PASS4SURES.COM

A Composite Solution With Just One Click

Microsoft

70-518 PRACTICE EXAM

PRO:Design & Develop Windows Apps Using MS .NET Frmwk 4

70-518CSHARP

Question: 1

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You plan to create a Customer object that contains an Orders property. The Orders property contains an array of Order objects. When users browse Customer objects, they must be able to optionally view Order objects. You need to design a data access strategy that retrieves data only when necessary. Which strategy should you use?

A. lazy loading
B. eager loading
C. file streaming
D. pessimistic locking

Answer: A

Question: 2

You are designing the data access layer (DAL) for an application that uses Microsoft SQL Server 2008, Microsoft ADO.NET, and Microsoft Visual Studio 2010. Conflicts are occurring in the SQL Server database due to concurrent updates.
You need to design a database locking strategy that meets the following requirements:

- Resolves concurrent update conflicts without loss of data
- Ensures that data conflicts can be resolved by users
- Locks only the data necessary for updates

What should you do?

A. Use optimistic locking. Terminate the update when a DBConcurrencyException occurs.
B. Use pessimistic locking. Terminate the update when a DBConcurrencyException occurs.
C. Use pessimistic locking. Retry the failing update operation in the DBConcurrencyException exception handler until it succeeds.
D. Use optimistic locking. In the DBConcurrencyException exception handler, display the data of both original and updated records to the user. Allow the user to resolve the conflicts.

Answer: D

Question: 3

You are designing an application by using Microsoft .NET Framework 4, Microsoft Visual Studio 2010, and Microsoft SQL Server 2008. The application will be used by a sales team to enter sales orders and update customer information.
You need to ensure that the application meets the following requirements:

- Allows users to enter sales orders while their computers are disconnected from the network
- Uploads sales orders to the server database when connected to the network
- Compiles against the .NET Framework 4 client profile

What should you use?

A. XML files
B. WCF services
A. Microsoft Sync Framework
C. the System.Web.Caching namespace classes

Answer: C

Question: 4

You are designing a sales and inventory tracking system by using Microsoft Visual Studio 2010 and Microsoft SQL Server 2008. The sales, inventory, and shipping tables will reside in different databases on different database servers. You need to ensure that the tables are updated simultaneously. What should you do?

A. Use LINQ to SQL.
B. Use Distributed transactions.
C. Use Microsoft Sync Framework.
D. Use the ADO.NET Entity Framework.

Answer: B

Question: 5

You are developing a Windows application by using Microsoft .NET Framework 4, Microsoft Visual Studio 2010, and Microsoft SQL Server 2008. New features that reqire changes to be made to the database schema are added to the application every week. You need to ensure that the changes made to the database schema do not require the application to be recompiled. Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

A. Modify the xml mapping file when the schema changes occur.
B. Modify the conceptual schema xml file when the schema changes occur.
C. Build a storage model and use it to access data from the business entities.
D. Build a conceptual model and use it to access data from the business entities.

Answer: A, D

Question: 6

You are designing a Windows application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You plan to implement control caching to improve the loading time of a control. It is not required to refresh the content of the control after the application loads. The application will be compiled by using the .NET 4 client profile.
You need to ensure that the following requirements are met:

- The control is reusable in multiple forms.
- Data in the control is cached when the application is loaded.

What should you do?

A. In the Load event of the application window, add code to load the control. Save the control to an instance variable.
B. In the Load event of the application window, add code to load the control. Save the control to the cache by using objects in the System.Web.Caching namespace.
C. In the constructor of the application window, add code to load the control. Save the control to a static variable.

D. In the constructor of the application window, add code to load the control. Save the control to the cache by using objects in the System.Web.Caching namespace.

Answer: C

Question: 7

You are designing an application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application is used mostly in a disconnected scenario. The application requires offline data from a Microsoft SQL Server 2008 database. When the application connects to the network, data will be modified and synchronized. You need to ensure that the application does not access the database server directly to synchronize data when online. Which technology should you use?

