

- A. Create a SqlDataAdapter object.
Call the SqlDataAdapter object's Fill method to run the stored procedure.
Assign the year-to-date sales value to the numeric variable.
- B. Create a SqlDataAdapter object.
Call the SqlDataAdapter object's Update method to run the stored procedure.
Assign the year-to-date sales value to the numeric variable.
- C. Create a SqlCommand object.
Call the SqlCommand object's ExecuteScalar method to run the stored procedure.
Assign the year-to-date sales value to the numeric variable.
- D. Create a SqlCommand object.
Call the SqlCommand object's ExecuteReader method to run the stored procedure.
Assign the year-to-date sales value to the numeric variable

Answer: C

Explanation: The SqlCommand.ExecuteScalar method executes the query, and returns the first column of the first row in the resultset returned by the query. Extra columns or rows are ignored. The ExecuteScalar method to retrieve a single value (for example, an aggregate value) from a database.

Reference: .NET Framework Class Library, SqlCommand.ExecuteScalar Method [Visual Basic]

Incorrect Answers

A, B: A SqlDataAdapter object represents a set of data commands and a database connection that are used to fill the DataSet and update a SQL Server database. However, in this scenario we only want to retrieve a single scalar value.
D: The SqlCommand.ExecuteReader method Sends the CommandText to the Connection and builds a SqlDataReader. However, we are only interested in a single scalar value, not a SqlDataReader object capable of providing a stream of data.

QUESTION 63

You work as the Web developer at Certkiller .com. You create a new ASP.NET application that will be hosted on the intranet of the company. Certkiller .com employees will be using your application to manage their Pension fund contributions. All pension fund information is stored in a Microsoft SQL Server database named Pension.

Employees can select between several pension fund contribution options from a series of drop-down list boxes. The values of each drop-down list box are contained in its own table within the Pension database. Employees can only change their contributions once a year.

You have been instructed to minimize the number of times the ASP.NET application retrieves values for the drop-down list boxes from the Pension database.

Choose the two actions which you can perform to achieve your goal. Each correct answer presents only part of the solution.

A. Create a single stored procedure that returns the result for all drop-down list boxes.

Create one DataTable object for each of the drop-down list boxes.

Use a SqlDataReader object to populate the DataTable objects by calling the NextResult() method.

Bind the drop-down list boxes to the DataTable objects.

B. Create a single stored procedure that returns the result set for the drop-down list boxes, and then bind the drop-down list boxes to the DataReader object.

C. Create one DataTable object for each of the drop-down list boxes.

Create a stored procedure for each of the tables, and then use a SqlDataReader object to populate the DataTable objects. Bind the drop-down list boxes to the DataTable objects.

D. Save the result sets for the drop-down list boxes in a DataSet object, and then add the DataSet object to the Cache object for your application.

E. Use the DataSet.WriteXml() method to save the result sets for the drop-down list boxes in a file on the computer of a user.

Answer: A, D

Explanation:

A: We want to use a single result set provided by a single stored procedure. We are able to use the NextResult() method to retrieve each result in the result set.

We also need one DataTable for each drop-down list box and one SqlDataReaderObject.

Note: The SqlDataReader.NextResult method advances the data reader to the next result, when reading the results of batch Transact-SQL statements.

D: We use a DataSet object to store the result sets for the drop-down list boxes. We cache the result by adding the DataSet object to the Cache object.

Reference:

.NET Framework Class Library, SqlDataReader Class [Visual Basic]

.NET Framework Class Library, SqlDataReader.NextResult Method [Visual Basic]

Incorrect Answers

B: You can use the ADO.NET DataReader to retrieve a read-only, forward-only stream of data from a database. However, in this scenario we should use SqlDataReader.

C: It would be more effective to create a single stored procedure that returns a single result set.

E: A cache object is preferred to a file in this scenario.

QUESTION 64

You work as the Web developer at Certkiller .com. You create a new ASP.NET page. Your ASP.NET page will exhibit stock information on selected products. The product information is currently stored in a Microsoft SQL Server database.

You use SqlConnection object to connect to the ProductDB database on a SQL Server computer

named Certkiller -SR24. The SQL Server user account named Certkiller App is used to connect to the ProductDB. The password for the account is Product5.
Choose the string you should use to set the ConnectionString property of the SqlConnection object.

- A. "Provider=SQLOLEDB.1;File Name ="Data\MyFile.udl
- B. "Provider=MSDASQL;Data Source= Certkiller -SR24;
Initial Catalog=ProductDB;
User ID= Certkiller App;Password= Product5"
- C. "Data Source= Certkiller -SR24;Initial Catalog= ProductDB;
User ID= Certkiller App;Password= Product5"
- D. "Data Source= Certkiller -SR24;Database= Certkiller App;
Initial File Name=Products;User ID= Certkiller App;Pwd= Product5"

Answer: C

Explanation: We specify the name of the SQL Server computer with the Data Source attribute. The database is specified with the Initial Catalog attribute.

Reference: .NET Framework Class Library, SqlConnection.ConnectionString Property [Visual Basic]

Incorrect Answers

A, B: The SqlConnection.ConnectionString has no Provider attribute. The provider is implicitly SQL Server 7.0 or later.

D: There is no Initial File name attribute in the SqlConnection.ConnectionString. This attribute makes the connection string invalid.

QUESTION 65

You work as the Web developer at Certkiller .com. A Microsoft SQL Server 6.5 database stores all company data. You create a new ASP.NET application named Certkiller App12. Certkiller App12 will be used to produce financial summary reports. Transaction tables that contain millions of rows of data is used to produce the financial summary reports.

You want to configure Certkiller App12 so that it returns each financial summary report as quickly as possible.

What should you do next?

- A. Use a SqlConnection object to access the SQL Server database, and then use a SqlCommand object to run a stored procedure that returns the required data.
- B. Use an OleDbConnection object to access the SQL Server database, and then use an OleDbCommand object to run a stored procedure that returns the required data.
- C. Configure SQL Server to support HTTP access, and then define an XML template to run a stored procedure that returns the required data in the XML format.
- D. Use COM interop to define an ADODB.Connection object, and then use an ADODB.Command object to run a SQL statement that returns the required data.

Answer: B

Explanation: We need to use an OleDbConnection to connect to SQL Server Version 6.5 (or earlier).

Note: The .NET Framework includes the SQL Server .NET Data Provider (for Microsoft SQL Server

version 7.0 or later), and the OLE DB .NET Data Provider.

Reference: .NET Framework Developer's Guide, .NET Data Providers [Visual Basic]

Incorrect Answers

A: We could use a SqlConnection object only if the SQL Server were SQL Server 7.0, 2000 or later.

C: HTTP functionality is not required in this scenario. It would introduce unnecessary overhead.

D: ADODB is a legacy standard and should not be used here.

QUESTION 66

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App05. Certkiller App05 is configured to show a list of merchandise in a DataGrid control. All merchandise information is contained in a Microsoft SQL Server database named Certkiller Merchandise.

All merchandise offered by Certkiller .com has an associated identity number named MerchandiseID and a description named MerchandiseName. You define ADO.NET code to use a SqlDataAdapter object and a SqlCommand object to retrieve the merchandise data from the SQL Server database by running a stored procedure.

You configure the CommandType property of the SqlCommand object as

CommandType.StoredProcedure, and configure the CommandText property of the object as procMerchandiseList. This results in population of the DataTable object with the merchandise data sorted in descending order according to MerchandiseID.

What should you do next to display the data in reverse alphabetic according to MerchandiseName?

A. Update the CommandType property setting of the SqlCommand object to CommandType.Text.

Update the CommandText property setting of the SqlCommand object as follows:

SELECT * FROM procMerchandiseList ORDER BY MerchandiseName DESC;

Bind the DataGrid control to the DataTable object.

B. Configure a new DataView object based on the DataTable object.

Update the Sort property of the DataView object to "MerchandiseName DESC", and then bind the DataGrid control to the DataView object.

C. Update the AllowSorting property of the DataGrid control to True.

Update the SortExpression property of the DataGridColumn that displays MerchandiseName to "ProductName DESC", and then bind the DataGrid control to the DataTable object.

D. Update the DisplayExpression property of the DataTable object as "ORDER BY MerchandiseName DESC", and then bind the DataGrid control to the DataTable object.

Answer: B

Explanation: We can create a DataView object, set the appropriate Sort Property and bind the DataGrid control to the DataView, and not the DataTable object.

Reference: .NET Framework Developer's Guide, Sorting and Filtering Data Using a DataView [Visual Basic]

Incorrect Answers

A: procMerchandiseList is a stored procedure. It cannot be used in the FROM clause of a SELECT statement.

C: The DataGrid.AllowSorting property gets or sets a value that indicates whether sorting is enabled. The DataGridColumn.SortExpression property gets or sets the name of the field or expression to pass

to the OnSortCommand method when a column is selected for sorting. However, the sorting only occurs when a user clicks the column header.

D: The DataTable.DisplayExpression gets or sets the expression that will return a value used to represent this table in the user interface. This is only a display string. We cannot use it to sort the DataTable.

QUESTION 67

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App04. Certkiller App04 is configured display product information retrieved from a Microsoft SQL Server 2000 database hosted on a server named Certkiller -SR06.

A new Sales software application was recently installed Certkiller -SR06. Certkiller -SR06 creates another instance of SQL Server 2000 named Sales and a database named SalesDB. You decide to create a new page for Certkiller App04 to show inventory data from SalesDB as well. To connect to the SalesDB you use Windows Integrated authentication, and a SqlConnection object to connect to SalesDB.

You must configure a connection string to SalesDB in the instance of SQL Server named Sales on Certkiller -SR06.

Choose the connection string which you should use.

- A. "Server= Certkiller -SR06;Data Source=Sales;Initial Catalog=SalesDB;Integrated Security=SSPI"
- B. "Server= Certkiller -SR06;Data Source=Sales;Database=SalesDB;Integrated Security=SSPI"
- C. "Data Source= Certkiller -SR06\Sales;Initial Catalog=Sales;Integrated Security=SSPI"
- D. "Data Source= Certkiller -SR06\Sales;Database=SalesDB;Integrated Security=SSPI"

Answer: D

Explanation: The Data Source attribute of the connection string contains the name, instance or network address of the instance of SQL Server to which to connect. In this scenario we are to connect to the Sales Instance on Certkiller -SR06 so we use Certkiller -SR06\Sales as data source.

To specify the database we should either use the Database or the Initial Catalog attribute. Here we use Database=SalesDB

Note: The SQL Server .NET Data Provider provides connectivity to Microsoft SQL Server version 7.0 or later using the SqlConnection object. The connection string includes the source database name, and other parameters needed to establish the initial connection.

Reference:

.NET Framework Class Library, SqlConnection.ConnectionString Property [Visual Basic]

Incorrect Answers

A, B: We can use either the Server attribute or the Data Source property, but not both.

C: There is no Initial Catalog attribute in the connection string. We can use Database or the Initial Catalog attribute to specify the database.

QUESTION 68

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App06. Certkiller App06 stores static data in a flat file that is located in its own directory on the Web server. Certkiller App06 is hosted on the intranet site of the company.

To access Certkiller App06, you must use Microsoft Windows authentication. You decide to test Certkiller App06, and find that you can successfully run Certkiller App06 on the computer which you are using. You deploy Certkiller App06 to a test server so that designated testers can test Certkiller App06's functionality.

You immediately receive complaints from the testers, stating that they cannot access the data within the flat file. Testers report that they receive a permission error when Certkiller App06 attempts to access the flat file.

What should you do next to ensure that Certkiller App06 can display the static data contained in the flat file? You do not want users to use the file system to read the flat file.

A. Include this element in the authorization section of the Web.config file:

<identity impersonate="true"/>

B. Include this element in the system.web section of the Web.config file:

<allow users="system"/>

C. Grant the ASPNET account Read permission on the directory where the flat file is stored.

D. Access the Machine.config file and set the userName attribute in the processModel section to "system".

Answer: C

Explanation: ASP .NET runs in the security context of the ASPNET account, which is created as a local account on installation and belongs to the User Group on the machine. By giving only this account read permission to the file we ensure that Certkiller App06, but not the users, are able to access the file.

Reference: Designing Distributed Applications with Visual Studio .NET, ASP.NET Process Identity

QUESTION 69

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App14. Certkiller App14 is configured to display data that is stored in a central database named Certkiller DB1.

You must ensure that users can read, modify, and create and delete data records in Certkiller App14. All data modifications must be saved to Certkiller DB1. To accommodate this requirement, you use a number of ADO.NET objects, and you use classes from the System.Data and System.Data.OleDb namespaces.

You have already written the code to connect to Certkiller DB1. You must now implement the code which will enable users to read, modify, and create and delete data records in Certkiller App14; and save all changes to Certkiller DB1.

Choose the four actions which you should perform to accomplish your task. Each correct answer presents only part of the complete solution.

A. Create an OleDbDataAdapter object and set the SelectCommand property.

B. Create an OleDbCommand object and use the ExecuteScalar method.

C. Create a DataTable object as container for your data.

- D. Create a DataSet object as a container for your data.
- E. Call the DataAdapter.Fill method to fill the DataSet object.
- F. Call the DataAdapter.Update method to fill the DataSet object.
- G. Call the DataAdapter.Update method to save changes to the Certkiller DB1.
- H. Call the DataSet.AcceptChanges method to save changes to the Certkiller DB1

Answer: A, D, E, G

Explanation:

A: First we need to create a DataAdapter, or more specifically an OleDbDataAdapter, object in order to access the data source. We use the SelectCommand property to define an appropriate SQL command.

D: The data will be stored in a DataSet.

E: We must populate the DataSet with the DataAdapter.Fill method.

G: We make updates to the DataSet and then store these changes in the database by the DataAdapter.Update method. The Update method of the DataAdapter is called to resolve changes from a DataSet back to the data source.

Reference:

.NET Framework Developer's Guide, Updating the Database with a DataAdapter and the DataSet

Incorrect Answers

B: The ExecuteScalar method returns a single scalar value.

C: A DataTable object is not called for. DataTables are optional.

F: We use the fill, not the update method to populate the DataSet.

H: The DataSet.AcceptChanges only affects the DataSet. However, we save the changes back to the data source.

QUESTION 70

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App10. You want to configure Certkiller App10 to call an XML Web service, which will return an ADO.NET DataSet object that contains sales information.

What should you do next to ensure that the XML Web service is available to Certkiller App10?

- A. Access the .NET tab of the Reference dialog box and then select System.Web.Services.dll.
- B. Access the Web References dialog box and then specify the address of the XML Web service.
- C. Create a using statement for your Global.asax.cs file, and then add the address of the XML Web service.
- D. Set an event handler in the Global.asax.cs file to import the .wsdl and .disco files which are connected to the XML Web service.

Answer: B

Explanation: Web references differ from traditional references and components in that they refer to XML Web services published on either a local intranet or the Internet.

Procedure to add a Web reference to a project:

In Solution Explorer, select a project that supports adding Web references.

On the Project menu, choose Add Web Reference.

In the Add Web Reference dialog box, type the URL for the XML Web service in the Address text box,

Verify that the items in the Available References box are the items you want to reference in your project, and then choose Add Reference.

In Solution Explorer, expand the Web References folder to note the namespace for the Web reference classes that are available to the items in your project.

Reference: Visual Studio, Adding and Removing Web References

QUESTION 71

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App12. You will be configuring Certkiller App12 to call an XML Web service run by Test Solutions, which will return an ADO.NET DataSet object that contains customer marketing information.

You want to merge this DataSet object into a DataSet object that contains a list of customers. You start your configuration by setting testSolutions as the name of the DataSet object from Test Solutions. You then set customerInfo as the name of the DataSet object containing customer information. Once the merge has occurred, customerInfo must contain customer marketing information in testSolutions.

The tables used by each DataSet object have identical names and primary keys, and the table's columns also have the same names and data types. However, there is a table in testSolutions that contains additional columns which must not be added to customerInfo. For all rows in tables of customerInfo that have pending changes, you want to preserve the current values of these rows when the merger takes place.

Choose the code which you should use to merge testSolutions into customerInfo.

- A. customerInfo.Merge (testSolutions, true, MissingSchemaAction.Ignore)
- B. customerInfo.Merge (testSolutions, true, MissingSchemaAction.AddWithKey)
- C. testSolutions.Merge (customerInfo, true, MissingSchemaAction.Ignore)
- D. testSolutions.Merge (customerInfo, true, MissingSchemaAction.Add)

Answer: A

Explanation: The DataSet.Merge (DataTable, Boolean, MissingSchemaAction) method merges this DataTable with a specified DataTable preserving changes according to the specified argument, and handling an incompatible schema according to the specified argument.

As we want to merge the DataSets into the testSolutions DataSet we should apply the merge method on testSolutions.

The Ignore MissingSchemaAction ignores the extra columns. This meets the requirement not to add the extra columns from the table in testSolutions that contains additional columns.

Reference: .NET Framework Class Library, DataSet.Merge Method (DataTable, Boolean, MissingSchemaAction) [Visual Basic]

.NET Framework Class Library, MissingSchemaAction Enumeration [Visual Basic]

Incorrect Answers

B: The AddWithKey MissingSchemaAction adds the necessary columns and primary key information to complete the schema. However, we do not want to add any extra columns.

C, D: As we want to merge the DataSets into the customerInfo DataSet we should apply the merge method on customerInfo, not on testSolutions.

QUESTION 72

You work as the Web developer at Certkiller .com. You are creating a new Web site, and are busy creating a procedure that will retrieve information from XML documents based on the request parameters provided by users.

What should you do next to ensure that the results of user requests are returned as quickly as possible?

- A. Create an XmlDocument object and then load the object with the XML data. Use the DataSet property of the object to create a DataSet object, and then use a SQL SELECT statement to retrieve the data requested by the user.
- B. Create an XmlDocument object and then load the object the XML data. Use the SelectNodes method of the object to retrieve the data requested by the user.
- C. Create an XPathDocument object and then load the object with the XML data. Call the CreateNavigator method to create an XPathNavigator object, and then call the Select method of the XPathNavigator object to run an XPath query that retrieves the data requested by the user.
- D. Create an XmlReader object, and use the Read method of the object to stream through the XML data and to apply an XPath expression to retrieve the data requested by the user.

Answer: C

Explanation: The XPathDocument class provides a fast read-only cache for XML document processing using XSLT. XPath (XML Path Language) is a graph navigation language. XPath is used to select a set of nodes from an XML document.

Reference: .NET Framework Class Library, XPathDocument Class

QUESTION 73

You work as the Web developer at Certkiller .com. You create a new ASP.NET page. Your page will have a Label control named stockLabel.

A text file named Stock.txt stores a list of stock items. Each stock item name in the file has an ensuing carriage return. Stock.txt resides in the application directory.

You must retrieve the list of stock items from Stock.txt and display it in stockLabel.

Choose the code segment which will accomplish the task.

```
A. Dim reader As System.IO.StremReader =_
System.IO.File.OpenText(_
Server.MapPath("Stock.txt"))
Dim input As String
input = reader.BaseStream.ToString()
While Not input Is Nothing
stockLabel.Text =_
String.Format("{0} <br> {1} ",_
stockLabel.Text, input)
```

```
input = reader.BaseStream.ToString()
End While
reader.Close()
B. Dim reader As System.IO.StreamReader = _
System.IO.File.OpenText(_
Server.MapPath("Stock.txt"))
Dim input As String
input = reader.ReadLine()
While Not input Is Nothing
stockLabel.Text = _
String.Format("{0} <br> {1} ", _
stockLabel.Text, input)
input = reader.ReadLine()
End While
reader.Close()
C. Dim strm As System.IO.Stream = _
System.IO.File.OpenRead(_
Server.MapPath("Stock.txt"))
Dim b As Byte()
Dim input As String
input = strm.Read(b, 0, b.Length).ToString()
stockLabel.Text = input
strm.Close()
D. Dim strm As System.IO.FileStream = _
System.IO.File.OpenRead(_
Server.MapPath("Stock.txt"))
Dim input As String
input = strm.ToString()
stockLabel.Text = input
strm.Close()
```

Answer: B

Explanation: We create a StreamReader. We then read one line at a time and display each line appropriately, until the stream is empty.

Reference: .NET Framework Developer's Guide, Reading Text from a File [Visual Basic]

Incorrect Answers

A: The StreamReader.BaseStream property Returns the underlying stream. We cannot use the ToString method on a stream. The following command is incorrect:

```
input = reader.BaseStream.ToString()
```

C: We should read a line a time, not a byte.

D: We cannot use the ToString method on a FileStream.

QUESTION 74

You work as the Web developer at Certkiller .com. You are developing a new application that uses both ASP.NET and ADO.NET. You have created a series of stored procedures which will be used to

perform posting operations to a database at the end of each week.

To connect to this database, you use an OleDbConnection object; and to run the stored procedures, you use an OleDbCommand object. All changes must only be committed to the database when the posting operations are successful. Should errors arise when the stored procedures run, you want to roll back any data changes which have been already posted.

You configure the code which will catch an OleDbException object if an error occurs when a stored procedure runs.

Which other action should you perform?

A. Call the BeginTransaction method of the OleDbConnection object prior to running the stored procedures. Use the OleDbConnection object to roll back the changes if an error occurs.

B. Call the BeginTransaction method of the OleDbConnection object prior to running the stored procedures.

Use the OleDbException object to roll back the changes if an error occurs.

C. Use the BeginTransaction method of the OleDbConnection object to create an OleDbTransaction object, and then assign the OleDbTransaction object to the Transaction property of the OleDbCommand object.

Use the OleDbTransaction object to roll back the changes if an error occurs.

D. Use the BeginTransaction method of the OleDbConnection object to create an OleDbTransaction object, and then pass a reference to the OleDbTransaction object to each one of the stored procedures.

Use error handling within the stored procedures to roll back the changes if an error occurs.

Answer: C

Explanation: First we create an OleDbTransaction object with the OleDbConnection.BeginTransaction method. We then set the Transaction property of the OleDbCommand to the OleDbTransaction object. Finally we must write appropriate error handling code which rolls back the transaction in the proper way.

Reference:

.NET Framework Class Library, OleDbConnection.BeginTransaction Method [Visual Basic]

.NET Framework Class Library, OleDbCommand.Transaction Property [Visual Basic]

Incorrect Answers

A, B: We must create an OleDbTransaction object for the transaction.

D: We should not pass a reference to the OleDbTransaction. Instead we set the OleDbCommand.Transaction property to the transaction.

QUESTION 75

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App11. Certkiller App11 will be used to manage orders that customers have placed to purchase products.

Certkiller App11 contains an ADO.NET DataSet object that contains two DataTable objects named CustomerOrders and CustomerOrderInfo respectively. Data from the CustomerOrders table is listed in a list box.

You want to perform the configuration which will result in a customer's order information being displayed in a grid when a user selects a specific order from the list box.

How will you accomplish the task?

- A. Include a DataRelation object in the Relations collection of the DataSet object.
- B. Use the DataSet.Merge method to connect the CustomerOrders table and the CustomerOrderInfo table to each other.
- C. Add a ForeignKeyConstraint to the CustomerOrderInfo table.
- D. Add a keyref constraint to the CustomerOrderInfo table.

Answer: A

Explanation: In order to enable the DataGrid to display from multiple tables we need to relate the tables with DataRelation.

Reference: Visual Basic and Visual C# Concepts, Introduction to the Windows Forms DataGrid Control
Incorrect Answers

B: We don't want to merge the two datasets into a single dataset.

C: A foreignKeyConstraint represents an action restriction enforced on a set of columns in a primary key/foreign key relationship when a value or row is either deleted or updated. However, a foreign key constraint does not create a relation between the tables.

D: We need to define a relation not a constraint.

QUESTION 76

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App07. Certkiller App07 will be used to manage orders that customers have placed to purchase products.

Certkiller App07 uses a DataSet object named orderEntry which contains two DataTable objects named OrderName and OrderInfo respectively. There is a ForeignKeyConstraint object named orderInfoKey set between the two DataTable objects.

You try to delete a row in OrderName even though there are related rows in OrderInfo. You cannot perform the task and an exception is generated.

Choose the most probable cause of the problem?

- A. The current value of OrderInfo.KeyDeleteRule is Rule.Cascade.
- B. The current value of OrderInfo.KeyDeleteRule is Rule.SetNull.
- C. The current value of OrderInfo.KeyDeleteRule is Rule.SetDefault.
- D. The current value of OrderInfo.KeyDeleteRule is Rule.None.

Answer: D

Explanation: The rule enumeration indicates the action that occurs when a ForeignKeyConstraint is enforced. None specifies that no action will occur, but exceptions are generated. This is what has occurred in this scenario.

Reference: .NET Framework Class Library, Rule Enumeration [Visual Basic]

Incorrect Answers

A: Cascade specifies that all rows containing that value are also deleted.

B: SetNull specifies that values in all child columns are set to null values.

C: SetDefault specifies that all child columns be set to the default value for the column.

QUESTION 77

You work as the Web developer at Certkiller .com. You are developing code to execute a series of mathematical calculations. Your code takes input parameters like contribution amount, term, and interest rate; and then computes values using a number of predefined scenarios.

