



Exam : 070-547

Title : Designing and Developing Web-Based ☐☐  
Applications by Using the Microsoft .NET Framework

Ver : 09-18-07

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**QUESTION 1:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. The design of applications forms part of your responsibilities at Certkiller .com. Certkiller .com operates as an examination Web site.

You are developing a Web-based application for Certkiller .com. This application, upon completion, should allow users to take various online examinations. Every time a user takes an online test, you want the following business rules to be met:

1. Display a congratulatory message when a user passes a test.
2. Display a motivational message when a user fails a test.
3. Display a different message when a user meets the minimum requirements for a test.

The following Exhibit illustrates the pseudo-code that you wrote to meet these requirements:

Exhibit:

if pass

display congratulatory message

else if meeting minimum requirements

display different message

else

display motivational message

What conclusion can you draw?

- A. None of the requirements will be met.
- B. All the requirements will be met.
- C. All requirements, except the display of a different message when the user meets the minimum requirements, will be met.
- D. All the requirements, except the display of the motivational message when a user fails a test, will be met.

Answer: B

Explanation: All the requirements for the application will be met. A different message will be displayed in the event of the user passing, failing or just meeting the minimum requirements for a test. If the user passes, then the congratulatory message will be displayed, if the user meets the minimum requirements then the different message will be displayed. Otherwise the user fails the test in which case the motivational message will be displayed.

Incorrect answers:

A: This is incorrect because this pseudo-code will yield the desired results.

C: This is only partly correct since the code will also result in the display of the different message in case the user meets the minimum requirements of a test.

D: This is only partly correct since the code will result in displaying the motivational message in case the user fails the test.

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## **QUESTION 2:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. The design of applications forms part of your responsibilities at Certkiller .com.

You are currently developing Web-based applications for Certkiller .com. One of these applications that you developed is destined to allow the user to display multiple lines in a TextBox control. Each of the lines in the TextBox control is concatenated into a single string. Each message in the TextBox control will consist of more than five lines.

You now need to configure this Web-based application to meet these requirements. What should you do?

- A. You should include calling the Concat method in the application using a String instance.
- B. You should include calling the Append method in the application using a String instance.
- C. You should include calling the Add method in the application using a StringBuilder instance.
- D. You should include calling the Append method in the application using a StringBuilder instance.

Answer: D

Explanation: The StringBuilder instance has a larger internal buffer to handle larger strings and since you will have at least five lines concatenated in the same string, you should make use of a StringBuilder instance to call the Append method. Strings are immutable and every time a string is concatenated, at least two strings are de-referenced, but stay in memory until Garbage collection. The StringBuilder, due to its larger internal buffer is capable of maintaining a large internal buffer and only extends the buffer than required to do so. This makes using the StringBuilder unstance for efficient.

Incorrect answers:

- A: You should not make use of the String class as it is unable to modify its contents in place. The String class will always return a new string when the contents are changed and this will result in a drop in the performance.
  - B: This is partly correct since you need to call the Append method, however you should make use of a StringBuilder instance and not the String instance.
  - C: This is incorrect as there is no such method named Add method. You need to make use of the Append method when using the StringBuilder class.
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## **QUESTION 3:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. There is only one Web server at Certkiller .com. The design of applications forms part of your responsibilities at Certkiller .com. Certkiller .com operates as a manufacturing company.

You are currently developing Web-based applications for Certkiller .com. All the departments at Certkiller .com will have its own Web application for custom content and functionality that is department-specific. All these Web applications make use of third party .NET 1.1 components. These components are all shared by other Web applications within Certkiller .com.

You must meet the following requirements in your development of these Web-based applications:

1. The Web-based applications must require the shared components.
2. The Web-based applications must also require ASP.NET 2.0 features.

You should develop these applications with the least amount of developer effort and time. To this end you need to take a decision on how you will meet these requirements in your solution.

What should you do?

- A. You should upgrade the shared components to .NET 2.0
- B. You should enable directory browsing on the Web Server to access the shared components.
- C. You should place the shared components in the same directory as the main Web application.
- D. Since ASP.NET 2.0 Web applications are compatible with .NET 1.1 components you should not do anything.

Answer: D

Explanation: The ASP.NET 2.0 and ASP.NET 1.1 runtime can run on the same machine without any additional configuration settings required. The ASP.Net 1.1 components can benefit from the performance options that are available in ASP.NET 2.0 and ASP.NET 2.0 applications can continue to communicate with the ASP.NET 1.1 components. Thus there is no need to do anything.

Incorrect answers:

- A: There is no need to upgrade the shared components to ASP.NET 2.0. This option would not be available if the components are third party and data access components should then be redesigned to take full advantage of the ASP.NET 2.0 benefits. In fact it would be simpler upgrading an ASP.NET 1.1 site to ASP.NET 2.0.
- B: You should not enable directory browsing on the Web server because it can allow any user to see the directory structure of your Web site. And furthermore, directory browsing will not allow different versions of ASP.NET to run.
- C: The shared components should not be placed in the same directory as the main Web application. Merging the files into the same directory will create a problem with other Web applications accessing the shared component.

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**QUESTION 4:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. The design of applications forms part of your responsibilities at Certkiller .com. Certkiller .com operates as an online-retailer.

You are currently developing a Web-based application for Certkiller .com. This application will server as an order fulfillment application. Upon completion this application will allow the Certkiller .com users to enter a zip code into a TextBox control where they will be able to find all the packages that have been shipped to a particular geographical area. The application will take the TextBox value and construct a query similar to the one illustrated in the Exhibit below:

Exhibit:

```
SELECT * FROM Orders WHERE zip = '21006';
```

You now need to make sure that you mitigate the possibility of malicious code being inserted into the query strings passed to the SQL Server for parsing and execution.

What should you do?

- A. You should use a RequiredFieldValidator control on the TextBox.
- B. You should validate user input using stored procedures.
- C. You should build Transact-SQL statements directly from the TextBox input.
- D. You should concatenate user input from the TextBox.

Answer: B

Explanation: It is possible that malicious code can be inserted into user input variables that are concatenated with SQL statements and executed, i.e. the SQL injection attack. To prevent this from happening you should configure the Web-based application to validate all input prior to sending the request to the database by making use of least privilege accounts when accessing the database, and using stored procedures rather than dynamically constructed SQL when possible.

Incorrect answers:

A: You should not make use of the RequiredFieldValidator control on the TextBox. This will force the users to enter a value for the zip code, but would not prevent malicious code from being accepted as input.

C: You should not build the Transact-SQL statement directly from the TextBox input as it provides a user with an opportunity to insert malicious code. And executing the Transact-SQL statements directly from the TextBox input has to potential to harm your database.

D: You should not concatenate user input from the TextBox. The input from the TextBox control should rather be validated prior to concatenation as invalidated concatenation input makes an application susceptible to SQL injection attacks.

**QUESTION 5:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. The design of applications forms part of your responsibilities at Certkiller .com. Certkiller .com operates as a company that provides financial, investment and accounting services to its customers.

You are currently developing a Web-based application for Certkiller .com. This application will be used to maintain the investment account information for the Certkiller .com customers. This investment account information is sent as Extensible Markup Language (XML) documents from the Microsoft SQL Server 2005 database. Each XML document should contain customer feedback information. You want this application to allow you to contact the customers regarding the given feedback. Following are the requirements that should be met:

1. The Web-based application must retrieve each customer's contact details such as name, address, and e-mail address from the XML document.
2. You must be allowed to determine which geographical area has the most customer complaints.
3. The customer data should remain in XML format.
4. You must maximize performance of the query.

You thus need to make a decision as to which approach you can use to query the SQL Server data to meet these requirements.

What should you do?

- A. Query the SQL Server data using a SELECT statement with the FOR XML clause.
- B. Query the SQL Server data using a SELECT statement that calls the DataType.Xml method.
- C. Query the SQL Server data using a SELECT statement with an OPENXML function.
- D. Query the SQL Server data using a SELECT statement with the OPENROWSET function.

Answer: C

Explanation: The OPENXML function can be used to query data from an XML document. It is also possible to convert the XML data, store it in a temporary table, then query the data, but this schlep will be eliminated using the OPENXML function and also you should not change the data from XML because the Web site data must remain in XML format. Thus the database should be queried with the SELECT statement with an OPENXML function.

Incorrect answers:

- A: The FOR XML clause is used to format the results of a query in XML format. In this case you need to query the data from an XML document. Thus this option is not required.
- B: The DataType.Xml method returns an object that represents a specified data type, and will thus not allow you to query the XML document directly.



D: The OPENROWSET function is used for querying remote data sources and this is not what is required in this scenario.

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**QUESTION 6:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. Internet Information Services (IIS) is installed on Certkiller -WS547.

You are developing a Web-based client application for the Certkiller .com Web site. The Certkiller .com Web site sells subscriptions to courseware material. The Web application must allow users to browse subscription options, to purchase subscriptions, to add subscriptions to a wish list, to store bank account details, and to review products online. You must implement a standardized layout according to the company's branding on each page. The pages must also implement a daily advertisement above the main menu. The advertisement must be replaced every morning.

You want to reduce the effort required to maintain the Web application. What should you do?

- A. Add an AdRotator control to each Web page and place the daily advertisement in the Advertisement file.
- B. Include the daily advertisement in a Master Page and set the masterPageFile attribute in the Web.config file.
- C. Create a User Control for the daily advertisement and add the User Control to each Web page.
- D. Include the daily advertisement in a Template Page and bind each Web page to the Template Page.

Answer: B

Explanation: Master Pages allows you to create a common layout for across all pages that the Master Page is bound to. You can either bind the Master Page to each page in the Page directive on each page, or in the masterPageFile attribute of the Web.config file. If the masterPageFile attribute of the Web.config file is set to the location of the Master Page, any changes made to the Master Page will be propagated to each Web page. This will reduce the effort required to maintain the daily advertisement.

Incorrect Answers:

A: The AdRotator control is used to rotate between various advertisements contained in an AdvertisementFile. Advertisements are displayed on the basis on page impressions. It is possible to have only one advertisement in the AdvertisementFile and to change the advertisement every morning but this is not the purpose of the AdRotator control.

C: You could include the advertisement in a User control but you would need a Master Page to standardize the layout of each page. It would therefore require less effort to add

the advertisement to the Master Page.  
D: ASP.NET does not support a Template Page.

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**QUESTION 7:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. Internet Information Services (IIS) is installed on Certkiller -WS547. You are developing a Web-based client application for the Certkiller .com Web site. The Certkiller .com Web site sells subscriptions to courseware material. The Web application must allow users to browse subscription options, to purchase subscriptions, to add subscriptions to a wish list, to store bank account details, and to review products online. You must implement a standardized layout on each page. You must also ensure that all controls maintain a consistent appearance according to the company's branding. What should you do?

- A. Implement Themes and Master Pages.
- B. Implement Web Parts and User Controls.
- C. Implement User Controls and Profile properties.
- D. Implement Web Parts and Master Pages.

Answer: A

Explanation: Master Pages allows you to create a common layout for across all pages that the Master Page is bound to. You can either bind the Master Page to each page in the Page directive on each page, or in the masterPageFile attribute of the Web.config file. Themes allow you to maintain a consistent appearance for the controls across Web pages, and entire Web application, or all Web applications on a server.

Incorrect Answers:

- B: Web Parts allow users to customize content, appearance and behavior of Web pages, while User Controls allow you to reuse code across Web pages. Neither is used to implement consistent layout nor consistent appearance of controls.
- C: Profile properties is a provider framework that stores settings for individual users, while User Controls allow you to reuse code across Web pages. Neither is used to implement consistent layout nor consistent appearance of controls.
- D: Web Parts allow users to customize content, appearance and behavior of Web pages. It does not implement consistent layout or consistent appearance of controls.
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**QUESTION 8:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. You



use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. Internet Information Services (IIS) is installed on Certkiller -WS547. Certkiller .com has its headquarters in Washington and branch offices in Miami, Dallas and San Francisco. The Certkiller .com network contains a SQL Server 2005 database server named Certkiller -DB01 that is located at headquarters. Certkiller -DB01 hosts a database named CK\_Sales that stores sales information for the company. You are developing a Web-based client application for Certkiller .com. The Web application connects all branch offices to the CK\_Sales database. You need to develop a user interface that allows Sales personnel at each branch office to enter data regarding Returned goods. The Returned Goods data includes the customer's name, the product code, and the invoice number. You need to implement the appropriate user interface controls for entry of Returned Goods data. What should you do?

- A. Use a TextBox control for the customer's name, a TextBox control for the invoice number and a TextBox control for the product code.
- B. Use a DropDownList control for the customer's name, a DropDownList control for the invoice number and a DropDownList control for the product code.
- C. Use a DropDownList control for the customer's name, a TextBox control for the invoice number and a DropDownList control for the product code.
- D. Use a TextBox control for the customer's name, a TextBox control for the invoice number and a DropDownList control for the product code.

Answer: C

Explanation: The main data that can be read from a database is the product code and the customer's name. You can implement a data bound DropDownList to display the product code and customer name. A TextBox is a free-form input box that can be used for the invoiced price.

Incorrect Answers:

- A: While it is possible that all data can be entered in TextBox controls, it would be difficult to verify the accuracy of the data. Allowing Sales personnel to select the appropriate customer name and product code from a DropDownList would greatly reduce data input errors.
- B: A DropDownList for a price range would be inappropriate.
- D: While it is possible that the customer name can be entered in TextBox controls, it would be difficult to verify the accuracy of the data. Allowing Sales personnel to select the appropriate customer name from a DropDownList would greatly reduce data input errors.

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## QUESTION 9:

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. You use a Microsoft Windows XP Professional client computer named

Certkiller -WS547 as your development computer. Internet Information Services (IIS) is installed on Certkiller -WS547.

You are developing a Web-based client application for Certkiller .com. You want users of the Web application to input a date on the Web form regardless of their local date format. You add three DropDownList controls named Year, Month and Day to the Web application. You want the date entered through these DropDownList controls will be displayed on subsequent pages in the user's local date format.

What should you do?

- A. Instantiate a DateTime object using the values from the DropDownList controls.
- B. Instantiate a DateTime object using the values from the GetDate method.
- C. Let the users select their location and set the CurrentCulture property of the executing thread to the associated CultureInfo object.
- D. Set the enableClientBasedCulture attribute in the Web.config file to true.

Answer: A, C

Explanation: You must instantiate a DateTime object that accepts the values that the user entered in the DropDownList controls. The user should then select his or her location from a DropDownList. This location must be used to configure the CurrentCulture property of the executing thread to the associated CultureInfo object.

Incorrect Answers:

B: You want the user to input a date into the Web Form. The GetDate method does not allow user input.

D: The enableClientBasedCulture attribute takes the culture settings of the browser. Although this will work, the culture settings in the browser may be misconfigured.

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#### **QUESTION 10:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. Internet Information Services (IIS) is installed on Certkiller -WS547.

You are developing a Web-based client application for the Certkiller .com Web site. The Certkiller .com Web site sells subscriptions to courseware material. Customers must be able to specify the term of subscription by specifying the start and end dates of their subscriptions in TextBox controls, and must specify their location in a DropDownList control. You must ensure that the values entered into the TextBox controls are dates that have not yet passed. You must also ensure that the start date is no more than 3 months in advance and that the end date is at least two weeks after the start date. Customers who want an open-ended subscription do not need to specify an end date.