A. WCF Data Service
B. Remote Data Access
C. ADO.NET Sync Services
D. SQL Server Merge Replication

Answer: C

Question: 8

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You plan to create an Author object that contains a Books property. The Books property contains a large array of Book objects. When users browse through author data in the application, they must be able to view all information related to books written by that author without additional queries. You need to design a data access strategy that meets the requirement. Which strategy should you use?

A. lazy loading
B. eager loading
C. optimistic locking
D. pessimistic locking

Answer: B

Question: 9

You are developing an application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You plan to use Microsoft Sync Framework to synchronize the data stored in a local Microsoft SQL Server Compact Edition database with the data stored in a centralized SQL Server 2008 database. Four columns are added to each table involved in the synchronization process to track changes to the database. You add the following four columns to the database table.

Column Name	Data Type
CreatedUser	Int
UpdatedUser	Int
CreatedTime	Datetime
UpdatedTime	Datetime

Users report that the synchronization process is not always successful. You need to ensure that the application synchronizes data successfully. What should you do?

A.

- Replace the UpdatedTime and CreatedTime columns with the updated columns and data types as shown in the following table.

Original Column Name	Updated Column Name	Updated Data Type
CreatedTime	CreatedTimestamp	Rowversion
UpdatedTime	UpdatedTimestamp	Binary(8)

- Modify the synchronization anchor to use the min_active_rowversion() function.

B.

- Replace the UpdatedTime and CreatedTime columns with the updated columns and data types as shown in the following table.

Original Column Name	Updated Column Name	Updated Data Type
CreatedCounter	CreatedTime	Int
UpdatedCounter	UpdatedTime	Int

- Modify the application to update the counter before and after synchronization.

C.

- Replace the UpdatedTime and CreatedTime columns with the updated columns and data types as shown in the following table.

Original Column Name	Updated Column Name	Updated Data Type
CreatedTime	CreatedTimestamp	Rowversion
UpdatedTime	UpdatedTimestamp	Binary(8)

- Modify the synchronization anchor to use the getdate() function.

D.

- Replace the UpdatedTime and CreatedTime columns with the updated columns and data types as shown in the following table.

Original Column Name	Updated Column Name	Updated Data Type
CreatedCounter	CreatedTime	Int
UpdatedCounter	UpdatedTime	Int

- Modify the synchronization anchor to obtain the maximum value of the UpdatedCounter or CreatedCounter columns across the database.
- Add one to the value obtained from the UpdatedCounter or CreatedCounter columns and use that as the new value of the UpdatedCounter or CreatedCounter column based on the operation performed.

Answer: A

Question: 10

You are designing a Windows application by using Microsoft .NET Framework 4, Microsoft Visual Studio 2010, and

Microsoft SQL Server 2008. You need to design a data access strategy that meets the following requirements:

- Automatically tracks changes
- Maps the database data model to the object model

Which data access technology should you use?

A. LINQ to SQL
B. LINQ to XML
C. ADO.NET DataSet
D. ADO.NET DataReader

Answer: A

Question: 11

You are developing a Windows application by using Microsoft .NET Framework 4, Microsoft Visual Studio 2010, and Microsoft SQL Server 2008. The application will store data in a SQL Server database instance. You plan to use the Code Generation technology to develop data entities. You need to ensure that the following requirements are met:

- When the application runs, a database must be created if it does not already exist.
- When the database schema changes, data entities must be added dynamically.

Which data access technology should you use?

A. LINQ to SQL
B. ADO.NET Data View
C. ADO.NET Typed DataSets
D. ADO.NET Entity Framework

Answer: A

Question: 12

You are developing a Windows application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application will consume a Windows Communication Foundation (WCF) service. The WCF service will provide data to the application. You plan to use the ADO.NET Entity Framework to create a data model that will be used by the application. Another development team makes changes to the WCF service data contract. You need to ensure that changes made to the WCF service data contract do not require the application to be recompiled. What should you do?

A. Create a conceptual model and a storage model based on the existing version of the WCF service.
B. Create a storage model based on the business model. Use a class generated from the storage model for programming.
C. Create a storage model based on the schema of the existing WCF service. Update the mapping file when the new version of the WCF service is available.
D. Create a conceptual model based on the business model. Use a class generated from the conceptual model for programming. Update the mapping file when the new version of the WCF service is available.