You have received instruction from the CIO to create a control that encapsulates these operations. You want to implement the control by dragging it from the toolbox to your various Web forms, and you want to add in full support for visual design tools. Before implementing the control, you want to test it. You want to create a project to do this.

Choose the two actions which you should perform to achieve your goal. Each correct answer presents only part of the complete solution.

- A. Create a new Web user control.
- B. Create a new Web custom control.
- C. Create a new Web Form project, and then use the COM Components tab of the Customize Toolbox dialog box to specify the new control.
- D. Create a new Web Form project, and then use the .NET Framework Components tab of the Customize Toolbox dialog box to specify the new control.
- E. Create a new Web Form project, choose Add Reference from the Project menu, and then browse to the new control.

Answer: B, D

Explanation:

B: Web custom controls are compiled components that run on the server and that encapsulate userinterface and other related functionality into reusable packages. They can include all the design-time features of standard ASP.NET server controls, including full support for Visual Studio design features such as the Properties window, the visual designer, and the Toolbox.

D: Procedure to add a Web custom control to the Toolbox:

1. On the Tools menu, click Customize Toolbox.
2. On the .NET Framework Components tab of the Customize ToolBox dialog box, click the Browse button. Find Web custom control, select it, and click Open to add it to the list of components in the Customize Toolbox dialog box.
3. Select the Web custom control in the list of .NET Framework components and click OK.

Reference:

Visual Basic and Visual C# Concepts, Introduction to Web Custom Controls

Visual Basic and Visual C# Concepts, Walkthrough: Creating a Web Custom Control

Incorrect Answers

A: A Web user control is similar to a complete Web Forms page, with both a user interface page and a code-behind file. A Web user control would not be appropriate in this scenario.

C: A Web user control is not a COM component.

E: This is not the proper procedure.

QUESTION 78

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App09, which contains a main page that links to numerous other ASP.NET pages. A Certkiller .com server named Certkiller -SR01 hosts Certkiller App09.

You want to enable trace functionality for Certkiller App09. For all pages in Certkiller App09, other than the main page, you want to enable tracing. You also want to display trace output for up to 50 requests, and you want the trace output displayed to the bottom of each page that holds trace output. All configuration changes made to implement this must only apply to Certkiller App09. You want to use the minimum amount of development effort to implement these changes. Choose the three actions which you should perform to accomplish your task. Each correct answer presents only part of the solution.

- A. Add this element to the Web.config file:
<trace enabled="true" pageOutput="True"/>
- B. Add this attribute to the Trace element of Certkiller App09's Web.config file:
requestLimit=40
- C. Add this attribute to the Trace element of Certkiller App09's Machine.config file:
RequestLimit=40
- D. Set the Trace attribute of the Page directive as true for each page other than the main page.
- E. Set the Trace attribute of the Page directive as false for only the main page.
- F. Set the TraceMode attribute of the Page directive as SortByTime for only the main page.

Answer: A, B, E

Explanation:

A: You can enable tracing for an entire application in the web.config file in the application's root directory. We should use the trace element and set the enabled attribute to true.

Note: If the pageOutput attribute is set to true trace information is displayed both on an application's pages and in the .axd trace utility,

B: We should also set the RequestLimit attribute of TraceElement, the number of trace requests to store on the server, to 40, since the default value is 10.

E: When you enable tracing for an entire application in the web.config file (A), trace information is gathered and processed for each page in that application. To disable tracing for a particular page in the application, set the Trace attribute in that page's @ Page directive to false.

Reference: .NET Framework Developer's Guide, Enabling Application-Level Tracing

Incorrect Answers

C: A Machine.config file is the base configuration for all .NET assemblies running on the server. It is not related to a single application.

D: We must disable tracing for the main page.

F: The TraceMode attribute is used to specify the order in which you want your trace messages to appear. However, there is no such requirement in this scenario.

QUESTION 79

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App08. Certkiller App08 will be used by customers to perform online investment fund transfer transactions.

You configure the component which will allow customers to transfer funds between different investment accounts. A page named InvTransfer.aspx will use the component.

You want to test your functionality and include this code segment in InvTransfer method of the component. Line numbers are only included for reference purposes.

```
1 Dim ctx As HttpContext
2 ctx =HttpContext.Current
3 ctx.Trace.Write("Investment transfer requested.")
What should you do next to view the trace output on the InvTransfer.aspx page?
```

- A. Add code to the InvTransfer.aspx page that instantiates a Trace listener.
- B. Enable tracing in the Page directive for the InvTransfer.aspx page.
- C. Add this attribute to the Machine.config file:
<trace enabled="true">
- D. Change line 03 of the code segments to this:
System.Diagnostics.Trace.WriteIf(_
ctx.IsDebuggingEnabled, "Investment transfer requested.")

Answer: B

Explanation: You can control whether tracing is enabled or disabled for a page with the Trace attribute of the @ Page directive.

Reference: .NET Framework Developer's Guide, Enabling Tracing for a Page

Incorrect Answers

- A: This is not the procedure to configure tracing of a page.
 - C: This would enable tracing of all application on this computer.
 - D: This would only write the trace message if current HTTP request is in debugging mode.
- Furthermore, we need to enable tracing of the page.

QUESTION 80

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App22. Certkiller App22 will be used by the Certkiller .com management team to add information on newly hired employees. Certkiller App22 is configured to automate a series of actions such as creating a network login account and e-mail account; and calculating the employee benefits for a new employee.

You want to test Certkiller App22 functionality to ensure that each operation performed by the application is executed in the proper order, and is executed successfully as well.

These elements are specified in each page in Certkiller App22.

Debug="True"

Trace="True"

You want to add instrumentation to your code so that each page provides execution data in the Web browser straight after the normal display output of the page.

Choose the statement which you should use to accomplish your task.

- A. Trace.Write
- B. Debug.Print
- C. System.Diagnostics.Trace.Write
- D. System.Diagnostics.Debug.Write
- E. System.Diagnostics.Debugger.Log

Answer: A

Explanation: We simply use the Trace.Write method.

Incorrect Answers

B, D, E: As we want to test the product during integration we need to trace the application, not only debug it.

C:

QUESTION 81

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App17. Certkiller App17 will be used to generate a series of quotations from various insurance carries. A user must first provide answers to a series of questions before he is provided with a quotation.

You want to test the functionality of Certkiller App17. You deploy a copy of Certkiller App17 to a test server in your Test lab. The Machine.config file on the test server has this element

```
<trace enabled="false" pageOutput="false"/>
```

The Web.config file for Certkiller App17 has this element:

```
<trace enabled="false" pageOutput="false"/>
```

While testing Certkiller App17 you discover that all insurance carries are displayed on the quotation results page. You browse to the trace.axd URL for Certkiller App17 so that you can examine the trace output information for the quotation results page. You find that there is no trace output information.

What should you do next to examine trace output information by using trace.axd? Choose two possible courses of action for achieving your objective. Each correct answer presents a complete solution to achieving your objective.

A. Change the element in the Machine.config file so that it is:

```
<trace enabled="true" pageOutput="false"/>
```

B. Change the element in the Machine.config file so that it is:

```
<trace enabled="true" pageOutput="true"/>
```

C. Change the element in the Web.config file so that it is:

```
<trace enabled="true" pageOutput="false"/>
```

D. Change the element in the Web.config file so that it is:

```
<trace enabled="true" pageOutput="true"/>
```

E. Change the Page directive for the quote results page to include this entry:

```
Trace="true"
```

Answer: C, D

Explanation:

The pageOutput does not affect the output of trace.axd.

C: We are able to examine trace output information by using trace.axd. The trace information does not appear appended to the end of the page but meets the requirement of this scenario.

D: We are able to examine trace output information by using trace.axd. Trace information is displayed both on an application's pages and in the .axd trace utility.

Note 1: If you want trace information to appear appended to the end of the page that it is associated with, set the pageOutput attribute in the tracing configuration section of the web.config file to true. If you want tracing information to be displayed only in the trace viewer, set this attribute to false. If you enable

application-level tracing, but you do not want trace information displayed for some pages of the application, use the @ Page directive to set the Trace attribute to false for those pages you do not want trace information displayed in.

Note 2: The enabled attribute of the Trace element specifies whether trace output is rendered at the end of each page.

The pageOutput attribute of the Trace element specifies whether trace output is rendered at the end of each page.

Reference:

.NET Framework General Reference, <trace> Element

.NET Framework Developer's Guide, Enabling Tracing for a Page

.NET Framework Developer's Guide, Enabling Application-Level Tracing

Incorrect Answers

A, B: The configuration in the Web.config file overrides the configuration in the Machine.config file. We must modify the Web.config file or configure tracing on a page separately.

E: The trace element cannot be placed in the page itself.

QUESTION 82

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App06. Certkiller App06 is configured to use cookies to track changes made to projects during a user's session, which will enable the user to undo his changes if need be.

Certkiller App06 contains a page named ProjectSchedule.aspx that is stored in a virtual directory named Schedule. Schedule is a child of the application root directory. You deploy Certkiller App06 on a Certkiller .com server named Certkiller -SR11 so that designated testers can test its functionality.

The testers immediately complain that the undo functionality fails to function once they have executed a specific sequence of actions. You must determine what the issue is. You decide to view the cookie values after the sequence of actions to assist you in isolating cause of the problem. You include this element in the Web.config file to view the information:

```
<trace enabled="true" pageOutput="false"/>
```

Choose the URL you should use to display the trace output information on your client computer.

- A. HTTP:// Certkiller -SR11/ Certkiller App06/Schedule/ProjectSchedule.aspx?Trace=true
- B. HTTP:// Certkiller -SR11/ Certkiller App06/Schedule/ProjectSchedule.aspx?trace.axd
- C. HTTP:// Certkiller -SR11/ Certkiller App06/Schedule/ProjectSchedule.aspx
- D. HTTP:// Certkiller -SR11/ Certkiller App06/ProjectSchedule.aspx?trace.axd
- E. HTTP:// Certkiller -SR11/ Certkiller App06/ProjectSchedule.aspx?trace.axd
- F. HTTP:// Certkiller -SR11/ Certkiller App06/trace.axd

Answer: F

Explanation:

Trace.axd is an Http Handler that we can use to request application trace details. To use trace.axd, simply request trace.axd in the same application directory, not the virtual directory, that the request for the sample application was made. The output provided by tracing view, either through Trace.axd or on a page, provides six sections of detail:

Cookies collection is any cookies that the client sends in the request headers are parsed, and their names, values, and sizes are displayed. Request details trace information, control tree, headers collection, and server

variables.

Reference: 70-305/70-315 Training kit, Reading the Trace log, pages 298-299

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QUESTION 83

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App25. Certkiller App25 will be used by the Finance department to print invoices. A page named ClientInvoices.aspx is used to generate and issue invoices to customers at month end.

You test the functionality of Certkiller App25 and you find that a few invoices reflect negative monetary values for the total amount owing to Certkiller .com. A customer's total amount owing to Certkiller .com is computed in a function named ComputeTotalOwing. The ComputeTotalOwing function is defined in the ClientInvoices.aspx page.

The code segment from ClientInvoices.aspx that contains ComputeTotalOwing is shown below. Line numbers are only included for reference purposes:

```
1 Dim totalAmountOwing As Double
2 totalAmountOwing = ComputeTotalOwing()
3 totalAmountOwing -= totalAmountOwing * discountRate
```

You decide to use Visual Studio .NET to debug Certkiller App25. You want to halt execution of the code in ClientInvoices.aspx, and you want to then specify the interactive debugger when ComputeTotalOwing returns a negative monetary value.

How will you accomplish the task?

A. Change the code segment to:

```
Dim totalAmountOwing As Double
totalAmountOwing = ComputeTotalOwing()
System.Diagnostics.Debug.Assert(totalAmountOwing >= 0)
totalAmountOwing -= totalAmountOwing * discountRate
```

B. Change the code segment to:

```
Dim totalAmountOwing As Double
totalAmountOwing = ComputeTotalOwing()
totalAmountOwing -= totalAmountOwing * discountRate
System.Diagnostics.Debug.Assert(totalAmountOwing >= 0)
```

C. In the Watch window, add a watch expression of totalAmountOwing <0, and then enable the Break When Value Is True option.

D. Set a breakpoint on line 3 of the code segment, and then define a condition for the breakpoint to break when totalAmountOwing <0 is true.

E. Set a breakpoint on line 2 of the code segment, and then define a condition for the breakpoint to break when totalAmountOwing <0 is true.

Answer: D

Explanation: Setting the breakpoint on line 3 of the code allows the function ComputeTotalOwing and store it in the totalAmountOwing variable. Breakpoint will evaluate totalAmountOwing and will stop and enter the debugger when the amount is less than zero.

Incorrect Answers:

A, B: System.Diagnostics.Debug.Assert function will output the callstack when the condition evaluates as

false. It will not halt execution and launch the debugger.

C: Watch window will allow you to view the condition of the variable when stepping through code, it will not halt the execution and launch the debugger.

E: Setting the breakpoint on line 2 does not allow the function to evaluate and return the value to the variable.

QUESTION 84

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App03. Certkiller App03 is hosted on the company intranet. You have implemented tracing and debugging instrumentation for Certkiller App03. Certkiller App03 is currently deployed in the Certkiller .com production environment.

One morning users complain that pages are showing errors that mistakenly identify valid date values as invalid date values.

You decide to collect debug information from Certkiller App03. You want to gather the debug information without affecting the performance of Certkiller App03.

What should you do next?

A. Enable Debug mode in Certkiller App03's Web.config file on the server.

Use Visual Studio .NET on your client computer to enable Debug Processes from the Tools menu and attach to the aspnet_wp.exe process on the server.

B. Enable Debug mode in the Certkiller App03's Web.config file on the server.

Use Visual Studio .NET on your client computer to access the application project on the server. Choose Start from the Debug menu.

C. Enable application tracing and disable tracing page output in Certkiller App03's Web.config file on the server. Examine the debugging information on the trace.axd page.

D. Enable application tracing and disable tracing page output in Certkiller App03's Web.config file on the server. Run the DbgClr.exe and attach to the aspnet_wp.exe process on the server.

Answer: A

Explanation: We should use remote debugging to minimize the impact on the product server. Remote debugging is the scenario in which you run Visual Studio .NET on one machine (the client) and debug a Web application running on another machine (the server). For remote ASP.NET debugging the aspnet_wp.exe process must be debugged.

Reference: Visual Studio, ASP.NET Debugging: System Requirements

Incorrect Answers

B, C, D: Running the debug process on the production server would unnecessarily decrease the performance of the production server.

Note: Microsoft common language runtime Debugger (DbgCLR.exe), which is a Windows debugger.

QUESTION 85

You work as the Web developer at Certkiller .com. You are debugging a new ASP.NET application named Certkiller App05 on your client computer. Certkiller App05 consists of a series of existing ASP pages that use server-side scripts, which are written in Microsoft Visual Basic Scripting Edition. You are using your login account, which has administrative permissions for your computer.

You think the issue with Certkiller App05 is due to an incorrect line of VBScript code in one of the existing ASP pages. To verify your assumption, you add a breakpoint on the line, and then run Certkiller App05. You discover that the functionality appears to execute correctly. Your breakpoint was not invoked though.

You view the breakpoint in the VBScript code and find this ToolTip displayed:

"The breakpoint will not currently be hit. No symbols have been loaded for this document."

What should you do next to invoke the breakpoint when Certkiller App05 runs in Debug mode?

- A. Access Configuration Manager and then change the Active Solution Configuration option to Debug.
 - B. Select the ASP page in Solution Explorer, and set the Build Action property to Compile.
 - C. Access the property pages for Certkiller App05 and then activate the Enable ASP Debugging check box.
 - D. Select Options from the Tools menu, and then select the Debugging folder.
- In the General category, activate the Insert breakpoints in Active Server Pages for breakpoints in client script check box.

Answer: C

Explanation: We need to enable debugging for the application.

D is false because the user has set a breakpoint in the SERVER side script and NOT the CLIENT side script.

QUESTION 86

You work as the Web developer at Certkiller .com. You are debugging a new ASP.NET application named Certkiller App07. Certkiller App07 is located on a server named Certkiller -SR02.

While testers are testing Certkiller App07, they discover that there are some calculations that are being incorrectly performed. To replicate the problem so that you can correct it, you use the interactive debugger from your client computer to run through the code on Certkiller App07. You discover though that you are unable to start a debugging session.

You find this error displayed in the Application event log on your computer:

DCOM got error 'General access denied error' from the computer Certkiller -SR02 when attempting to activate the server."

How will you accomplish the task of starting a debugging session?

- A. Add your user account to the Power Users group on the client computer you are using.
- B. Add your user account to the Power Users group on Certkiller -SR02.
- C. Add your user account to the Debugger Users group on the client you are using.
- D. Add your user account to the Debugging Users group on Certkiller -SR02.

Answer: D

Explanation: The remote server must grant the debugger access. To grant access to a user, you must add the user to the Debugger User group on the server. This permission is required even if the debugger user is Administrator on the remote server.

Reference: Visual Studio, Debugging Web Applications on a Remote Server

Incorrect Answers

A, B: The Power Users group does not allow remote debugging.

C: The user should be added to the Debugger Users group on the Server, not on the client computer.

QUESTION 87

You work as the Web developer at Certkiller .com. You are debugging a page named TaskTimeline.aspx, of a new ASP.NET application, named Certkiller App09. Certkiller App09 is hosted on a server named Certkiller -SR02.

Certkiller App09 contains a method named nextOperationsDay, which uses a date parameter to return the next date that, is not a weekend day or a holiday. You want to stop execution of the code on this line of code when the value of the dStartDate variable changes:

```
dStartDate = nextBusinessDay(dStartDate)
```

How will you accomplish the task?

A. Set a breakpoint on the line of code and then open the BreakPoint Properties dialog box.

Define this breakpoint condition:

```
dStartDate <> dStartDate
```

Select the is true option.

B. Set a breakpoint on the line of code and then open the BreakPoint Properties dialog box.

Define this breakpoint condition:

```
dStartDate
```

Enable the has changed option.

C. Include this statement straight after the call to nextOperationsDay:

```
System.Diagnostics.Debug.Assert( _  
dStartDate <> dStartDate, "dStartDate has changed.")
```

D. Include this statement straight after the call to nextOperationsDay:

```
System.Diagnostics.Trace.Assert( _  
dStartDate <> dStartDate, "dStartDate has changed.")
```

Answer: B

Explanation: Breakpoints are used to stop a project at a particular line of code. Further conditions for the breakpoint can also be set. In this scenario we specify the condition to be the name of the variable. We also select the has changed option.

Note: There are four types of breakpoints:

- A function breakpoint causes the program to break when execution reaches a specified location within a specified function.

We need to specify a function breakpoint in this scenario.

- A file breakpoint causes the program to break when execution reaches a specified location within a specified file.

- An address breakpoint causes the program to break when execution reaches a specified memory address.

- A data breakpoint causes the program to break when the value of a variable changes.

Visual Basic and C# do not support data breakpoints.

Reference:

Visual Studio, Breakpoints

Visual Studio, Assertions in Managed Code [Visual Basic]

Incorrect Answers

A: The conditions `dStartDate <> dStartDate` is nonsense. It would always be false.

C, D: As we want to break out of the code we should use breakpoints not assertions. Furthermore, the condition of the assertions, `dStartDate <> dStartDate` is nonsense.

Note: The difference between the Debug and Trace classes is how they are handled in release builds. By default, Debug methods and properties are automatically stripped out of code compiled for release. Trace methods and properties are retained in release code by default.

QUESTION 88

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App11 on your client computer. Certkiller App11 will be deployed on a remote server. Mia Hamm is a developer at Certkiller .com. Mia uses Visual Basic .NET to develop a custom component named AssetManagement that defines an Assets class. The Assets class exposes a public method named DepreciateAssets(). Certkiller App11 must use the AssetManagement component. You implement AssetManagement on the remote server that hosts Certkiller App11, and then add the necessary source files of AssetManagement to Certkiller App11. You use the Visual Studio .NET interactive debugger to test Certkiller App11's functionality. You find that the code in the page creates an instance of the Assets class and it then calls the DepreciateAssets() method of the instance. You decide to step into a call to the DepreciateAssets() method. You discover though that the Visual Studio .NET interactive debugger moves to the next line of code in the .aspx page. How should you configure Visual Studio .NET to enable the interactive debugger to step into the code within the Assets class?

- A. Configure Visual Studio .NET by enabling just-in-time debugging for native programs.
- B. Configure Visual Studio .NET to permit editing of the Visual Basic files while debugging.
- C. Access the Configuration Manager, select the Debug configuration, and then rebuild the AssetManagement component.
- D. Access the Configuration Manager, select the Debug configuration, and then rebuild Certkiller App11.

Answer: C

Explanation: No matter how you start debugging, make sure you build the Debug version of the class library first and make sure the Debug version is in the location where the application expects to find it.

Reference: Visual Studio, Debugging Preparation: Class Libraries

Incorrect Answers

A: Just-In-Time debugging is a technique for debugging a program that is started outside of Visual Studio.

B: This will not help us debug the component.

D: We only have to build the debug version of the class, not rebuild the entire application.

QUESTION 89

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App12. Certkiller App12 will be hosted on an online shopping site.

Certkiller App12 contains a page named DisplayProducts.aspx, and uses a Microsoft SQL Server 2000 database that contains a stored procedure named getProductByType. getProductByType returns all

product items that match a specific type. The product type is specified as a parameter named @ProdType. DisplayProducts.aspx uses getProductsByType to fill a DataSet object. You are currently debugging DisplayProducts.aspx by using Visual Studio .NET, and want to set a breakpoint in getProductsByType so that you can run through the procedure within the debugger. You want to examine the value of @ ProdType while performing your debugging operation. How will you accomplish the task?

- A. Access the Locals debugging window.
- B. Access the Modules debugging window.
- C. Add this line of code to getProductsByType:
Print @ProdCode
Access the Output debugging window and then choose Debug as the source from the drop-down list box.
- D. Add this line of code to getProductsByType:
SELECT @ProdCode As DebugOutput
box the Output debugging window and then choose Database Output as the source from the dropdown list box.

Answer: A

Explanation: The Locals window displays variables local to the current context if the debugger is in break mode.

Reference: Visual Studio, Using the Locals Window

Incorrect Answers

B: The Modules window lists the modules (DLLs and EXEs) used by your program and shows relevant information for each.

C, D: SQL statements would not provide the required functionality.

QUESTION 90

You work as the Web developer at Certkiller .com. You are debugging an ASP.NET application named Certkiller App15, written in Visual Studio .NET. You discover that there is a TextBox control on an .aspx page that incorrectly identifies valid data values as invalid data values.

A method defined in client-side code, written in Visual Basic Scripting Edition, contains the validation logic for the problematic TextBox. You want to test whether the method is receiving valid input parameters as the page is running.

What should you do next to step through the client-side code as it runs? Choose the four actions you should perform to accomplish your goal. Each correct answer presents only part of the complete solution. Choose four answers.

- A. Open Internet Explorer and clear the Disable script debugging check box under the advanced options. Browse to the specific page that contains the client-side code.
- B. Open Visual Studio .NET, select Debug Processes from the Tools menu, and then attach to the local copy of IExplore.exe.
Use the Running Document window to specify the specific .aspx page you want to debug.
- C. Create a new active solution configuration named Client and then copy the settings from the Release configuration. In the Configuration Manager, choose the new configuration in the Configuration

Manager.

D. Set the following attribute in Certkiller App15's Web.config file:

debug="true"

E. Access Solution Explorer, open the source for the specific .aspx file you want to debug, and then select Start from the Debug menu.

F. Open Visual Studio .NET, and then set a breakpoint or add a Stop statement in the client-side code where you want to initiate interactive debugging.

G. Open Internet Explorer, and then perform the actions which will result in the client-side code running.

Answer: A, B, F, G

Explanation:

A: To debug script you must enable script debugging.

To enable script debugging

1. In Internet Explorer, click the Tools menu and choose Internet Options.

Click the Advanced tab.

2. Under the Browsing category, clear the Disable Script Debugging checkbox.

B: From within Visual Studio, you can use debugger commands to attach to the browser process (Iexplore.exe) and break into the script.

F: In Visual Studio .NET we set breakpoint, Stop statements in the client-side code.

G: We perform the actions in Internet Explorer that causes the client-side code to run.

Reference:

Visual Basic and Visual C# Concepts, Introduction to Web Application Debugging

Visual Studio, Debugging Client-Side Scripts in a Web Page

Incorrect Answers

C, D, E: These steps are not required.

QUESTION 91

You work as the Web developer at Certkiller .com. You are debugging an ASP.NET application named Certkiller App12. The code for the WebForm5.aspx file is shown here:

```
<% @ Page language="VB" Codebehind="WebForm5.aspx.vb"
```

```
Inherits="WebForm5"%>
```

```
<HTML>
```

```
<body MS_POSITIONING="GridLayout">
```

```
<form id="Form1" method="post" runat="server">
```

```
<asp:Button id="Button1" style="Z-INDEX: 101;
```

```
LEFT: 203px; POSITION: absolute; TOP: 206px"
```

```
runat="server" Text="Submit" Width="132px"
```

```
Height="25px"></asp:Button>
```

```
</form>
```

```
</body>
```

```
</HTML>
```

You decide to set a breakpoint in the Page.Load event handler. When you click the Submit button, you discover that Certkiller App12 stops at the breakpoint twice for each instance that you click the Submit button.