You decide to use RequiredFieldValidator controls to verify the start date TextBox

control and the DropDownList control, and a RangeValidator control to verify the start date TextBox control.

Does your solution satisfy the requirements for this project?

- A. Yes.
- B. No, a RangeValidator does not verify the validity of a date.
- C. No, a CompareValidator is required to verify the validity of the end date.
- D. No, a CompareValidator is required to verify that the start date has not already passed.
- E. No, a RequiredFieldValidator is required for the end date TextBox control.

Answer: C

Explanation: This solution does not meet requirements because it fails to ensure that the end date is at least two weeks after the start date. The RequiredFieldValidator verifies that a start date has been specified and that a location has been selected. The RangeValidator ensure that the start date has not already passed. You also need a CompareValidator to compare the end date to the start date and ensure that the end date is at least two weeks after the start date.

Incorrect Answers:

A: This solution does not meet requirements because it fails to ensure that the end date is at least two weeks after the start date. The RequiredFieldValidator verifies that a start date has been specified and that a location has been selected. The RangeValidator ensure that the start date has not already passed. You also need a CompareValidator to compare the end date to the start date and ensure that the end date is at least two weeks after the start date.

B: The RangeValidator ensure that the start date has not already passed and is therefore required.

D: A CompareValidator compare the values in two controls. It can be used to ensure that the values in the two controls are identical or are within a certain range of each other. It is not be used to compare the value in the start date Text Box with the current date.

D: A RequiredFieldValidator should not be added for the end date TextBox control as customers must be able to specify open-ended subscriptions. These customers will not enter an end date.

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### **QUESTION 11:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. Certkiller .com runs all its Web applications on a Windows Server 2003 Web server named Certkiller -SR24. All Web applications on Certkiller -SR24 are hosted in Internet Information Services (IIS). IIS 6.0 is installed on Certkiller -SR24. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on Certkiller -WS547.

You are developing a Web-based client application for the Certkiller .com Web site. The Certkiller .com Web site sells subscriptions to courseware material. The

courseware that is available from Certkiller .com includes recently developed instructional videos. Your Web application must make these videos available to subscribers. The Web application must include a multimedia delivery mechanism must support all bandwidths, including dial-up. Subscribers must also be able to watch portion of the video without downloading it completely. You want to ensure that download speeds are as close to real-time as possible and that the download process has a minimal impact on the overall performance of the Web application. What should you do?

- A. Use Internet Information Services (IIS) to stream each video as requested by the subscriber.
- B. Cut the videos into smaller files. Use Internet Information Services (IIS) to download each file completely and play that file before downloading the next file.
- C. Use Microsoft Windows Media Services to stream each video as requested by the subscriber.
- D. Cut the videos into smaller files. Use Microsoft Windows Media Services to download each file completely and play that file before downloading the next file.

Answer: C

Explanation: Microsoft Windows Media Services allows you to stream video and start playback before the download is complete. Microsoft Windows Media Services also supports all bandwidth types and has a minimal impact on overall performance as it does not consume IIS application resources other than the communication channel.

Incorrect Answers:

- A: IIS provides basic multimedia streaming and will have a negative impact on overall Web application performance.
- B, C: Cutting the video into smaller files will not ensure that all bandwidth are supported, and that subscribers can start watching the video before the download is complete.

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## **[QUESTION 12:](#)**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. Certkiller .com offers its customers financial and accounting services. You are developing a Web-based application for Certkiller .com. This application will allow the Certkiller .com employees to manage their investments and retirement benefits. With this application employees will be able to investigate various hypothetical scenarios to determine the best investments options. The calculation used in this application is rather complex and based on a common calculation algorithm. To this end you decided to provide other developers with a component to encapsulate the algorithm and basic user interface elements.

Following are the requirements that your component should meet:

1. The component must display two TextBox Web server controls.
2. The component must display one Button Web server controls.
3. The component must be available only to your application for security reasons.
4. The component must be available in the Visual Studio designer.

You thus decide to design the component to implement the IComponent interface. And now you need to make a decision as to whether the solution will meet the requirements.

What conclusion can you draw?

- A. All the requirements will be met.
- B. None of the requirements will be met.
- C. Only the requirement stating that the component should be available in the Visual Studio designer will be met.
- D. Only the requirements stating that the component must display two TextBox-, and one Button Web server control, will be met.

Answer: C

Explanation: Classes that implement the IComponent interface can be made available to developers in the Visual Studio designer and accessible from the Visual Studio toolbox, thus only the availability of the component in the Visual Studio designer requirement will be met. To meet all the requirement a Web User control would be most appropriate.

Incorrect answers:

- A: This option is incorrect since all the requirements will not be met only the requirement stating the component should be available in the Visual Studio designer will be met.
- B: This is incorrect since only one of the requirements will be met and not none.
- D: This is incorrect since only the requirement stating the component should be available in the Visual Studio designer will be met, and not the TextBox or Button control requirement.

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### **QUESTION 13:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. Certkiller .com operates as an online-retailer.

You are currently developing a component for CertK ign.com. This component will be used to log the raw HTTP request and response for a Web application. You need to ensure that the component will (1) be modular and (2) provide extensibility to log other information in future.

You need to make a decision as to which design pattern you should use to meet the requirements of this component.

What should you do?

- A. Use an Observer
- B. Use a Front Controller
- C. Use an Intercepting Filter
- D. Use a Page Controller

Answer: C

Explanation

: The Intercepting Filter design pattern provides a processing mechanism before and after an application processes a request or a response. Since you need to log the raw HTTP request and response with a pattern that provides modularity and extensibility, this would be the appropriate choice. Because the processing of the request and response occurs before the application or page processing, filter components could be added, modified, removed or their order shuffled without affecting the processing in the application.

Incorrect answers:

A: The Observer design pattern does not meet the requirements for this component because it does not provide a mechanism for input or output pre-processing or post-processing. It will describe how to have observers, or subscribers monitor a subject object's state changes. This will introduce unnecessary complexity and should not be used in this scenario.

B: The Front Controller is used to centralize all control for the entire Web application. This is not appropriate in this scenario.

D: The Page Controller pattern describes a component that receives a user request for a page, retrieves the requested data, and determines the appropriate response. It is highly appropriate in a centralized application processing environment and not to intercept data before or after processing.

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#### **[QUESTION 14:](#)**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. Certkiller .com operates as retailer.

You are currently developing an application for Certkiller .com. This application, upon completion will be used to process, validate, and approve credit card purchases. This application will make use of an unmanaged COM component. You now need to ensure that the application will release the COM component resources as soon as the client application is finished using it. To this end you need to make implement the appropriate interface.

What should you do?

- A. Implement the IContainer interface.
- B. Implement the IBindingList interface.
- C. Implement the IComponent interface.
- D. Implement the IDisposable interface.



Answer: D

Explanation: When one implements the IDisposable interface, one must implement the Dispose method to allow for the release of resources explicitly. The Dispose method will release any unmanaged COM resources in this scenario.

Incorrect answers:

A: The IContainer interface is implemented as a container to tract zero or more components. And although the IContainer interface also inherits the IDisposable interface, you will still need to provide more functionality than is required in this case.

B: The IBindingLis interface exposes the functionality to support both simple and complex binding to a data source. This is not what is required in this scenario.

C: The IComponent interface is implemented to server as a user interface in Visual Studio Designer and although the IComponent interface also inherits the IDisposable interface, you will still need to provide more functionality than is required in this case.

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### **QUESTION 15:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. Certkiller .com operates as a construction company that specializes in erecting and maintaining projects.

You are currently creating an ASP .NET Web-Based application for Certkiller .com. This application will be used to view current and historical information regarding each project. This application accesses project information that is stored on a table within a relational database.

You design the Project class to represent the commercial construction project. Each project is tracked by means of a unique project identifier. This identifier is also assigned to projects prior to the commencement of a project and prior to resources being assigned to it. You now need to design the interface of the Project class in such a way as to ensure that the project identifier is assigned.

What should you do?

A. Randomly generate a unique project identifier in the default constructor.

B. Randomly generate a unique project identifier in the default constructor.

Accept the project identifier as a parameter in an overloaded constructor.

C. Call a stored procedure to increment the unique project identifier in the default constructor.

D. Call a stored procedure to increment the unique project identifier in the default constructor.

Accept the project identifier as a parameter in an overloaded constructor.

Answer: D

Explanation: In this scenario a project needs a unique identifier for creation and tracking

the project. When using the default constructor, it is important that a new project (yet without an identifier) is uniquely identified. Because the identifier information is located in a relational database, you should increment the last used project identifier using a stored procedure. When tracking an existing project, the project instance will represent an existing project, thus the overload constructor should take a valid project identifier as input.

Incorrect answers:

A: You should not randomly generate a unique project identifier. Even if it seems unlikely, the project identifier may be the same as an existing project. Because the relational database stores project information, you should rather increment the last used project identifier via a stored procedure to ensure unique identifiers being assigned.

B: This option is only partly correct, however, you should not randomly generate a unique project identifier. Even if it seems unlikely, the project identifier may be the same as an existing project. Because the relational database stores project information, you should rather increment the last used project identifier via a stored procedure to ensure unique identifiers being assigned.

C: This option only represents half of the solution.

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#### **QUESTION 16:**

You work as the Web application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. Certkiller .com operates as a College of Education.

Certkiller .com is divided into many different faculties that operate independent from each other. However, and each faculty has to make use of the Administration building staff quarters if they are to conduct meetings as this is the only facility that is suitable for this purposes. To this end you have written an application that will allow users to reserve the Administration building staff quarters for meetings.

Usually when a user requests the Administration facilities for a meeting for a specific time and date, a record is written to a database; e-mail invitations and agendas are sent to all requested participants. This process to generate the invitations and agendas does take some time. You want to ensure that invitations are sent out in the order in which meeting requests are received. To this end you decide to store the MeetingRequestID in one of the members of the Systems.Collections class to ensure that you process the records invitations in the correct order. You thus need to choose the appropriate collection class to meet this requirement.

What should you do?

- A. Use the ArrayList collection class.
- B. Use the Stack collection class.
- C. Use the Queue collection class.
- D. Use the HashTable collection class.

Answer: C

Explanation: Systems.Collections is a namespace in the .NET framework that contains classes which define various objects such as lists, dictionaries and queues. In this case you should create a Queue collection class. A Queue is used to store a list of objects to be processed on a First-in, First-out basis. In this scenario the requests are added to a queue as they are received. As the application has time it pulls the first item from the queue and processes it. Thus you will ensure first-in, first-out processing.

Incorrect answers:

A: You should not use the ArrayList collection class as this construct allows for sorting, but does not guarantee a first-in, first-out processing.

B: You should not use the Stack collection class as this construct will allow you to retrieve requests in a last-in, first-out basis and this is not what is specified in the requirements.

D: You should not use the Hashtable collection class as this data structure will not guarantee first-in, first-out processing.

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### **QUESTION 17:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. Certkiller .com offers its customers financial and accounting services. Certkiller .com makes use of a front-end Web site that allows its customers to view their accounts and to manage their financial affairs. This financial affair management includes the ability to shift funds from e.g. a savings account to a mortgage account or to a credit card account, as well as paying bills online. You are currently developing a component to centralize all financial transactions between customer accounts. All financial data is stored in a SQL Server database.

You want the transaction process to perform the following steps:

1. Verify that the customer has sufficient funds (to cover the transfer fees as well.)
2. Debit the amount from the source account to main customer account.
3. Credit the amount to the destination account from the main customer account.

For a transaction to be considered completed all these steps must be fulfilled successfully. The component must notify the application in the event of an error and roll back the pending transaction.

You now need to make a decision as to which exception handling method you can use to meet these transactional requirements.

What should you do?

- A. The SqlTransaction object must be placed inside a using statement.
  - B. The SqlTransaction object must be placed inside a finally block.
  - C. Make use of a catch block to catch all exceptions.
- Roll back the current transaction.  
Re-throw the exception.

D. Make use of a catch block to catch all exceptions.  
Re-throw the exception.  
Use a finally block to roll back the current transaction.

Answer: C

Explanation: Using a Catch block to catch all new exceptions and rolling back the current transaction and then re-throwing the exception will ensure that the application is notified and the transaction rolled back in the event of errors occurring during the transaction.

Incorrect answers:

A: You should not place the SqlTransaction object inside a using statement because it will not have any effect on transaction rollbacks and application notifications.

B: You should not place the SqlTransaction object inside a finally block because it will not have any effect on transaction rollbacks and application notifications.

D: This procedure is wrong and you also should not make use of a finally block to rollback the current transaction because a successful transaction should be committed and code in the finally block is executed if an error occurs or not. The object of the exception-handling method should be to roll back only in the event of errors occurring or when the transaction is not successful.

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### **QUESTION 18:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. You are currently designing a component for Certkiller .com. This component will be used to simplify data access to disparate data sources. These sources are varied and include both Oracle and flat-file databases. the Web application will use the component to retrieve and update the underlying data sources.

You need to design an exception handling mechanism for this component that will meet the following requirements:

1. The Web application must not require a status message that indicates success or failure.
2. The Web application requires error messages when they occur in the component.
3. All error messages must be thorough and detailed.
4. All error messages must indicate the origin of the error, i.e. where and when the error occurred.
5. All error messages should be user friendly.

You need to make a choice as to which exception handling method you could use to meet these requirements.

What should you do? (Each correct answer presents part of the solution. Choose three.)

- A. Catch each exception and throw a new custom exception.
  - B. Catch each exception and re-throw the exception.
  - C. Set the new exception Data property to a custom error message.
  - D. Set the new exception Message property to a custom error message.
  - E. Set the new exception Data property to the original exception.
  - F. Throw the new exception by wrapping it around the original exception.
- The InnerException property will return the original exception.

Answer: A, D, F

Explanation: To ensure that the error message is detailed as well as containing the original error message's origins and that the message be user friendly you should first catch each new exception and throw a new custom exception, then you should throw the new exception by wrapping it around the original exception and set the Message property of the new exception to a custom error message. (With wrapping, the InnerException property will ensure that the original exception data will give you the necessary feedback on what went wrong.

Incorrect answers:

- B: Rethrowing an exception will result in more overhead rather than allowing the exception to propagate up the call stack in normal fashion.
- C: The Data property is an IDictionary object and there is no need for additional data that has to be sent from the component, except for the information in the original exception. You should rather wrap the original exception and use the InnerException property to access it.
- E: Setting the new exception Data property to the original exception will not meet the requirements because the Data property is an IDictionary object and not an InnerException property

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### **QUESTION 19:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. You are currently designing a component for Certkiller .com. This component will be used to synthesize information from various Web service providers. The Web application will use this component to populate various list-bound controls on its Web pages.

You need to design an exception handling mechanism for this component that will meet the following requirements:

1. The Web application must receive a status code indicating success or failure.
2. The Web application requires error messages when they occur in the component.
3. All error messages must indicate the origin of the error, i.e. where and when the error occurred.
4. All error messages should be user friendly.

You need to make a choice as to which exception handling method you could use to

meet these requirements.  
What should you do?

- A. Allow the original exception to propagate to the application in case of an error occurring.  
Else, return true to indicate success.
- B. Always return a status code.  
Allow the original exception to propagate to the application in case of an error occurring.
- C. Always return a status code.  
Catch the original exception and wrap it in a new custom exception in case of an error occurring.  
Set the Message property to custom message.
- D. Catch the original exception and wrap it in a new custom exception in case of an error occurring.  
Set the Message property to custom message.  
Else, return true to indicate success.