Answer: D

Question: 13

You are designing an application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You plan to

design an instrumentation strategy for the application. You need to ensure that the strategy meets the following requirements:

- Captures detailed performance information.
- Enables or disables diagnostic messages by using an application configuration option without requiring the application to restart.

What should you design?

A. A custom trace listener
B. A custom performance counter
C. An override to the Debug class
D. An override to the EventLog class

Answer: B

Question: 14

You are designing a complex and critical Windows desktop application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You plan to implement a logging strategy for the application. You need to record all unexpected errors that occur in the application. What should you do?

A.
- Subscribe to the unhandled exception event handler for the AppDomain object.
- Record relevant application-specific information to an external log.

B.
- Subscribe to the unhandled exception event handler for the application's dispatcher on the main application thread.
- Record relevant application-specific information to an external log.

C.
- Create a generic catch (Exception e) block in the Main method of the application.
- Record relevant application-specific information to a log in the Main method.

D.
- Create a global WIN 32 unhandled exception filter.
- Record relevant application-specific information to an external log from within the filter.

Answer: D

Question: 15

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. During testing of the application, you identify several bottlenecks by using Windows Task Manager and Windows Performance Monitor. You need to recommend a system test strategy that will meet the following requirements:

- Identify major application workloads.
- Identify the functions of the application that are most impacted.

Which testing strategy should you recommend?

A. Usability testing
B. Security testing
C. Stability testing
D. Scalability testing

Answer: D

Question: 16

You are designing a Windows application by using Microsoft .NET Framework 4. Remote users have limited network connectivity. Users will not have write permissions to the local file system. You plan to design the error logging strategy for the application. You need to ensure that the application can collect error information. You also need to ensure that the errors can be analyzed from a centralized location. What should you do?

A. Use a local log file.
B. Use the Microsoft Sync Framework.
C. Log the errors to a Web service.
D. Log the errors to the Windows System event log.

Answer: B

Question: 17

You are developing an application by using Microsoft .NET Framework 4. The application will be used by all employees of your company, Local file stores on the computers are secure and inaccessible remotely. You need to design a remote monitoring strategy to monitor the usage time of the application by each user. What should you do?

A. Create a TraceLog object and the Trace object by using the System.Diagnostics element to trace startup, shutdown, and user idle time events throughout the application.
B. Create a TraceLog object by using the System.Diagnostics element in the application configuration file. Add the TraceSource element for startup, shutdown, and user idle time events.
C. Use the System.Management.Instrumentation namespace to publish startup, shutdown, and user idle time events of the application. Publish the events to Microsoft Operations Manager.
D. Use the System.Management.Instrumentation namespace to issue event queries against methods that pass ProgressEvent and StoppedEvent arguments. Publish the events to the Event Log.

Answer: C

Question: 18

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You need to ensure that the following requirements are met:

- All UI elements are labeled.
- All property values are exposed.
- Keyboard navigation contains tab stops for all controls.
- The application functions on high contrast displays.

Which testing strategy should you recommend?

A. Stress testing
B. Stability testing
C. Usability testing
D. Accessibility testing

Answer: D

Question: 19

You are developing a Windows application by using Microsoft .NET Framework 4. You plan to design a diagnostic logging strategy that will be used in a production environment. You need to ensure that the strategy meets the following requirements:

- Enables or disables diagnostic messages by using an application configuration option.
- Changes the level of detail in the diagnostic messages without recompiling the application.

Which class should you use?

A. Trace
B. Debug
C. Contract
D. EventLog

Answer: A

Question: 20

You are developing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4. You need to recommend a testing strategy to identify the additional hardware resources that are necessary to support future projected growth. Which testing strategy should you recommend?