What should you do next to stop at the breakpoint only once for each instance that you click the Submit button?

- A. Add this attribute to WebForm5.aspx:
smartNavigation="true"
- B. Add this attribute to WebForm5.aspx:
smartNavigation="false"
- C. Add this attribute to the Page directive:
AutoEventWireup="true"
- D. Add this attribute to the Page directive:
AutoEventWireup="false"

Answer: D

Explanation: If you do set AutoEventWireup to true, Visual Studio will generate code to bind the events and the page framework will automatically call events based on their names. This can result in the same event code being called twice when the page runs. As a consequence, you should always leave AutoEventWireup set to false when working in Visual Studio.

Reference:

Visual Basic and Visual C# Concepts, ASP.NET Server Control Event Model
.NET Framework Class Library, Page.SmartNavigation Property [Visual Basic]

Incorrect Answers

A, B: Smart navigation does not address the problem of this scenario.

Note: When a page is requested by an Internet Explorer 5 browser, or later, smart navigation enhances the user's experience of the page by performing the following:

- eliminating the flash caused by navigation.
- persisting the scroll position when moving from page to page.
- persisting element focus between navigations.
- retaining only the last page state in the browser's history.

C: We want to set AutoEventWireup to false, not to true.

QUESTION 92

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App05. Certkiller App05 will be used for online sales. All customers have a specific profile, which is determined by all previous purchases made by that particular customer.

You define a new procedure named DisplayProposals. The DisplayProposals procedure calls a LoadUserProfile function, which returns a list of product proposals for a specific customer. When a user's profile cannot be located, the LoadUserProfile function returns a FileNotFoundException.

You want to be able to programmatically access the FileNotFoundException error for debugging. In addition to this, you want to use a more descriptive error message when the FileNotFoundException is returned. A variable named descriptionString contains the text of the error message.

Which code should you use to configure the catch block for the exception?

- A. Catch ex As ApplicationException
Throw New ApplicationException(descriptionString, ex)
- B. Catch ex As FileNotFoundException

Throw New ApplicationException(descriptionString, ex)
C. Catch ex As ApplicationException
Throw new ApplicationException(descriptionString, _
ex.InnerException)
D. Catch ex As FileNotFoundException
Throw New ApplicationException (descriptionString, _
ex.InnerException)

Answer: D

Explanation: We must first catch the more specific exception first (FileNotFoundException) before rethrowing the exception. We must rethrow the exception by throwing an ApplicationException which must contain the descriptionString and ex.InnerException.

Incorrect Answers

A: We need to catch the FileNotFoundException first
B: We need to throw ex.InnerException
C: We need to catch the FileNotFoundException first

QUESTION 93

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET Web Form. Your Web Form displays data from a DataSet object on Certkiller .com's users. You write the following code to fill the DataSet object and retrieve a reference to a user whose primary key has the value of 1. Line numbers are only included for reference purposes:

```
01 Dim conn as New _  
SqlClient.SqlConnection(ConnectionString)  
02 conn.Open()  
03 Dim cmd As New SqlCommand( _  
"SELECT * FROM Employees", conn)  
04 Dim da As New SqlDataAdapter(cmd)  
05 Dim ds As New DataSet()  
06  
07 da.Fill(ds, "Employees")  
08  
09 dr = ds.Tables("Employees").Rows.Find(1)  
10 dr = ds.Tables("Employees").Rows.Find(1)  
11 nameLabel.Text = dr.Item("Name").ToString()
```

You attempt to run the code, but receive this error message at line 10: "Table doesn't have a primary key". You verify that a primary key does exist on the Employees table in the database.

You must resolve this issue to ensure that your code can run. You want to isolate the exception that would occur if an employee whose primary key has a value of 1 is removed from the database.

Choose the two actions which you should perform to accomplish your task. Each correct answer presents only part of the complete solution.

A. Include this code at line 06:
da.MissingSchemaAction = AddWithKey

- B. Include this code at line 06:
da.MissingSchemaAction = Add
- C. Include this code at line 06:
da.MissingSchemaAction = Ignore
- D. Include this code at line 06:
da.MissingSchemaAction = Error
- E. Place line 07 in a structured exception handling block.
- F. Place lines 10 and 11 in a structured exception handling block.

Answer: A, F

Explanation: The MissingSchemaAction AddWithKey option adds the necessary columns and primary key information to complete the schema. This will resolve the "Primary Key" error at Line 10. Placing lines 10 and 11 in a structured exception handling block will trap the exception that would be thrown if the dataset attempts to execute a row.find command on primary key value of 1.

Incorrect Answers:

B: The MissingSchemaAction Add option is the default for the dataset. Add only adds the necessary columns to complete the schema. It does not specify primary keys.

C: The MissingSchemaAction Ignore option ignores any data and columns that do not match the existing schema of the dataset. This has no effect on the primary key.

D: The MissingSchemaAction Error option will throw an "InvalidOperationException" if the specified column mapping is missing. This has no effect on the primary key.

E: Placing line 7 in a structured exception handling block would not catch errors when attempting to access a primary key that does not exist. Line 7 will only fill the dataset with information based on the query, it will not be affected if the primary key of 1 is missing.

QUESTION 94

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App07. Certkiller App07 is configured to provide an accounts management capability for Certkiller .com.

Certkiller App07 contains a page named Withdrawals.aspx. Withdrawals.aspx contains a method named WithdrawnMoney. The code segment shown below is configured for the WithdrawnMoney method. Line numbers are only included for reference purposes.

```
1 Private Function WithdrawnMoney(Amount As Double) as Double
2
3 m_dAccountBalance-= Amount
4 Return m_dAccountBalance
5 End Function
```

You want to be able to verify that an account has sufficient funds before allowing a withdrawal. When testing Certkiller App07, you want to receive a warning when a request is made that stipulates a withdrawal amount which is higher than the current account balance. The production version of Certkiller App07 will be built using the Release Build Configuration in Visual Studio .NET.

You want the testing instrumentation to only be included in Certkiller App07 for testing purposes, and should not be enabled in the production deployment of Certkiller App07. When Certkiller App07 is running in your production environment, you want to be able to activate the instrumentation without having to perform a rebuild of Certkiller App07.

Choose the code that you should include in line 02 of the previous code segment.

- A. `Debug.Assert(m_dAccountBalance - Amount >=0, _
"Insufficient finances for withdrawal.")`
- B. `Trace.Assert(m_dAccountBalance - Amount >=0, _
"Insufficient finances for withdrawal.")`
- C. `Debug.WriteLineIf(m_dAccountBalance - >=0, _
"Insufficient finances for withdrawal.")`
- D. `Trace.WriteLineIf(m_dAccountBalance - Amount >=0, _
Insufficient finances for withdrawal.")`

Answer: B

Explanation: As we want to the ability to enable the instrumentation after deployment we must use tracing. The `Trace.Assert` statement will stop the execution and display the message when the condition is appropriate.

Note: The term instrumentation refers to an ability to monitor or measure the level of a product's performance and to diagnose errors.

Reference: Visual Basic and Visual C# Concepts, Introduction to Instrumentation and Tracing

Incorrect Answers

A, C: Debug assertions would only enable tracing on in the development environment, not on the deployed systems.

D: The `Trace.WriteLineIf` method writes information about the trace without stopping the execution. It is better to use an `Assert` statement, since we need to ensure that the end user is notified of the condition.

QUESTION 95

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App17. Certkiller App17 will run on a Web server named Certkiller -SR24.

To deploy Certkiller App17, you create a Web setup project, and then enable Release mode in the Configuration Manager. You create a deployment package for Certkiller App17 and then add it to a CD-ROM so that you can deploy it on Certkiller -SR24. You run the deployment package from your CD-ROM after logging on to Certkiller -SR24.

While installing Certkiller App17, the following error message is presented to you: "The specified path "http:// Certkiller -SR24/ Certkiller App17" is unavailable. The Internet Information Server might not be running or the path exists and is redirected to another machine. Please check the status of the virtual directory in the Internet Service Manager".

You verify that the path does exist. You also ensure that Internet Information Services (IIS) is enabled and running on Certkiller -SR24.

What should you do next to successfully deploy Certkiller App17 on Certkiller -SR24?

- A. Use the /a command line option to deploy the application's deployment package in Administrative mode.
- B. Log off Certkiller -SR24 and then use an account that has Administrator privileges on Certkiller -SR24 to log on to the server.
- C. Create an IIS virtual directory named Certkiller App17 and set the necessary Write permissions.

D. Copy the deployment package from the CD-ROM to a local folder on Certkiller -SR24. Run the deployment package again.

Answer: C

Explanation: The IIS virtual directory must be named correctly and configured with Write permissions.

Incorrect Answers

A: The problem can only be solved by correctly creating a virtual directory.

B: This is not a privilege issue

D: Copy the deployment package from the CD-ROM to a local folder on Certkiller -SR24 and then running it will not solve the problem.

QUESTION 96

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App05. Certkiller App05 will be sold to customers of Certkiller .com, who will run the application on their intranets.

To deploy Certkiller App05, you create a Web setup project, and add a file named Readme.txt to the setup project. You create a deployment package for Certkiller App05 and then install Certkiller App05 on a test server. After installing Certkiller App05, you discover that the deployment package has installed the Readme.txt file in the Web application folder.

What should you do next to configure the deployment package to add a shortcut to Readme.txt to the desktop on the server computer?

A. Add Readme.txt to the ASP.NET solution solution and then rebuild the deployment package.

B. Select Readme.txt in the Web setup project, and then change the TargetName property to DESKTOP\Readme.txt.

C. In the Web setup project, add the User's Desktop folder to the File System on Target Machine node, and then add a shortcut to Readme.txt in the User's Desktop folder.

D. In the Web setup project, add a custom folder to the File System on Target Machine node, name the folder Server Desktop, and then add a shortcut to Readme.txt in that folder.

Answer: C

Explanation: The User's Desktop folder contains files and folders that appear on the desktop on a per-user basis. We should add an appropriate shortcut to this folder in the Web setup project.

Note: Special folders are folders in the File System Editor that represent predefined Windows folders. Using special folders in a deployment project allows you to choose a destination folder on a target computer without knowing the actual path to that folder.

Reference: Visual Studio, Special Folders and Custom Folders

Incorrect Answers

A: We need to create a shortcut to the Readme.txt file.

B: The TargetName property specifies a name for a file when it is installed on a target computer. The file is renamed during installation if it differs from the source file name. However, it is not useful in this scenario.

D: Custom folders are not required.

Note: Custom folders are special folders that represent folders on a target computer. Unlike special

folders, custom folders do not necessarily depend on existing folders on the target, but rather allow you to create new folders at install time.

QUESTION 97

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App10. Certkiller App10 will be used by users in the Finance department to record financial information.

A Certkiller .com employee named Rory Allen is also a Web developer at Certkiller .com. Rory creates a redistributable component which Certkiller App10 and other new applications must use. The redistributable component requires a number of registry entries to be created at installation, for it to run properly. You obtain the necessary source code and project files for the component, and include it with Certkiller App10.

You must create the deployment package for Certkiller App10. You must include the redistributable component in the deployment package.

How will you accomplish the task?

A. Create a setup project for the redistributable component, and then create a Web setup project for Certkiller App10.

B. Create a merge module project for Certkiller App10, and create a setup project for the redistributable component. Add the merge module for Certkiller App10 to the merge module project.

C. Create a merge module project for Certkiller App10 and the redistributable component.

Create a Web setup project and then add each merge module to the project.

D. Create a merge module project for the redistributable component, and then create a Web setup project for Certkiller App10. Add the merge module for the redistributable component to your project.

Answer: D

Explanation: We create a merge module for the redistributable component. We then integrate the merge module into the Web setup project.

Note: Merge module projects are used to package files or components that will be shared between multiple applications. They create a merge module (.msm) file that includes all files, resources, registry entries, and setup logic for your component. The resulting .msm file can then be merged into other deployment projects, insuring consistent installation of your component across multiple applications.

Reference: Visual Studio, Creating or Adding a Merge Module Project

Incorrect Answers

A: A setup project is used for Windows applications.

B, C: We should not create a merge module from the application.

QUESTION 98

You work as the Web developer at Certkiller .com. You have developed a new ASP.NET application named Certkiller App07. Certkiller App07 uses a Visual Studio .NET component named DataAccess.

DataAccess is to be shared with other applications hosted on a Web server named Certkiller -SR02.

You must deploy Certkiller App07 and use Visual Studio .NET to create a Windows Installer package.

You want to install Certkiller App07 and DataAccess in a way that allows you to uninstall it at a later date.

How will you accomplish the task?

- A. Create a setup project for DataAccess, and then add Certkiller App07 in a custom action.
- B. Create a setup project for Certkiller App07 and create a setup project for DataAccess.
- C. Create a Web setup project for Certkiller App07, and then add a project output for DataAccess.
- D. Create a Web setup project for Certkiller App07, and then add a merge module for DataAccess.

Answer: D

Explanation: To deploy a Web application to a Web server, you create a Web Setup project. We should use a merge module in order to be able to uninstall the DataAccess component later.

Note: Merge module projects are used to package files or components that will be shared between multiple applications. They create a merge module (.msm) file that includes all files, resources, registry entries, and setup logic for your component. The resulting .msm file can then be merged into other deployment projects, insuring consistent installation of your component across multiple applications.

Reference:

Visual Studio, Deployment Projects

Visual Studio, Creating or Adding a Merge Module Project

Incorrect Answers

A, B: We cannot use a setup project to deploy an ASP.NET Web application. Setup projects are used for Windows applications.

C: A project output cannot be uninstalled separately.

QUESTION 99

You work as the Web developer at Certkiller .com. You have developed a new ASP.NET application named Certkiller App09. You have developed English and Spanish language versions for Certkiller App09, with each language version having its own resource files.

You must install the appropriate resource file based on the language settings of your server.

How will you accomplish the task?

- A. Create an installer and then set the Installer.Context property for each language version of Certkiller App09.
- B. Create an installer that has a launch condition to check the locale settings.
- C. Create an installer that has a custom action to deploy only location-specific files.
- D. Create an installer that has an MsiConfigureProduct function to install the appropriate language version of Certkiller App09.

Answer: C

Explanation: Custom actions are a Windows Installer feature that allows you to run code at the end of an installation to perform actions that cannot be handled during installation. This is an appropriate solution for this scenario as we only want to deploy the resource files on the server.

Note: Resources can be composed of a wide range of elements, including interface elements that provide information to the user (for example a bitmap, icon, or cursor); custom resources that contain data an application needs; version resources that are used by setup APIs; and menu and dialog box resources.

Reference:

Visual Studio, Working with Resource Files

Visual Studio, Custom Actions

Incorrect Answers

A: We just want to deploy the resource files. We do not need to set the Context property in the application.

B: We don't need any launch conditions. We just want to deploy the resource files.

D: We just want to deploy the resource files.

QUESTION 100

You work as the Web developer at Certkiller .com. You have developed a new ASP.NET page named ProductList, which will be used by hundreds of registered users. ProductList shows product and associated price information for a range of merchandise.

After a registered user logs on to the site, ProductList obtains a list of prices from a database. Once a list of prices is retrieved for a user, the list is valid for the duration that the specific user accesses ProductList. A user is also allowed to keep the same price list for a number of days.

You have been tasked with ensuring that the price list remains unchanged on the user's computer once ProductList is posted back to the Web server. You want to minimize the memory resources used on the Web server.

How will you accomplish the task? Choose the three parameters which you should add to the Page directive in ProductList. Each correct answer presents only part of the complete solution.

- A. EnableSessionState="True"
- B. EnableSessionState="False"
- C. EnableSessionState="ReadOnly"
- D. EnableViewState="True"
- E. EnableViewState="False"
- F. EnableViewStateMac="True"
- G. EnableViewStateMac="False"

Answer: B, D, F

Explanation:

To minimize the memory resources consumed on the Web server we need to use view state instead of session state. Setting EnableViewState to true will only cost us bandwidth, not memory resources.

B: Disable session state

D: Enable view state

F: A view state MAC is an encrypted version of the hidden variable that a page's view state is persisted to when sent to the browser. When you set this attribute to true, the encrypted view state is checked to verify that it has not been tampered with on the client.

Reference:

.NET Framework Developer's Guide, Developing High-Performance ASP.NET Applications

.NET Framework General Reference, @ Page

.NET Framework Developer's Guide, Session State

Incorrect Answers

A: An enabled Session state would require additional server resources.

C: A readonly Session state would still require additional server resources.

E: We need view state to be enabled.

G: To ensure that client has not changed the data we set `EnableViewStateMac` to true, not false.

QUESTION 101

You work as the Web developer at Certkiller .com. You have developed a new ASP.NET application named Certkiller App11. Certkiller App11 will be used by users to save forms online.

You must install Certkiller App11 on multiple servers. You want to save session state information so that performance is optimized.

What should you do to achieve your goal in these circumstances? Choose two possible ways to achieving your goal. Each correct answer presents a complete solution to the issue.

- A. Update the Web.config file to support StateServer mode.
- B. Update the Web.config file to support SQLServer mode.
- C. Update the Web.config file to support InProc mode.
- D. In the Session_Start procedure in the Global.asax file, update the EnableSession property of the WebMethod attribute as true.
- E. In the Session_Start procedure in the Global.asax file, update the Description property of the WebMethod attribute to sessionState.

Answer: A, B

Explanation:

A: With StateServer mode session state is using an out-of-process Windows NT Server to store state information. This mode is best used when performance is important but you can't guarantee which server a user will request an application from. With out-of-process mode, you get the performance of reading from memory and the reliability of a separate process that manages the state for all servers. As this scenario requires that we should optimize performance, not reliability, StateServer mode is the preferred solution.

B: Indicates that session state is stored on the SQL Server. In SQL mode, session states are stored in a SQL Server database and the worker process talks directly to SQL. The ASP.NET worker processes are then able to take advantage of this simple storage service by serializing and saving (using .NET serialization services) all objects within a client's Session collection at the end of each Web request.

Note: HTTP is a stateless protocol, which means that it does not automatically indicate whether a sequence of requests is all from the same client or even whether a single browser instance is still actively viewing a page or site. As a result, building Web applications that need to maintain some cross-request state information (shopping carts, data scrolling, and so on) can be extremely challenging without additional infrastructure help.

ASP.NET provides the following support for sessions:

A session-state facility that is easy to use, familiar to ASP developers, and consistent with other .NET Framework APIs.

A reliable session-state facility that can survive Internet Information Services (IIS) restarts and workerprocess restarts without losing session data.

A scalable session-state facility that can be used in both Web farm (multicomputer) and Web garden (multiprocess) scenarios and that enables administrators to allocate more processors to a Web application to improve its scalability.

A session-state facility that works with browsers that do not support HTTP cookies.

A throughput equivalent to that of ASP (or better) for core session-state scenarios (50/50 read/write when putting items into shopping carts, modifying last page visited, validating credit card details, and so on).

Reference:

.NET Framework Developer's Guide, Session State

Incorrect Answers

C: With InProc mode session state is in process with an ASP.NET worker process. InProc is the default. However, since we are using multiple servers, we cannot use InProc mode.

D: This will not allow session information to be stored over multiple servers

E: The Description property of the WebMethod attribute supplies a description for an XML Web service method that will appear on the Service help page.

QUESTION 102

You work as the Web developer at Certkiller .com. You have developed a new ASP.NET application named Certkiller App08. Certkiller App08 will be used to exhibit marketing information for the company. A page named MarketingStats.aspx displays different categories of marketing information. You write code for each category that will call a separate stored procedure in a database. Each category of marketing information uses a different stored procedure. Once the stored procedure runs, the results are stored in HTML format in the Response object for Certkiller App08.

You want to perform the configuration which will enable users to immediately receive content rendered in their browser as each stored procedure returns results. You do not want a user to wait for all stored procedures to return results before receiving content rendered in their browser.

How will you accomplish the task? Choose two possible ways to accomplishing the task. Each correct answer presents a complete solution to the issue.

A. Modify the SuppressContent property of the Response object to False.

B. Modify the BufferOutput property of the Response object to False.

C. Modify the CacheControl property of the Response object to Public.

D. Add this statement after each section is written to the Response object for Certkiller App08:

`Response.Clear()`

E. Add this statement after each section is written to the Response object for Certkiller App08:

`Response.ClearContent()`

F. Add this statement after each section is written to the Response object for Certkiller App08:

`Response.Flush()`

Answer: B, F

Explanation:

B: The `HttpResponse.BufferOutput` property gets or sets a value indicating whether to buffer output and send it after the entire page is finished processing.

F: The flush method forces all currently buffered output to be sent to the client.

Reference:

.NET Framework Class Library, `HttpResponse.BufferOutput` Property [Visual Basic]

.NET Framework Class Library, `HttpResponse.Flush` Method [Visual Basic]

Incorrect Answers

A: The `HttpResponse.SuppressContent` property gets or sets a value indicating whether to send HTTP content to the client.

C: Caching would not meet the requirements of this scenario.

D, E: The `HttpResponse.Clear` and `HttpResponse.ClearContent` methods just clears all content output from the buffer stream.

QUESTION 103

You work as the Web developer at Certkiller .com. You have developed a new ASP.NET application named Certkiller App09. Certkiller App09 contains intricate Transact-SQL statements, and will be used to generate financial information. The financial data is contained within a Microsoft SQL Server database. The database is used for transaction processing.

One morning numerous Finance department users complain that each day, the report requires more time to run. You must improve the response time of Certkiller App09.

How will you accomplish the task? Choose two possible ways to accomplishing the task. Each correct answer presents a complete solution to the issue.

- A. Use an `OleDbDataAdapter` indexes exist on your SQL Server tables.
- B. Verify that the appropriate indexes exist in your SQL Server tables.
- C. Rewrite your SQL statements to use aliases for all table names.
- D. Rewrite your direct SQL statements as stored procedures. Call the stored procedures from Certkiller App09.
- E. Configure queries to run in the security context of the user running the query.

Answer: B, D

Explanation:

B: We use an index to speed access to data in a database table.

Note: When Microsoft SQL Server executes a query, the query optimizer evaluates the costs of the available methods for retrieving the data and uses the most efficient method. SQL Server can perform a table scan, or it can use an index if one exists.

D: A stored procedure is a batch of SQL Statements that is located on the SQL Server. This saves network bandwidth as the SQL Statements do not have to be send from the client to the SQL Server computer. Furthermore, SQL Server compiles the stored procedures and selects an optimal execution plan. This saves time as well.

Reference:

SQL Server Books Online, Creating an Index

SQL Server Books Online, Creating a Stored Procedure

Incorrect Answers

A: `OleDbDataAdapter` can be used to access SQL Server databases. However, they introduce overhead.

C: Aliasing the table names would not improve performance.

E: The security context of the Stored Procedure does not affect performance.

QUESTION 104

You work as the Web developer at Certkiller .com. You are busy working on an ASP.NET application named Certkiller App02. A previous version of Certkiller App02 uses ActiveX components written in Visual Basic 6.0. Your Certkiller App02 application will still use the ActiveX components.

You want to perform the configuration which will result in the marshaling of data between Certkiller App02 and the ActiveX components taking place as quickly as possible

How will you accomplish the task? Choose two actions which you should perform to accomplish the task. Each correct answer presents only part of the complete solution.

- A. Use ODBC to obtain the data.
- B. Use early binding to obtain the data.
- C. Use late binding to obtain the data.
- D. Update the AspCompat attribute of the Page directive to true.
- E. Update the AspCompat attribute of the Page directive to false.

Answer: B, D

Explanation:

B: Early binding is a better choice for performance reasons.

D: When using single-threaded (STA) COM components, such as components developed using Visual Basic, from an ASP.NET page, you must include the compatibility attribute `aspcompat=true` in an `<% @ Page >` tag on the ASP.NET page.

Reference: .NET Framework Developer's Guide, COM Component Compatibility

Incorrect Answers

A: ODBC is set of legacy database drivers. OleDb and SQL should be used. Furthermore, database drivers are irrelevant in this scenario.

C: While late binding to components is still supported, early binding is a better choice for performance reasons.

E: The `aspcompat` attribute must be set to true.

QUESTION 105

You work as the Web developer at Certkiller .com. You develop a new ASP.NET application named Certkiller App17. Certkiller App17 will be hosted on the company intranet, and will be used by users that work in the Debt Collection department.

Users that work in the Debt Collection department will use Certkiller App17 to connect to a database as they are communicating with clients telephonically. To log on to Certkiller App17, a user must provide a valid user name and password. The application code runs in the security context of the specific user who requested the page. All user name and password associations are contained within `ConnectionString` property settings which the application code uses to connect to the database.

A Certkiller .com employee named Dean Austin works in the Debt Collection department. One morning Dean complains that it takes quite some time to access the database. You investigate the issue and discover that a new database connection is created whenever a user of the Debt Collection connects to the database.

How will you accomplish the task of reusing connections with the aim of reducing the time required to access the database?