Answer: C

Explanation

: Your component is supposed to send a status code that indicates success or failure. The requirement and the solution do not indicate the sending mechanism for the status code, but one can assume that an output parameter could be involved. The exception handling mechanism will ensure that the error message is both detailed and contain the origins of the error and you can ensure that the message is user-friendly if you (1) always return a status code, (2) catch the original exception and wrap it in a new custom exception. And set the Message property to custom.

Incorrect answers:

- A: This exception handling mechanism does not have an always return status code and you should thus not make use of this option. Even though the returning true would indicate success, a return value could not be sent to the caller if an exception was thrown. Thus this option does not meet the requirements.
- B: You should not make use of an exception handling mechanism that propagates the original exception to the application as this will not be a user-friendly message which is one of the requirements that should be met.
- D: This option does not mention the Always return a status code which means that it cannot be used in this scenario.

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## **QUESTION 20:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. Certkiller .com operates as a Medical Facility. You are currently creating a Web-based application for Certkiller .com. This application, upon completion, is destined to be used by the Certkiller .com employees



to manage patient information, medication that patients have been prescribed, and follow-up medication that patients have been prescribed. You plan to create a component that retrieves patient data from an Oracle database. This component must provide information regarding the patient's name, address, and contact telephone numbers of next of kin.

To this end you need the component to meet the following requirements:

1. It must provide individual records of patients as quickly as possible.
2. It must prevent the data from being tampered with or deleted.
3. It must be memory efficient.

You now need to decide which data tier object to use in order to meet these requirements.

What should you do?

- A. Use the DataSet object
- B. Use the OracleDataReader object.
- C. Use the OleDbDataReader object.
- D. Use an XmlDocument object.

Answer: B

Explanation: A DataReader class will allow you to quickly read data as a connected read-only, forward-only firehouse cursor. DataReader objects are useful for populating controls or displaying data directly in a connected environment. Choosing the OracleDataReader object would be the solution because the patient data is stored in an Oracle database. It is recommended to use the most specific .NET data provider to provide optimal performance.

Incorrect answers:

A: A DataSet object is a disconnected representation of a relational data that allows for the retrieval, sorting, filtering, and updating of data. When updating occurs it could also be similar to tampering. Thus this option is not the solution.

C: The OleDbDataReader class implements the same IDataReader interface as the OracleDataReader class, but will not provide optimal performance on an Oracle database. Thus this is not the solution.

D: An XmlDocument class is a node-based representation of hierarchical data. One makes use of this object to access XML data, not relational data.

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### **QUESTION 21:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a SQL Server 2005 database server named Certkiller -DB01 and a Windows Server 2003 Web server named Certkiller -SR24. Certkiller -DB01 hosts a database named CK\_Products that stores product data for the company. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as

your development computer. Internet Information Services (IIS) 5.0 is installed on Certkiller -WS547.

You are developing a Web-based client application for the Certkiller .com Web site. Your Web application contains a Web Form named ProductDetails.aspx that displays product details in a DataGrid control. The data displayed in the DataGrid must be read-only but must allow sorting and filtering. The data structure must also allow paging if the data set is large. You need to ensure that the data structure has a minimal impact on the overall performance of the Web application. What should you do?

- A. Implement a DataAdapter object.
- B. Implement a TableAdapter object.
- C. Implement a DataTable object.
- D. Implement a DataReader object.

Answer: C

Explanation: A DataTable can be stored on the Web server to allow sorting, filtering and paging without requiring a round trip to the database server.

Incorrect Answers:

A, B: DataAdapters and TableAdapters are not used to display data. They are used to synchronize the data structure with the underlying database.

D: A DataReader must retrieve the data from the database server whenever the data must be sorted, filtered or paged. This will have a negative impact on the overall performance of the Web application.

---

## **QUESTION 22:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a SQL Server 2005 database server named Certkiller -DB01 and a Windows Server 2003 Web server named Certkiller -SR24. Certkiller -DB01 hosts a database named CK\_Products that stores product data for the company. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on Certkiller -WS547.

You are developing a Web application for the Certkiller .com e-Commerce Web site. The Web allows registered users to purchase products from the Certkiller .com Web site. Users are allowed to place purchase orders only after registering online and logging in using ASP.NET form authentication. The UserLogon method is used to authenticate the user while the UserInfo method is used to all of the user's details, including username, location and shopping preferences. The user details are stored in user-specific XML files. Should the user-specific XML file not be found when a user successfully logs on, a FileNotFoundException is generated. You want the UserInfo method to display an error message on the Web Form. The error message

must state the type of error and the cause of the error, it must be user-friendly, and it must not expose any code.

What should you do?

- A. Have the exception propagate automatically.
- B. Catch and re-throw the exception.
- C. Catch, wrap and throw the wrapped exception.
- D. Catch and throw a custom application exception.

Answer: C

Explanation: You need to catch the exception so that the necessary processing to handle the exception can occur. If the exception cannot be recover, you must wrap the exception in a new exception and throw the new exception back to the caller. This allows the user interface to display a user-friendly error message that states the type of error and the cause of the error and does not expose the underlying code.

Incorrect Answers:

A: Allowing the exception to propagate automatically will result in no processing taking place and no error message will be displayed.

B: Re-throwing the exception will expose underlying code in a detailed error message that is not user-friendly.

D: There is no need to generate a custom application exception when a FileNotFoundException is already generated.

---

### **QUESTION 23:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a SQL Server 2005 database server named Certkiller -DB01 and a Windows Server 2003 Web server named Certkiller -SR24. Certkiller -DB01 hosts a database named CK\_Products that stores product data for the company. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on Certkiller -WS547.

You are developing a Web application for the Certkiller .com e-Commerce Web site. The Web application allows registered Certkiller .com users to store their credit card details online. Selected users have a credit account at Certkiller .com that allows them to purchase goods on credit and pay for the goods at a later date. Your Web application must allow these users to check their credit balance and to settle outstanding payments online. Employees in the Accounting department at Certkiller .com have access to a restricted area of the Web application where they have access to all user accounts. You need to ensure that only the registered user can perform transaction against his or her credit account. You also need to ensure that only Accounting department employees may create new credit accounts and that Accounting department employees can only access the restricted area of the

Web application while at work. You need to create an audit log to track account access.

What should you do? (Each correct answer presents part of the solution. Choose four.)

- A. Audit the transaction type.
- B. Audit the AccountID.
- C. Audit the UserName.
- D. Audit the client timestamp.
- E. Audit the client IP address.
- F. Audit the Web server timestamp.

Answer: B, C, E, F

Explanation: You need to audit the username to know who accessed the account, you need to audit the AccountID to know which account was accessed, you need to audit the Web server timestamp to know when the account was accessed, and you need to audit the client IP address to know where the account was accessed from and to ensure that the account was accessed from Certkiller .com.

Incorrect Answers:

A: You do not need to audit the transaction type, only account access.

D: You should audit the Web server timestamp rather than the client timestamp. The client timestamp is relative to the location and configuration of the client. If the client is configured with the wrong time, you would have no way of knowing exactly when the account was accessed.

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#### **QUESTION 24:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a SQL Server 2005 database server named Certkiller -DB01 and a Windows Server 2003 Web server named Certkiller -SR24. Certkiller -DB01 hosts a database named CK\_Products that stores product data for the company. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on Certkiller -WS547.

You are developing a Web application for the Certkiller .com e-Commerce Web site. The Web application allows Certkiller .com to track the traffic forwarded to the Certkiller .com Web site from an advertisement placed on the Web site of its affiliates. The Marketing department at Certkiller .com will keep statistics regarding traffic sent from the affiliate Web sites. Your application must log the URL of the affiliate Web site that redirects traffic to the Certkiller .com Web site, and must manage an incremental hit counter for every customer that is redirected to the Certkiller .com Web site.

What should you do? (Each correct answer presents part of the solution. Choose

two.)

- A. Create an ASP.NET session variable to manage the incremental hit counter.
- B. Create an ASP.NET application variable to manage the incremental hit counter.
- C. Use the PreviousPage property value of the IsCrossPostBack property.
- D. Use the PreviousPage property value of the IsPostBack property.

Answer: B, C

Explanation: The IsCrossPostBack property evaluates to true when the Web page is posted from a different Web page. When true, the IsCrossPostBack property contains a PreviousPage property that holds the URL of the posting Web page. You should also create an ASP.NET application variable to manage the incremental hit counter. An application variable is stored on the Web server and is available to all users and sessions.

Incorrect Answers:

A: A session variable is specific to a user session and is not available to all users and all sessions.

D: The IsPostBack property evaluates to true when a Web page posts back to itself. If evaluates to false if the postback comes from a different Web page.

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### **QUESTION 25:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a SQL Server 2005 database server named Certkiller -DB01 and a Windows Server 2003 Web server named Certkiller -SR24. Certkiller -DB01 hosts a database named CK\_Sales that stores sales data for the company. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on Certkiller -WS547.

You have developed a Web application that allows Certkiller .com employees in the Sales department to enter daily sales transactions. The Web application allows users to manage data and generates weekly sales reports by executing several Transact-SQL (T-SQL) queries against the CK\_Sales database. Sales department users report that T-SQL queries take a long time to produce the weekly reports. You need to diagnose the cause of the poor performance of the weekly reports. What should you do?

- A. Use Windows Performance Monitor on Certkiller -SR24 to monitor the performance of the Web application.
- B. Use the SQL Profiler tool on Certkiller -DB01 to monitor the execution time of the T-SQL queries.
- C. Write stored procedures to replace the T-SQL queries.
- D. Use the Trace Viewer to monitor tracing information for the Web application.

Answer: B

Explanation: The SQL Profiler tool is used to monitor T-SQL queries, stored procedures, deadlocks and timeouts in SQL Server 2005.

Incorrect Answers:

A: The Windows Performance Monitor is used to monitor system performance. It can be used to monitor ASP.NET applications by using an ASP.NET performance counter; however, the performance problem is related to the T-SQL queries. Windows Performance Monitor cannot be used to monitor the execution of T-SQL queries.

C: You need to diagnose the performance problem associated with the T-SQL queries. Replacing them with stored procedures is not part of a diagnosis but is a possible solution.

D: The Trace Viewer is used to view request and response trace information for the Web application. It is not used to monitor performance.

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### **QUESTION 26:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a Web server named Certkiller -SR24. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. Certkiller -SR24 also hosts a database named CK\_Sales that stores sales data for the company. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on Certkiller -WS547.

A fellow developer has developed a Web application that allows Certkiller .com sales representatives to enter daily sales transactions to a flat file on their portable Windows XP Professional computers while at customer locations. The sales transactions are then exported to the CK\_Sales database at the end of the day. The following morning data from the current CK\_Sales database is imported to the flat file. This Web application is hosted in a virtual IIS directory named SalesRepData and uses several data bound controls to display data from the CK\_Sales database. The connection string for the data bound controls is stored in the Web application's Web.config file.

You need to ensure that the connection string is not human-readable. To accomplish this task you run the following command from the command prompt:

```
Aspnet_regiis -pd "connectionStrings" -app "/SalesRepData"
```

Does your solution satisfy the requirements for this project?

- A. Yes.
- B. No, you should use the -pe switch in place of the -pd switch.
- C. No, you should use the -pa switch in place of the -pd switch.
- D. No, you should use the -pz switch in place of the -pd switch.

Answer: B



Explanation: The -pe switch of the aspnet\_regiis.exe utility encrypts the section of the Web.config file that is specified after the -pe switch while the -pd switch decrypts it.

Incorrect Answers:

A: Your solution does not meet the security requirements. The -pd switch of the aspnet\_regiis.exe utility decrypts the section of the Web.config file that is specified after the -pd switch. You should use the -pe switch that encrypts the section of the Web.config file that is specified after the -pe switch.

C: The -pa switch of the aspnet\_regiis.exe utility grants permissions to the user account or group that is specified after the -pa switch. This does not ensure that the connectionStrings section of the Web.config file is not human-readable.

D: The -pz switch of the aspnet\_regiis.exe utility deletes the key container specified after the -pz switch. This does not ensure that the connectionStrings section of the Web.config file is not human-readable.

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### **QUESTION 27:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on Certkiller -WS547.

You are testing a Web application that will be integrated into the existing Certkiller .com e-Commerce Web site. A fellow developer added the following Web.config file to the Web application:

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
<system.Web>
<customErrors mode="Off" />
<authentication mode="Windows" />
<authorization>
<allow roles="BetaTesters" />
<deny users="*" />
</authorization>
<trace enabled="false" requestLimit="10" pageOutput="false"
traceMode="SortByTime" localOnly="true" />
<sessionState mode="InProc"
stateConnectionString="tcpip=127.0.0.1:42424"
sqlConnectionString="data source=127.0.0.1; Initial Catalog=ASPState;
Integrated Security=true" cookieless="false" timeout="20" />
</system.Web>
</configuration>
```

You need to determine the functionality of the Web.config file.

Which of the following functionality is provided by the Web.config file?

- A. No user will be able to access the application.
- B. Detailed error messages will be displayed to all users.
- C. Users in the Administrators group have access to the application.
- D. Users with Windows user accounts will be used to access the application.

Answer: B, D

Explanation:

The authentication mode is set to Windows. This means that the users' Windows credentials will be evaluated to determine if the user should have access to the application. However, the Authorization element allows access to users in the BetaTesters role and denies access to all other users. The customErrors mode is set to Off. This means that no custom error pages will be used and the default error message will be displayed. The default error messages are detailed messages that are displayed to all users.

Incorrect Answers:

A: The authentication mode is set to Windows. This means that the users' Windows credentials will be evaluated to determine if the user should have access to the application. However, the Authorization element allows access to users in the BetaTesters role and denies access to all other users.

C: The authentication mode is set to Windows. This means that the users' Windows credentials will be evaluated to determine if the user should have access to the application. However, the Authorization element allows access to users in the BetaTesters role and denies access to all other users.

---

### **QUESTION 28:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a Web server named Certkiller -SR24. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. Certkiller -SR24 also hosts a database named CK\_Sales that stores sales data for the company. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. Certkiller -WS547 is running ASP.NET Development Server embedded in Visual Studio .NET 2005. Internet Information Services (IIS) is not installed to Certkiller -WS547.

You are testing a Web application that will be integrated into the existing Certkiller .com e-Commerce Web site. The application is an inventory management system that incorporates a data access component named GetData. The GetData component retrieves data from the CK\_Sales database. You need to ensure that the GetData component executes successfully before deploying the application to the production environment. What should you do?

- A. Perform a unit test of the GetData component in Internet Information Services (IIS).

- B. Perform a unit test of the GetData component in ASP.NET Development Server.
- C. Perform a load test of the GetData component in ASP.NET Development Server.
- D. Perform a load test of the GetData component in Internet Information Services (IIS).

Answer: A

Explanation: Unit testing verifies that a component provides the required functionality and identifies any exceptions that may be generated by the code. This testing must be performed in IIS as all Certkiller .com's Web applications are hosted in IIS on Certkiller -SR24.

Incorrect Answers:

B: You should perform unit testing in IIS as all Certkiller .com's Web applications are hosted in IIS on Certkiller -SR24.

C, D: Load testing is used to test the application when large numbers of users access the application. You need to test functionality of the GetData component. Unit testing verifies that a component provides the required functionality. You should also perform the unit testing in IIS as all Certkiller .com's Web applications are hosted in IIS on Certkiller -SR24.

---

#### **QUESTION 29:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a Web server named Certkiller -SR24. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. Certkiller -SR24 also hosts a database named CK\_Sales that stores sales data for the company. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on Certkiller -WS547.

You are redeveloping a Web application for the Certkiller .com e-Commerce Web site. The current Web application allows registered Certkiller .com users to purchase goods online and pay for them by credit card. The Web application uses custom a component named AuthenticateCustomers is used to validate customers when they place orders. User details of registered users are stored in the CK\_Sales database in a table named Customers. You want to expand the functionality of the Web application to allow only selected users to place orders for products that are out of stock. You decide to add new methods to the AuthenticateCustomers component to accommodate the new functionality. You need to ensure that the AuthenticateCustomers component executes successfully in the production environment. You need to accomplish this task as quickly as possible. What should you do?

- A. Perform unit testing on all methods of the AuthenticateCustomers component.
- B. Perform unit testing on the new methods of the AuthenticateCustomers component.
- C. Perform load testing on the new methods of the AuthenticateCustomers component.
- D. Perform load testing on all methods of the AuthenticateCustomers component.

Answer: B

Explanation: Unit testing verifies that the methods of a component provides the required functionality and identifies any exceptions that may be generated by the code. The existing component has all already deployed successfully to the production environment; therefore you do not need to test the existing methods of the component, only the new methods.

Incorrect Answers:

A: You should only perform unit testing of the new methods. The existing component has all already deployed successfully to the production environment; therefore you do not need to test the existing methods of the component.

C: Load testing is used to test the application when large numbers of users access the application. You need to test functionality of the GetData component. Unit testing used to test functionality.

D: Load testing is used to test the application when large numbers of users access the application. You need to test functionality of the GetData component. Unit testing used to test functionality. You should only perform unit testing of the new methods. The existing component has all already deployed successfully to the production environment; therefore you do not need to test the existing methods of the component.

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### **QUESTION 30:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a Web server named Certkiller -SR24. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. Certkiller -SR24 also hosts a database named CK\_Sales that stores sales data for the company. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. Certkiller -WS547 is running ASP.NET Development Server embedded in Visual Studio .NET 2005. Internet Information Services (IIS) is not installed to Certkiller -WS547.

You are developing a navigation application. You add an ImageMap control to a Web page named NYCity.aspx and set its ImageUrl property to the URL of an image that represents the street map of central New York. When a user clicks on an area that represents a building, the Web application displays the street address for that building on the same page. A custom component named StreetAddress retrieves the data from a local Web service that contains the address of all buildings on the map.

You need to ensure that the StreetAddress component executes successfully before deploying the Web application to the production environment. You successfully performed unit testing on the StreetAddress component and the Web service. What should you do next?

A. Perform an integration test of the StreetAddress component and the Web service in

Internet Information Services (IIS).

B. Perform an integration test of the StreetAddress component and the Web service in ASP.NET Development Server.

C. Perform a load test of the StreetAddress component and the Web service in Internet Information Services (IIS).

D. Perform a load test of the StreetAddress component and the Web service in ASP.NET Development Server.

Answer: A

Explanation: Integration testing determines how well to components work together and should be performed after unit testing of the individual components. This testing must be performed in IIS as all Certkiller .com's Web applications are hosted in IIS on Certkiller -SR24.

Incorrect Answers:

B: You should perform integration testing in IIS as all Certkiller .com's Web applications are hosted in IIS on Certkiller -SR24.

C, D: Load testing is used to test the application when large numbers of users access the application. You need to test functionality of the components. You have already completed unit testing you should now determine how well the two components work together. Integration testing determines how well two components work together. You should also perform the integration testing in IIS as all Certkiller .com's Web applications are hosted in IIS on Certkiller -SR24

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### **QUESTION 31:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a SQL Server 2005 database server named Certkiller -DB01 and a Windows Server 2003 Web server named Certkiller -SR24. Certkiller -DB01 hosts a database named CK\_Sales that stores sales data for the company. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. You use a Microsoft Windows Sever 2003 computer named Certkiller -WS547 as your development computer. Certkiller -WS547 is running ASP.NET Development Server embedded in Visual Studio .NET 2005 and Internet Information Services (IIS).

You have developed a Web application that allows Certkiller .com employees in the Sales department to enter daily sales transactions into the CK\_Sales database and allows the manager of the Sales department to generate weekly sales from the CK\_Sales database. A data access component named SalesReport to retrieves data for the sales reports by executing several Transact-SQL (T-SQL) queries against the CK\_Sales database. Access permissions to the Web application are based on the user accounts in Windows Active Directory. You set Windows as the authentication mode for the Web application in the Web.config file as shown in the following Exhibit:

```
<authentication mode="Windows" />
```

<authorization />

You successfully perform unit testing of the SalesReport component and integration testing with the Web service on Certkiller -WS547. However, when the Web application is deployed to the staging server, the SalesReport component fails to function.

Which application setting is the most likely cause of the problem?

- A. The Impersonation setting.
- B. The Authentication mode setting.
- C. The SQL Server security setting.
- D. The Authorization setting.

Answer: A

Explanation: You should consider the Impersonation setting as it is responsible for passing the identity of the user to the database when Windows authentication is used. It seems the wrong identity is being passed to the database.

Incorrect Answers:

B: The authentication mode is set to Windows. This setting is correct as access permissions to the Web application are based on the user accounts in Windows Active Directory. You therefore need Windows authentication.

C: The components tested successfully, therefore there should be not problem with the SQL Server security settings.

D: The authorization element is blank. You are using user accounts in Windows Active Directory to determine access permissions to the Web application. You therefore do not need to grant or deny access in the authorization element.

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### **QUESTION 32:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a Web server named Certkiller -SR24. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. Certkiller -SR24 also hosts a database named CK\_Sales that stores sales data for the company. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on Certkiller -WS547.

You have developed a Web application that allows Certkiller .com employees in the Sales department to generate weekly sales reports. The Web application uses a custom component named SalesReport to retrieves data for the sales reports by executing several Transact-SQL (T-SQL) queries against the CK\_Sales database.

You add code to SalesReport component to open a new connection to the CK\_Sales database, retrieve the required data, and close the connection. You must ensure that the connection is closed even if the SalesReport component throws an exception.

What should you do? (Each correct answer presents a complete solution. Choose two.)



- A. Enclose the connection code within a using block.
- B. Enclose the connection code within a try...catch...finally block and close the connection in a finally block.
- C. Use the private keyword when declaring the connection object.
- D. Use the public keyword when declaring the connection object.

Answer: A, B

Explanation: You can ensure that the connection is closed by enclosing the code in a using block or a try...catch...finally block. The using block ensures that an object is disposed of if the code throws an exception. If you use the try...catch...finally block, you must include code in the finally block to explicitly close the connection.

Incorrect Answers:

C, D: The private and public keywords are access modifiers that determine what code can access the object. They do not ensure that an object is disposed of if the code throws an exception.

---

### **QUESTION 33:**

You work as the application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the deployment of applications. Certkiller .com offers its customers financial and accounting services.

Certkiller .com has a multi-tiered Web application for Certkiller .com which was deployed several months ago. This application is to allow clients to manage own financial portfolios. This financial portfolio management includes the ability to shift funds from e.g. a savings account to a mortgage account or to a credit card account, as well as paying bills online, and even manage their stocks and investments. The portfolio data is stored in a SQL Server 2005 database which is accessed via stored procedures.

Recently the Certkiller .com Customer Care - line received calls from clients lodging complaints. These complaints all indicate application performance has deteriorated significantly since the original deployment. You investigated the problem and discovered from preliminary testing that the database operations are the most likely culprits for the deteriorated application performance. You need to investigate the longest running stored procedures without affecting the performance of the overall application in a negative way.

What should you do?

- A. Analyze the workload on the server using the Database Engine Tuning Advisor.
- B. Trace and analyze usage of the stored procedures using the SQL Server Profiler.
- C. Monitor the stored procedure performance by creating custom performance counters.
- D. Monitor the calls from the application to the database using CLR Profiler.

Answer: B

Explanation

: The SQL Server Profiler utility allows one to monitor the SQL Server database performance and to trace the SQL Server events. You are able to select the types of events that you desire to trace, the duration of the trace as well as where to save the data that is collected. In this scenario you are required to monitor the performance of stored procedures used in the application without affecting the application performance adversely. This means that monitoring must only affect the performance of stored procedures and not the other application components. You can achieve this type of monitoring with SQL Server Profiler.

Incorrect answers:

A: This Database Engine Tuning Advisor optimizes the physical database by creating indexes, indexed views, and partitions based on a sample workload. Thus you should not make use of the Database Engine Tuning Advisor to analyze workloads on the server as it will not track the performance of stored procedures

C: Custom performance counters are created to indicate custom events within an application and you should not create custom performance counters because the SQL Server Profiler provides standard stored procedure events.

D: The CLR Profiler is intended to trace the base performance of a .NET application beyond the managed code. It should not be used to monitor calls between an application and a database because it will not determine the longest running stored procedures and their performance.

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#### **QUESTION 34:**

You work as the application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Certkiller .com operates as an on-line marketing organization that makes use of Web-based applications.

To carry out your duties of support and deployment of applications, you need the ability to quickly locate bugs in the existing Certkiller .com applications that were deployed across Certkiller .com. You must ensure that all errors and warnings are traced. You need to make sure that no unnecessary information is tracked, and thus decided to configure a TraceSwitch object. This TraceSwitch object will be used in many Web applications.

Now you only need to decide on which configuration setting to set the TraceSwitch object.

What should you do?

- A. The TraceSwitch tracing level should be set to Info.
- B. The TraceSwitch tracing level should be set to Error.
- C. The TraceSwitch tracing level should be set to Verbose.
- D. The TraceSwitch tracing level should be set to Warning.

Answer: D

Explanation: The Warning tracing level will display both error messages and warning messages and would thus be the setting required in this scenario.

Incorrect answers:

A: The Info tracing level will display not only error messages and warning messages, but also informational messages which you do not want to trace.

B: The Error tracing level only displays error messages and not the warnings.

C: The Verbose tracing level will also display all unnecessary information that you do not want to trace.

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### **QUESTION 35:**

You work as the application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the deployment of applications. Certkiller .com operates as an online auctioneer. You have just deployed a Web site for Certkiller .com. This Web site will be used by customers to place and monitor their bids online. The application makes use of business components to update and retrieve bid information from a SQL Server database. You need to monitor this application and track any errors that may be caused by customer activity on the Web site. To this end you decide to create a custom TraceSwitch object named CustomerSwitch to toggle the tracing level as required.

Following are the tracing requirements that should be met:

1. All errors should be traced.
2. Application-specific warning messages should NOT be traced.
3. Application-specific informational messages should NOT be traced.

You then test the application and found that no messages are being traced. You need to remedy the situation.

What should you do?

A. The CustomerSwitch value should be changed to 1.

B. The CustomerSwitch value should be changed to 1.

Then restart the Web application.

C. The CustomerSwitch value should be changed to 4.

D. The CustomerSwitch value should be changed to 4.

Then recompile the Web application.

Answer: A

Explanation: There are several available trace levels to which a custom TraceSwitch like CustomerSwitch can be set. These are: Off - numerical value of 0; Error - numerical value of 1; Warning - numerical value of 2; Info - numerical value of 3 and verbose - numerical value of 4. Each of these level builds on the other, so that the Warning setting for instance will include both errors and warnings, and the Info level setting will include errors, warnings, and informational messages, etc. In this case you only need to trace errors. Thus you should change the CustomerSwitch setting to 1.

Incorrect answers:

B: Restarting the Web application should not be done because once the Web.config file is saved, the new application settings will apply.

C: Setting the value to 4 would also trace unnecessary information.

D: You should not recompile the Web application because once the Web.config file is saved, the new application settings will apply.

---

### **QUESTION 36:**

You work as the application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the deployment of applications. Certkiller .com operates as a vehicle manufacturer. Certkiller .com makes use of an intra-net Web application for users to track work on assembly lines within all departments of the Certkiller .com facilities. This Web application uses ASP .NET 2.0 Membership to manage user accounts for the application. A user is allowed to recover their password using a PasswordRecovery control. Every time a user recovers a password, you want to have the event recorded in the Application event log of the server. To this end you configure the application to use the ASP .NET 2.0 Health Monitoring API. Following are the settings that you configured:

1. Enable health monitoring by modifying the Web.config file by setting the enabled attribute of the Health Monitoring element to true.
2. Create an event mapping for the PasswordRecoveryEvent event.

Now you need to take a decision as to whether your configuration will meet the requirements.

What conclusion can you draw?

- A. The configuration meets the requirements.
- B. The configuration does not meet the requirements. You should create mapping for the WebFailureAuditEvent event.
- C. The configuration does not meet the requirements. You should create mapping for the WebAuthenticationFailureAuditEvent- and the WebAuthenticationSuccessAuditEvent events.
- D. The configuration does not meet the requirements. There is no event class in the Health Monitoring API to monitor password recovery events.

Answer: D

Explanation: There is not an event class in the Health Monitoring API to monitor password recovery events. In fact there are no event classes for password related events such as password recovery or password changes.

Incorrect answers:

A: This is incorrect as the configuration does not allow for events to be recorded in the Application event log of the server using the ASP .NET 2.0 Health Monitoring API.

B: The WebFailureAuditEvent event is a generic base class for all ASP .NET related

audit events. This class does not provide a means of detecting a password recovery or password change. Thus you should not use the WebFailureAuditEvent event.

C: The WebAuthenticationSuccessAuditEvent and WebAuthenticationFailureAuditEvent will provide information regarding authentication failures. However, a password recovery or password change is not an authentication event.

---

**QUESTION 37:**

You work as the application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the deployment of applications. Certkiller .com operates as manufacturer and online retailer offering their customers a shopping experience twenty four hours a day seven days a week.

You created a Web Application for Certkiller .com. This application will allow users to view product information and make online purchases. This application is distributed across a Web Farm. You want to be able to determine if critical errors occurs with the application because it will help tremendously in the event of you being required to rectify any application issues before it affects the users. To this end you decided to use application monitoring. It is critical that the application monitoring does not affect performance.

You thus did the following:

1. Configure ASP .NET 2.0 Health Monitoring API in the Web.config file.
2. Configure the minInterval attribute of each rule to a low value.

Now you need to take a decision as to whether this application will meet the requirements.

What conclusions can you draw?

- A. The configurations will meet the requirements.
- B. The configurations will not meet the requirements. ASP .NET 2.0 Health Monitoring API will not work in an environment where an application is distributed across a Web farm.
- C. The configurations will not meet the requirements. ASP .NET 2.0 Health Monitoring cannot be configured in a Web.config file.
- D. The configurations will not meet the requirements. The minInterval attribute should be configured to a high value.

Answer: D

Explanation: Making use of ASP .NET 2.0 Health Monitoring can affect the performance of an application. To ensure that this is not the case, you should configure the minInterval attribute for each rule in the rules section to increase the minimum time interval between events that are captured.

Incorrect answers:

A: This is wrong because performance will be affected if the minInterval value is set too low. The time interval between captures events will cause the APIs to monitor the

application more often which means deterioration in performance.

B: This is incorrect since it is possible to configure ASP .NET 2.0 Health Monitoring APIs to monitor live ASP .NET applications across a Web farm.

C: You can configure the ASP .NET 2.0 Health Monitoring APIs in a Web.config file.

---

**QUESTION 38:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. The design of applications forms part of your responsibilities at Certkiller .com. Certkiller .com operates as an examination Web site.

You are developing a Web-based application for Certkiller .com. This application, upon completion, should allow users to take various online examinations. Every time a user takes on online test, you want the following business rules to be met:

1. Display a congratulatory message when a user passes a test.
2. Display a motivational message when a user fails a test.
3. Display a different message when a user meets the minimum requirements for a test.

The following Exhibit illustrates the pseudo-code that you wrote to meet these requirements:

Exhibit:

if pass

display congratulatory message

else if meeting minimum requirements

display different message

else

display motivational message

What conclusion can you draw?

- A. None of the requirements will be met.
- B. All the requirements will be met.
- C. All requirements, except the display of a different message when the user meets the minimum requirements, will be met.
- D. All the requirements, except the display of the motivational message when a user fails a test, will be met.

Answer: B

Explanation: All the requirements for the application will be met. A different message will be displayed in the event of the user passing, failing or just meeting the minimum requirements for a test. If the user passes, then the congratulatory message will be displayed, if the user meets the minimum requirements then the different message will be displayed. Otherwise the user fails the test in which case the motivational message will be displayed.

Incorrect answers:

- A: This is incorrect because this pseudo-code will yield the desired results.  
C: This is only partly correct since the code will also result in the display of the different message in case the user meets the minimum requirements of a test.  
D: This is only partly correct since the code will result in displaying the motivational message in case the user fails the test.
- 

**QUESTION 39:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. The design of applications forms part of your responsibilities at Certkiller .com.

You are currently developing Web-based applications for Certkiller .com. One of these applications that you developed is destined to allow the user to display multiple lines in a TextBox control. Each of the lines in the TextBox control is concatenated into a single string. Each message in the TextBox control will consist of more than five lines.

You now need to configure this Web-based application to meet these requirements. What should you do?

- A. You should include calling the Concat method in the application using a String instance.  
B. You should include calling the Append method in the application using a String instance.  
C. You should include calling the Add method in the application using a StringBuilder instance.  
D. You should include calling the Append method in the application using a StringBuilder instance.

Answer: D

Explanation: The StringBuilder instance has a larger internal buffer to handle larger strings and since you will have at least five lines concatenated in the same string, you should make use of a StringBuilder instance to call the Append method. Strings are immutable and every time a string is concatenated, at least two strings are de-referenced, but stay in memory until Garbage collection. The StringBuilder, due to its larger internal buffer is capable of maintaining a large internal buffer and only extends the buffer than required to do so. This makes using the StringBuilder unstance for efficient.

Incorrect answers:

- A: You should not make use of the String class as it is unable to modify its contents in place. The String class will always return a new string when the contents are changed and this will result in a drop in the performance.  
B: This is partly correct since you need to call the Append method, however you should make use of a StringBuilder instance and not the String instance.  
C: This is incorrect as there is no such method named Add method. You need to make use of the Append method when using the StringBuilder class.



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**QUESTION 40:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. There is only one Web server at Certkiller .com. The design of applications forms part of your responsibilities at Certkiller .com. Certkiller .com operates as a manufacturing company.

You are currently developing Web-based applications for Certkiller .com. All the departments at Certkiller .com will have its own Web application for custom content and functionality that is department-specific. All these Web applications make use of third party .NET 1.1 components. These components are all shared by other Web applications within Certkiller .com.

You must meet the following requirements in your development of these Web-based applications:

1. The Web-based applications must require the shared components.
2. The Web-based applications must also require ASP.NET 2.0 features.

You should develop these applications with the least amount of developer effort and time. To this end you need to take a decision on how you will meet these requirements in your solution.

What should you do?

- A. You should upgrade the shared components to .NET 2.0
- B. You should enable directory browsing on the Web Server to access the shared components.
- C. You should place the shared components in the same directory as the main Web application.
- D. Since ASP.NET 2.0 Web applications are compatible with .NET 1.1 components you should not do anything.

Answer: D

Explanation: The ASP.NET 2.0 and ASP.NET 1.1 runtime can run on the same machine without any additional configuration settings required. The ASP.Net 1.1 components can benefit from the performance options that are available in ASP.NET 2.0 and ASP.NET 2.0 applications can continue to communicate with the ASP.NET 1.1 components. Thus there is no need to do anything.

Incorrect answers:

A: There is no need to upgrade the shared components to ASP.NET 2.0. This option would not be available if the components are third party and data access components should then be redesigned to take full advantage of the ASP.NET 2.0 benefits. In fact it would be simpler upgrading an ASP.NET 1.1 site to ASP.NET 2.0.

B: You should not enable directory browsing on the Web server because it can allow any user to see the directory structure of your Web site. And furthermore, directory browsing will not allow different versions of ASP.NET to run.

C: The shared components should not be placed in the same directory as the main Web application. Merging the files into the same directory will create a problem with other Web applications accessing the shared component.

---

**QUESTION 41:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. The design of applications forms part of your responsibilities at Certkiller .com. Certkiller .com operates as an online-retailer.

You are currently developing a Web-based application for Certkiller .com. This application will server as an order fulfillment application. Upon completion this application will allow the Certkiller .com users to enter a zip code into a TextBox control where they will be able to find all the packages that have been shipped to a particular geographical area. The application will take the TextBox value and construct a query similar to the one illustrated in the Exhibit below:

Exhibit:

```
SELECT * FROM Orders WHERE zip = '21006'
```

You now need to make sure that you mitigate the possibility of malicious code being inserted into the query strings passed to the SQL Server for parsing and execution.

What should you do?

- A. You should use a RequiredFieldValidator control on the TextBox.
- B. You should validate user input using stored procedures.
- C. You should build Transact-SQL statements directly from the TextBox input.
- D. You should concatenate user input from the TextBox.

Answer: B

Explanation: It is possible that malicious code can be inserted into user input variables that are concatenated with SQL statements and executed, i.e. the SQL injection attack. To prevent this from happening you should configure the Web-based application to validate all input prior to sending the request to the database by making use of least privilege accounts when accessing the database, and using stored procedures rather than dynamically constructed SQL when possible.

Incorrect answers:

A: You should not make use of the RequiredFieldValidator control on the TextBox. This will force the users to enter a value for the zip code, but would not prevent malicious code from being accepted as input.

C: You should not build the Transact-SQL statement directly from the TextBox input as it provides a user with an opportunity to insert malicious code. And executing the Transact-SQL statements directly from the TextBox input has to potential to harm your database.

D: You should not concatenate user input from the TextBox. The input from the TextBox

control should rather be validated prior to concatenation as invalidated concatenation input makes an application susceptible to SQL injection attacks.

---

**QUESTION 42:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. The design of applications forms part of your responsibilities at Certkiller .com. Certkiller .com operates as a company that provides financial, investment and accounting services to its customers.

You are currently developing a Web-based application for Certkiller .com. This application will be used to maintain the investment account information for the Certkiller .com customers. This investment account information is sent as Extensible Markup Language (XML) documents from the Microsoft SQL Server 2005 database. Each XML document should contain customer feedback information. You want this application to allow you to contact the customers regarding the given feedback. Following are the requirements that should be met:

1. The Web-based application must retrieve each customer's contact details such as name, address, and e-mail address from the XML document.
2. You must be allowed to determine which geographical area has the most customer complaints.
3. The customer data should remain in XML format.
4. You must maximize performance of the query.

You thus need to make a decision as to which approach you can use to query the SQL Server data to meet these requirements.

What should you do?

- A. Query the SQL Server data using a SELECT statement with the FOR XML clause.
- B. Query the SQL Server data using a SELECT statement that calls the DataType.Xml method.
- C. Query the SQL Server data using a SELECT statement with an OPENXML function.
- D. Query the SQL Server data using a SELECT statement with the OPENROWSET function.

Answer: C

Explanation: The OPENXML function can be used to query data from an XML document. It is also possible to convert the XML data, store it in a temporary table, then query the data, but this schlep will be eliminated using the OPENXML function and also you should not change the data from XML because the Web site data must remain in XML format. Thus the database should be queried with the SELECT statement with an OPENXML function.

Incorrect answers:

A: The FOR XML clause is used to format the results of a query in XML format. In this case you need to query the data from an XML document. Thus this option is not required.

B: The `DataType.Xml` method returns an object that represents a specified data type, and will thus not allow you to query the XML document directly.

D: The `OPENROWSET` function is used for querying remote data sources and this is not what would be required in this scenario.

---

**QUESTION 43:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. Internet Information Services (IIS) is installed on Certkiller -WS547.

You are developing a Web-based client application for the Certkiller .com Web site. The Certkiller .com Web site sells subscriptions to courseware material. The Web application must allow users to browse subscription options, to purchase subscriptions, to add subscriptions to a wish list, to store bank account details, and to review products online. You must implement a standardized layout according to the company's branding on each page. The pages must also implement a daily advertisement above the main menu. The advertisement must be replaced every morning.

You want to reduce the effort required to maintain the Web application. What should you do?

- A. Add an `AdRotator` control to each Web page and place the daily advertisement in the Advertisement file.
- B. Include the daily advertisement in a Master Page and set the `masterPageFile` attribute in the `Web.config` file.
- C. Create a User Control for the daily advertisement and add the User Control to each Web page.
- D. Include the daily advertisement in a Template Page and bind each Web page to the Template Page.

Answer: B

Explanation: Master Pages allows you to create a common layout for across all pages that the Master Page is bound to. You can either bind the Master Page to each page in the Page directive on each page, or in the `masterPageFile` attribute of the `Web.config` file. If the `masterPageFile` attribute of the `Web.config` file is set to the location of the Master Page, any changes made to the Master Page will be propagated to each Web page. This will reduce the effort required to maintain the daily advertisement.

Incorrect Answers:

A: The `AdRotator` control is used to rotate between various advertisements contained in an `AdvertisementFile`. Advertisements are displayed on the basis on page impressions. It is possible to have only one advertisement in the `AdvertisementFile` and to change the advertisement every morning but this is not the purpose of the `AdRotator` control.

C: You could include the advertisement in a User control but you would need a Master Page to standardize the layout of each page. It would therefore require less effort to add the advertisement to the Master Page.

D: ASP.NET does not support a Template Page.

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**QUESTION 44:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. Internet Information Services (IIS) is installed on Certkiller -WS547.

You are developing a Web-based client application for the Certkiller .com Web site. The Certkiller .com Web site sells subscriptions to courseware material. The Web application must allow users to browse subscription options, to purchase subscriptions, to add subscriptions to a wish list, to store bank account details, and to review products online. You must implement a standardized layout on each page. You must also ensure that all controls maintain a consistent appearance according to the company's branding.

What should you do?

- A. Implement Themes and Master Pages.
- B. Implement Web Parts and User Controls.
- C. Implement User Controls and Profile properties.
- D. Implement Web Parts and Master Pages.

Answer: A

Explanation: Master Pages allows you to create a common layout for across all pages that the Master Page is bound to. You can either bind the Master Page to each page in the Page directive on each page, or in the masterPageFile attribute of the Web.config file. Themes allow you to maintain a consistent appearance for the controls across Web pages, and entire Web application, or all Web applications on a server.

Incorrect Answers:

B: Web Parts allow users to customize content, appearance and behavior of Web pages, while User Controls allow you to reuse code across Web pages. Neither is used to implement consistent layout nor consistent appearance of controls.

C: Profile properties is a provider framework that stores settings for individual users, while User Controls allow you to reuse code across Web pages. Neither is used to implement consistent layout nor consistent appearance of controls.

D: Web Parts allow users to customize content, appearance and behavior of Web pages. It does not implement consistent layout or consistent appearance of controls.

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**QUESTION 45:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. Internet Information Services (IIS) is installed on Certkiller -WS547. Certkiller .com has its headquarters in Washington and branch offices in Miami, Dallas and San Francisco. The Certkiller .com network contains a SQL Server 2005 database server named Certkiller -DB01 that is located at headquarters. Certkiller -DB01 hosts a database named CK\_Sales that stores sales information for the company. You are developing a Web-based client application for Certkiller .com. The Web application connects all branch offices to the CK\_Sales database. You need to develop a user interface that allows Sales personnel at each branch office to enter data regarding Returned goods. The Returned Goods data includes the customer's name, the product code, and the invoice number. You need to implement the appropriate user interface controls for entry of Returned Goods data. What should you do?

- A. Use a TextBox control for the customer's name, a TextBox control for the invoice number and a TextBox control for the product code.
- B. Use a DropDownList control for the customer's name, a DropDownList control for the invoice number and a DropDownList control for the product code.
- C. Use a DropDownList control for the customer's name, a TextBox control for the invoice number and a DropDownList control for the product code.
- D. Use a TextBox control for the customer's name, a TextBox control for the invoice number and a DropDownList control for the product code.

Answer: C

Explanation: The main data that can be read from a database is the product code and the customer's name. You can implement a data bound DropDownList to display the product code and customer name. A TextBox is a free-form input box that can be used for the invoiced price.

Incorrect Answers:

- A: While it is possible that all data can be entered in TextBox controls, it would be difficult to verify the accuracy of the data. Allowing Sales personnel to select the appropriate customer name and product code from a DropDownList would greatly reduce data input errors.
- B: A DropDownList for a price range would be inappropriate.
- D: While it is possible that the customer name can be entered in TextBox controls, it would be difficult to verify the accuracy of the data. Allowing Sales personnel to select the appropriate customer name from a DropDownList would greatly reduce data input errors.

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#### **QUESTION 46:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the

Microsoft Visual Studio .NET 2005 as their application development platform. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. Internet Information Services (IIS) is installed on Certkiller -WS547.

You are developing a Web-based client application for Certkiller .com. You want users of the Web application to input a date on the Web form regardless of their local date format. You add three DropDownList controls named Year, Month and Day to the Web application. You want the date entered through these DropDownList controls will be displayed on subsequent pages in the user's local date format.

What should you do?

- A. Instantiate a DateTime object using the values from the DropDownList controls.
- B. Instantiate a DateTime object using the values from the GetDate method.
- C. Let the users select their location and set the CurrentCulture property of the executing thread to the associated CultureInfo object.
- D. Set the enableClientBasedCulture attribute in the Web.config file to true.

Answer: A, C

Explanation: You must instantiate a DateTime object that accepts the values that the user entered in the DropDownList controls. The user should then select his or her location from a DropDownList. This location must be used to configure the CurrentCulture property of the executing thread to the associated CultureInfo object.

Incorrect Answers:

B: You want the user to input a date into the Web Form. The GetDate method does not allow user input.

D: The enableClientBasedCulture attribute takes the culture settings of the browser. Although this will work, the culture settings in the browser may be misconfigured.

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#### **QUESTION 47:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. Internet Information Services (IIS) is installed on Certkiller -WS547.

You are developing a Web-based client application for the Certkiller .com Web site. The Certkiller .com Web site sells subscriptions to courseware material. Customers must be able to specify the term of subscription by specifying the start and end dates of their subscriptions in TextBox controls, and must specify their location in a DropDownList control. You must ensure that the values entered into the TextBox controls are dates that have not yet passed. You must also ensure that the start date is no more than 3 months in advance and that the end date is at least two weeks after the start date. Customers who want an open-ended subscription do not need to



specify an end date.

You decide to use RequiredFieldValidator controls to verify the start date TextBox control and the DropDownList control, and a RangeValidator control to verify the start date TextBox control.

Does your solution satisfy the requirements for this project?

- A. Yes.
- B. No, a RangeValidator does not verify the validity of a date.
- C. No, a CompareValidator is required to verify the validity of the end date.
- D. No, a CompareValidator is required to verify that the start date has not already passed.
- E. No, a RequiredFieldValidator is required for the end date TextBox control.

Answer: C

Explanation:

This solution does not meet requirements because it fails to ensure that the end date is at least two weeks after the start date. The RequiredFieldValidator verifies that a start date has been specified and that a location has been selected. The RangeValidator ensure that the start date has not already passed. You also need a CompareValidator to compare the end date to the start date and ensure that the end date is at least two weeks after the start date.

Incorrect Answers:

A: This solution does not meet requirements because it fails to ensure that the end date is at least two weeks after the start date. The RequiredFieldValidator verifies that a start date has been specified and that a location has been selected. The RangeValidator ensure that the start date has not already passed. You also need a CompareValidator to compare the end date to the start date and ensure that the end date is at least two weeks after the start date.

B: The RangeValidator ensure that the start date has not already passed and is therefore required.

D: A CompareValidator compare the values in two controls. It can be used to ensure that the values in the two controls are identical or are within a certain range of each other. It is not be used to compare the value in the start date Text Box with the current date.

D: A RequiredFieldValidator should not be added for the end date TextBox control as customers must be able to specify open-ended subscriptions. These customers will not enter an end date.

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#### **QUESTION 48:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. Certkiller .com runs all its Web applications on a Windows Server 2003 Web server named Certkiller -SR24. All Web applications on Certkiller -SR24 are hosted in Internet Information Services (IIS). IIS 6.0 is installed on Certkiller -SR24. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on

Certkiller -WS547.

You are developing a Web-based client application for the Certkiller .com Web site. The Certkiller .com Web site sells subscriptions to courseware material. The courseware that is available from Certkiller .com includes recently developed instructional videos. Your Web application must make these videos available to subscribers. The Web application must include a multimedia delivery mechanism must support all bandwidths, including dial-up. Subscribers must also be able to watch portion of the video without downloading it completely. You want to ensure that download speeds are as close to real-time as possible and that the download process has a minimal impact on the overall performance of the Web application. What should you do?

- A. Use Internet Information Services (IIS) to stream each video as requested by the subscriber.
- B. Cut the videos into smaller files. Use Internet Information Services (IIS) to download each file completely and play that file before downloading the next file.
- C. Use Microsoft Windows Media Services to stream each video as requested by the subscriber.
- D. Cut the videos into smaller files. Use Microsoft Windows Media Services to download each file completely and play that file before downloading the next file.

Answer: C

Explanation:

Microsoft Windows Media Services allows you to stream video and start playback before the download is complete. Microsoft Windows Media Services also supports all bandwidth types and has a minimal impact on overall performance as it does not consume IIS application resources other than the communication channel.

Incorrect Answers:

- A: IIS provides basic multimedia streaming and will have a negative impact on overall Web application performance.
- B, C: Cutting the video into smaller files will not ensure that all bandwidth are supported, and that subscribers can start watching the video before the download is complete.

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#### **QUESTION 49:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. Certkiller .com offers its customers financial and accounting services. You are developing a Web-based application for Certkiller .com. This application will allow the Certkiller .com employees to manage their investments and retirement benefits. With this application employees will be able to investigate various hypothetical scenarios to determine the best investments options. The calculation

used in this application is rather complex and based on a common calculation algorithm. To this end you decided to provide other developers with a component to encapsulate the algorithm and basic user interface elements.

Following are the requirements that your component should meet:

1. The component must display two TextBox Web server controls.
2. The component must display one Button Web server controls.
3. The component must be available only to your application for security reasons.
4. The component must be available in the Visual Studio designer.

You thus decide to design the component to implement the IComponent interface. And now you need to make a decision as to whether the solution will meet the requirements.

What conclusion can you draw?

- A. All the requirements will be met.
- B. None of the requirements will be met.
- C. Only the requirement stating that the component should be available in the Visual Studio designer will be met.
- D. Only the requirements stating that the component must display two TextBox-, and one Button Web server control, will be met.

Answer: C

Explanation: Classes that implement the IComponent interface can be made available to developers in the Visual Studio designer and accessible from the Visual Studio toolbox, thus only the availability of the component in the Visual Studio designer requirement will be met. To meet all the requirements a Web User control would be most appropriate.

Incorrect answers:

- A: This option is incorrect since all the requirements will not be met only the requirement stating the component should be available in the Visual Studio designer will be met.
- B: This is incorrect since only one of the requirements will be met and not none.
- D: This is incorrect since only the requirement stating the component should be available in the Visual Studio designer will be met, and not the TextBox or Button control requirement.

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### **QUESTION 50:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. Certkiller .com operates as an online-retailer.

You are currently developing a component for CertK ign.com. This component will be used to log the raw HTTP request and response for a Web application. You need to ensure that the component will (1) be modular and (2) provide extensibility to log other information in future.

You need to make a decision as to which design pattern you should use to meet the

requirements of this component.  
What should you do?

- A. Use an Observer
- B. Use a Front Controller
- C. Use an Intercepting Filter
- D. Use a Page Controller

Answer: C

Explanation

: The Intercepting Filter design pattern provides a processing mechanism before and after an application processes a request or a response. Since you need to log the raw HTTP request and response with a pattern that provides modularity and extensibility, this would be the appropriate choice. Because the processing of the request and response occurs before the application or page processing, filter components could be added, modified, removed or their order shuffled without affecting the processing in the application.

Incorrect answers:

A: The Observer design pattern does not meet the requirements for this component because it does not provide a mechanism for input or output pre-processing or post-processing. It will describe how to have observers, or subscribers monitor a subject object's state changes. This will introduce unnecessary complexity and should not be used in this scenario.

B: The Front Controller is used to centralize all control for the entire Web application. This is not appropriate in this scenario.

D: The Page Controller pattern describes a component that receives a user request for a page, retrieves the requested data, and determines the appropriate response. It is highly appropriate in a centralized application processing environment and not to intercept data before or after processing.

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## **QUESTION 51:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. Certkiller .com operates as retailer.

You are currently developing an application for Certkiller .com. This application, upon completion will be used to process, validate, and approve credit card purchases. This application will make use of an unmanaged COM component. You now need to ensure that the application will release the COM component resources as soon as the client application is finished using it. To this end you need to make implement the appropriate interface.

What should you do?

- A. Implement the IContainer interface.
- B. Implement the IBindingList interface.

- C. Implement the IComponent interface.
- D. Implement the IDisposable interface.

Answer: D

Explanation: When one implements the IDisposable interface, one must implement the Dispose method to allow for the release of resources explicitly. The Dispose method will release any unmanaged COM resources in this scenario.

Incorrect answers:

- A: The IContainer interface is implemented as a container to tract zero or more components. And although the IContainer interface also inherits the IDisposable interface, you will still need to provide more functionality than is required in this case.
- B: The IBindingList interface exposes the functionality to support both simple and complex binding to a data source. This is not what is required in this scenario.
- C: The IComponent interface is implemented to server as a user interface in Visual Studio Designer and although the IComponent interface also inherits the IDisposable interface, you will still need to provide more functionality than is required in this case.

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## QUESTION 52:

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. Certkiller .com operates as a construction company that specializes in erecting and maintaining projects.

You are currently creating an ASP .NET Web-Based application for Certkiller .com. This application will be used to view current and historical information regarding each project. This application accesses project information that is stored on a table within a relational database.

You design the Project class to represent the commercial construction project. Each project is tracked by means of a unique project identifier. This identifier is also assigned to projects prior to the commencement of a project and prior to resources being assigned to it. You now need to design the interface of the Project class in such a way as to ensure that the project identifier is assigned.

What should you do?

- A. Randomly generate a unique project identifier in the default constructor.
- B. Randomly generate a unique project identifier in the default constructor. Accept the project identifier as a parameter in an overloaded constructor.
- C. Call a stored procedure to increment the unique project identifier in the default constructor.
- D. Call a stored procedure to increment the unique project identifier in the default constructor. Accept the project identifier as a parameter in an overloaded constructor.

Answer: D

Explanation: In this scenario a project needs a unique identifier for creation and tracking the project. When using the default constructor, it is important that a new project (yet without an identifier) is uniquely identified. Because the identifier information is located in a relational database, you should increment the last used project identifier using a stored procedure. When tracking an existing project, the project instance will represent an existing project, thus the overload constructor should take a valid project identifier as input.

Incorrect answers:

A: You should not randomly generate a unique project identifier. Even if it seems unlikely, the project identifier may be the same as an existing project. Because the relational database stores project information, you should rather increment the last used project identifier via a stored procedure to ensure unique identifiers being assigned.

B: This option is only partly correct, however, you should not randomly generate a unique project identifier. Even if it seems unlikely, the project identifier may be the same as an existing project. Because the relational database stores project information, you should rather increment the last used project identifier via a stored procedure to ensure unique identifiers being assigned.

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### **QUESTION 53:**

You work as the Web application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. Certkiller .com operates as a College of Education.

Certkiller .com is divided into many different faculties that operate independent from each other. However, and each faculty has to make use of the Administration building staff quarters if they are to conduct meetings as this is the only facility that is suitable for this purposes. To this end you have written an application that will allow users to reserve the Administration building staff quarters for meetings.

Usually when a user requests the Administration facilities for a meeting for a specific time and date, a record is written to a database; e-mail invitations and agendas are sent to all requested participants. This process to generate the invitations and agendas does take some time. You want to ensure that invitations are sent out in the order in which meeting requests are received. To this end you decide to store the MeetingRequestID in one of the members of the Systems.Collections class to ensure that you process the records invitations in the correct order. You thus need to choose the appropriate collection class to meet this requirement.

What should you do?

- A. Use the ArrayList collection class.
- B. Use the Stack collection class.
- C. Use the Queue collection class.

D. Use the HashTable collection class.

Answer: C

Explanation: Systems.Collections is a namespace in the .NET framework that contains classes which define various objects such as lists, dictionaries and queues. In this case you should create a Queue collection class. A Queue is used to store a list of objects to be processed on a First-in, First-out basis. In this scenario the requests are added to a queue as they are received. As the application has time it pulls the first item from the queue and processes it. Thus you will ensure first-in, first-out processing.

Incorrect answers:

A: You should not use the ArrayList collection class as this construct allows for sorting, but does not guarantee a first-in, first-out processing.

B: You should not use the Stack collection class as this construct will allow you to retrieve requests in a last-in, first-out basis and this is not what is specified in the requirements.

D: You should not use the HashTable collection class as this data structure will not guarantee first-in, first-out processing.

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#### **QUESTION 54:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. Certkiller .com offers its customers financial and accounting services. Certkiller .com makes use of a front-end Web site that allows its customers to view their accounts and to manage their financial affairs. This financial affair management includes the ability to shift funds from e.g. a savings account to a mortgage account or to a credit card account, as well as paying bills online. You are currently developing a component to centralize all financial transactions between customer accounts. All financial data is stored in a SQL Server database.

You want the transaction process to perform the following steps:

1. Verify that the customer has sufficient funds (to cover the transfer fees as well.)
2. Debit the amount from the source account to main customer account.
3. Credit the amount to the destination account from the main customer account.

For a transaction to be considered completed all these steps must be fulfilled successfully. The component must notify the application in the event of an error and roll back the pending transaction.

You now need to make a decision as to which exception handling method you can use to meet these transactional requirements.

What should you do?

- A. The SqlTransaction object must be placed inside a using statement.
- B. The SqlTransaction object must be placed inside a finally block.
- C. Make use of a catch block to catch all exceptions.



Roll back the current transaction.  
Re-throw the exception.  
D. Make use of a catch block to catch all exceptions.  
Re-throw the exception.  
Use a finally block to roll back the current transaction.

Answer: C

Explanation: Using a Catch block to catch all new exceptions and rolling back the current transaction and then re-throwing the exception will ensure that the application is notified and the transaction rolled back in the event of errors occurring during the transaction.

Incorrect answers:

A: You should not place the SqlTransaction object inside a using statement because it will not have any effect on transaction rollbacks and application notifications.

B: You should not place the SqlTransaction object inside a finally block because it will not have any effect on transaction rollbacks and application notifications.

D: This procedure is wrong and you also should not make use of a finally block to rollback the current transaction because a successful transaction should be committed and code in the finally block is executed if an error occurs or not. The object of the exception-handling method should be to roll back only in the event of errors occurring or when the transaction is not successful.

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### **QUESTION 55:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. You are currently designing a component for Certkiller .com. This component will be used to simplify data access to disparate data sources. These sources are varied and include both Oracle and flat-file databases. the Web application will use the component to retrieve and update the underlying data sources.

You need to design an exception handling mechanism for this component that will meet the following requirements:

1. The Web application must not require a status message that indicates success or failure.
2. The Web application requires error messages when they occur in the component.
3. All error messages must be thorough and detailed.
4. All error messages must indicate the origin of the error, i.e. where and when the error occurred.
5. All error messages should be user friendly.

You need to make a choice as to which exception handling method you could use to meet these requirements.

What should you do? (Each correct answer presents part of the solution. Choose

three.)

- A. Catch each exception and throw a new custom exception.
  - B. Catch each exception and re-throw the exception.
  - C. Set the new exception Data property to a custom error message.
  - D. Set the new exception Message property to a custom error message.
  - E. Set the new exception Data property to the original exception.
  - F. Throw the new exception by wrapping it around the original exception.
- The InnerException property will return the original exception.

Answer: A, D, F

Explanation: To ensure that the error message is detailed as well as containing the original error message's origins and that the message be user friendly you should first catch each new exception and throw a new custom exception, then you should throw the new exception by wrapping it around the original exception and set the Message property of the new exception to a custom error message. (With wrapping, the InnerException property will ensure that the original exception data will give you the necessary feedback on what went wrong.

Incorrect answers:

- B: Rethrowing an exception will result in more overhead rather than allowing the exception to propagate up the call stack in normal fashion.
- C: The Data property is an IDictionary object and there is no need for additional data that has to be sent from the component, except for the information in the original exception. You should rather wrap the original exception and use the InnerException property to access it.
- E: Setting the new exception Data property to the original exception will not meet the requirements because the Data property is an IDictionary object and not an InnerException property

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### **QUESTION 56:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. You are currently designing a component for Certkiller .com. This component will be used to synthesize information from various Web service providers. The Web application will use this component to populate various list-bound controls on its Web pages.

You need to design an exception handling mechanism for this component that will meet the following requirements:

1. The Web application must receive a status code indicating success or failure.
2. The Web application requires error messages when they occur in the component.
3. All error messages must indicate the origin of the error, i.e. where and when the error occurred.

4. All error messages should be user friendly.

You need to make a choice as to which exception handling method you could use to meet these requirements.

What should you do?

A. Allow the original exception to propagate to the application in case of an error occurring.

Else, return true to indicate success.

B. Always return a status code.

Allow the original exception to propagate to the application in case of an error occurring.

C. Always return a status code.

Catch the original exception and wrap it in a new custom exception in case of an error occurring.

Set the Message property to custom message.

D. Catch the original exception and wrap it in a new custom exception in case of an error occurring.

Set the Message property to custom message.

Else, return true to indicate success.

Answer: C

Explanation

: Your component is supposed to send a status code that indicates success or failure. The requirement and the solution do not indicate the sending mechanism for the status code, but one can assume that an output parameter could be involved. The exception handling mechanism will ensure that the error message is both detailed and contain the origins of the error and you can ensure that the message is user-friendly if you (1) always return a status code, (2) catch the original exception and wrap it in a new custom exception. And set the Message property to custom.

Incorrect answers:

A: This exception handling mechanism does not have an always return status code and you should thus not make use of this option. Even though the returning true would indicate success, a return value could not be sent to the caller if an exception was thrown. Thus this option does not meet the requirements.

B: You should not make use of an exception handling mechanism that propagates the original exception to the application as this will not be a user-friendly message which is one of the requirements that should be met.

D: This option does not mention the Always return a status code which means that it cannot be used in this scenario.

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#### **QUESTION 57:**

You work as the Enterprise application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the design and development of applications. Certkiller .com operates as a Medical Facility.

You are currently creating a Web-based application for Certkiller .com. This application, upon completion, is destined to be used by the Certkiller .com employees to manage patient information, medication that patients have been prescribed, and follow-up medication that patients have been prescribed. You plan to create a component that retrieves patient data from an Oracle database. This component must provide information regarding the patient's name, address, and contact telephone numbers of next of kin.

To this end you need the component to meet the following requirements:

1. It must provide individual records of patients as quickly as possible.
2. It must prevent the data from being tampered with or deleted.
3. It must be memory efficient.

You now need to decide which data tier object to use in order to meet these requirements.

What should you do?

- A. Use the DataSet object
- B. Use the OracleDataReader object.
- C. Use the OleDbDataReader object.
- D. Use an XmlDocument object.

Answer: B

Explanation: A DataReader class will allow you to quickly read data as a connected read-only, forward-only firehouse cursor. DataReader objects are useful for populating controls or displaying data directly in a connected environment. Choosing the OracleDataReader object would be the solution because the patient data is stored in an Oracle database. It is recommended to use the most specific .NET data provider to provide optimal performance.

Incorrect answers:

A: A DataSet object is a disconnected representation of a relational data that allows for the retrieval, sorting, filtering, and updating of data. When updating occurs it could also be similar to tampering. Thus this option is not the solution.

C: The OleDbDataReader class implements the same IDataReader interface as the OracleDataReader class, but will not provide optimal performance on an Oracle database. Thus this is not the solution.

D: An XmlDocument class is a node-based representation of hierarchical data. One makes use of this object to access XML data, not relational data.

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### **QUESTION 58:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a SQL Server 2005 database server named Certkiller -DB01 and a Windows Server 2003 Web server named Certkiller -SR24. Certkiller -DB01 hosts a database named CK\_Products that stores product data for the company. All Certkiller .com's Web applications are

hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. Internet Information Services (IIS) 5.0 is installed on Certkiller -WS547.

You are developing a Web-based client application for the Certkiller .com Web site. Your Web application contains a Web Form named ProductDetails.aspx that displays product details in a DataGrid control. The data displayed in the DataGrid must be read-only but must allow sorting and filtering. The data structure must also allow paging if the data set is large. You need to ensure that the data structure has a minimal impact on the overall performance of the Web application. What should you do?

- A. Implement a DataAdapter object.
- B. Implement a TableAdapter object.
- C. Implement a DataTable object.
- D. Implement a DataReader object.

Answer: C

Explanation: A DataTable can be stored on the Web server to allow sorting, filtering and paging without requiring a round trip to the database server.

Incorrect Answers:

A, B: DataAdapters and TableAdapters are not used to display data. They are used to synchronize the data structure with the underlying database.

D: A DataReader must retrieve the data from the database server whenever the data must be sorted, filtered or paged. This will have a negative impact on the overall performance of the Web application.

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### **QUESTION 59:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a SQL Server 2005 database server named Certkiller -DB01 and a Windows Server 2003 Web server named Certkiller -SR24. Certkiller -DB01 hosts a database named CK\_Products that stores product data for the company. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on Certkiller -WS547.

You are developing a Web application for the Certkiller .com e-Commerce Web site. The Web allows registered users to purchase products from the Certkiller .com Web site. Users are allowed to place purchase orders only after registering online and logging in using ASP.NET form authentication. The UserLogon method is used to authenticate the user while the UserInfo method is used to all of the user's details, including username, location and shopping preferences. The user details are stored in user-specific XML files. Should the user-specific XML file not be found when a

user successfully logs on, a `FileNotFoundException` is generated. You want the `UserInfo` method to display an error message on the Web Form. The error message must state the type of error and the cause of the error, it must be user-friendly, and it must not expose any code.

What should you do?

- A. Have the exception propagate automatically.
- B. Catch and re-throw the exception.
- C. Catch, wrap and throw the wrapped exception.
- D. Catch and throw a custom application exception.

Answer: C

Explanation: You need to catch the exception so that the necessary processing to handle the exception can occur. If the exception cannot be recover, you must wrap the exception in a new exception and throw the new exception back to the caller. This allows the user interface to display a user-friendly error message that states the type of error and the cause of the error and does not expose the underlying code.

Incorrect Answers:

A: Allowing the exception to propagate automatically will result in no processing taking place and no error message will be displayed.

B: Re-throwing the exception will expose underlying code in a detailed error message that is not user-friendly.

D: There is no need to generate a custom application exception when a `FileNotFoundException` is already generated.

---

#### **QUESTION 60:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a SQL Server 2005 database server named Certkiller -DB01 and a Windows Server 2003 Web server named Certkiller -SR24. Certkiller -DB01 hosts a database named CK\_Products that stores product data for the company. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on Certkiller -WS547.

You are developing a Web application for the Certkiller .com e-Commerce Web site. The Web application allows registered Certkiller .com users to store their credit card details online. Selected users have a credit account at Certkiller .com that allows them to purchase goods on credit and pay for the goods at a later date. Your Web application must allow these users to check their credit balance and to settle outstanding payments online. Employees in the Accounting department at Certkiller .com have access to a restricted area of the Web application where they have access to all user accounts. You need to ensure that only the registered user can perform transaction against his or her credit account. You also need to ensure

that only Accounting department employees may create new credit accounts and that Accounting department employees can only access the restricted area of the Web application while at work. You need to create an audit log to track account access.

What should you do? (Each correct answer presents part of the solution. Choose four.)

- A. Audit the transaction type.
- B. Audit the AccountID.
- C. Audit the UserName.
- D. Audit the client timestamp.
- E. Audit the client IP address.
- F. Audit the Web server timestamp.

Answer: B, C, E, F

Explanation: You need to audit the username to know who accessed the account, you need to audit the accountID to know which account was accessed, you need to audit the Web server timestamp to know when the account was accessed, and you need to audit the client IP address to know where the account was accessed from and to ensure that the account was accessed from Certkiller .com.

Incorrect Answers:

A: You do not need to audit the transaction type, only account access.

D: You should audit the Web server timestamp rather than the client timestamp. The client timestamp is relative to the location and configuration of the client. If the client is configured with the wrong time, you would have no way of knowing exactly when the account was accessed.

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### **QUESTION 61:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a SQL Server 2005 database server named Certkiller -DB01 and a Windows Server 2003 Web server named Certkiller -SR24. Certkiller -DB01 hosts a database named CK\_Products that stores product data for the company. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on Certkiller -WS547.

You are developing a Web application for the Certkiller .com e-Commerce Web site. The Web application allows Certkiller .com to track the traffic forwarded to the Certkiller .com Web site from an advertisement placed on the Web site of its affiliates. The Marketing department at Certkiller .com will keep statistics regarding traffic sent from the affiliate Web sites. Your application must log the URL of the affiliate Web site that redirects traffic to the Certkiller .com Web site, and must manage an incremental hit counter for every customer that is redirected to the



Certkiller .com Web site.

What should you do? (Each correct answer presents part of the solution. Choose two.)

- A. Create an ASP.NET session variable to manage the incremental hit counter.
- B. Create an ASP.NET application variable to manage the incremental hit counter.
- C. Use the PreviousPage property value of the IsCrossPostBack property.
- D. Use the PreviousPage property value of the IsPostBack property.

Answer: B, C

Explanation: The IsCrossPostBack property evaluates to true when the Web page is posted from a different Web page. When true, the IsCrossPostBack property contains a PreviousPage property that holds the URL of the posting Web page. You should also create an ASP.NET application variable to manage the incremental hit counter. An application variable is stored on the Web server and is available to all users and sessions.

Incorrect Answers:

A: A session variable is specific to a user session and is not available to all users and all sessions.

D: The IsPostBack property evaluates to true when a Web page posts back to itself. If evaluates to false if the postback comes from a different Web page.

---

## **QUESTION 62:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a SQL Server 2005 database server named Certkiller -DB01 and a Windows Server 2003 Web server named Certkiller -SR24. Certkiller -DB01 hosts a database named CK\_Sales that stores sales data for the company. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on Certkiller -WS547.

You have developed a Web application that allows Certkiller .com employees in the Sales department to enter daily sales transactions. The Web application allows users to manage data and generates weekly sales reports by executing several Transact-SQL (T-SQL) queries against the CK\_Sales database. Sales department users report that T-SQL queries take a long time to produce the weekly reports. You need to diagnose the cause of the poor performance of the weekly reports. What should you do?

- A. Use Windows Performance Monitor on Certkiller -SR24 to monitor the performance of the Web application.
- B. Use the SQL Profiler tool on Certkiller -DB01 to monitor the execution time of the T-SQL queries.

- C. Write stored procedures to replace the T-SQL queries.
- D. Use the Trace Viewer to monitor tracing information for the Web application.

Answer: B

Explanation: The SQL Profiler tool is used to monitor T-SQL queries, stored procedures, deadlocks and timeouts in SQL Server 2005.

Incorrect Answers:

A:

The Windows Performance Monitor is used to monitor system performance. It can be used to monitor ASP.NET applications by using an ASP.NET performance counter; however, the performance problem is related to the T-SQL queries. Windows Performance Monitor cannot be used to monitor the execution of T-SQL queries.

C: You need to diagnose the performance problem associated with the T-SQL queries. Replacing them with stored procedures is not part of a diagnosis but is a possible solution.

D: The Trace Viewer is used to view request and response trace information for the Web application. It is not used to monitor performance.

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### **QUESTION 63:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a Web server named Certkiller -SR24. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. Certkiller -SR24 also hosts a database named CK\_Sales that stores sales data for the company. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on Certkiller -WS547.

A fellow developer has developed a Web application that allows Certkiller .com sales representatives to enter daily sales transactions to a flat file on their portable Windows XP Professional computers while at customer locations. The sales transactions are exported to the CK\_Sales database at the end of the day. The following morning data from the current CK\_Sales database is imported to the flat file. This Web application is hosted in a virtual IIS directory named SalesRepData and uses several data bound controls to display data from the CK\_Sales database. The connection string for the data bound controls is stored in the Web application's Web.config file.

You need to ensure that the connection string is not human-readable. To accomplish this task you run the following command from the command prompt:

```
Aspnet_regiis -pd "connectionStrings" -app "/SalesRepData"
```

Does your solution satisfy the requirements for this project?

- A. Yes.
- B. No, you should use the -pe switch in place of the -pd switch.
- C. No, you should use the -pa switch in place of the -pd switch.

D. No, you should use the -pz switch in place of the -pd switch.

Answer: B

Explanation: The -pe switch of the aspnet\_regiis.exe utility encrypts the section of the Web.config file that is specified after the -pe switch while the -pd switch decrypts it.

Incorrect Answers:

A: Your solution does not meet the security requirements. The -pd switch of the aspnet\_regiis.exe utility decrypts the section of the Web.config file that is specified after the -pd switch. You should use the -pe switch that encrypts the section of the Web.config file that is specified after the -pe switch.

C: The -pa switch of the aspnet\_regiis.exe utility grants permissions to the user account or group that is specified after the -pa switch. This does not ensure that the connectionStrings section of the Web.config file is not human-readable.

D: The -pz switch of the aspnet\_regiis.exe utility deletes the key container specified after the -pz switch. This does not ensure that the connectionStrings section of the Web.config file is not human-readable.

---

#### **QUESTION 64:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on Certkiller -WS547.

You are testing a Web application that will be integrated into the existing Certkiller .com e-Commerce Web site. A fellow developer added the following Web.config file to the Web application:

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
<system.Web>
<customErrors mode="Off" />
<authentication mode="Windows" />
<authorization>
<allow roles="BetaTesters" />
<deny users="*" />
</authorization>
<trace enabled="false" requestLimit="10" pageOutput="false"
traceMode="SortByTime" localOnly="true" />
<sessionState mode="InProc"
stateConnectionString="tcpip=127.0.0.1:42424"
sqlConnectionString="data source=127.0.0.1; Initial Catalog=ASPState;
Integrated Security=true" cookieless="false" timeout="20" />
</system.Web>
</configuration>
```