A. Load testing
B. Stress testing
C. Capacity testing
D. Integration testing

Answer: C

Question: 21

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application will consist of a user interface (UI) tier and a middle tier. The middle tier will be implemented by using Windows Communication I Foundation (WCF). Each method in the middle tier will contain the following catch block. Catch (Argument-NullException e)
{
thcow e;
}
When testing the application, you discover that all ArgumentNullExceptions exceptions that occur in the middle tier do not contain accurate stack trace information. You need to design the exception handling strategy for the application. What should you do?

A. Create an ArgumentFMullException handler in the UI tier.
B. Use a DispatcherUnhandledExceptionEvent handler in the UI tier.
C. Use a DispatcherUnhandledExceptionEvent handler in the middle tier.
D. Remove the exception parameter from the ArgumentNullException handler.

Answer: D

Question: 22

You are designing a Windows Presentation Foundation (WPF) application for your company by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The business layer of the application is implemented by using Windows Communication Foundation (WCF). You plan to support non-repudiation and data integrity for WCF messages. You need to design the security strategy for the application. What should you do?

A. Attach a digital signature to the WCF messages.
B. Encrypt the WCF messages by using the Secure Sockets Layer (SSL) protocol.
C. Encrypt the WCF messages by using the Internet Protocol Security (IPSec) protocol.
D. Implement message-level security by using digital certificates as client computer credentials.

Answer: A

Question: 23

You are designing an application by using Windows Presentation Foundation (WPF) and Microsoft .NET Framework 4. The user interface (UI) tier of the application will be implemented in WPF. The middle tier of the application is implemented by using an existing COM component. The middle tier contains a long-running method named ProcessData. You need to ensure that users can continue to use the UI while ProcessData is running. What should you do?

A. Use an asynchronous worker thread to call ProcessData.
B. Use the Invoke method of the Dispatcher class to call ProcessData.
C. Call the Run method of the Dispatcher class before invoking ProcessData.
D. Call the DoEvents method of the Application class before invoking ProcessData.

Answer: A

Question: 24

You are designing an n-tier Windows application by using Microsoft .NET Framework 4, Microsoft Visual Studio 2010, and Microsoft SQL Server 2008. The application will replace an existing client/server application. The existing application was created by using Microsoft Visual Basic 6.0 and consists of a series of COM components that access a SQL Server database. You plan to move the existing COM components into a Windows Communication Foundation (WCF) tier. You need to ensure that the COM components can be replaced without impacting the existing user interface (UI) tier. You also need to ensure that the COM components can be replaced separately. What should you do?

A. Create a common assembly on the UI tier of the new application to interface with the COM components.
B. Create a common assembly on the WCF tier of the new application to interface with the COM components.
C. Use .NET COM Interop on the client tier to interact directly with the COM components until they are replaced by the managed code.
D. Convert the Visual Basic 6.0 source code to managed code by using the Visual Studio converters. Use these code components on the client/server application until they are replaced individually with the new permanent managed code functionality.

Answer: A

Question: 25

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application will be deployed on Windows 7 computers in the United States and Europe. You need to ensure that array data is sorted based on the culture of the operating system. What should you do?

A. Add a configuration setting to the appSettings section of the App.config file.
B. Use a comparison method to compare ASCII values.
C. Use the Resource Manager to create culture-sorted lists.
D. Use a comparison method that specifies a CultureInfo class or the CompareOptions enumeration parameter.

Answer: D

Question: 26

You are designing a Windows application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You plan to add a feature to the application. The application will be used in several different locales. The application will send data to a centralized server and log the date and time information. You need to ensure that the date and time information includes the local Universal Time Coordinate (UTC) offset value. Which class should you use?

A. CultureInfo
B. DateTimeOffset
C. CultureInfoConverter
D. DateTimeOffsetConverter

Answer: B

Question: 27

You are creating a Windows application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The business logic layer of the application is implemented by using Windows Communication Foundation (WCF). You create a WCF service that contains a single operation to upload large binary data files. You configure the binding of the WCF service to enable data streaming. You need to ensure that the WCF service operation receives binary data files along with a string parameter that contains the description of each file. You create a service operation that receives a single parameter, what should you do next?