- A. Change the connection string to specify Windows Integrated authentication.
- B. Change the connection string to increase the connection timeout setting.
- C. Change the connection string to use a single application user name and password for each connection to the database.
- D. Change the connection string to use a login user name that is a member of the `sysadmin` fixed server role.

Answer: C

Explanation: In order to avoid the creation of a new connection we should a single application user name and password.

Incorrect Answers

A: Windows Integrated authentication would still require a separate connection for each user.

B: Increasing the timeout setting would increase the connection time. However, a new connection would still be created for each user.

D: Running the connection in the security context of the sysadmin role would be a security risk.

QUESTION 106

You work as the Web developer at Certkiller .com. You develop a new ASP.NET application named Certkiller App04. Certkiller App04 is used by hundreds of users. Certkiller App04 is configured to use a Microsoft SQL Server .NET Data Provider to connect to a database named Certkiller DB04.

You have received complaints from the network administrator that data requests are being blocked as users wait for new connections to be established.

You must immediately improve throughput by setting a minimum connection pool size of 10.

How will you accomplish the task?

A. Add a connection element under an appSettings element in the Web.config file for Certkiller App04, and then set a minimum connection pool size of 10.

B. Add a connection element under an appSettings element in the Machine.config file on the Web server, and then set a minimum connection pool size of 10.

C. Add a Min Pool Size property to the connection string you use to establish a connection, and then set a minimum connection pool size of 10.

D. Add a Min Pool Size property to your ADO.NET connection objects, and then set a value of 10 to the property.

Answer: C

Explanation: The Min Pool Size property of the connection string denotes the minimum number of connections maintained in the pool.

Reference: .NET Framework Developer's Guide, Connection Pooling for the SQL Server .NET Data Provider

Incorrect Answers

A, B: The appSettings element contains custom application settings. However, Minimum pool size should be configured in the connection string, not in the custom application settings.

D: Min Pool Size is not a property of a connection object. It is an attribute in the connection string.

QUESTION 107

You work as the Web developer at Certkiller .com. You develop a new ASP.NET page which uses a string concatenation to collect data from numerous e-mail messages. Once the data is collected, it is formatted to display on your page.

How will you accomplish the task of ensuring that the page displays as quickly as possible?

- A. Create code that uses the Append method of the StringBuilder object.
- B. Create code that uses the Substring method of the String object.
- C. Create code that uses the Concat method of the String object.
- D. Create code that uses the plus-sign (+) operator to concatenate the strings.

Answer: A

Explanation: The StringBuilder.Append method appends the string representation of a specified object to the end of this instance. The StringBuilder class represents a string-like object whose value is a mutable sequence of characters. The value is said to be mutable because it can be modified once it has been created by appending, removing, replacing, or inserting characters.

Reference: .NET Framework Class Library, StringBuilder.Append Method [Visual Basic]

Incorrect Answers

B: The Substring method is used to select a part of a string, not to concatenate multiple strings.

C: The String.Concat method Concatenates one or more instances of String, or the String representations of the values of one or more instances of Object. However, compared to the Append method of the StringBuilder object, the Concat method creates new instances, and is therefore not the preferred method.

D: Not the best solution.

QUESTION 108

You work as the Web developer at Certkiller .com. You develop a new ASP.NET application named Certkiller App15. Certkiller App15 is configured to store and update data contained in a SQL Server database Certkiller AppDB15.

The main page of your application is used to calculate sales figures at the end of each week. After a user clicks a button on the main page, a number of stored procedures should run to compute the sales figures for the week. Users must not add, delete and update data in those database tables that are used by the stored procedures. Each stored procedure must run successfully before the weekly sales figures can be appended to the databases. When a single stored procedure fails to run successfully, no weekly sales figures must be added to the database.

What should you do to achieve your goal in these circumstances?

- A. Create a class derived from System.EnterpriseServices.ServicesComponent to run all stored procedures, and annotate the class by using a TransactionAttribute type of attribute. Change the Value property of the attribute to TransactionOption.RequiresNew.
- B. Create a master stored procedure, and use it to call all stored procedures that calculate the weekly sales figures. Add WITH REPEATABLE READ to your new master stored procedure.
- C. Use structured exception handling to catch a SqlException should a stored procedure fail. Use the Procedure property of the SqlException to determine which stored procedure produced the exception, and then call a stored procedure to reserve the previous computations.
- D. Change the IsolationLevel property of a SqlTransaction object to IsolationLevel.Serializable. Assign the SqlTransaction object to the Transaction property of the SqlCommand object, and then use the SqlCommand object to run your stored procedures.

Answer: D

Explanation: We should use a transaction to ensure that either all stored procedures will succeed or if one stored procedure fails, the whole transaction will be backtracked. Furthermore, in order to protect the data in tables during the transaction, we should use the highest transaction isolation level of Serializable. We use a SqlCommand object to run the stored procedure. We set the Transaction property of the SqlCommand to the SqlTransaction object we created.

Note: The transactionIsolation level of Serializable places a range lock on the DataSet, preventing other users from updating or inserting rows into the dataset until the transaction is complete.

Reference: .NET Framework Class Library, IsolationLevel Enumeration [Visual Basic]

Incorrect Answers

A, B: This is not the way to set up a transaction.

C: Exception handling would be extremely complicated to meet the requirement of the scenario.

QUESTION 109

You work as the Web developer at Certkiller .com. You develop a new ASP.NET application named Certkiller App08. Certkiller App08 will be used for online payment transactions.

The main page of your application is a payment page named CustomerPayment.aspx. The CustomerPayment.aspx page has a form wherein a customer can insert name, payment amount, and payment method information. The page also enables a user to enter address change information.

All address change information is posted, for processing, to a page named ChangeCustomerAddress.aspx page. The address change information is then processed by ChangeCustomerAddress.aspx. No display information is provided to the user at this stage. Only after the address change is completely processed, does CustomerPayment.aspx display status results to the user.

You want to implement a line of code in CustomerPayment.aspx, which will enable it to perform the address change processing operation in ChangeCustomerAddress.aspx.

Choose the line of code which you should use to accomplish the task.

- A. Response.Redirect("ChangeCustomerAddress.aspx")
- B. Response.WriteFile("ChangeCustomerAddress.aspx")
- C. Server.Transfer("ChangeCustomerAddress.aspx",True)
- D. Server.Execute("ChangeCustomerAddress.aspx")

Answer: D

Explanation: The HttpServerUtility.Execute method executes a request to another page using the specified URL path to the page. The Execute method continues execution of the original page after execution of the new page is completed.

Reference:

.NET Framework Class Library, HttpServerUtility.Execute Method (String) [Visual Basic]

Incorrect Answers

A: The HttpResponse.Redirect method Redirects a client to a new URL and specifies the new URL.

B: The HttpResponse.WriteFile method writes the specified file directly to an HTTP content output stream.

C: The HttpServerUtility.Transfer method Terminates execution of the current page and begins execution of a new page using the specified URL path to the page.

QUESTION 110

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App20. Should an error occur for a page requested by a user, Certkiller App20 is configured to redirect the user to a custom error page. The custom error page is defined in the Web.config file. You deploy Certkiller App20 on a production Web server.

The following morning, several users complain that one specific page of Certkiller App20 is continuously generating errors. You must collect information on the error from this specific page. You want to ensure that users are still being redirected to the custom error page when errors occur. What should you do next?

- A. Open the Web.config file and update the mode attribute of the customErrors element to RemoteOnly. Access the page from a browser on your client computer.
- B. Open the Web.config file and update the mode attribute of the customErrors element to RemoteOnly. Access the page from a browser on the server.
- C. Modify the Page directive by changing the Trace attribute to True and the LocalOnly attributes to true. Access the page from a browser the server.
- D. Open the Web.config file, and add the following element:
<trace enabled="true" LocalOnly="false"
PageOutput="true"/>
Access Certkiller App20 from a browser on your client computer.

Answer: B

Explanation: The RemoteOnly option specifies that custom errors are shown only to remote clients and ASP.NET errors are shown to the local host. This meets the requirements since you will be able to see the ASP.NET errors while the users still will see the custom error page.

Reference: .NET Framework General Reference, <customErrors> Element

Incorrect Answers

A: If you use the RemoteOnly option and access the page from a client computer you would only see the custom error page, not see the detailed error information.

C: The LocalOnly Trace attribute indicates that the trace viewer (trace.axd) is available only on the host Web server. This is not relevant in this scenario.

D: The LocalOnly attribute only affects the availability of the Trace.vxd tool.

QUESTION 111

You work as the Web developer at Certkiller .com. You create a new ASP.NET page which will be used to enter delivery address information. You create a user control named DeliveryAddress, which is defined in a file named DeliveryAddress.ascx. The file is stored in a folder named AddressManagement.

You decide to test the DeliveryAddress control, and create a test page in the AddressManagement folder. You include this directive to the top of the test page:

```
<% @ Register Tagprefix="CK" Tagname="DeliveryAddress"
Namespace="DeliveryAddress.ascx" %>
```

And you include this tag in the test page:

```
<tk: DeliveryAddress runat="server"/>
```

You attempt to open the test page, but instead, you receive an error message stating this: Parser Error - Description: An error occurred during the parsing of a resource required to service this request." Choose the directive which you should use to resolve the error.

- A. <% @ Register Tagprefix="CK" Tagname="DeliveryAddress" Namespace=".\\AddressManagement\\CustomerAddress.ascx" %>
- B. <% @ Register Tagprefix="CK" Tagname="DeliveryAddress" Src="DeliveryAddress.ascx" %>
- C. <% @ Register Tagprefix="CK" Tagname="DeliveryAddress" Assembly="DeliveryAddress" %>
- D. <% @ Reference control="DeliveryAddress.ascx" %>

Answer: B

Explanation: This is a correct syntax. We use the Tagprefix, Tagname and Src attributes.

Note: The <% @ Register> element associates aliases with namespaces and class names for concise notation in custom server control syntax.

Reference: .NET Framework General Reference, @ Register

Incorrect Answers

A: If we use the Namespace attribute we should use the Assembly attribute as well.

C: If we specify an assembly we must also specify a Namespace.

D: The <% @ Reference > element declaratively indicates that another user control or page source file should be dynamically compiled and linked against the page in which this directive is declared.

QUESTION 112

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App18. Certkiller App18 will be used to manage a series of skill tests which employees must take. Lecturers are members of a group named Lecturers, and employees are members of a group named Learners. Microsoft Windows authentication is used for authentication.

Certkiller App18 contains a root folder named Tests, which exhibits information on all upcoming tests. Lecturers and employees have permission to access pages in Tests. The Tests folder contains a subfolder named Ratings. Teachers are only allowed to access pages in Ratings.

The Web.config file in Tests includes the entries shown below. Line numbers are only shown for reference purposes.

```
1 <authentication mode="Windows" />
2 <authorization>
3 <allow roles="Employees, Lecturers" />
4 <deny users="*" />
5 </authorization>
```

The Web.config file in Ratings includes the entries shown below. Line numbers are only shown for reference purposes.

```
1 <authentication mode="Windows" />
2 <authorization>
3 <allow roles="Lecturers" />
4 <deny users="*" />
5 </authorization>
```

Several lecturers complain that that they receive an error message that contains this content: "An error occurred during the processing of a configuration file required to service this request." when attempting to open pages in the Ratings folder.

What should you do next to ensure that lecturers can open pages in the Ratings folder?

- A. Delete line 01 in the Web.config file in Ratings.
- B. Change line 04 in the Web.config file in Ratings to be:
<allow users="*" />
- C. Insert this line between line 01 and line 02 in the Web.config file in Tests:
<identity impersonate="true" />
- D. Insert this line between line 01 and line 02 in the Web.config file in Ratings:
<identity impersonate="true" />
- E. Insert this line between line 01 and line 02 in the Web.config file in Ratings:
<identity impersonate="false" />

Answer: A

Explanation: The error message indicates an incorrect line in the configuration file. The first line with the authentication mode element should be removed.

Reference:

.NET Framework General Reference, <authentication> Element

.NET Framework General Reference, <authorization> Element

Incorrect Answers

B: We only want Lecturers to have access to the Ratings folder. We cannot allow everyone access.

C, D, E: Impersonate does not apply to this scenario.

Note: Impersonation is when ASP.NET executes code in the context of an authenticated and authorized client.

QUESTION 113

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App03. Certkiller App03 will be hosted on the company intranet. Microsoft Windows authentication is used for authentication.

What should you do next to configure Certkiller App03 to run in the security context of the user?

- A. Insert this element in the authentication section of the Web.config file:
<allow users="?" />
- B. Insert this element in the system.web section of the Web.config file:
<identity impersonate="true" />
- C. Open the Configuration Manager for your project to specify the user's security context.
- D. Write code in the Application_AuthenticateRequest event handler to configure Certkiller App03 to run in the security context of the user.

Answer: B

Explanation: The <identity> element controls the application identity of the Web application. By setting the impersonate attribute to true we ensure that the application is run in the security context of the user.

Reference: .NET Framework General Reference, <identity> Element

Incorrect Answers

A: This allows anonymous users. It is an irrelevant issue in this scenario.

C, D: These are improper methods.

QUESTION 114

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App16. Certkiller App16 is configured to use integrated security to retrieve data from a Microsoft SQL Server database named Certkiller DB16.

You must define a connection string for Certkiller App16 to use to connect to Certkiller DB16. You want the Web.config file to contain the connection string.

Choose the way in which you should configure the Web.config file.

A. Access the configuration section and then create an element named appSettings.

Create an add element which has a key attribute defined as SqlConnection, and a value attribute defined to the connection string.

B. Access the configuration section and then create an element named SqlConnection.

Create a key element which has a value attribute set to the connection string.

C. Access the authorization section and then create an element named SqlConnection.

Create a key element which has a value attribute set to the connection string.

D. Access the authentication section and then create an element named appSettings.

Create an element named SqlConnection that has a value attribute set to the connection string.

Answer: A

Explanation: The appSettings element contains custom application settings. The appSetting element is placed in the configuration section. Each element added to the appSettings element has a key attribute and a value attribute. For example SqlConnection and a connection string respectively.

Reference:

.NET Framework General Reference, <appSettings> Element

.NET Framework General Reference, <add> Element for NameValueCollection and DictionarySectionHandler

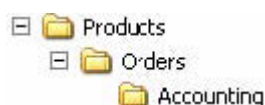
Incorrect Answers

B, C: SqlConnection is a class, and cannot be used as an element in the configuration section of a Web.config file.

D: The appSetting element is placed in the configuration section, not in the authentication section.

QUESTION 115

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App05. You are busy configuring security for Certkiller App05. The exhibit shows the hierarchy of folders used to store your pages.



You want to perform the configuration which will result in all users being able to access pages stored

within the Products folder and the Orders folder. Users that work in the Finance department, who are members of the Accounting role, must be the only users allowed to access pages stored in the Accounting folder.

How will you accomplish the task? Choose two possible ways to accomplishing the task. Each correct answer presents a complete solution.

A. Configure code for the Global.asax file to dynamically configure access to the Accounting folder.

B. Add the authorization settings for all roles in the Web.config file stored in the Products folder.

Use the location tag in the Web.config file to deny access to the Accounting folder for all roles other than the Accounting role.

C. Add the authorization settings for all roles in the Web.config file stored in the Products folder.

Allow access for only members of the Accounting role in the Web.config file stored in the Accounting folder.

D. Create two custom roles in the Machine.config file for Certkiller App05, and then configure one role for all users, and configure one role for the Accounting users.

Deny access to the Accounting folder for all users other than members of the Accounting role.

Answer: B, C

Explanation: We allow to the Products and Orders folders by placing a Web.config file with the appropriate configuration in the Products folder.

B: Only Accounting role gets access to the Accounting folder by explicitly denying all other users access.

C: We could also configure access to the by only allowing access to the folder to the Accounting role.

Incorrect Answers

A: We need to configure access to the Products and Orders folder, not only to the Accounting folder.

D: The machine configuration file, Machine.config, contains settings that apply to an entire computer, not just to a single application.

QUESTION 116

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App02. Certkiller App02 will be used by customers to place orders for products offered by Certkiller .com.

The start page of Certkiller App02 is named Purchases.aspx. To access this page, a user must provide a valid user name and password. You create a UserLogin.aspx page to verify the credentials provided by a user.

You want users to only be able to access Purchases.aspx after they have logged on using UserLogin.aspx.

Choose the two actions which you should perform to achieve your goal. Each correct answer presents only part of the complete solution.

A. Access the authentication section of the Web.config file and change the mode attribute of the authentication element to Forms.

Change the name attribute of the forms element to UserLogin.aspx.

B. Access the authentication section of the Web.config file and change the mode attribute of the authentication element to Forms.

Change the loginUrl attribute of the forms element to UserLogin.aspx.

C. Access the authorization section of the Web.config file and change the users attribute of the deny element to "?":

D. Access the credentials section of the Web.config file and change the users attribute of the deny element to "?".

E. Access the credentials section of the Machine.config file and change the users attribute of the deny element to "*".

F. Access the authorization section of the Machine.config file and change the mode attribute of the authentication element to Forms.

Change the policyFile attribute of the trust element to UserLogin.aspx.

G. Create a Page directive in Purchases.aspx that will load the UserLogin.aspx page.

Answer: B, C

Explanation:

B: We are using Form authentication. We must specify this in the Web.config file. The mode attribute of the Authentication element is used to specify the default authentication method for an application. We use the loginURL to specify the URL to which the request is redirected for login if no valid authentication cookie is found.

C: We deny access to anonymous users.

Reference:

.NET Framework General Reference, <authentication> Element

.NET Framework General Reference, <forms> Element

.NET Framework General Reference, <deny> Element

Incorrect Answers

A: The name attribute in the Forms Element specifies the HTTP cookie to use for authentication.

D, E: The credentials section allows optional definition of name and password credentials within the configuration file. There cannot be a deny element within the credentials section.

F: The mode attribute is used in the authentication element, not in the authorization section.

G: A page directive cannot be used to specify the login form page.

QUESTION 117

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App14. Certkiller App14 contains confidential company information. To prevent unauthenticated users from accessing Certkiller App14, you have implemented form-based authentication to validate users.

What else should you do?

A. Configure a Page directive in the start page Certkiller App14 to redirect users to a login page.

B. Configure a Page directive in the start page of Certkiller App14 to not allow anonymous users.

C. Access the authorization section of the Machine.config file and then define the users attribute to the allow element to "?".

D. Access the authorization section of the Web.config file and then define the users attribute of the deny element to "?".

Answer: D

Explanation: ASP .NET maintains security (and other) configuration settings in XML configuration files. Specifically ASP.NET security configuration is contained in the Web.config file. Specifying <deny users="?"> in Web.config disallows anonymous access.

QUESTION 118

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App15. Certkiller App15 will be accessed by customers on the Internet.

You are currently testing Certkiller App15 on a beta server. You verify that during the beta test period, whenever an error occurs, the actual ASP.NET error message is displayed. For all other applications hosted on the beta server, you verify that ASP.NET error messages are being displayed. You promote the server to a production server. You want Certkiller App15 and all other applications to display one user-friendly error message. You want to use the minimum amount of development effort to accomplish the task.

Choose the two actions which you should perform to accomplish your task. Each correct answer presents only part of the complete solution.

- A. Change the mode parameter of the customErrors element in the Web.config file for Certkiller App15 to "On".
- B. Delete the customErrors element from the Web.config file for Certkiller App15.
- C. Set the mode parameter of the customErrors element in the Certkiller App15.config file to "On".
- D. Delete the customErrors element from the Certkiller App15.config file.
- E. Change the mode parameter of the customErrors element in the Machine.config file to "On".
- F. Remove the customErrors element from the Machine.config file.

Answer: B, E

Explanation:

B: We should remove the customized error message for the Web.config file for Certkiller App15.

E: We should define a single customized error message for all applications on the server. This is done by setting the mode attribute to on in the Machine.config file.

Note: The <customErrors> Element provides information about custom error messages for an ASP.NET application. The mode attribute specifies whether custom errors are enabled, disabled, or shown only to remote clients. The value of on specifies that custom errors are enabled.

Reference: .NET Framework General Reference, <customErrors> Element

Incorrect Answers

A: We want to remove the error messages which are specific to the application.

C: We use the Web.config and the Machine.config files, not Certkiller App15.config, to configure appropriate error messages.

D: A Web.config file is used for Certkiller App15. No Certkiller App15.config is used.

F: We want to add one single customized error messages for all application on the server. We should add, not remove, a customErrors element to the Machine.config file.

QUESTION 119

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App09. Certkiller App09 will be installed on a Web server that currently hosts other

applications.

You must ensure that no changes are made to the configuration settings Certkiller App09 after it is installed on the Web server.

What should you do next?

A. Open the Machine.config file, and then define the allowOverride attribute in the location element to False.

Do not make any other changes to the Machine.config file.

B. Open the Web.config file, and then define the allowOverride attribute in the location element to False.

Do not make any other changes to the Web.config file.

C. Open the Machine.config file, and then define the allowOverride attribute in the appSettings element to False.

Do not make any other changes to the Machine.config file.

D. In the Web.config file, and then define the allowOverride attribute in the appSettings element to False.

Do not make any other changes to the Web.config file.

Answer: A

Explanation: In the Machine.config file you can specify if you want to prevent any changes to the configuration settings of a specific application. Administrators can lock configuration settings by adding an allowOverride="false" attribute to a <location> directive

Reference: .NET Framework Developer's Guide, Locking Configuration Settings

Incorrect Answers

B: If you modify the web.config file and set the allowOverride attribute in the location element to False this might prevent the users to override configurations in an application's subdirectories, but they could still change the web.config file.

C, D: The allowOverride attribute is used in the location element, not in the appSettings element.

QUESTION 120

You work as the Web developer at Certkiller .com. You are creating a new ASP.NET page. Your ASP.NET page consists of a DataGrid control that displays retrieved data from a database. You must configure the functionality which will allow users to sort the retrieved data in ascending order or in descending order.

You use the SortOrder property in your code to enable the user to sort the data by clicking the column. The SortOrder property has the "ASC" value for ascending order, and the "DESC" value for descending order. You must preserve the value during postbacks when a user selects the descending order.

Choose the code segment which you should use to save and retrieve the value.

A. ' Save

Application("SortOrder") = "DESC"

' Retrieve

Dim val As String = CStr(Application("SortOrder"))

B. ' Save

```
Cache("SortOrder") = "DESC"  
' Retrieve  
Dim val As String = CStr(Cache("SortOrder"))  
C. ' Save  
ViewState("SortOrder") = "DESC"  
' Retrieve  
Dim SortOrder As String = CStr(ViewState("SortOrder"))  
D. ' Save  
Cache("SortOrder") = "SortOrder"  
' Retrieve  
Dim val As String = CStr(Cache("DESC"))
```

Answer: C

Explanation: An ASP.NET server control inherits a property named ViewState from Control that enables it to participate easily in state management. ViewState is persisted to a string variable by the ASP.NET page framework and sent to the client and back as a hidden variable. Upon postback, the page framework parses the input string from the hidden variable and populates the ViewState property of each control.

Reference: .NET Framework Developer's Guide, Maintaining State in a Control [Visual Basic]

Incorrect Answers

A: The application state is not adequate here since only a single application would apply to all users.

B, D: A cache would not be a secure place to save this information. Caching is used for performance reasons.

QUESTION 121

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App06. Certkiller App06 will be used by users to make online purchases.

Some page-specific information on pages that are submitted to the server must be stored. Your page must work properly for browsers that do not support cookies. None of the page-specific information needs to be secured. You want to preserve server resources because you expect hundreds of customers to place orders for products.

What should you do next?

- A. Store the required information in application state variables.
- B. Store the required information in session state variables.
- C. Store the required information in a Microsoft SQL Server database.
- D. Store the required information in hidden fields on the page.

Answer: D

Explanation: The advantages of hidden fields are

- No server resources are required. Server resources will be conserved.
- Broad support. It will work on browsers that do not support cookies.

The lack of security, a drawback of hidden fields, is not a problem, since the information do not need to be secured.

Note: State management is the process by which you maintain state and page information over multiple

requests for the same or different pages. ASP.NET provides multiple ways to maintain state between server round trips.

Reference: Visual Basic and Visual C# Concepts, State Management Recommendations

Incorrect Answers

A: We want to conserve server resources, so we should avoid using application state variables.

Application state requires server memory, which can affect the performance of the server as well as the scalability of the application.

B: Session state variables stay in memory until they are either removed or replaced, and therefore can degrade server performance.

C: We do not need a complex SQL Server solution.

QUESTION 122

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App03. When you define the code to specify the namespace structure of Certkiller App03, you include all declarations within a namespace named Certkiller Namespace.

When you build Certkiller App03, you want the fully qualified namespace of each class to be Certkiller Namespace. The fully qualified namespace of each class must not be Certkiller App03. Certkiller Namespace.

Choose the modification which you should perform in the Common Properties folder of the Property Pages dialog box for Certkiller App03.

A. Set the value of the AssemblyName property to Certkiller Namespace.

B. Remove the value of the AssemblyName property and leave it blank.

C. Set the value of the RootNamespace property to Certkiller Namespace.

D. Remove the value of the RootNamespace property and leave it blank.

Answer: D

Explanation: Returns or sets the namespace for items added through the Add New Item Dialog Box. This property provides the same functionality as the DefaultNamespace Property, and using the DefaultNamespace property is preferred for setting the namespace of new project items.