You need to determine the functionality of the Web.config file.  
Which of the following functionality is provided by the Web.config file?

- A. No user will be able to access the application.
- B. Detailed error messages will be displayed to all users.
- C. Users in the Administrators group have access to the application.
- D. Users with Windows user accounts will be used to access the application.

Answer: B, D

Explanation:

The authentication mode is set to Windows. This means that the users Windows credentials will be evaluated to determine if the user should have access to the application. However, the Authorization element allows access to users in the BetaTesters role and denies access to all other users. The customErrors mode is set to Off. This means that no custom error pages will be used and the default error message will be displayed. The default error messages are detailed messages that are displayed to all users.

Incorrect Answers:

A: The authentication mode is set to Windows. This means that the users Windows credentials will be evaluated to determine if the user should have access to the application. However, the Authorization element allows access to users in the BetaTesters role and denies access to all other users.

C: The authentication mode is set to Windows. This means that the users Windows credentials will be evaluated to determine if the user should have access to the application. However, the Authorization element allows access to users in the BetaTesters role and denies access to all other users.

---

### **QUESTION 65:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a Web server named Certkiller -SR24. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. Certkiller -SR24 also hosts a database named CK\_Sales that stores sales data for the company. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. Certkiller -WS547 is running ASP.NET Development Server embedded in Visual Studio .NET 2005. Internet Information Services (IIS) is not installed to Certkiller -WS547.

You are testing a Web application that will be integrated into the existing Certkiller .com e-Commerce Web site. The application is an inventory management system that incorporates a data access component named GetData. The GetData component retrieves data from the CK\_Sales database. You need to ensure that the GetData component executes successfully before deploying the application to the production environment.

What should you do?

- A. Perform a unit test of the GetData component in Internet Information Services (IIS).
- B. Perform a unit test of the GetData component in ASP.NET Development Server.
- C. Perform a load test of the GetData component in ASP.NET Development Server.
- D. Perform a load test of the GetData component in Internet Information Services (IIS).

Answer: A

Explanation: Unit testing verifies that a component provides the required functionality and identifies any exceptions that may be generated by the code. This testing must be performed in IIS as all Certkiller .com's Web applications are hosted in IIS on Certkiller -SR24.

Incorrect Answers:

B: You should perform unit testing in IIS as all Certkiller .com's Web applications are hosted in IIS on Certkiller -SR24.

C, D: Load testing is used to test the application when large numbers of users access the application. You need to test functionality of the GetData component. Unit testing verifies that a component provides the required functionality. You should also perform the unit testing in IIS as all Certkiller .com's Web applications are hosted in IIS on Certkiller -SR24.

---

### **QUESTION 66:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a Web server named Certkiller -SR24. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. Certkiller -SR24 also hosts a database named CK\_Sales that stores sales data for the company. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on Certkiller -WS547.