A. Implement the service parameter as a Serializable class that contains a property for the description of the file and another property for the content of the data file
B. Implement the service parameter as a DataContract class that contains a DataMember property for the description of the file and another DataMember property for the content of the data file.
C. Implement the service parameter as a MessageContract class that contains a MessageHeader property for the description of the file and a MessageBodyMember property for the content of the data file.
D. Implement the service parameter as a MessageContract class that contains a MessageBodyMember property for the description of the file and another MessageBodyMember property for the content of the data file.

Answer: C

Question: 28

You are updating a Windows desktop client application that was created by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application displays data derived from several database queries. The display takes a long time to update. The application currently uses a BackgroundWorker thread and a Parallel.ForEach statement on that thread. Users have requested a modification to the program that would allow them to interrupt the display of data and begin processing a new and different query. You decide to provide a new Stop button on the user interface (UI) to allow the user to terminate the current data display and initiate the new query. The main UI thread must be notified when the current data processing is terminated so that the new query can be started. You need to implement the Stop button event handler. What should you do?

A.
- Use the DoWork handler of the worker thread and test a shared status value.
- Use a break statement to terminate the Parallel.ForEach loop.

B.
- Use the DoWork handler of the worker thread and test a shared status value.
- Use a loopStatus.Stop() statement to terminate the Parallel.ForEach loop.

C.
- Use the DoWork handler of the worker thread and test a shared status value.
- Use the Thread.AbortQ statement to terminate the worker thread.
- Start a new BackgroundWorker thread from the main UI thread.

D.
- Use a CancelAsync() function to cancel the worker thread.
- In the Parallel.ForEach loop, test the CancellationPending property.
- If the property is set to true, perform the following tasks:
  - Write a loopStatus.Stop() statement.
  - Set the DoWorkEventArgs.Cancel property to true.
  - Use a return statement to exit from the loop.

Answer: D

Question: 29

You are creating a Windows application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The business logic layer of the application is implemented by using Windows Communication Foundation (WCF). The application must provide maximum availability. It must be able to run in a reliable manner even when network connectivity is not available. You need to design the WCF service interaction for the business layer of the application. What should you do?

A. Create a WCF queued service.
B. Create a WCF proxy class that uses synchronous operations.
C. Create a WCF proxy class that uses asynchronous operations.
D. Create a WCF service that uses the Ws2007HttpBinding binding.

Answer: A

Question: 30

You are designing a Windows application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The

application retrieves data from multiple heterogeneous data sources. The retrieved data is aggregated into a single record set You need to ensure that the application takes advantage of new multi-core server processors. Which technology should you use?

A. LINQ
B. PLINQ
C. ADO.NET DataSet
D. ADO.NET Typed DataSet

Answer: B

Question: 31

You are upgrading a stand-alone Windows Presentation Foundation (WPF) application and an XAML browser application (XBAP) to Microsoft .NET Framework 4. You plan to add .NET 4 types and members to both applications. Both applications consume a common utility assembly that modifies files on a local file system. The utility assembly requires full trust. You need to ensure that both applications can use the common utility assembly without any security-related exceptions. What should you do?

A. Change the <supportedRuntime> element for the WPF application to the .NET Framework 3.5.
B. Change the <supportedRuntime> element for the XBAP application to the .NET Framework 3.5.
C. Apply the AllowPartiallyTrustedCallersAttribute attribute to the utility assembly.
D. Apply the AllowPartiallyTrustedCallersAttribute attribute to the XBAP application.

Answer: C

Question: 32

You are designing a Windows client application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application will read and write data that is stored in a mainframe application. A hardware device that is located between the application and the mainframe removes all XML-formatted messages. You need to ensure that the application can request and receive data from the mainframe application. What should you create?

A. a RSS-based WCF service
B. a REST-based WCF service
C. a .NET Remoting service that uses the SOAP formatter
D. a .NET Web Service that uses the wsHttpBinding binding

Answer: B

Question: 33

You have developed a Windows Forms server application by using Microsoft .NET Framework 4. Client applications connect to the server application to receive streaming media on demand on a single server. Each incoming connection is launched on a separate thread. As the number of client applications increases, users report that connection attempts intermittently fail. You need to ensure that users can connect to the server application even when the number of client applications increases. What should you do?