We should clear this property as we want to prevent the fully qualifies namespace of each class from being Certkiller App03. Certkiller Namespace.

Reference: Visual Basic and Visual C# Project Extensibility, RootNamespace Property [Visual Basic]

Incorrect Answers

A, B: The AssemblyName property is not directly related to the fully qualified namespace class.

C: We should clear the RootNamespace property as we want to prevent the fully qualifies namespace of each class from being Certkiller App03. Certkiller Namespace.

QUESTION 123

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App12 on your computer. After applying code to the default WebForm1, you decide to test whether the code executes correctly. You copy the entire contents of the ProductionReports folder from the C:\inetpub\wwwroot folder on your computer to the C:\inetpub\wwwroot folder on a Windows 2000 Server computer named Certkiller -SR05.

Certkiller -SR05 also hosts other applications. You use the browser on your computer to open

Certkiller App12 on Certkiller -SR05. You cannot open the application. You receive this error message: "It is an error to use a section registered as allowDefinition='MachineToApplication'" beyond application level."

You must resolve the issue so that you can open Certkiller App12 on Certkiller -SR05. Your solution must not affect all other Web sites hosted on Certkiller -SR05.

What should you do next?

A. Use Internet Information Services (IIS) to create a virtual directory that points to the ProductionReports folder on Certkiller -SR05.

B. Delete this element from the Web.config file in C:\inetpub\wwwroot\ProductionReports on Certkiller -SR05:

<authentication mode="Windows" />

C. Delete this element from the Web.config file in C:\inetpub\wwwroot on Certkiller -SR05:

<authentication mode="Windows" />

D. Move the ProductionReports folder on Certkiller -SR05 up one level, so that the folder ends up being a subfolder of the inetpub folder.

Answer: B

Explanation: You may have defined a section in your application's web.config file that is not configurable on our shared web hosting platform. Remove or comment out any configuration sections from your web.config file that are not supported. In this scenario we edit the Web.config file in C:\inetpub\wwwroot\ProductionReports on Certkiller -SR05.

Incorrect Answers

A: Create a virtual directory would solve the problem.

C: We must edit the application's web.config file, not the Web.config file in the root directory.

D: Moving the application directory would not solve the problem.

QUESTION 124

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App10, which will be hosted on the company intranet. Only employees of Certkiller .com must be allowed to access Certkiller App10.

You want to perform the configuration which will result in Certkiller App10 recognizing a Certkiller .com user, without the user having to provide a user name and password. To save the Microsoft Windows login name of the user in the Session object, you write this code:

```
Session.Item("User")=User.Identity.Name
```

You run Certkiller App10, only to discover that the TimeSheet, the Session.Item("User") variable returns an empty string. You want Internet Information Services (IIS) and Certkiller App10 to retrieve the user name automatically.

What should you do?

A. Disable Anonymous Access for Certkiller App10 in IIS

B. Enable Basic authentication for Certkiller App10 in IIS

C. Add this element to the Web.config file for Certkiller App10:

<identity impersonate="True" />

D. Add this element to the Web.config file for Certkiller App10:

<identity impersonate="False" />

Answer: A

Explanation: We should configure IIS to disallow anonymous access and only use Windows authentication.

Incorrect Answers

B: We want to use Windows authentication, not Basic Authentication.

C, D: Impersonating does not apply in this scenario.

QUESTION 125

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App15. Certkiller App15 will be used by users to generate a number of financial reports. The reports will be generated by a function named CreateReports. The reports are stored in separate subfolders under the Reports folder.

You want to perform the configuration which will result in Certkiller App15 and the CreateReports function being able to determine which reports are available to the current user. You also want the CreateReports function to apply a user's rights when a user is logged on to the application through Windows authentication. For users that are not using Windows authentication, the CreateReports function must apply the rights granted to the Certkiller .com\ReportAccount user account. The password for this account is "app15"

Choose the two actions which you should perform to accomplish your tasks. Each correct answer presents only part of the complete solution.

A. Add this element to the Web.config file:

<identity impersonate="false">

B. Add this element to the Web.config file.

<identify impersonate="true">

C. Add this element to the Web.config file:

<identity impersonate="true"

userName=" Certkiller .com\ReportAccount"

password="app15">

D. Add this element to the Web.config file:

<authorization>

<allow user=" Certkiller .com\ReportAccount">

</authorization>

E. Include code in the ListReports function to create and use a WindowsPrincipal object based on the Certkiller .com\ReportAccount user account but only if no user is authenticated.

F. Include code in the ListReports function to always create and use a WindowsPrincipal object based on the Certkiller .com\ReportAccount user account.

Answer: B, E

Explanation:

B: We use the impersonate attribute of the identity element to specify that client impersonation is used on each request. We should use the value true.

E: If no user is authentication then we run the ListReports function in the security context of the

Certkiller .com\ ReportAccount user account.

Reference: Designing Distributed Applications with Visual Studio .NET, ASP.NET Impersonation
Incorrect Answers

A: We should specify that impersonation is used. The value should be set to true, not to false.

C: This enables the entire application to run as Certkiller .com\ ReportAccount, regardless of the identity of the request, so long as the password is correct.

D: This enables the Certkiller .com\ReportAccount user account to run the application. This is not required.

F: We only want to use impersonation if the user is not logged on.

QUESTION 126

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App06. Certkiller App06 is configured to extract data from a Microsoft SQL Server database named Certkiller DB06.

You must configure security for Certkiller App06. You must secure all confidential data stored on the server. Your solution must minimize administrative costs. You must also use SQL Server connection pooling to optimize Certkiller App06's performance.

How will you accomplish these tasks?

A. Implement Microsoft Windows authentication in Certkiller App06.

Enable impersonation for users to access the SQL Server database from Certkiller App06.

B. Implement Microsoft Windows authentication in Certkiller App06.

Use a single Windows account for users to access Certkiller DB06 from Certkiller App06.

C. Implement form-based authentication in Certkiller App06.

Use the system administrator (sa) SQL Server login for users to access Certkiller DB06 from Certkiller App06.

D. Implement form-based authentication in Certkiller App06.

Assign each user a separate SQL Server login for accessing Certkiller DB06 from Certkiller App06.

Answer: B

Explanation: We should only use one account to access the SQL Server database. This ensures that connection pooling is optimized.

Incorrect Answers

A: We should only use a single account to access the SQL Server database.

C: Form-based authentication is less secure. Furthermore, running as the System Administrator with the sa login would compromise security.

D: Form-based authentication is less secure. Furthermore, creating a separate SQL Server login for each user is a daunting administrative task.

QUESTION 127

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App08. Certkiller App08 uses Microsoft .NET Framework security classes to implement rolebased security. You must perform the configuration which will authorize a user based on a user's membership to two different roles.

You create a function named VerifyRole. The VerifyRole function has three arguments named

UserName, Certkiller A, and Certkiller B respectively. The UserName argument is the user named. The Certkiller A argument is the first role for verification, and the Certkiller B argument is the second role for verification.

You must write the code segment for the VerifyRole function to return a value of True when the user is a member of either of the two roles.

To do this, you write this code segment:

```
Dim principalPerm1 As New _  
PrincipalPermission("UserName", " Certkiller A")  
Dim principalPerm2 As New _  
PrincipalPermission("UserName", " Certkiller B")
```

Choose the code that is needed to complete your code segment?

- A. Return principalPerm1.IsUnrestricted() And _
principalPerm2.IsUnrestricted()
- B. Return principalPerm1.IsSubsetOf(principalPerm2)
- C. Return _
principalPerm1.Intersect(principalPerm2).Demand()
- D. Return _
principalPerm1.Union(principalPerm2).Demand()

Answer: D

Explanation: The SecurityPermission.Union method creates a permission that is the union of the current permission and the specified permission. This ensures that ValidateRole returns a value of true if either permission is true.

Reference: .NET Framework Class Library, SecurityPermission.Union Method [Visual Basic]

Incorrect Answers

A: The SecurityPermission.IsUnrestricted method returns a value indicating whether the current permission is unrestricted.

B: The SecurityPermission.IsSubsetOf method determines whether the current permission is a subset of the specified permission.

C: Intersect would require that both conditions were true in order to return true.

QUESTION 128

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App10. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All users are members of the Certkiller .com domain. Certkiller .com uses Microsoft Windows authentication.

You must configure security for Certkiller App10. All Certkiller .com employees other than Mia and Amy must be allowed to access Certkiller App10. No anonymous users must be allowed to access Certkiller App10.

Choose the code segment which you should use to configure security for Certkiller App10.

- A. <authorization>
<deny users=" Certkiller \mia, Certkiller \amy">
<allow users="*">

<deny users="?">
</authorization>
B. <authorization>
<allow users="*">
<deny users=" Certkiller \mia, Certkiller \amy">
<deny users="?">
</authorization>
C. <authorization>
<deny users=" Certkiller \mia, Certkiller \amy">
<deny users="?">
<allow users="*">
</authorization>
D. <authorization>
<allow users=" Certkiller \mia, Certkiller \amy">
<allow users="*">
</authorization>
E. <authorization>
<allow users="*">
<deny users=" Certkiller \mia, Certkiller \amy">
</authorization>

Answer: C

Explanation: First we deny Mia and Amy access. Then we deny anonymous users access. Finally we grant all other users access. This is the proper order of the elements for the requirements of this scenario.

Note: The elements are processed one by one. The first matching element decides if authorization is granted or not. The order of the elements is important.

The element <allow users="*"> allows everyone access.

The element <deny users="?"> denies anonymous users access.

Incorrect Answers

A: Only Mia and Amy would be denied access since the <allow users="*"> element proceeds the <deny users="?">

B, E: Everyone would be granted access since the <allow users="*"> element proceeds the other elements.

D: We must deny Mia, Amy and the anonymous users access.

QUESTION 129

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App12. Certkiller App12 will be used by users to locate information on sales promotional events. A Microsoft SQL Server database contains information on thousands of sales promotional events. The database is updated with new information on a monthly basis.

Certkiller App12 will be hosted on a server named Certkiller -SR05. Certkiller -SR05 is connected to the database through a low-bandwidth lease line. To improve performance, you want to minimize the number of times Certkiller App12 accesses the database for information. You also want to minimize the time it takes for each page of Certkiller App12 to load.

What should you do next?

- A. Set the DataSet object in the Page.Load event handler when the IsPostBack property is false. Store the DataSet object in an XML file on the computer of the user.
- B. Create a Cache object for Certkiller App12 and then add the DataSet object to the cache.
- C. Use the view state to maintain the DataSet object during postback events to Certkiller -SR05.
- D. Create a Cache object for the session and then add the DataSet object to the cache.

Answer: B

Explanation: The database is only updated monthly. Therefore we can store the dataset in the Application Cache without the need for that extra overhead of reading and writing into the XML file client computer for every session (not A).

QUESTION 130

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App05. Certkiller App05 contains a main ASP.NET page that displays product information based on vendor, product type, or product cost. The URL of the main page shows this information as parameters.

You want to perform the configuration which will result in multiple versions of the ASP.NET page being stored in the cache, based on the previously mentioned parameter values. Each specific version of the page must be cached for 360 seconds.

Choose the code segment which you should use to achieve your goal.

- A. `Response.Cache.SetExpires(DateTime.Now.AddSeconds(360))`
`Response.Cache.VaryByParams("?") = true`
- B. `Response.Cache.SetExpires(DateTime.Now.AddSeconds(360))`
`Response.Cache.VaryByParams("All") = true`
- C. `Response.Cache.SetCacheability(HttpCacheability.Public)`
`Response.Cache.SetLastModified(DateTime.Parse("00:05:00"))`
`Response.Cache.VaryByParams("All") = true`
- D. `Response.Cache.SetCacheability(HttpCacheability.Public)`
`Response.Cache.SetExpires(DateTime.Now.AddSeconds(360))`
`Response.Cache.VaryByParams("*") = true`

Answer: D

Explanation: Cachability corresponds to the Location attribute. The Public value corresponds to any location. We use the SetExpires to set the cache duration. Finally we use the "*" string to specify that all parameter values are cached.

Reference:

.NET Framework Developer's Guide, Caching Versions of a Page, Based on Parameters [Visual Basic]

.NET Framework Developer's Guide, Setting Expirations for Page Caching [Visual Basic]

Incorrect Answers

A, B: Cachability has to be set.

C: We should use "*", not "all" when specify VaryByParams.

QUESTION 131

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App06. Certkiller App06 will be used by customers to display product type and product information. The information will be loaded only once in each user's session.

You create two DataTable objects named the Type object and Product object respectively. The Type object must stay static. The Product object must change based on the specific product, and quantity, specified by the user. You also want to minimize the time needed for the page to reload after each subsequent change.

Choose the statements which you should use to accomplish your tasks.

- A. `Cache["Type"] = Type`
`Session["Products"] = Products`
- B. `Session["Type"] = Type`
`Cache["Products"] = Products`
- C. `Session["Type"] = Type`
`Session["Products"] = Products`
- D. `Cache["Type"] = Type`
`Cache["Products"] = Products`

Answer: A.

Explanation: The Type object remains static within the application. It is therefore possible, and preferable, to use the Cache class for the Type object. Products, on the other hand, can be modified and should be stored in the session state.

Note: The Cache class, with instances private to each application, and its lifetime is tied to that of the application. When the application is restarted, the instance of its Cache object is recreated.

Reference: .NET Framework Developer's Guide, Caching Application Data

Incorrect Answers

- B: Products does not remain static within the application. We cannot use the Cache class for Products.
- C: It is possible to use session state for Type, though it would not be as efficient as the Cache class.
- D: Products does not remain static within the application. We cannot use the Cache class for Products.

QUESTION 132

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App11. Certkiller App11 is used to display product information on its main page.

To improve performance, you want to implement the configuration which will result in the page being saved in memory, on the server, for two hours. After two hours, the page must be flushed from memory. The page must then be recreated when the following request for the page is obtained.

What should you do next?

- A. Start a new instance of the Cache class in the Application.Start event handler.
- B. Start a new instance of the Timer class in the Page.Load event handler.
- C. Configure the Duration attribute of the OutputCache directive in the page.
- D. In the Web.config file, configure the timeout attribute of the sessionState element.

Answer: C

Explanation: ASP.NET allows you to cache the entire response content for dynamic pages on HTTP 1.1 capable mechanisms, including browsers, proxy servers, and the origin Web server where your application resides. This provides a powerful way for you to increase the performance of your Web applications. Called output caching, it allows subsequent requests for a particular page to be satisfied from the cache so the code that initially creates the page does not have to be run upon subsequent requests.

To set output-cache expirations for a page declaratively. Include an @ OutputCache directive in the page (.aspx file) that you want to output cache. The directive must include a Duration attribute.

Reference:

.NET Framework Developer's Guide, Caching ASP.NET Pages [Visual Basic]

.NET Framework Developer's Guide, Setting Expirations for Page Caching [Visual Basic]

QUESTION 133

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App04. Certkiller App04 contains a main page that exhibits financial indicators information. Certkiller App04 calls an XML Web service at 20 minute intervals to update the current financial indicators information. A new page is then exhibited when the next request for the page is received. You want to use Page directive to ensure that the same page is cached and retrieved from the cache during the time between calls to the XML Web service.

Choose the Page directive which you should use to accomplish the task.

- A. <% @ Cache Seconds="1200" VaryByParam="page" %>
- B. <% @ OutputCache Time="1200" %>
- C. <% @ OutputCache Duration="1200" VaryByParam="None" %>
- D. <% @ OutputCache Duration="1200" %>

Answer: C

Explanation: To set output-cache expirations for a page declaratively include an @ OutputCache directive in the page (.aspx file) that you want to output cache. The directive must include a Duration attribute, with a positive numeric value, and a VaryByParam attribute. The following @ OutputCache directive sets the page's expiration to 20 minutes (1200 seconds).

```
<% @ OutputCache Duration="1200" VaryByParam="None" %>
```

Reference: .NET Framework Developer's Guide, Setting Expirations for Page Caching [Visual Basic]

Incorrect Answers

A, B: We should use the Duration attribute, not the Seconds or the Time attribute, to specify the outputcache expiration for a page.

D: We must use a VaryByParam attribute.

QUESTION 134

You work as the Web developer at Certkiller .com. You create a new Web user control named Products, which displays a listing of merchandise based on product code information. The Products Web user control is defined in a file named Products.ascx. The product code information is contained in a public property of Products named ProductCode.

You create a new ASP.NET page named CodePage.aspx. CodePage.aspx contains an instance of the Products Web user control, and is accessed by an HTTP-GET request that has two parameters named

manufacturerID and productCodeID. The value of productCodeID is the product code number. You want to activate output caching for the Products Web user control. The cached control must differ only by the product's code number.

What should you do next?

- A. Add this element to the OutputCache directive for CodePage.aspx:
VaryByParam="Products.ProductCode"
- B. Add this element to the OutputCache directive for CodePage.aspx:
VaryByControl="Products.ProductCode"
- C. Add this element to the OutputCache directive for Products.ascx:
VaryByParam="none"
- D. Add this to the OutputCache directive for Products.ascx:
VaryByControl="productCodeID"

Answer: D

Explanation: You can vary user control output to the cache in two ways:

1. With the user control name and the parameter. The VaryByParam attribute of the @ OutputCache directive must be used. A) and C) are inadequate since both the control name and the parameter must be specified.
2. With the VaryByControl attribute just the parameter should be supplied. This is the case in D), but not in B).

Reference: .NET Framework Developer's Guide, Caching Multiple Versions of a User Control, Based on Parameters [Visual Basic]

QUESTION 135

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App05. Certkiller App05 contains scores of text content that requires translation and few executable components.

Choose the approach which you should use.

- A. Use the Detect and redirect approach
- B. Use the run-time adjustment approach
- C. Use the satellite assemblies approach
- D. Allow the client browser to decide the approach

Answer: A

We should use the detect and redirect approach. We need to create a separate Web application for each supported culture, and then detect the user's culture and redirect the request to the appropriate application.

QUESTION 136

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App03. Certkiller App03 is hosted on a Certkiller .com Web server named Certkiller -SR06. What should you do next to access information in a database? You want to use the minimal amount of development effort.

- A. Start a transaction.
- B. Establish a connection to the database.
- C. Define a data set using an adapter object.
- D. Use the data set to display database data, or to change items in the database.
- E. Update the database from the data set.
- F. Disconnect the database connection.
- G. Check for transaction errors.

Answer: B, C, D, E, F

ADO.NET includes three key components used for most data access: database connection, data adapter, and data set. To access a database, follow these steps:

- Create a connection to the database.
- Create a data set using an adapter object.
- Use the data set to display data or to change items in the database.
- Update the database from the data set.
- Close the database connection.

ADO.NET provides typed data sets. Typed data sets use explicit names and data types that help prevent errors during programming.

QUESTION 137

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App07. Certkiller App07 stores used text strings in application variables, which are used by the page in the application.

You want Certkiller App07 to update the text strings to reflect a specific value whenever a new session is established.

What should you do next?

- A. Include code in the Application_OnStart event handler in the Global.asax file to define the values of the text strings.
- B. Include code in the Application_BeginRequest event handler in the Global.asax file to define the values of the text strings.
- C. Include code in the Session_OnStart event handler in the Global.asax file to define the values of the text strings.
- D. Include code in the Page.Load event handler for the default application page that defines the values of the text strings when the IsPostBack property of the Page object is False.
- E. Include code in the Page.Load event handler for the default application page that defines the values of the text strings when the IsNewSession property of the Session object is set to True.

Answer: C

Explanation: The Session_OnStart event occurs every time a new session is started.

QUESTION 138

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App11. Certkiller App11 retrieves data from a Microsoft SQL Server 2000 database named Certkiller DB11. Certkiller DB11 is hosted on a server named Certkiller -SR01.

You want to create a page to display the information retrieved from Certkiller DB11. To connect to Certkiller DB11, you use a SqlConnection object.

You must now create a connection string to Certkiller DB11 in the instance of SQL Server named Certkiller on Certkiller -SR01.

Choose the connection string which you should use.

- A. "Server= Certkiller -SR01;Data Source= Certkiller ;
Initial Catalog= Certkiller DB11;Integrated Security=SSPI"
- B. "Server= Certkiller -SR01;Data Source= Certkiller ;
Database= Certkiller DB11;Integrated Security=SSPI"
- C. "Data Source= Certkiller -SR01\ Certkiller ;Initial Category= Certkiller ;
Integrated Security=SSPI"
- D. "Data Source= Certkiller -SR01\ Certkiller ;Database= Certkiller DB11;
Integrated Security=SSPI"

Answer: D

The Data Source attribute of the connection string contains the name, instance or network address of the instance of SQL Server to which to connect. In this scenario we are to connect to the Certkiller Instance on Certkiller -SR01 so we use Certkiller -SR01\ Certkiller as data source.

To specify the database we should either use the Database or the Initial Catalog attribute. Here we use Database= Certkiller DB11.

QUESTION 139

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App14. Certkiller App14 is used to perform intricate calculations.

You plan to test Certkiller App14, and want to view the output of several variables during the mathematical computations. The statements must not be processed when Certkiller App14 is deployed into the production environment.

Choose the statement which you should use to view the value of a variable named lngInvAmt?

- A. Trace.WriteLine (blnUnitTesting, " lngInvAmt = " & lngInvAmt)
- B. Debug.Write ("lngInvAmt = " & lngInvAmt)
- C. Trace.WriteLine ("lngInvAmt = " & lngInvAmt)
- D. Debug.WriteLine (blnUnitTesting, " lngInvAmt = " & lngInvAmt)

Answer: B

You should use the Write method of the Debug object to write the messages. The methods and properties of the Debug object are not compiled when an application is compiled in release mode. During unit testing, you will compile your application in Debug mode. Debug mode is enabled for all pages in an ASP.NET application by setting the Debug attribute of the compilation element to true in the application's Web.config file. This action will enable the calls to the Debug object, and the Write method can then be used to report information about the status of your application.

QUESTION 140

You work as the Web developer at Certkiller .com. You create a new application named

Certkiller App02. You declare two classes within Certkiller App02, and you have change the Root

namespace in the Property Pages dialog box to MyRootNamespace. The code used to declare the two classes is as follows:

```
Class MyClass1
```

```
' Code to complete class here.
```

```
End Class
```

```
Namespace MyNamespace
```

```
Public Class MyClass2
```

```
' Code to complete class here.
```

```
End Class
```

```
End Namespace
```

You must now create an instance of both classes from code that does not fall within the scope of MyClass1.

Choose the two code segments which you could use to create an instance of both classes. Each code segment presents a complete solution to accomplishing your task.

A. Dim objX As New MyNamespace.MyClass1

Dim objY As New MyNamespace.MyClass2

B. Dim objX As New MyClass1

Dim objY As New MyClass2

C. Dim objX As New MyClass1

Dim objY As New MyNamespace.MyClass2

D. Dim objX As New MyRootNamespace.MyClass1

Dim objY As New MyRootNamespace.MyNamespace.MyClass2

E. Dim objX As New MyRootNamespace.MyClass1

Dim objY As New MyRootNamespace.MyClass2

Answer: C, D

The default namespace of an application is the application name. You can specify a different root namespace for an application by changing the Root namespace in the Property Pages dialog box. You may define classes under a namespace other than the application name by enclosing the class definitions within a Namespace statement. After a class is defined within a Namespace statement, the namespace must precede the class name in code. A class that is not defined within a Namespace statement may be referred to in code by its name alone or by preceding the class name with the root namespace. You do not have to specify the root namespace when referring to classes and namespaces that are defined within the application.

QUESTION 141

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App05, and deploy it on a Certkiller .com Web server.

The XML structure of the Web.config file in the root directory of Certkiller App05 is as follows:

```
<allow roles="Managers, Executives" />
```

```
<deny users="?" />
```

The root directory of Certkiller App05 contains a subdirectory named Managers. You must ensure that users in the Managers role are the only users able to access the Managers subdirectory. You do not want to change the root directory's authorization settings to implement this requirement. The Machine.config file currently contains the default authorization setting.

What should you do next?

A. In the Managers subdirectory, change the Web.config file's authorization settings to be:

```
<allow roles="Managers" />
```

```
<deny users="*" />
```

B. In the root directory, change the Web.config file's authorization settings to be:

```
<deny roles="Executives">
```

C. Change the Machine.config authorization settings to be:

```
<allow roles="Managers" />
```

```
<deny users="?" />
```

D. In the Managers subdirectory, change the Web.config file's authorization settings to be:

```
<allow roles="Managers, Executives" />
```

```
<deny roles="Executives" />
```

```
<deny users="?" />
```

Answer: A

To allow only users in the Managers role to access resources in the Managers subdirectory, you should modify the authorization settings of the Web.config file in the Managers subdirectory to read as follows:

```
<allow roles="Managers" />
```

```
<deny users="*" />
```

Authorization settings are established in the Machine.config and Web.config files. The Machine.config file, by default, authorizes all users to access all resources on the server. In this scenario, the Machine.config file should not be altered. Web.config files are placed in directories to control authorization for those directories and any subdirectories that do not contain a Web.config file. In this scenario, the authorization settings in the Managers subdirectory should be different than its parent directory; therefore, changes should be made only to the Web.config file in the Managers subdirectory.