You are redeveloping a Web application for the Certkiller .com e-Commerce Web site. The current Web application allows registered Certkiller .com users to purchase goods online and pay for them by credit card. The Web application uses custom a component named AuthenticateCustomers is used to validate customers when they place orders. User details of registered users are stored in the CK\_Sales database in a table named Customers. You want to expand the functionality of the Web application to allow only selected users to place orders for products that are out of stock. You decide to add new methods to the AuthenticateCustomers component to accommodate the new functionality. You need to ensure that the AuthenticateCustomers component executes successfully in the production environment. You need to accomplish this task as quickly as possible. What should you do?

- A. Perform unit testing on all methods of the AuthenticateCustomers component.

- B. Perform unit testing on the new methods of the AuthenticateCustomers component.
- C. Perform load testing on the new methods of the AuthenticateCustomers component.
- D. Perform load testing on all methods of the AuthenticateCustomers component.

Answer: B

Explanation: Unit testing verifies that the methods of a component provides the required functionality and identifies any exceptions that may be generated by the code. The existing component has all already deployed successfully to the production environment; therefore you do not need to test the existing methods of the component, only the new methods.

Incorrect Answers:

A: You should only perform unit testing of the new methods. The existing component has all already deployed successfully to the production environment; therefore you do not need to test the existing methods of the component.

C: Load testing is used to test the application when large numbers of users access the application. You need to test functionality of the GetData component. Unit testing used to test functionality.

D: Load testing is used to test the application when large numbers of users access the application. You need to test functionality of the GetData component. Unit testing used to test functionality. You should only perform unit testing of the new methods. The existing component has all already deployed successfully to the production environment; therefore you do not need to test the existing methods of the component.

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### **QUESTION 67:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a Web server named Certkiller -SR24. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. Certkiller -SR24 also hosts a database named CK\_Sales that stores sales data for the company. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. Certkiller -WS547 is running ASP.NET Development Server embedded in Visual Studio .NET 2005. Internet Information Services (IIS) is not installed to Certkiller -WS547.

You are developing a navigation application. You add an ImageMap control to a Web page named NYCity.aspx and set its ImageUrl property to the URL of an image that represents the street map of central New York. When a user clicks on an area that represents a building, the Web application displays the street address for that building on the same page. A custom component named StreetAddress retrieves the data from a local Web service that contains the address of all buildings on the map.

You need to ensure that the StreetAddress component executes successfully before deploying the Web application to the production environment. You successfully performed unit testing on the StreetAddress component and the Web service.

What should you do next?

- A. Perform an integration test of the StreetAddress component and the Web service in Internet Information Services (IIS).
- B. Perform an integration test of the StreetAddress component and the Web service in ASP.NET Development Server.
- C. Perform a load test of the StreetAddress component and the Web service in Internet Information Services (IIS).
- D. Perform a load test of the StreetAddress component and the Web service in ASP.NET Development Server.

Answer: A

Explanation: Integration testing determines how well to components work together and should be performed after unit testing of the individual components. This testing must be performed in IIS as all Certkiller .com's Web applications are hosted in IIS on Certkiller -SR24.

Incorrect Answers:

B: You should perform integration testing in IIS as all Certkiller .com's Web applications are hosted in IIS on Certkiller -SR24.

C, D: Load testing is used to test the application when large numbers of users access the application. You need to test functionality of the components. You have already completed unit testing you should now determine how well the two components work together. Integration testing determines how well two components work together. You should also perform the integration testing in IIS as all Certkiller .com's Web applications are hosted in IIS on Certkiller -SR24

---

### **QUESTION 68:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a SQL Server 2005 database server named Certkiller -DB01 and a Windows Server 2003 Web server named Certkiller -SR24. Certkiller -DB01 hosts a database named CK\_Sales that stores sales data for the company. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. You use a Microsoft Windows Sever 2003 computer named Certkiller -WS547 as your development computer. Certkiller -WS547 is running ASP.NET Development Server embedded in Visual Studio .NET 2005 and Internet Information Services (IIS).

You have developed a Web application that allows Certkiller .com employees in the Sales department to enter daily sales transactions into the CK\_Sales database and allows the manager of the Sales department to generate weekly sales from the CK\_Sales database. A data access component named SalesReport to retrieves data for the sales reports by executing several Transact-SQL (T-SQL) queries against the CK\_Sales database. Access permissions to the Web application are based on the user accounts in Windows Active Directory. You set Windows as the authentication



mode for the Web application in the Web.config file as shown in the following Exhibit:

```
<authentication mode="Windows" />  
<authorization />
```

You successfully perform unit testing of the SalesReport component and integration testing with the Web service on Certkiller -WS547. However, when the Web application is deployed to the staging server, the SalesReport component fails to function.

Which application setting is the most likely cause of the problem?

- A. The Impersonation setting.
- B. The Authentication mode setting.
- C. The SQL Server security setting.
- D. The Authorization setting.

Answer: A

Explanation: You should consider the Impersonation setting as it is responsible for passing the identity of the user to the database when Windows authentication is used. It seems the wrong identity is being passed to the database.

Incorrect Answers:

B: The authentication mode is set to Windows. This setting is correct as access permissions to the Web application are based on the user accounts in Windows Active Directory. You therefore need Windows authentication.

C: The components tested successfully, therefore there should be not problem with the SQL Server security settings.

D: The authorization element is blank. You are using user accounts in Windows Active Directory to determine access permissions to the Web application. You therefore do not need to grant or deny access in the authorization element.

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## **QUESTION 69:**

You work as an ASP.NET developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. The Certkiller .com network contains a Web server named Certkiller -SR24. All Certkiller .com's Web applications are hosted in Internet Information Services (IIS) 6.0 on Certkiller -SR24. Certkiller -SR24 also hosts a database named CK\_Sales that stores sales data for the company. You use a Microsoft Windows XP Professional client computer named Certkiller -WS547 as your development computer. IIS 5.0 is installed on Certkiller -WS547.

You have developed a Web application that allows Certkiller .com employees in the Sales department to generate weekly sales reports. The Web application uses a custom component named SalesReport to retrieves data for the sales reports by executing several Transact-SQL (T-SQL) queries against the CK\_Sales database. You add code to SalesReport component to open a new connection to the CK\_Sales database, retrieve the required data, and close the connection. You must ensure that

the connection is closed even if the SalesReport component throws an exception. What should you do? (Each correct answer presents a complete solution. Choose two.)

- A. Enclose the connection code within a using block.
- B. Enclose the connection code within a try...catch...finally block and close the connection in a finally block.
- C. Use the private keyword when declaring the connection object.
- D. Use the public keyword when declaring the connection object.

Answer: A, B

Explanation: You can ensure that the connection is closed by enclosing the code in a using block or a try...catch...finally block. The using block ensures that an object is disposed of if the code throws an exception. If you use the try...catch...finally block, you must include code in the finally block to explicitly close the connection.

Incorrect Answers:

C, D: The private and public keywords are access modifiers that determine what code can access the object. They do not ensure that an object is disposed of if the code throws an exception.

---

### **QUESTION 70:**

You work as the application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the deployment of applications. Certkiller .com offers its customers financial and accounting services.

Certkiller .com has a multi-tiered Web application for Certkiller .com which was deployed several months ago. This application is to allow clients to manage own financial portfolios. This financial portfolio management includes the ability to shift funds from e.g. a savings account to a mortgage account or to a credit card account, as well as paying bills online, and even manage their stocks and investments. The portfolio data is stored in a SQL Server 2005 database which is accessed via stored procedures.

Recently the Certkiller .com Customer Care - line received calls from clients lodging complaints. These complaints all indicate application performance has deteriorated significantly since the original deployment. You investigated the problem and discovered from preliminary testing that the database operations are the most likely culprits for the deteriorated application performance. You need to investigate the longest running stored procedures without affecting the performance of the overall application in a negative way.

What should you do?

- A. Analyze the workload on the server using the Database Engine Tuning Advisor.
- B. Trace and analyze usage of the stored procedures using the SQL Server Profiler.

- C. Monitor the stored procedure performance by creating custom performance counters.
- D. Monitor the calls from the application to the database using CLR Profiler.

Answer: B

Explanation

: The SQL Server Profiler utility allows one to monitor the SQL Server database performance and to trace the SQL Server events. You are able to select the types of events that you desire to trace, the duration of the trace as well as where to save the data that is collected. In this scenario you are required to monitor the performance of stored procedures used in the application without affecting the application performance adversely. This means that monitoring must only affect the performance of stored procedures and not the other application components. You can achieve this type of monitoring with SQL Server Profiler.

Incorrect answers:

A: This Database Engine Tuning Advisor optimizes the physical database by creating indexes, indexed views, and partitions based on a sample workload. Thus you should not make use of the Database Engine Tuning Advisor to analyze workloads on the server as it will not track the performance of stored procedures

C: Custom performance counters are created to indicate custom events within an application and you should not create custom performance counters because the SQL Server Profiler provides standard stored procedure events.

D: The CLR Profiler is intended to trace the base performance of a .NET application beyond the managed code. It should not be used to monitor calls between an application and a database because it will not determine the longest running stored procedures and their performance.

---

### **QUESTION 71:**

You work as the application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Certkiller .com operates as an on-line marketing organization that makes use of Web-based applications.

To carry out your duties of support and deployment of applications, you need the ability to quickly locate bugs in the existing Certkiller .com applications that were deployed across Certkiller .com. You must ensure that all errors and warnings are traced. You need to make sure that no unnecessary information is tracked, and thus decided to configure a TraceSwitch object. This TraceSwitch object will be used in many Web applications.

Now you only need to decide on which configuration setting to set the TraceSwitch object.

What should you do?

- A. The TraceSwitch tracing level should be set to Info.
- B. The TraceSwitch tracing level should be set to Error.
- C. The TraceSwitch tracing level should be set to Verbose.
- D. The TraceSwitch tracing level should be set to Warning.

Answer: D

Explanation: The Warning tracing level will display both error messages and warning messages and would thus be the setting required in this scenario.

Incorrect answers:

A: The Info tracing level will display not only error messages and warning messages, but also informational messages which you do not want to trace.

B: The Error tracing level only displays error messages and not the warnings.

C: The Verbose tracing level will also display all unnecessary information that you do not want to trace.

---

**QUESTION 72:**

You work as the application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the deployment of applications. Certkiller .com operates as an online auctioneer. You have just deployed a Web site for Certkiller .com. This Web site will be used by customers to place and monitor their bids online. The application makes use of business components to update and retrieve bid information from a SQL Server database. You need to monitor this application and track any errors that may be caused by customer activity on the Web site. To this end you decide to create a custom TraceSwitch object named CustomerSwitch to toggle the tracing level as required.

Following are the tracing requirements that should be met:

1. All errors should be traced.
2. Application-specific warning messages should NOT be traced.
3. Application-specific informational messages should NOT be traced.

You then test the application and found that no messages are being traced. You need to remedy the situation.

What should you do?

A. The CustomerSwitch value should be changed to 1.

B. The CustomerSwitch value should be changed to 1.

Then restart the Web application.

C. The CustomerSwitch value should be changed to 4.

D. The CustomerSwitch value should be changed to 4.

Then recompile the Web application.

Answer: A

Explanation: There are several available trace levels to which a custom TraceSwitch like CustomerSwitch can be set. These are: Off - numerical value of 0; Error - numerical value of 1; Warning - numerical value of 2; Info - numerical value of 3 and verbose - numerical value of 4. Each of these level builds on the other, so that the Warning setting for

instance will include both errors and warnings, and the Info level setting will include errors, warnings, and informational messages, etc. in this case you only need to trace errors. Thus you should change the CustomerSwitch setting to 1.

Incorrect answers:

B: Restarting the Web application should not be done because once the Web.config file is saved, the new application settings will apply.

C: Setting the value to 4 would also trace unnecessary information.

D: You should not recompile the Web application because once the Web.config file is saved, the new application settings will apply.

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**QUESTION 73:**

You work as the application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the deployment of applications. Certkiller .com operates as a vehicle manufacturer. Certkiller .com makes use of an intra-net Web application for users to track work on assembly lines within all departments of the Certkiller .com facilities. This Web application uses ASP .NET 2.0 Membership to manage user accounts for the application. A user is allowed to recover their password using a PasswordRecovery control. Every time a user recovers a password, you want to have the event recorded in the Application event log of the server. To this end you configure the application to use the ASP .NET 2.0 Health Monitoring API. Following are the settings that you configured:

1. Enable health monitoring by modifying the Web.config file by setting the enabled attribute of the Health Monitoring element to true.
2. Create an event mapping for the PasswordRecoveryEvent event.

Now you need to take a decision as to whether your configuration will meet the requirements.

What conclusion can you draw?

- A. The configuration meets the requirements.
- B. The configuration does not meet the requirements. You should create mapping for the WebFailureAuditEvent event.
- C. The configuration does not meet the requirements. You should create mapping for the WebAuthenticationFailureAuditEvent- and the WebAuthenticationSuccessAuditEvent events.
- D. The configuration does not meet the requirements. There is no event class in the Health Monitoring API to monitor password recovery events.

Answer: D

Explanation: There is not an event class in the Health Monitoring API to monitor password recovery events. In fact there are no event classes for password related events such as password recovery or password changes.

Incorrect answers:

A: This is incorrect as the configuration does not allow for events to be recorded in the Application event log of the server using the ASP .NET 2.0 Health Monitoring API.

B: The WebFailureAuditEvent event is a generic base class for all ASP .NET related audit events. This class does not provide a means of detecting a password recovery or password change. Thus you should not use the WebFailureAuditEvent event.

C: The WebAuthenticationSuccessAuditEvent and WebAuthenticationFailureAuditEvent will provide information regarding authentication failures. However, a password recovery or password change is not an authentication event.

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#### **QUESTION 74:**

You work as the application developer at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers in the domain run Windows Server 2003. Your responsibilities at Certkiller .com include the deployment of applications. Certkiller .com operates as manufacturer and online retailer offering their customers a shopping experience twenty four hours a day seven days a week.

You created a Web Application for Certkiller .com. This application will allow users to view product information and make online purchases. This application is distributed across a Web Farm. You want to be able to determine if critical errors occurs with the application because it will help tremendously in the event of you being required to rectify any application issues before it affects the users. To this end you decided to use application monitoring. It is critical that the application monitoring does not affect performance.

You thus did the following:

1. Configure ASP .NET 2.0 Health Monitoring API in the Web.config file.
2. Configure the minInterval attribute of each rule to a low value.

Now you need to take a decision as to whether this application will meet the requirements.

What conclusions can you draw?

A. The configurations will meet the requirements.

B. The configurations will not meet the requirements. ASP .NET 2.0 Health Monitoring API will not work in an environment where an application is distributed across a Web farm.

C. The configurations will not meet the requirements. ASP .NET 2.0 Health Monitoring cannot be configured in a Web.config file.

D. The configurations will not meet the requirements. The minInterval attribute should be configured to a high value.

Answer: D

Explanation: Making use of ASP .NET 2.0 Health Monitoring can affect the performance of an application. To ensure that this is not the case, you should configure the minInterval attribute for each rule in the rules section to increase the minimum time interval between events that are captured.

Incorrect answers:

A: This is wrong because performance will be affected if the minInterval value is set too low. The time interval between captures events will cause the APIs to monitor the application more often which means deterioration in performance.

B: This is incorrect since it is possible to configure ASP .NET 2.0 Health Monitoring APIs to monitor live ASP .NET applications across a Web farm.

C: You can configure the ASP .NET 2.0 Health Monitoring APIs in a Web.config file.