A. Add additional RAM to the server. Increase the size of the thread pool.

B. Add additional RAM to the server. Decrease the size of the thread pool.
C. Install a network load balancer. Increase the size of the connection pool.
D. Install a network load balancer. Decrease the size of the connection pool.

Answer: A

Question: 34

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application contains a COM component. You plan to deploy the application to several client computers by using read-only media. You need to ensure that the COM component is registered during deployment of the application. Which deployment technology should you use?

A. XCopy
B. Microsoft Windows Installer (MSI)
C. ClickOnce along with full trust
D. ClickOnce along with partial trust

Answer: B

Question: 35

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft SQL Server 2008. The application runs successfully on a local client computer by using your user account. You deploy the database of the application to the production server. You configure the application connection string to use the Windows Authentication mode. You deploy the application to several client computers that use other applications on the network. The client computers access different databases on the production server by using the Windows Authentication mode. Users report that the application is not working and that they receive a database connection exception. You need to identify the source of the problem. What is the source of the problem?

A. The database is currently blocked due to locks.
B. The users do not have the correct database permissions.
C. The users do not have valid SQL Server 2008 database logins.
D. The client computers are not configured to use the network.

Answer: B

Question: 36

You are packaging updates for multiple Windows Presentation Foundation (WPF) applications by using Microsoft .NET Framework 4. Updates to the applications and to third-party control files are available. Updates to the applications have dependencies upon updates to the third-party control files. An update script is run at logon that allows only a single command to be executed. You need to package the application updates and updates to the third party controls to ensure that they are successfully installed. What should you do?

A. Package application updates as a single installer. Package third-party control files as a merge module.
B. Package application updates as a single installer. Package third-party control files as a separate installer.
C. Prepare the installers for individual application updates and include the third-party control files as individual files.
D. Prepare the installers for individual application updates and include the third-party control files as a merge module.

Answer: A

Question: 37

You are deploying an application on Windows client computers by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You need to ensure that the deployment package meets the following requirements:
• Grants only the necessary permissions
• Adds a shortcut to the Windows Start menu
• Registers the application within Programs and Features
• Can be published to a Web site
Which deployment strategy should you use?

A. XCopy
B. ClickOnce
C. Merge module
D. Windows Installer

Answer: B

Question: 38

You are creating a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4. You need to ensure that when the user attempts to run the application, the user cannot use the application if a new version of the application is available. What should you do?

A. Deploy the application by using the XCopy technology.
B. Create a Custom Action within the MSI package to check for updates.
C. Use the ClickOnce technology along with the Search for updates during application startup setting.
D. Use a BackgroundWorker object on an application load to connect to a Background Intelligent Transfer Service (BITS) service.

Answer: C

Question: 39

You are developing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application will run in a partially trusted sandbox. You plan to deploy the application on client computers by using the ClickOnce deployment technology. You plan to sign the deployment and application manifest by using a trusted publisher certificate. You need to ensure that the following requirements are met:
- Users are not prompted for elevated permissions during application deployment.
- The application can request elevated permissions at runtime.

Where should you install the trusted publisher certificate?

A. in the trusted root store on the deployment server
B. in the trusted publisher store on the deployment server
C. in the trusted root store on each client computer
D. in the trusted publisher store on each client computer

Answer: D

Question: 40

You have developed a Windows application by using Microsoft .NET Framework 4, Windows Presentation Foundation (WPF), and Microsoft SQL Server 2008. The application is deployed as an XAML Browser Application (XBAP) and executes in the Internet Zone in Internet Explorer. The application updates data in a SQL Server 2008 database. Users report that a SecurityException exception occurs when the application attempts to save data to the database. You need to design a solution to resolve the problem. What should you do?

A. Redesign the XBAP application by using partial trust.
B. Redesign the XBAP code to utilize stored procedures.
C. Design a WCF Service tier to provide database access.
D. Design a data access layer that uses ASP.NET Entity Framework to communicate with the database by using the System.Data.SqlClient class.