QUESTION 142

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App08. Users will use Certkiller App08 to delete rows of data from a table named Certkiller . The primary key of the Certkiller table is named LearnerID. Each row within the Certkiller table has associated rows in a table named Learners. A column named LearnerID is contained in the Learners table.

You must ensure that when a row of data is removed from the Certkiller table, the associated row in the LearnerID table is automatically deleted as well. To fulfill this requirement, you write the code segment shown here. Line numbers are included for reference purposes only:

```
01 Dim columnOne As DataColumn
```

```
02 Dim columnTwo As DataColumn
```

```
03 Dim myRelation As DataRelation
```

```
04 columnOne = MyDataSet.Tables(" Certkiller ").Columns("LearnerID")
```

```
05 columnTwo = MyDataSet.Tables(" Certkiller Details").Columns("LearnerID")
```

```
06
```

```
07 MyDataSet.Relations.Add(myRelation)
```

Choose the most appropriate line of code that should be added in line 06.

A. myRelation = New DataRelation(MyDataSet.Tables(" Certkiller "), columnOne, columnTwo)

B. myRelation = New DataRelation(" Certkiller WithLearner", columnOne, columnTwo)

- C. myRelation = New ForeignKeyConstraint(MyDataSet.Tables(" Certkiller "), columnOne, columnTwo)
- D. myRelation = New ForeignKeyConstraint(" Certkiller WithLearner", columnOne, columnTwo)

Answer: B

The code myRelation = New DataRelation(" Certkiller WithLearner", columnOne, columnTwo) should be placed in line 06. Data relationships constrain parent and child tables so that the deletion of a row in a parent table forces the related rows in the child table to be deleted as well. Creating a DataRelation object in a DataSet object automatically creates a ForeignKeyConstraint. You do not have to manually create a ForeignKeyConstraint to enforce referential integrity when you use a DataRelation object. Using DataRelation objects also allows you to easily access the child records defined by a DataRelation object in a dataset by using the GetChildRows method of the dataset.

QUESTION 143

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App02. You want to use Windows Installer Web setup project to create an installation routine, to deploy Certkiller App02 on a Web server. Choose the action which you should perform to create a virtual directory named Certkiller App02 on the Web server.

- A. In the Web.config file of the application, create a custom attribute with the value of Certkiller App02.
- B. Set the VirtualDirectory property of the Web Application folder in the setup project to Certkiller App02.
- C. Change the name of the setup project to Certkiller App02.
- D. Create a merge module that will create the virtual directory.

Answer: B

To create a virtual directory named Certkiller App02 on the Web server, you should set the VirtualDirectory property of the Web Application folder in the setup project to Certkiller App02. ASP.NET applications are identified by virtual directories; therefore, ASP.NET applications must reside in virtual directories. You may use the Windows Installer Web setup project to create an installation routine that will perform these tasks for you. To specify the virtual directory, click the Web Application folder in the File System Editor of the installation project. You will be able to type the virtual directory name in the VirtualDirectory property of the Properties window.

QUESTION 144

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App02. Certkiller App02 will retrieve data from a Microsoft SQL Server 7.0 database. The database contains a large number of chronicles, with each chronicle containing thousands of pages to print. Each sentence is contained within a separate record to enable the text to be retrieved with the finest granularity. Certkiller App02 must be configured to only allow registered users to retrieve data from the chronicles. In addition to this, when a user requests large volumes of text, Certkiller App02 must return the data to the user as efficiently as possible. You must build the large String object which will result in the most efficient retrieval of data from the database. What should you do next?

- A. Use a RichTextBox object to store the data as it is being concatenated.
- B. Use the Append method of the String class to add data to strings.
- C. Use the String class and the & operator to add data to strings.
- D. Use the StringBuilder class to add data to strings.

Answer: D

You should use the StringBuilder class to efficiently add data to strings. The .NET String data type is immutable; once created and given a value, the value cannot be changed. Because of this, the String class has no Append method. The concatenation operator & destroys the original string and creates a new string each time it is used. The creation and destruction of objects associated with the concatenation render the operator inefficient for repeated use. Using a RichTextBox object to hold the string data is impractical and does not provide the desired efficiency.

QUESTION 145

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App05. You configure Certkiller App05 to use a XML Web service to verify customer credentials.

Choose the three actions which you should perform to enable Certkiller App05 to communicate with the XML Web service. Each correct answer presents only part of the complete solution. Choose three answers.

- A. To create a proxy from the Web service, utilize the Wsdl.exe tool.
- B. To create an assembly from the Web service proxy, utilize the Vbc.exe compiler.
- C. Add the compiled assembly of the proxy to the Global Assembly Cache.
- D. Add the compiled assembly of the proxy to the \Bin directory of your application.
- E. Add the compiled assembly of the proxy to the \Debug directory of your application.
- F. To create a proxy from the Web service, use the Sn.exe tool.
- G. To create a proxy from the Web service, use the InstallUtil.exe tool.
- H. Add an @ Register directive to the top of Certkiller App05's code.
- I. Add an @ WebService directive to the top of Certkiller App05's code.
- J. Add an @ External directive to the top of your Certkiller App05's code.

Answer: A, B, D

In order for your application to communicate with the Web service, you should use the Wsdl.exe tool to create a proxy from the Web service, use the Vbc.exe compiler to create an assembly from the Web service proxy and place the compiled assembly of the proxy into the \Bin directory of your application. The Web Services Description Language tool (Wsdl.exe) generates a proxy that defines the methods that are exposed by the Web service. Be sure to specify the proper language with the Wsdl.exe tool by using the /language switch. By compiling the proxy into an assembly, your application can instantiate a proxy class and access the Web service methods programmatically. ASP.NET application assemblies should reside in the \Bin subfolder. The @ Register and @ WebService directives are not required in order for your application to use the Web service.

QUESTION 146

You work as the Web developer at Certkiller .com. You create a new application named

Certkiller App07. You want to configure authentication in Certkiller App07. You want all users to be prompted for user names and passwords.

Choose the type of authentication which you should use in Certkiller App07.

- A. Anonymous authentication
- B. Basic and Digest authentication
- C. Certificate authentication
- D. Forms authentication
- E. Use Windows integrated security

Answer: B

Basic and Digest authentication prompt users for their user names and passwords. Anonymous authentication is generally used in public Web applications that do not need to know the identity of the user. Certificate authentication uses a certificate from a third-party source. Forms authentication is a custom method of accepting and verifying a user's credentials.

QUESTION 147

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App09, and deploy it on a production server named Certkiller -SR05. Customers use Certkiller App09 to place orders for goods and services offered by Certkiller .com.

A customer is classified based on the quantities of goods he or she purchases. The classes used by Certkiller .com to categorize a customer in ascending order, based on the quantity ordered, are White, Grey, and Black. A customer that is in a higher category pays less for goods and services than a customer in the lower category.

One morning you discover that an error has occurred in the assessment of Certkiller .com's customers' categories. You attempt to start a debugging session, but find you are unable to do so. The Application event log on your client computer contains this error message: "DCOM got error 'General access denied error' from the computer Certkiller -SR05 when attempting to activate the server."

What should you do next to enable remote debugging?

- A. Add the user account you are using to the Debugging Users group on Certkiller -SR05.
- B. Add the user account you are using to the Power Users group on your client computer.
- C. Add the user account you are using to the Power Users group on Certkiller -SR05.
- D. Add the user account you are using to the Debugger Users group on your client computer.

Answer: A

Explanation: The remote server must grant the debugger access. To grant access to a user, you must add the user to the Debugger User group on the server. This permission is required even if the debugger user is Administrator on the remote server.

QUESTION 148

You work as the Web developer at Certkiller .com. You create a new custom server control, which you have compiled into a file named Certkiller SalesReport.dll.

The code you use is as follows:

```
<% @ Register TagPrefix=" Certkiller Tag" Namespace="ReportNS" Assembly="
```

Certkiller SalesReport" %>

You want to add a code segment which will set the PageNumber property of the control to 77. Choose the code segment which you should use to accomplish your goal.

- A. < Certkiller Tag:ReportNS PageNumber="77" runat="server" />
- B. <myReport PageNumber="77" src="rptctrl" runat="server" />
- C. < Certkiller Tag:myReport PageNumber="77" runat="server" />
- D. <% Control TagName="myReport" src="rptctrl" runat="server" %>

Answer: C

You should include the syntax < Certkiller Tag:myReport PageNumber="42" runat="server" /> in your Web Form so that your custom server control will appear on the form with the PageNumber property set to 77. Custom server controls can be created by deriving from an existing control, combining groups of controls together, or deriving from the System.Web.UI.Control namespace. The Register directive allows you to include custom controls in Web Forms by using declarative syntax. The correct structure of the declarative syntax for custom web controls is <tagprefix:tagname attributes=values runat="server" />. The tagprefix is the alias given in the Namespace attribute of the Register directive. The tagname is the name of the public base class defined in the custom control. Public properties exposed by the control are set by attribute-value pairs. The runat attribute is always set to server because the control's code executes on the Web server. None of the other options represent valid syntax.

QUESTION 149

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App01. You must deploy Certkiller App01, and all its associated assemblies, in a way that enables you to perform an uninstall by using Add/Remove Programs of the Control Panel applet. What should you do next?

- A. Use a Web installation package to install Certkiller App01. Use the Global Application Cache (GAC) utility, GACUtil.exe, to install Certkiller App01's associated assemblies into the GAC.
- B. Use Xcopy deployment to deploy Certkiller App01 and its associated assemblies.
- C. Use Xcopy deployment to deploy Certkiller App01, and then use merge modules to install its associated assemblies.
- D. Use a Web installation package to install Certkiller App01 and its associated assemblies.

Answer: D

You should use a Web installation package, such as Windows Installer, to install the Web application and the supporting assemblies so that the application and assemblies can be uninstalled using the Add/Remove Programs Control Panel applet.

QUESTION 150

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App12. You are busy developing code which will execute two commands within a transaction. The commands are named strCom1 and strCom2. The code which you have written is shown next. Line numbers are only included for reference purposes only:

01 Dim transMain as SqlTransaction = connMain.BeginTransaction

```
02 Dim cmdMain as SqlCommand = New SqlCommand
03
04 cmdMain.CommandText = strCom1
05 cmdMain.ExecuteNonQuery()
06 cmdMain.CommandText = strCom2
07 cmdMain.ExecuteNonQuery()
08 transMain.Commit
09 connMain.Close
```

Choose the line of code which you should add at line 03.

- A. transMain.Save
- B. transMain.Rollback
- C. cmdMain.Connection = connMain
- D. cmdMain.Transaction = transMain

Answer: D

A transaction is a group of commands that must either succeed or fail as a unit. Transactions are created from a Connection object's BeginTransaction method. When commands are issued within the context of a transaction, the transaction must be assigned to the Transaction property of a Command object. Otherwise, if the Transaction property of the Command object has not been set, then an exception will be thrown when the command attempts to execute.

QUESTION 151

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App03. Certkiller App03 contains numerous Debug.WriteLine statements, and will be used to generate financial reports.

You want to examine output from the Debug.WriteLine statements.

Choose the window in Visual Studio .NET you should use to view this information.

- A. Use the Command window.
- B. Use the Locals window.
- C. Use the Output window.
- D. Use the Breakpoints window.

Answer: C

You should use the Output window in Visual Studio .NET to inspect output from Debug.WriteLine statements. The output of Debug and Trace objects is directed to the Output window in Visual Studio .NET while an application is running in debug mode. The WriteLine method sends output to a TraceListener, which directs the output to the appropriate location.

QUESTION 152

You work as the Web developer at Certkiller .com. You are busy debugging a client-side VBScript code segment for a .NET Web Form.

After discovering a bug, you add a Stop statement to the top of the script block and start Certkiller App04. However, after clicking the button to start the script, you find that the Stop statement is ignored.

What should you do next to resolve the issue?

- A. Open Visual Studio .NET and select Options from the Tools menu. In the Edit and Continue section within the Debugging folder, verify that the Enable Edit and Continue option is activated.
- B. Write the script in JavaScript and not in VBScript.
- C. Use an End statement in place of a Stop statement.
- D. Open Internet Explorer and select Internet Options from the Tools menu. On the Advanced tab, verify that the Disable Script Debugging checkbox is cleared (blank).

Answer: D

In Internet Explorer, you should choose Internet Options from the Tools menu and ensure that the Disable Script Debugging check box on the Advanced tab is cleared in order to enable script debugging. Edit and Continue mode allows you to make changes to your source code while debugging an application. It is not necessary for Edit and Continue mode to be enabled in order to debug VB Script. Writing the script in JavaScript will not cause the breakpoint to behave differently. The End statement would cause the program to terminate; therefore, it is inappropriate for use in this situation.

QUESTION 153

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App07. Certkiller App07 will be used to generate reports. Certkiller App07 retrieves the data from a Microsoft SQL Server database and then displays the result in a table.

You want to minimize the time it takes for Certkiller App07 to retrieve the data and display the data in the table. You want the remaining objects to display while the data for the table is retrieved from the database.

What should you do next?

- A. You must not define a time-out in the database connection string.
- B. Add an @ OutputCache directive that specifies the VaryByParam attribute at the top of the Web Form.
- C. Add @ OutputCache tags around the code segment which queries the database.
- D. Create a new Web user control to query the database for the Web Form, and then cache the user control by using the @ OutputCache directive.

Answer: D

In order to display other objects on the Web Form without having to wait for the database query to return, you should create a Web user control that performs the database query for the Web Form, and you should cache the user control by using the @ OutputCache directive. The @OutputCache directive controls how a Web page or Web user control is cached. Caching can improve how quickly a Web page or parts of a Web page are displayed. The process of breaking a Web page into cached Web user controls is referred to as fragment caching. Fragment caching allows parts of a page that do not require much processing to appear before other parts that require greater server resources.

None of the other actions would produce the desired results. Placing an @ OutputCache directive at the beginning of the page would cache the whole page. @ OutputCache directives cannot be placed around sections of code. Not specifying a time-out in the database connection string would not cause the rest of the Web page to appear before the database query completed.

QUESTION 154

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App08. Certkiller App08 contains a main Web page that has this declaration:

```
<% @ Register Tagprefix=" Certkiller Controls"
```

```
Namespace=" Certkiller NameSpace" Assembly="MyAssembly" %>
```

The assembly named MyAssembly includes a custom server control named CSC1.

You must select the code segment which will correctly render CSC1 on your main Web page.

- A. < Certkiller Controls:CSC1 id="Control1" runat="server" />
- B. < Certkiller NameSpace:CSC1 id="Control1" runat="server" />
- C. < Certkiller Controls:Control1 id="CSC1" runat="server" />
- D. < Certkiller NameSpace:Control1 id="CSC1" runat="server" />

Answer: A

To render CSC1 from the assembly declared as

```
<% @ Register Tagprefix=" Certkiller Controls" Namespace=" Certkiller NameSpace"
Assembly="MyAssembly" %>
```

you should use the < Certkiller Controls:CSC1 id="Control1" runat=server /> code sample. The syntax for instantiating a control should include the namespace alias declared in the @ Register directive, a unique identifier, any property or event settings and the runat attribute. The name of the control should be specified after the colon following the namespace alias. The id attribute gives the control a unique name that is used in code to refer to the control. The runat attribute must always have the value of server.

QUESTION 155

You work as the Web developer at Certkiller .com. You create a new application named

Certkiller App10. You need to determine which methods are valid methods of the SqlTransaction class.

Choose all valid methods of the SqlTransaction class.

- A. Commit method
- B. Terminate method
- C. Save method
- D. Close method
- E. Rollback method

Answer: A, C, E

Valid methods of the SqlTransaction class include Save, Commit and Rollback. A transaction is a group of commands that must either succeed or fail as a unit. The Commit method posts all pending commands in the transaction to the database. The Rollback method cancels any pending commands in the transaction. The Save method establishes savepoints that are used to roll back a portion of a transaction.

QUESTION 156

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App15. Certkiller App15 will be deployed on multiple Web servers.

You plan to use session state to manage state information. You want to perform the configuration which will store the session state information in an out-of-process server. You must define a statement in the Web.config file to configure the session state correctly.

Choose the setting you should define in the Web.config file.

- A. Use `<sessionState mode="Inproc" />`
- B. Use `<sessionState mode="Off" />`
- C. Use `<sessionState mode="Outproc" />`
- D. Use `<sessionState mode="StateServer" />`

Answer: D

The correct setting you should use in your Web.config file to store session information in an out-of-process server is `<sessionState mode="StateServer" />`. Session state can be stored in one of three modes: in-process locally, out-of-process State Server and SQL Server. The session state mode is determined by the mode attribute of the sessionState element in the Web.config file. Valid values of the mode attribute are SQLServer, Inproc, Off and StateServer.

QUESTION 157

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App14. Certkiller App14 contains a Web page which will be accessed by customers of Certkiller .com. You want to create an XmlDocument object in your Web page. Choose the code segment which you should use to create the XmlDocument object in your Web page.

- A. Create the XmlDocument object with the line `Dim xmlDoc As System.Xml.XmlDocument = CreateObject("XmlDocument")`.
- B. Create the XmlDocument object with the line `Dim xmlDoc As System.Xml.XmlDocument = CreateObject("System.Xml.XmlDocument")`.
- C. Insert the line `Imports Xml` to the top of the file.
Create the XmlDocument object with the line `Dim xmlDoc As XmlDocument = New XmlDocument()`.
- D. Create the XmlDocument object with the line `Dim xmlDoc As System.Xml.XmlDocument = New System.Xml.XmlDocument()`.
- E. Create the XmlDocument object with the line `Dim xmlDoc As Object = New XmlDocument()`.
- F. Insert the line `Imports System.Xml` to the top of the file.
Create the XmlDocument object with the line `Dim xmlDoc As XmlDocument = New XmlDocument()`.

Answer: D, F

You can create an XML document by creating an instance of the System.Xml.XmlDocument class. You can explicitly include the System.Xml namespace in the object creation code, or you can import the namespace by using the Imports keyword at the top of the page. You must use the fully qualified namespace, System.Xml, with the Imports statement. The CreateObject function is used to create instances of COM objects.

QUESTION 158

You work as the Web developer at Certkiller .com. Certkiller .com has recently merged with a company named TestSolutions.com.

You have received instruction from the CIO to migrate an ASP-based Web page named Employees.asp of TestSolutions.com to ASP.NET. You want to perform the migration as quickly as

possible, and you want to use the minimum amount of development effort to implement the ASP.NET version of the Web page.

The Employees.asp page contains a COM component named Certkiller .Employees, which is written in Microsoft Visual Basic 6.0. You attempt to open the new page, but receive this error message: "Server error - The component ' Certkiller .Employees' cannot be created."

What should you do next to ensure that the Web page can be opened Web page successfully?

- A. Create a manage component to perform the functions which the Certkiller .Employees component performs.
- B. Add this line of code to the Page.Load event handler:
RegisterRequiresPostBack(" Certkiller .Employees");
- C. Add this attribute to the processModel element of the Web.config file:
comImpersonationLevel = Delegate
- D. Define the AspCompat attribute of the Page directive as True.

Answer: D

Explanation: If the older file contains calls to COM components - for example, ADO code then we must add the AspCompat attribute to the page directive in HTML view. The aspcompat attribute forces the page to execute in single-threaded (STA) mode.

QUESTION 159

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App15. Certkiller App15's functionality is currently being tested by a team of designated testers.

After adding a new component, a number of testers have complained that certain modules of the application are no longer as responsive as should be. You must ensure that Certkiller App15 correctly displays the required data, while still maintaining adequate levels of performance for Internet Explorer and Netscape browsers.

How will you accomplish the task?

- A. Carry out Unit tests.
- B. Carry out Integration tests.
- C. Carry out Regression tests.
- D. Carry out Load tests.
- E. Carry out platform tests.

Answer: E

Platform tests make sure that a Web application displays correctly and has reasonable performance using different browser and network connection configurations.

QUESTION 160

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App03 in the Visual Studio .NET IDE. Certkiller App03 will be used by multiple users to simultaneously print sales reports.

You have received instruction from the CIO stating that all SQL 6.5 servers will be upgraded to

Microsoft SQL 2000. You want to create a procedure to connect to the database and retrieve the sales data from it. Your solution must optimize the response time when the users retrieve data for the sales reports.

Choose the code segment which you should use.

- A. Dim connection1 As New OleDb.OleDbConnection(connString)
- B. Dim connection1 As New SqlClient.SqlConnection(connString)
- C. Dim connection1 As New ADODB.Connection()
- D. Dim connection1 As New SQLDMO.Database()

Answer: B

We must use SqlConnections to connect to SQL Server with Version 7.0 and later.

QUESTION 161

You work as the Web developer at Certkiller .com. You create a new Web user control to display financial information on a Web page for an application named Certkiller App11. You want the information displayed in the Web user control to be persisted between user requests for the Web page.

Choose the action which you should perform to ensure that the Web user control retains its information between user page requests.

- A. You should set the PersistState property of the Web User Control to True.
- B. You should set the EnableViewState property of the Web User Control to True.
- C. You should set the PersistState property of the Web User Control to False.
- D. You should set the EnableViewState property of the Web User Control to False.

Answer: B

You should set the EnableViewState property of the Web User Control to True. This action will cause the Web User Control to maintain its state across HTTP requests. When a control's EnableViewState property is set to True, the control's data is passed between requests in a hidden field. Due to the performance penalty associated with EnableViewState, you should enable this property only when necessary. There is no PersistState property.

QUESTION 162

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App08. After Certkiller App08 is deployed on the Web server, the application will be used by hundreds of customers daily.

You must ensure that the Web server responds to a user request within 5 seconds of the request being received. The maximum amount of connections allowed in the connection pool is 60.

Choose the connection string which you should use.

- A. "user id=sa;password=a1b2c3;initial catalog=MyDB;" _
& "data source=myServer;Connection Lifetime=5;" _
& "Max Pool Size=60"
- B. "user id=sa;password=a1b2c3;initial catalog=MyDB;" _
& "data source=myServer;Connection Lifetime=5;" _

& "Min Pool Size=60"
C. "user id=sa;password=a1b2c3;initial catalog=MyDB;" _
& "data source=myServer;Connection Timeout=5;" _
& "Min Pool Size=60"
D. "user id=sa;password=a1b2c3;initial catalog=MyDB;" _
& "data source=myServer;Connection Timeout=5;" _
& "Max Pool Size=50"

Answer: D

The connection string

"user id=sa;password=a1b2c3;initial catalog=MyDB;" _
& "data source=myServer;Connection Timeout=5;" _
& "Max Pool Size=60"

specifies that the server must respond within 5 seconds of a request and may have no more than 60 connections in the connection pool. The Connection Timeout parameter determines how many seconds should elapse before canceling the attempt. The Max Pool Size parameter determines the maximum number of connections allowed in a connection pool. The Min Pool Size parameter determines the minimum connections allowed in a connection pool. The Connection Lifetime parameter determines how many seconds should elapse before destroying a connection that has been returned to the connection pool.

QUESTION 163

You work as the Web developer at Certkiller .com. You create a new application named Certkiller App04. Certkiller App04 contains a data grid with a button column that uses a custom button. Customer will use Certkiller App04 to add customer information a data grid. The custom button enables customers to perform various calculations on the data contained within the data grid. Choose the event which the DataGrid control raises when a user clicks the custom button.

- A. EditCommand
- B. OnClick
- C. ButtonClicked
- D. ItemCommand

Answer: D

The ItemCommand event is raised when any button is clicked in the DataGrid control.

The DataGrid control does not support an OnClick or ButtonClicked event. The EditCommand event is raised when the Edit button is clicked.

QUESTION 164

You work as the Web developer at Certkiller .com. You have created a new application named Certkiller App05. You now need to deploy Certkiller App05 on a Web server. Certkiller App05 uses a common assembly that is implemented with each Certkiller .com application.

The minimum requirements for deploying Certkiller App05 are as follows:

- A Web server running Microsoft Windows XP Professional
- 20 GB of free disk space
- 1 GB of RAM
- Microsoft SQL Server 2000 must be installed

You want to use the smallest possible installation package to deploy Certkiller App05. Several Microsoft SQL Server databases will be created when you deploy Certkiller App05. Choose the five features and options of Visual Studio .NET application and the Microsoft Windows Installer which you will need to perform the installation of Certkiller App05. Choose five correct answers.

- A. Use a standard installation project
- B. Use the Custom Action Editor
- C. Use the Registry Editor
- D. Use a merge module
- E. Use a Cab file project
- F. Use Xcopy deployment
- G. Use the File System Editor
- H. Use a Web installation project
- I. Use the Launch Conditions Editor
- J. You should set the deployment project's Bootstrapper option to None
- K. You should set the deployment project's Bootstrapper option to Web Bootstrapper

Answer: B, D, H, I, J

Because the application is a Web application, the primary installation project will be a Web installation project rather than a standard installation project. The common assembly that is used by the application should be packaged as a merge module so that the assembly can be easily deployed with all of the applications that use it. The Launch Conditions Editor is used to ensure that the target computer meets the minimum requirements for the application. The Custom Action Editor is used to incorporate the database setup scripts into the deployment project. Finally, the Bootstrapper option should be set to None because the required bootstrapper files are distributed with Windows XP Professional, which satisfies the scenario's requirement that the application be deployed by using the smallest possible installation package. The use of Cab files, the File System Editor, and the Registry Editor is not required to accomplish the desired results. In this scenario, you must create three databases during the deployment process; this eliminates the possibility of using Xcopy deployment, which does not provide the capability to create the required databases.

QUESTION 165

You work as the Web developer at Certkiller .com. You have created a new application named Certkiller App42. Customers will have to customize their PC by using drop-down list boxes. Should a value in one of the drop-down list boxes change, then server-side validation code is invoked. The server-side code validates the status of the value on the page. Should multiple values in the drop-down list boxes change, then the server-side code validates the status of the each changed value.

You want to improve performance for when multiple values in the drop-down list boxes change. After several changes are made to the drop-down list boxes, you want a button to be clicked to invoke the server-side validation code.

Choose the action which you should perform to disable the server-side validation code from running when a value in the drop-down list box changes.

- A. Delete the SelectedIndexChanged event handlers from the DropDownList boxes.
- B. Change the AutoPostBack property of the DropDownList boxes to False.

- C. Change the EnableSessionState property of the Document object to False.
- D. Define a client-side script that inhibits the server-side code.

Answer: B

You should set the AutoPostBack property of the DropDownList boxes to False. The AutoPostBack property dictates whether a control's events are processed immediately by the Web server or deferred until another control, such as a command button, causes a postback to occur. Setting the AutoPostBack property to False will cause the processing of all events to be deferred until the designated submission button is clicked.

None of the other choices will prevent the list boxes from posting to the server. Client-side script cannot prevent the list boxes from posting when the AutoPostBack property of the list boxes is True. The EnableSessionState property of the Document object determines whether the page will maintain session state. Removing the SelectedIndexChanged event handlers would remove the validation code from behind each control and, therefore, is not an acceptable solution.

QUESTION 166

You work as the Web developer at Certkiller .com. You have created a new application named Certkiller App18. Certkiller App18 will be deployed on a Certkiller .com Web server named Certkiller SR01. Customers will use Certkiller App18 to book services from Certkiller .com. Your application contains an HTML server CheckBox control which displays a list of available services when checked. The AutoPostBack property of the check box is configured as True. This results in the list box immediately being populated with data when the check box is clicked.

One morning, several users complain that when they click the check box, the list box does not fill with a list of available services. Other users have verified that Certkiller App18 functions properly. Choose the scenario which would result in the list box not filling when the check box is clicked on some users' browsers.

- A. There are disabled cookies on these users' browsers.
- B. ActiveX control support is disabled on these users' browsers.
- C. HTML version 4.0 or above is not supported by these users' browsers.
- D. Scripting is disabled on these users' browsers.

Answer: D

ASP.NET applications rely on JavaScript to call server-side events. When scripting is disabled in a browser, an ASP.NET application will be unable to call any server-side event code. Because scripting has been disabled on some users' browsers in this scenario, the code to update the list box is never called. When a control's AutoPostBack property is set to true, a form post will occur when the control's Change event is raised. Change events do not normally cause a post to occur. Scripting must be enabled in browsers for the AutoPostBack property to function.

QUESTION 167

You work as the Web developer at Certkiller .com. All users in Certkiller .com use Microsoft Internet Explorer version 5 or later. You have created a new application named Certkiller App21. Certkiller App21 contains numerous buttons that are to be used by users for navigational purposes. Certkiller App21 is configured with focus moving to the first button on the page once a submit button has been clicked. Several users have shown a preference to having the focus remain on the same

button after it is clicked. Users have also requested that they would prefer to have the scroll position stay the same as they navigate between Certkiller App21's pages.
How will you achieve your goals in these circumstances?

- A. Change the AutoEventWireup attribute of the @ Page directive to True.
- B. Store the name of the button with focus and the page position within a Session object.
- C. Store the name of the button with focus and the page position within a hidden field.
- D. Change the SmartNavigation attribute of the @ Page directive to True.

Answer: D

You should set the SmartNavigation attribute of the @ Page directive to true in order to retain focus on the clicked button and retain the scroll positions. SmartNavigation is only available for Internet Explorer 5 or later. Enabling the SmartNavigation feature implements the suggestions offered by the application's users and also eliminates flickering between pages.

The AutoEventWireup attribute, if set to true, causes Page events to automatically raise without explicitly coding event handlers. Visual Studio .NET will automatically create the code that will bind events when AutoEventWireup is true. Storing the button name and page position would not satisfy the scenario.

QUESTION 168

You work as the Web developer at Certkiller .com. You have created a Web control that uses a custom class named CustomHTTPMessages. CustomHTTPMessages defines a number of custom message properties. This includes the Error404Message which is displayed to users if specific conditions are met within the Web control. An instance of the CustomHTTPMessages class is exposed as a property of a control named Messages.

You want to write a HTML code segment that will define the Error404Message property of the Messages object to be: "Click here to navigate through the Certkiller .com website."

Choose the HTML code segment which will accomplish the task.

- A. <my:WebControl id="AkeptureCtr" Messages-Error404Message=
" Click here to navigate through the Certkiller .com website."
... />
- B. <my:WebControl id="AkeptureCtr" CustomHTTPMessages-Error404Message=
" Click here to navigate through the Certkiller .com website."
... />
- C. <my:WebControl id="AkeptureCtr" Messages.Error404Message=
"Click here to navigate through the Certkiller .com website."
... />
- D. <my:WebControl id="AkeptureCtr" CustomHTTPMessages.Error404Message=
"Click here to navigate through the Certkiller .com website."
... />

Answer: A

Properties of a public class that is contained in a control are referred to as subproperties. ASP.NET uses hyphenated syntax, such as object-property to access subproperties. In this scenario, you should use the syntax Messages-Error404Message to set the property.

QUESTION 169

You work as the Web developer at Certkiller .com. You have created a new application named Certkiller App03. Certkiller App03 must be deployed on the Web server within the next 24 hours. However, the server used for testing has crashed because of a hard disk failure. You decide to use a production server named Certkiller -SR05 as a test server to test Certkiller App03 functionality. Before using Certkiller -SR05, you remove the server from the production service. You also update the server's copy of Certkiller App03 with the latest code modifications.

After several hours, a few testers complain that they are receiving detailed error content from Certkiller -SR05 when application errors occur. You investigate the issue and verify that testers are receiving the custom error message that is intended for your end users. This message is preventing detailed information on the error from being displayed.

What should you do next to ensure that testers receive detailed error content?

- A. Change the mode attribute's value of the <customErrors> tag in the Web.config file to On.
- B. Change the mode attribute's value of the <customErrors> tag in the Web.config file to RemoteOnly.
- C. Change the mode attribute's value of the <customErrors> tag in the Web.config file to Off.
- D. Change the mode attribute's value of the <customErrors> tag in the Web.config file to 0.
- E. Change the mode attribute's value of the <customErrors> tag in the Web.config file

Answer: C

You should set the value of the mode attribute of the <customErrors> tag in the Web.config file to off. This will prevent custom error processing from occurring, and the default error messages, which provide more detailed information, will be displayed to the users. None of the other choices will accomplish the desired result.

QUESTION 170

You work as the Web developer at Certkiller .com. You have created a new application named Certkiller App06. Certkiller App06 will be used by customers to enter competitions being run by Certkiller .com. Customers will use Certkiller App06 to provide information to enter a competition. To successfully enter a competition, a customer has to complete four pages in Certkiller App06.

When a customer uses Certkiller App06 to complete an entry for a competition, you must ensure that state information is maintained and securely stored. You must also ensure that state information can be restored when a Web server needs to be restarted.

You plan to deploy Certkiller App06 on a Web farm that consists of twenty-five Web servers.

Choose the best method for storing state information.

- A. Use View State
- B. Use Hidden fields
- C. Use State Server
- D. Use Application state
- E. Use SQL Server

Answer: E

ASP.NET applications should store session state by using Microsoft SQL Server when state data should be secure and capable of being restored after a Web server restart. Due to the stateless nature of HTTP-based applications, a method of storing state information between round trips must be implemented. Session state

can be stored in one of three modes: in-process locally, out-of-process State Server and SQL Server. The session state mode is determined by the mode attribute of the sessionState element in the Web.config file. By storing session data in a SQL Server database, the data will not be lost when a server restarts. Application state is shared by all sessions of an ASP.NET application, and, therefore, is not suited for this scenario. Data stored in View State or hidden fields is not considered secure. View State and hidden fields can also slow performance when passing large amounts of data between the browser and server. Using State Server mode satisfies most of the requirements of the scenario but cannot retain state information during a server restart.

QUESTION 171

You work as the Web developer at Certkiller .com. You have received instruction from the CIO to create a new ASP.NET application that uses role-based security to enable investors to access only specific Web pages. Investors must be authorized to access pages in order to view its content.

To manage and maintain a list of investors and roles for your application named Certkiller App12, you decide to use a Microsoft SQL Server database. The Investors table contains three columns named InvestorID, InvestorName, and InvestorPassword respectively. The Roles table contains two columns named InvestorID and RoleID respectively.

To create a stored procedure that returns all users who are members of a specific role, you write this Transact-SQL code to define the procedure:

```
CREATE PROCEDURE GetRoleMembers  
@RoleID int  
AS
```

Choose the lines of code that would complete the stored procedure.

- A. SELECT Roles.InvestorID, Investors.InvestorName
FROM Investors
- B. SELECT Roles.InvestorID, Investors.InvestorName
FROM Roles
INNER JOIN
Investors ON Investors.InvestorID = Roles.InvestorID
WHERE Roles.RoleID = @RoleID
- C. SELECT Roles.InvestorID, Investors.InvestorName
FROM Roles
INNER JOIN
Roles ON Roles.RoleID = Roles.RoleID, Investors
WHERE Roles.RoleID = @RoleID
- D. SELECT Investors.InvestorID, Investors.InvestorName
FROM Investors, Roles
INNER JOIN
Roles ON Roles.RoleID = Roles.RoleID
WHERE Roles.RoleID = @RoleID
- E. SELECT Investors.InvestorID, Investors.InvestorName
FROM Investors, Roles
INNER JOIN
Roles ON UserRoles.RoleID = Roles.RoleID

Answer: B

We need to join the Roles and the Investors tables as we want to match the investors with the roles of the investors.

QUESTION 172

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App21. Certkiller App21 displays product information to customers.

Several customers have continuously complained that the product information they need to access takes quite some time to load. To improve performance, you want to implement the configuration which will result in the page being saved in memory, on the server, for two hours. After two hours, the page must be flushed from memory. The page must then be recreated when the following request for the page is obtained.

What should you do next?

- A. Define the Name attribute of the OutputCache directive in the Web page.
- B. Start a new instance of the Cache class in the Application.Start event handler.
- C. Start a new instance of the Timer class in the Page.Load event handler.
- D. Configure the Duration attribute of the OutputCache directive in the page.
- E. In the Web.config file, configure the timeout attribute of the sessionState element.
- F. In the Web.config file, delete the timeout attribute of the sessionState element.

Answer: D

Explanation: ASP.NET allows you to cache the entire response content for dynamic pages on HTTP 1.1 capable mechanisms, including browsers, proxy servers, and the origin Web server where your application resides. This provides a powerful way for you to increase the performance of your Web applications. Called output caching, it allows subsequent requests for a particular page to be satisfied from the cache so the code that initially creates the page does not have to be run upon subsequent requests.

QUESTION 173

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App04. Certkiller App04 will be used to sell products online to customers.

You have received instruction from the CIO to display the Certkiller .com company name at the left hand side. To comply with this requirement, you create a Web custom control to encapsulate the Certkiller .com name in a paragraph element. The control class named Certkiller Name inherits from the Control class.

You write this HTML code to display the company name:

```
<p> Certkiller .com </p>
```

Which code must you use in the Certkiller Name class to display the company details?

- A. Protected Overrides Sub OnPreRender(ByVal e As _
System.EventArgs)
Me.Controls.Add _
(New LiteralControl("<p> Certkiller .com </p>"))
End Sub
- B. Protected Overrides Sub RenderChildren(writer As _

```
System.Web.UI.HtmlTextWriter)
writer.Write("<p> Certkiller .com </p>")
End Sub
C. Protected Overrides Sub OnInit(e As EventArgs)
Me.Controls.Add _
(New LiteralControl("<p> Certkiller .com </p>"))
End Sub
D. Protected Overrides Sub Render(ByVal output As _
System.Web.UI.HtmlTextWriter)
output.Write("<p> Certkiller .com </p>")
End Sub
```

Answer: D

Explanation: You create a rendered custom control's appearance by overriding the base class's Render method and writing to the method's output argument using the HtmlTextWriter utility methods. The most direct approach is to use the Write methods to add the HTML directly to the HtmlTextWriter.

QUESTION 174

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App22. After Certkiller App22 is deployed on the company intranet, numerous users will use Certkiller App22 simultaneously. Certkiller .com uses Microsoft Windows authentication. You want to implement connection pooling for Certkiller App22. What should you do next?

- A. Insert this element to the authentication section of the Web.config file:
<allow users="?" />
- B. Use the Configuration Manager for your project to specify the security context of the user.
- C. Add code in the Application_AuthenticateRequest event handler to configure Certkiller App22 to run in the security context of the user.
- D. Add this element to the system.web section of the Web.config file:
<identity impersonate="true" />

Answer: B

Explanation: By impersonating, we can pool connections. The <identity> element controls the application identity of the Web application. By setting the impersonate attribute to true we ensure that the application is run in the security context of the user.

QUESTION 175

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App14. Certkiller App14 is to be deployed on the company intranet. You want to implement a solution which will control the browser window and respond immediately to non-post-back events. Choose the solution which you should use.

- A. Use server-side code to control the browser window.
- B. Use the Browser object's VBScript or JavaScript properties to test whether the browser can run scripts.
- C. Use the Browser object's Cookies.
- D. Use client-side scripts to control the browser window.

Answer: D

Client-side scripts let you control the browser window, respond immediately to non-post-back events, and perform other tasks that are not possible from server-side code.

QUESTION 176

You work as the Web developer at Certkiller .com. You are creating a new ASP.NET application named Certkiller App02. All users use Internet Explorer 5 and above.

You want to configure Certkiller App02 so that a pop-up window displays text that identifies the manufacturer of a specific product.

How will you accomplish the task?

- A. For all images, configure the AlternateText property to define the text that should be displayed. Change the ToolTip property to True.
- B. In the onmouseover event handler for all images, include code that calls the RaiseBubbleEvent() method of the System.Web.UI.WebControls.Image class.
- C. In the onmouseover event handler for all images, include code that calls the ToString() method of the System.Web.UI.WebControls.Image class.
- D. For all images, configure the ToolTip property to define the text to display.

Answer: B

Explanation: WebControl.ToolTip property gets or sets the text displayed when the mouse pointer hovers over the Web server control. The use of the ToolTip property meets the requirement of this scenario.

QUESTION 177

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App09.

Users will use Certkiller App09 to print a number of sales reports. For those reports that display sales statistical information over a specific time period, you want to ensure that the report is generated with minimum network traffic.

How will you accomplish the task?

- A. Implement Microsoft SQL Server indexes to optimize the data calculations
- B. Add the calculations in a business layer class.
- C. Add the calculations in a data layer class.
- D. Use Microsoft SQL Server stored procedures to perform and optimize the data calculations.

Answer: D

When SQL statements and conditional logic are written into a stored procedure, they become part of a single

execution plan on the server. The results do not have to be returned to the client to have the conditional logic applied; all of the work is done on the server.

QUESTION 178

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App10. Certkiller App10 will be used by users in the Finance department to record financial information.

A Certkiller .com employee named Rory Allen is also a Web developer at Certkiller .com. Rory creates a scheduling component which Certkiller App10 and other new applications must use. The scheduling component requires a number of registry entries to be created at installation, for it to run properly.

You obtain the necessary source code and project files for the component, and must include it with Certkiller App10.

You must create the deployment package for Certkiller App10. You must include the component in the deployment package.

How will you accomplish the task?

A. Configure a setup project for the redistributable component, and configure a Web setup project for Certkiller App10.

B. Configure a merge module project for Certkiller App10, and configure a setup project for the redistributable component. Add the merge module for Certkiller App10 to the project.

C. Configure a merge module project for the redistributable component, and configure a Web setup project for Certkiller App10. Add the merge module for the redistributable component to the project.

D. Configure a merge module project for both Certkiller App10 and the redistributable component. Create a Web setup project and add each both merge module to the project.

Answer: C

We create a merge module for the redistributable component. We then integrate the merge module into the Web setup project.

QUESTION 179

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App07. Certkiller App07 is configured to provide an accounts management capability for Certkiller .com.

Certkiller App07 contains a page named Withdrawals.aspx. Withdrawals.aspx contains a method named WithdrawnMoney. The code segment shown below is configured for the WithdrawnMoney method. Line numbers are only included for reference purposes.

1 Private Function WithdrawnMoney(Amount As Double) as Double

2

3 m_dAccountBalance-= Amount

4 Return m_dAccountBalance

5 End Function

You want to be able to verify that an account has sufficient funds before allowing a withdrawal. When testing Certkiller App07, you want to receive a warning when a request is made that stipulates a withdrawal amount which is higher than the current account balance. The production version of Certkiller App07 will be built using the Release Build Configuration in Visual Studio .NET.

You want the testing instrumentation to only be included in Certkiller App07 for testing purposes, and

should not be enabled in the production deployment of Certkiller App07. When Certkiller App07 is running in your production environment, you want to be able to activate the instrumentation without having to perform a rebuild of Certkiller App07.

Choose the code that you should include in line 02 of the previous code segment.

- A. `Debug.Assert(m_dAccountBalance - Amount >=0, _
"Insufficient finances for withdrawal.")`
- B. `Trace.Assert(m_dAccountBalance - Amount >=0, _
"Insufficient finances for withdrawal.")`
- C. `Debug.WriteLineIf(m_dAccountBalance - >=0, _
"Insufficient finances for withdrawal.")`
- D. `Trace.WriteLineIf(m_dAccountBalance - Amount >=0, _
Insufficient finances for withdrawal.")`

Answer: D

As we want to the ability to enable the instrumentation after deployment we must use tracing. The `Trace.Assert` statement will stop the execution and display the message when the condition is appropriate.

QUESTION 180

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App15. Certkiller App15 will be used to process tests taken online by Certkiller .com employees.

Once a user has completed a test, the user submits the answers to a page named `TestToGrade.aspx`. The user is unaware of this process. While `TestToGrade.aspx` processes the test, no information is displayed to the user. After `TestToGrade.aspx` has completed processing the test's answers, a page named `TestResults.aspx` is displayed to the user.

You want to add code to `TestResults.aspx` to perform the processing function in `TestToGrade.aspx`. Choose the code which you should use for this.

- A. `Server.Execute("TestToGrade.aspx")`
- B. `Response.Redirect("TestToGrade.aspx")`
- C. `Response.WriteFile("TestToGrade.aspx")`
- D. `Server.Transfer("TestToGrade.aspx", True)`

Answer: A

The `HttpServerUtility.Execute` method executes a request to another page using the specified URL path to the page. The `Execute` method continues execution of the original page after execution of the new page is completed.

QUESTION 181

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App02. Certkiller App02 is used to display product information to customers. Certkiller App02 retrieves information from a Microsoft SQL Server database named Certkiller DB02. You have written the following changes for Certkiller App02. Line numbers are only included for reference purposes:

01 `Dim cmd1 as New SqlCommand("SELECT * FROM " _`

```
& "Products",con
02 Dim dr1 as SqlDataReader
03 dr1 = cmd1.ExecuteReader()
04 Products.DataTextField = "ProductName"
05 Products.DataValueField = "ProductID"
06 Products.DataSource = Certkiller 1
07 Products.DataBind()
08 Dim dr2 as SqlDataReader
09 cmd1.CommandText = "SELECT * FROM Category"
10 dr2 = cmd1.ExecuteReader()
11 Category.DataTextField = "CategoryName"
12 Category.DataValueField = "Category ID"
13 Category.DataSource = Certkiller 2
14 Category.DataBind()
```

While performing regression testing, you discover that your page raises an invalid operation exception.

What should you do next to ensure that the page displays without raising an invalid operation exception?

- A. Add this code between line 07 and line 08 of the code segment:
Certkiller 1.Close()
- B. Substitute the code for line 03 of the code segment with this code:
Certkiller 1.ExecuteReader(CommandBehavior.CloseConnection)
- C. Substitute the code for line 09 and line 10 of the code segment with this code:
Dim cmd2 as New SqlCommand("SELECT * FROM Category",con)
Certkiller 2 = cmd2.ExecuteReader()
- D. Delete the code for line 07 of the code segment.
Substitute the code for line 14 of the code segment with is code:
Page.DataBind()

Answer: A

You must explicitly call the Close method when you are through using the SqlDataReader to use the associated SqlConnection for any other purpose.

QUESTION 182

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App06. Certkiller App06 is configured to use cookies to track changes made to projects during a user's session, which will enable the user to undo his changes if need be. Certkiller App06 contains a page named ProjectSchedule.aspx that is stored in a virtual directory named Schedule. Schedule is a child of the application root directory. You deploy Certkiller App06 on a Certkiller .com server named Certkiller -SR11 so that designated testers can test its functionality. The testers immediately complain that the undo functionality fails to function once they have executed a specific sequence of actions. You must determine what the issue is. You decide to view the cookie values after the sequence of actions to assist you in isolating cause of the problem. You include this element in the Web.config file to view the information:

```
<trace enabled="true" pageOutput="false"/>
```

Choose the URL you should use to display the trace output information on your client computer.

- A. HTTP:// Certkiller -SR11 / Certkiller App06/Schedule/ProjectSchedule.aspx?Trace=true
- B. HTTP:// Certkiller -SR11 / Certkiller App06/Schedule/ProjectSchedule.aspx?trace.axd
- C. HTTP:// Certkiller -SR11 / Certkiller App06/Schedule/ProjectSchedule.aspx
- D. HTTP:// Certkiller -SR11 / Certkiller App06/ProjectSchedule.aspx?trace.axd
- E. HTTP:// Certkiller -SR11 / Certkiller App06/ProjectSchedule.aspx?trace.axd
- F. HTTP:// Certkiller -SR11 / Certkiller App06/trace.axd

Answer: F

Explanation:

Trace.axd is an Http Handler that we can use to request application trace details. To use trace.axd, simply request trace.axd in the same application directory, not the virtual directory, that the request for the sample application was made. The output provided by tracing view, either through Trace.axd or on a page, provides six sections of detail:

QUESTION 183

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App11. One requirement for all Certkiller .com Web applications is that all Web applications must have a standard appearance. The standards will change periodically.

What should you do next to enforce the standards requirement while minimizing the maintenance time?

- A. Define a Microsoft Visual Studio .NET Enterprise template.
- B. Define a sample HTML page.
- C. Define a sample ASP.NET Web form.
- D. Define a cascading style sheet.

Answer: D

Cascading style sheet helps us maintain standards and reduce maintenance time

QUESTION 184

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App27. Certkiller App27 will communicate with a Web service provided by an external vendor.

Certkiller App27 creates a DataSet object from the data it obtains from the Web service. The DataSet object is named dsObject1. Users are allowed to change the information of the dataset displayed in a DataGrid control. After a user has made changes, the user must click a button to pass the data changes to the Web service. As soon as a user clicks the button, a new DataSet object named dsObject2 is created. dsObject2 should contain only the changed rows of dsObject1. The data in dsObject2 is the data which is then passed to the Web service.

Choose the code segment which you should use to populate dsObject2 with the changed rows from dsObject1.

- A. dsObject1.Fill(dsObject2)

- B. dsObject2= dsObject1.Copy(DataRowState.Modified)
- C. dsObject2= dsObject1.GetChanges()
- D. dsObject1.Fill(dsObject2, DataRowState.Modified)

Answer: C

You should use the code `dsModified = dsObject1.GetChanges()` to fill the `dsObject2` dataset with rows that have been modified in the `dsObject1` dataset. The `GetChanges` method returns a copy of the dataset that includes only the rows that have been modified since the last `AcceptChanges` method was called. The `GetChanges` method can also be filtered by specifying a member of the `DataRowState` enumeration. For example, the code `dsModified = dsObject1.GetChanges(DataRowState.Added)` will return only the rows that have been added to the `dsObject1` dataset.

QUESTION 185

You work as the Web developer at Certkiller .com. You are developing a new ASP.NET application named Certkiller App06. Designated testers are currently testing the functionality of Certkiller App06. You must define code that will handle errors in the `DataSet` object. To view errors that could exist in either of the rows in the dataset, you define this code segment. Line numbers are included only for reference purposes:

```
01 Dim drErrors As DataRow, iIndex as Integer
02 If myDataSet.Tables("Table1").HasErrors Then
03
04 For iIndex = 0 to drErrors.GetUpperBound(0)
05 Console.WriteLine(drErrors(iIndex).RowError)
06 Next
07 End If
```

Choose the line of code which you should add at line 03.

- A. `drErrors = myDataSet.Tables("Table1").GetErrors`
- B. `drErrors = myDataSet.Clone`
- C. `drErrors = myDataSet.Tables.Clone`
- D. `drErrors = myDataSet.Clone.GetErrors`

Answer: A

The code that should reside on line 03 is `drErrors = myDataSet.Tables("Table1").GetErrors`. The `GetErrors` method of the `DataTable` class returns an array of `DataRow`s that contain errors. The `HasErrors` property on line 02 returns a `True` value if the table contains errors. If the dataset in this scenario, `myDataSet`, contained more than one table, it would have been more efficient to check the `HasErrors` method of the dataset rather than checking the `HasErrors` method of each table. None of the other choices should be placed on line 03 because they would not return the rows containing errors.

QUESTION 186

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App12. Certkiller App12 is used by users to access training information in a project module named `TrainingInfo`.

While testing Certkiller App12, you attempt to step into a call to the `BookUsers()` method. The

interactive debugger moves to the next line of code in the .aspx page, and fails to display the initial line of code in the BookUsers() method.

What should you do next in Visual Studio .NET to configure interactive debugger to step into the code within the Assets class.

- A. Define Visual Studio .NET to enable just-in-time debugging for native programs.
- B. Access the Configuration Manager. Select the Debug configuration and rebuild the TrainingInfo project.
- C. Configure Visual Studio .NET to allow modifying of Visual Basic files while debugging.
- D. Access the Configuration Manager. Select the Debug configuration and rebuild Certkiller App12.

Answer: B

You must build the Debug version of the class library first and make sure the Debug version is in the location where the application expects to find it.

QUESTION 187

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App03. Certkiller App03 will be used by thousands of customers to purchase merchandise. Some page-specific information on pages that are submitted to the server must be stored. Your page must work properly for browsers that do not support cookies. None of the page-specific information needs to be secured. You want to preserve server resources because you expect hundreds of customers to place orders for products.

What should you do next?

- A. Store the required information in application state variables.
- B. Store the required information in session state variables.
- C. Store the required information in a Microsoft SQL Server database.
- D. Store the required information in hidden fields on the page.

Answer: D

Explanation: Hidden fields must be used in this situation since some customers may have disabled cookies. The advantages of hidden fields are

- No server resources are required. Server resources will be conserved.
- Broad support. It will work on browsers that do not support cookies.

QUESTION 188

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App05. Certkiller App05 will be used by customers to view pricing information on various products.

Certkiller App05 uses a Microsoft SQL Server database named Certkiller DB05. A string variable named ArticleID stores the identification number of a specific product. A variable named SQL is used to store the SQL statement for your SQL query.

The code which you use to define the SQL query is shown here:

SQL = "SELECT ManufacturerID, RangeID, ReorderID, UnitsAvailable, UnitsSold FROM InventoryTable"

+ " WHERE ProductID = " + ArticleID;

What should you do next to assign the UnitsAvailable quantity to a variable named ProductsAvailable?

- A. ProductsAvailable = reader.GetInt16(0)
- B. ProductsAvailable = reader.GetInt16(1)
- C. ProductsAvailable = reader.GetInt32(1)
- D. ProductsAvailable = reader.GetInt32(3)

Answer: D

The SQL Server datatype int corresponds to 32-bit Visual Basic .NET integers. We must therefore use the GetInt32 method which gets the value of the specified column as a 32-bit signed integer. We must specify the 3rd column as we want to retrieve the value of the UnitsAvailable column which is listed first in the SQL SELECT statement. The GetInt32 parameter, which specifies the ordinal of the column, is 0 based. We should use the 3 value of the parameter to retrieve the appropriate column.

QUESTION 189

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App14. Certkiller App14 retrieves data from a Microsoft SQL Server 6.5 database. Certkiller App14 allows management to use the Internet to add and remove new helpdesk employees from a list of trail-basis helpdesk employees. The application also allows management to view summary information on all helpdesk calls handled so far.

What should you do next to enable Certkiller App14 to connect to, and retrieve the data from the database?

- A. Use a SqlConnection object to connect to the database.
Use a SqlCommand object to run a stored procedure that returns the required data.
- B. Use an OleDbConnection object to connect to the database
Use an OleDbCommand object to run a stored procedure that returns the required data.
- C. Configure SQL Server to support HTTP access.
Create an XML template to execute a stored procedure to return the required data in XML format.
- D. Use COM interop to create an ADODB.Connection object, and then use an ADODB.Command object to run a SQL statement that returns the required data.

Answer: B

Explanation: We need to use an OleDbConnection to connect to SQL Server Version 6.5 (or earlier).

QUESTION 190

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App10. Certkiller App10 uses an XML Web service of a business associate.

You currently have access to the XML Web service, and need to create a class that calls the XML Web service.

How will you accomplish the task?

- A. In Visual Studio .NET, select Add Web Service from the Project menu, and then browse to the XML

Web service.

B. In Visual Studio .NET, select Add Reference from the Project menu, and then browse to the XML Web service.

C. In Visual Studio .NET, select Add Web Reference from the Project menu, and then browse to the XML Web service.

D. Run the Type Library Importer (Tlbimp.exe) and specify the URL for the XML Web service.

E. Run the Web Services Discover tool (Disco.exe) and specify the URL for the XML Web service.

Answer: C

Explanation: You can add a Web reference to projects that use XML Web services that are published on the Internet or on your local Web servers.

QUESTION 191

You work as the Web developer at Certkiller .com. You create a new ASP.NET page that contains a DataGrid control and TextBox controls. The DataGrid control is filled from a database when the page is created, and shows the current products purchased by customers. The TextBox controls are used by customers to update their personal information.

You must perform the configuration which will result in the page being refreshed as quickly as possible after customers have updated their personal information.

What should you do to achieve your goal in these circumstances?

A. Update the Enable property of the DataGrid control to be false.

B. Add code in the Page.Load event handler that fills the DataGrid control only when the IsPostBack property of the page is defined as true.

C. Update the EnableViewState property of the DataGrid to be false.

D. Add code in the Page.Load event handler that fills the DataGrid control only when the IsPostBack property of the page is defined as false.

Answer: B

Explanation: The Page.IsPostBack property gets a value indicating whether the page is being loaded in response to a client postback, or if it is being loaded and accessed for the first time. The value is true if the page is being loaded in response to a client postback; otherwise, false. By adding code in the Page Load event handler that populates the Data Grid control when the IsPostBack property is true we ensure that the page is refreshed as quickly as possible.

QUESTION 192

You work as the Web developer at Certkiller .com. You create a new ASP.NET page that shows users whether they have passed their examinations or not. Your ASP.NET page is named Exams.

After a user logs on to the Web site, Exams obtains a listing of subjects which a user has passed, from a database and displays it in ResultsList. All test results are valid for the duration for which the user continues to access the page. Users are also allowed to keep the data for a quarter.

You must make certain that the test results listing remains unchanged on the client computer of a user after ResultsList is posted back to the Web server. You want to minimize the memory resources used on the Web server.

Choose the three parameters which you should add to the Page directive. Each correct answer presents only part of the complete solution.

- A. EnableSessionState="True"
- B. EnableSessionState="False"
- C. EnableSessionState="ReadOnly"
- D. EnableViewState="True"
- E. EnableViewState="False"
- F. EnableViewStateMac="True"
- G. EnableViewStateMac="False"

Answer: B, D, F

Explanation:

To minimize the memory resources consumed on the Web server we need to use view state instead of session state. Setting EnableViewState to true will only cost us bandwidth, not memory resources.

QUESTION 193

You work as the Web developer at Certkiller .com. You create a new ASP.NET Web site for Certkiller .com. Your application is named Certkiller App11. Certkiller App11 stores and updates data that is contained within a Microsoft SQL Server database.

Certkiller App11 contains a page that is used to perform complex calculations at the end of each month. To perform these calculations, a user must click a button on the page. In order for the calculation results to be stored in the database, each stored procedure must run and complete successfully. No calculation results should be stored in the database if one of the stored procedures fails. In addition to these requirements, a user must not be allowed to add, delete, and update data in the tables accessed by the stored procedures while the stored procedures execute.

How will you accomplish these tasks?

- A. Edit the IsolationLevel property of a SqlTransaction object to be IsolationLevel.Serializable, and then assign the SqlTransaction object to the Transaction property of the SqlCommand object. Run the stored procedures by using a SqlCommand object.
- B. To run the stored procedures, create a class derived from System.EnterpriseServices.ServicesComponent. Use a TransactionAttribute type of attribute to annotate the class. Edit the Value property of the attribute to be TransactionOption.RequiresNew.
- C. Create a master stored procedure, and then use this stored procedure to call the other stored procedures that compute the mathematical functions. Add WITH REPEATABLE READ to your master stored procedure.
- D. Use structured exception handling to catch a SqlException should a stored procedures fails. Use the Procedure property of the SqlException to determine the specific stored procedure that generated the exception, and then call a stored procedure to preserve the previous calculations.

Answer: A

We should use a Transaction to ensure that either all stored procedures will succeed or if one stored procedure fails, the whole transaction will be backtracked. Furthermore, in order to protect the data in tables

during the transaction, we should use the highest transaction isolation level of Serializable. We use a SqlCommand object to run the stored procedure. We set the Transaction property of the SqlCommand to the SqlTransaction object we created.

QUESTION 194

You work as the Web developer at Certkiller .com. You are writing code for an ASP.NET page which will be used to pass vouchers for various gyms to users. A user must first specify a country and then choose a city from a list of cities in their designated country. After this, the names and street addresses of gyms in their city will be shown to the user.

The list of countries, cities, and gym names and addresses are stored in a database table. You want to reduce the time it takes to retrieve and display the list of gym names after a user chooses the country and city.

What should you do next?

- A. Change the connection string to add the packet size property and set its values to 8192.
- B. Add this directive to your page:
OutputCache VaryByControl="country;city"
- C. Change the connection string to maintain your database's connection pool as small as possible.
- D. Add this directive to your page:
OutputCache VaryByParam="city"

Answer: D

You can vary user control output to the cache by specifying the user control name and the parameter. We use the VaryByParam attribute of the @ OutputCache

QUESTION 195

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App16. The company Test Solutions has recently been purchased by Certkiller .com. You will be configuring Certkiller App16 to call an XML Web service run by Test Solutions, which will return an ADO.NET DataSet object that contains customer marketing information.

You want to merge this DataSet object into a DataSet object that contains a list of customers. You start your configuration by setting testSolutions as the name of the DataSet object from Test Solutions. You then set customerInfo as the name of the DataSet object containing customer information. Once the merge has occurred, customerInfo must contain customer marketing information in testSolutions.

The tables used by each DataSet object have identical names and primary keys, and the table's columns also have the same names and data types. However, there is a table in testSolutions that contains additional columns which must not be added to customerInfo. For all rows in tables of customerInfo that have pending changes, you want to preserve the current values of these rows when the merger takes place.

Choose the code which you should use to merge testSolutions into customerInfo.

- A. customerInfo.Merge (testSolutions, true, MissingSchemaAction.Ignore)
- B. customerInfo.Merge (testSolutions, true, MissingSchemaAction.AddWithKey)

- C. testSolutions.Merge (customerInfo, true, MissingSchemaAction.Ignore)
- D. testSolutions.Merge (customerInfo, true, MissingSchemaAction.Add)

Answer: A

The DataSet.Merge (DataTable, Boolean, MissingSchemaAction) method merges this DataTable with a specified DataTable preserving changes according to the specified argument, and handling an incompatible schema according to the specified argument.

As we want to merge the DataSets into the testSolutions DataSet we should apply the merge method on testSolutions.

The Ignore MissingSchemaAction ignores the extra columns. This meets the requirement not to add the extra columns from the table in testSolutions that contains additional columns.

QUESTION 196

You work as the Web developer at Certkiller .com. You create a new localized ASP.Net website that will be used by customers located in various countries across the world. You must set the satellite assembly to load localized resources.

Choose the element which you should include in your application.

- A. Define the culture and uiCulture attributes of the globalization element in the Web.config file.
- B. Define the CurrentCulture property
- C. Define the Thread class's CurrentUICulture
- D. Define the Request object's UserLanguages

Answer: C

We must use the Thread class's CurrentUICulture to determine which satellite assembly is used to load localized resources.

QUESTION 197

You work as the Web developer at Certkiller .com. Certkiller .com posts important announcements on the company intranet website. Each night, the website is shut down to perform backup routines.

On a daily basis, information is extracted from a database and stored in an XML file. This process must complete before the first user accesses the intranet application and the home page is displayed to the user.

Choose the file in which you should add code to create the XML file.

- A. Use the Global.asax file
- B. Use the AssemblyInfo.vb file
- C. Use the Web.config file
- D. Use the startup form of your application

Answer: A

You should place the code to build the XML data file in the Global.asax file. The Global.asax file contains application-level and session-level event handlers. The Application_OnStart event handler is called each time the application is started, which occurs daily the first time a page of the application is opened. If the code were placed in the application's startup form, then the file would be recreated each time a new user

accessed the application. The Web.config file has no mechanism for creating an XML data file. The AssemblyInfo.vb file is typically used to hold an application's global attributes.

QUESTION 198

You work as the Web developer at Certkiller .com. You are working on a custom control that will be used by Certkiller .com's ASP.NET applications. The control you are creating will allow other developers to define properties for a text box, such as Font, and ForeColor and BackColor. The control you are creating contains a TextBox control.

You must perform the configuration which will allow Certkiller .com's ASP.NET applications to access the properties of the text box.

What should you do next?

- A. Declare the text box as Public myTextBox as TextBox.
- B. Create a public field for each specific exposed text box property.
- C. Declare a namespace.
- D. Create a public property for each specific exposed text box property.

Answer: D

You should create a public property in your custom control for each exposed text box property to allow ASP.NET applications to access the

QUESTION 199

Choose the line(s) of code from the listing below, which will result in a compilation error. Choose all that apply.

- A. Session("MyVal")=777
- B. Session("MyVal").Contents=777
- C. Session.Contents("MyVal")=777
- D. Session.Add("MyVal")=777
- E. Session.Contents.Add("MyVal")=777

Answer: B, E

Only choices a, c and d are correct. Values can be stored in a Session object either by calling the Add method or by stating a key/value pair. The following lines of code will both add the value 99 to a key name of MyVal:

Session("MyVal")=777

Session.Add("MyVal")=777

The Contents property of the Session object provides compatibility with previous versions of ASP. The code Session.Contents("MyVal")=99 is also a valid method of adding the value 99 to a key name of MyVal.

QUESTION 200

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App12. Certkiller App12 is used to manage customer purchasing information for the company. Certkiller App12 uses a DataSet object named purchasesEntry.

You want to return the value of an Identity column in the purchasesEntry table. To do this, you create a Transact-SQL statement.

Choose the Transact-SQL function you should use in your query to return the value of the Identity column.

- A. IDENT_SEED
- B. DATALENGTH
- C. IDENT_INCR
- D. SCOPE_IDENTITY

Answer: D

The T-SQL function that you should use in your query to determine the value of the Identity column is SCOPE_IDENTITY. The SCOPE_IDENTITY function returns the value of the Identity column of the row that was most recently added to a table. Identity columns are columns that contain a unique number and are used to uniquely identify each row. By using this value as an output parameter in an INSERT stored procedure, it is possible to automatically update datasets with the value of Identity or Autonumber columns in scenarios where multiple users will be inserting rows into the same table.

QUESTION 201

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App10. Certkiller App10 will be used by customers to view their holiday bookings.

You must ensure that the BookingNumber field is the first <td> element of the table of information fields.

Choose the code which you should add to the <td> element of the table to display the BookingNumber.

- A. <td><%=BookingNumber%></td>
- B. <td><script runat="server">BookingNumber</script></td>
- C. <td><script>document.write("BookingNumber");</scripts></td>
- D. <td>=BookingNumber</td>

Answer: A

Explanation: BookingNumber is a public property contained on the Web server. We reference it with the <%= BookingNumber%> element

QUESTION 202

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App03. You must enable instrumentation on each requested page of Certkiller App03.

Tracing must be displayed for only the initial thirty requests made to Certkiller App03, and the trace information must be displayed at the bottom of each requested Web page.

Choose the three actions which you should perform to accomplish these tasks. Each correct answer presents only part of the complete solution.

- A. Define the value of the @ Page directive's Trace attribute to True on each Web page that must show the trace information.
- B. Configure the Web.config file in Certkiller App03's root directory to ensure that the Trace element's requestLimit attribute is set to 30.
- C. Configure the Web.config file in Certkiller App03's root directory to ensure that the Trace element's

pageOutput attribute is set to True.

D. Set the value of the @ Page directive's Trace attribute to 30 on each Web page that must show the trace information.

E. Configure the Web.config file in Certkiller App03's root directory to ensure that the Trace element's enabled attribute is set to True.

Answer: B, C, E

To enable tracing for the first thirty requests of all pages in your application and to display trace information at the bottom of each page, you should configure the Web.config file so that the Trace element's enable attribute is set to true, the requestLimit attribute is set to 30 and the pageOutput attribute is set to true.

Tracing can be enabled on a page-by-page basis by using the @ Page directive, or it can be enabled for an entire application by configuring the Web.config file in the application's root directory. In this scenario, it is more efficient to enable tracing through a single setting in the Web.config file than to modify every page's @ Page directive. The Web.config file should include these lines:

```
<system.web>
<trace enabled="true" pageOutput="true" requestLimit="30" />
</system.web>
```

The pageOutput attribute determines where the trace information is displayed. Setting the pageOutput attribute to false, or not specifying a pageOutput value, will send the trace information to a Trace.axd file; a true value will send the information to both the Trace.axd file and the bottom of the Web page. The requestLimit attribute determines the number of requests for which to record trace information.

QUESTION 203

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App05. You are monitoring performance of Certkiller App05 to determine whether your solution needs to be scaled.

What should you do next so that you can monitor Certkiller App05 while it is running?

- A. Use TraceSwitch objects
- B. Use Diagnostic tools
- C. Use PerformanceCounter objects
- D. Use Windows Management Instrumentation Job Object provider

Answer: C

Using the PerformanceCounter object within the solution would allow developers to write performance specific information that can be monitored by Performance Monitor while the application is running.

QUESTION 204

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App07. Customers that reside in both London and Germany will be using Certkiller App07 to purchase products.

You must enable Spanish or Germany culture settings to be used as suitable, and with the least amount of end-user interaction.

How will you accomplish the task?

- A. Access the preferred culture from the properties of the Request object.

- B. Add a Web.config file that specifies the preferred culture on the client workstation.
- C. When a user initially accesses the intranet site, display a form that requests the user to specify English or German. Store a cookie on the user's computer that holds the user's choice, and then configure the culture settings based on the value of this cookie.
- D. Set the value of a session variable named Culture to En for English users and Gr for German users.

Answer: A

You should read the preferred culture from the properties of the Request object. The UserLanguages property of the Request object contains a string array of the languages that are preferred by the user and can be used to ensure that the application responds to the user appropriately. Session and application variables are not designed to persist data indefinitely. The Web.config file is a server-side configuration file that has no effect when placed on the client workstation. Storing the user's preferred language in a cookie requires more intervention than necessary from the end user.

QUESTION 205

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App05. Customers will use Certkiller App05 to purchase competition tickets. You expect over 300 tickets to be purchased per minute.

Which isolation level should you use to ensure that these transactions are completed safely?

- A. Use ReadCommitted
- B. Use ReadUncommitted
- C. Use RepeatableRead
- D. Use Serializable

Answer: D

The Serializable value of the TransactionIsolationLevel enumeration specifies that no users should be able to add rows or modify data in a data set while a transaction is open. The ReadCommitted value specifies that locks are placed on the data while it is being read, but data can still be altered before the transaction is complete. No locks are held in a ReadUncommitted transaction. With RepeatableRead, a transaction will prevent others from modifying data while a transaction is open, but phantom rows can still be created.

QUESTION 206

You work as the Web developer at Certkiller .com. You are busy debugging an ASP.NET application, and need to isolate the method that is resulting in a logical error. The method is calling MethodX(). Choose the window which you should use to examine to error information.

- A. Use the Locals window
- B. Use the Disassembly window
- C. Use the Call Stack window
- D. Use the Output window

Answer: C

The Call Stack window shows the current call stack while in debug mode. The Output window displays syntax errors that occur when building an application. It also provides Debug and Trace output. By right-clicking the error and selecting Go To Error/Tag, you can navigate to the lines of code that are responsible

for the errors. The Locals window displays the names and values of variables that are currently in scope. The Disassembly window displays assembly code from the compiler.

QUESTION 207

You work as the Web developer at Certkiller .com. You are busy debugging an ASP.NET application, and discover that there are numerous errors in classes created by other developers. What should you do next? Choose all solutions that apply.

- A. You should walk through all the code of t project.
- B. You should combine individual components in groups and then test the group.
- C. You should walk through the code of components that have been debugged.
- D. You should build a demo front end to execute each method of each component, and then verify the return values.
- E. You should test communication between a component and a third-party Web service,
- F. You should walk through each stored procedure in the database,
- G. You should inspect the values returned from each stored procedure.

Answer: D, G

We should perform unit testing. Unit testing is the process of analyzing the behavior of small parts of an application. Thoroughly testing individual units and measuring the results are two important concepts of unit testing. Merely walking through the code in an application or a stored procedure is not a valid method of unit testing. Valid unit testing methods include testing the values returned by individual components and verifying that those values match what is expected. Testing groups of components is considered part of integration testing and should be performed after unit testing. Testing code that has been debugged is part of regression testing.

QUESTION 208

You work as the Web developer at Certkiller .com. You are developing a function that must return the number of clients booked on a flight. You decide to use the ExecuteNonQuery method of the SqlCommand class to execute a Transact-SQL statement. Choose the value which will be returned by the ExecuteNonQuery method.

- A. An integer specifying the number of rows affected will be returned.
- B. A Boolean value specifying that the command processed correctly will be returned.
- C. A string with the name of the stored procedure or query string that executed will be returned.
- D. A string with the description of any errors that could have occurred will be returned.

Answer: A

The ExecuteNonQuery method is used to process Transact-SQL statements that perform DELETE, INSERT and UPDATE functions. The method returns an integer indicating the number of rows that were deleted, inserted or updated. The ExecuteNonQuery method does not return any rows, but will populate any output parameters that are present in the Command object.

QUESTION 209

You work as the Web developer at Certkiller .com. To obtain the CGPA for college students in a text format, you must determine which code segment sets the Text property of a TextBox control to the

value of the @CGPA.

- A. TextBox1.Text = (string) myCommand.Parameters("@CGPA").Value;
- B. TextBox1.Text = myCommand.Parameters("@CGPA").Value.ToString();
- C. TextBox1.Text = myCommand.Parameters("@CGPA").ToString();
- D. TextBox1.Text = myCommand.Parameters("@CGPA").SourceColumn;

Answer: A

The Value property of the SqlParameter class returns the value of the specified output parameter. The (string) typecast ensures that the value is a string before assigning the value to the text box's Text property. It is invalid syntax to append ToString to the Value property of a SqlParameter object.

The ToString property of a SqlCommand object will return the parameter name, not the value. The SourceColumn property will return the column name that is used for the Value property.

QUESTION 210

You work as the Web developer at Certkiller .com. You create a new ASP.NET application named Certkiller App08. Certkiller App08 is configured to print reports. You are currently debugging your application and want to determine when the value of a specific variable in a procedure is not zero. Choose the method of the Debug class which you should use to view the contents of the call stack when the variable is not zero.

- A. WriteIf method
- B. WriteLineIf method
- C. Assert method
- D. Write method

Answer: C

The Assert method of the Debug and Trace classes determines whether an expression evaluates to false , and if so, outputs the call stack or a specified message. The WriteIf and WriteLineIf methods send messages to the listeners if an expression evaluates to true, but they cannot display the call stack. The Write method will output a specified message each time it is called.

QUESTION 211

You work as the Web developer at Certkiller .com.

Choose the properties of the XmlDocument class that returns the XmlDocument of the current node.

- A. DocumentElement property
- B. FirstChild property
- C. LastChild property
- D. OwnerDocument property

Answer: D

The OwnerDocument property returns the XmlDocument of the current node.

The DocumentElement property returns an XmlElement object that represents the root node of an XML document. Because the DocumentElement property always refers to the root node of an XML document, it

provides a relatively simple method of accessing properties of the root node. The FirstChild property returns the first child of a node. The LastChild property returns the last child of a node.

QUESTION 212

You work as the Web developer at Certkiller .com. You are developing a new user interface that will calculate the outstanding balances of clients whom have purchased products. Choose the method you should use to query the database.

- A. Read method
- B. ExecuteNonQuery method
- C. ExecuteScalar method
- D. ExecuteReader method

Answer: C

The ExecuteScalar method of the Command class returns the value of the first row and first column that is returned by the query. Because the method only returns a single value, it is appropriate for stored procedures and queries that return one value. The Read method of the DataReader class moves the reader to the next record. The ExecuteNonQuery method of the Command class executes queries, such as DELETE or UPDATE, that do not return a value. The ExecuteReader method of the Command class builds a reader with data that satisfies the CommandText property.