Answer: C

Question: 41

You are creating a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application will consist of several data entry forms. Each data entry form requires a user to enter phone numbers and addresses. You need to design a solution that promotes code reusability. What should you do?

A. Add multiple text boxes for each data entry form.
B. Use the same style resource for each data entry form.
C. Create a new user control and reference it on each data entry form.
D. Create a new merged resource dictionary and reference it from each data entry form.

Answer: C

Question: 42

You are creating a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4. You create a photo album-browsing application. When the user opens an album, pictures in the album are displayed in sets of 10. Pictures are obtained from a windows Communication Foundation (WCF) service. Most of the memory of the application is allocated in the native heap. The memory usage of the application increases when new albums are opened. You need to ensure that the memory usage of the application remains within a specific range. What should you do?

A. Use a reduced color palette to render pictures.
B. Use the NetTcpBinding binding to communicate with the WCF service.
C. Load the pictures from the WCF service on a background thread. Implement the IDisposable interface.
D. Assign the null value to every variable pointing to a picture that is not displayed. Implement the IDisposable interface.

Answer: D

Question: 43

You are debugging a Windows application that uses Windows Presentation Foundation (WPF) and Microsoft Visual Studio 2010. The application is deployed as an XAML browser application (XBAP). Some users report that they are not able to use the drag-and-drop functionality. You need to ensure that all users can use the drag-and-drop functionality. What should you do?

A. Use loose XAML.
B. Require the FullTrust permission on the XBAP application.
C. Add the URL for the application to the browser's trusted sites list.
D. Register the assembly that contains the IDataObject objects to the GAC on all client computers.

Answer: C

Question: 44

You are designing an application by using Windows Presentation Foundation (WPF) and Microsoft .NET Framework 4. You create a control named HelpViewer to view the Help documentation of the application. The HelpViewer control must be available to al windows in the application. You need to ensure that the application allows users to perform the following tasks:

- Bookmark their location in the documentation and return to the bookmark from any window.
- Hide the HelpViewer control.
- Dock the HelpViewer control.

You create a main window as a base class. What should you do next?

A.
- Add the HelpViewer control to the window at runtime.
- Inherit all other window classes in the application from the main window base class.

B.
- Add the HelpViewer control to a DockPanel control at runtime.
- Inherit all other window classes in the application from the main window base class.

C.
- Add the HelpViewer control and a Frame control to a DockPanel control to the window at runtime.
- Create all other windows in the application as pages and host them in the Frame control.

D.
- Add the HelpViewer control and a Frame control to a StackPanel control to the window at runtime.
- Create all other windows in the application as pages and host them in the Frame control.

Answer: C

Question: 45

You are designing an application by using Windows Presentation Foundation (WPF) and Microsoft .NET Framework 4. The application consists of multiple data entry screens. You need to ensure that users can return to previous screens. You also need to ensure that users can view a history of screens. What should you do?

A. Create buttons to allow a user to open a new window for the data entry screens.
B. Create buttons to allow a user to open a new Window as an MDI child window for the data entry screens.
C. Create hyperlinks to allow a user to move between data entry screens. Use the NavigationService class to manage navigation history.

D. Create hyperlinks to allow a user to move between data entry screens. Use the NavigationProgressEventArgs class to manage navigation history.

Answer: C

Question: 46

You are designing an application by using Windows Presentation Foundation (WPF) and Microsoft .NET Framework 4. You plan to create a wizard by using a Window, a Frame, and several Page objects. The wizard will use the NavigationService. The NavigationService will be invoked by buttons on the user interface (UI). You need to ensure that prior-page navigation can be disabled. What should you do?

A. In the button Onclick event, remove the previous wizard page from the journal.
B. In the button Onclick event, remove the previous wizard page from the Window.
C. In the button OnMouseDown event, remove the previous wizard page from the Frame.
D. In the button OnMouseDown event, remove the previous wizard page from the Window.

Answer: A

Question: 47

You are creating a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft SQL Server 2008. You create a window that allows users to search for products that match a given name. Search results are displayed when the user types each letter of the product name. You use a method named FindProducts to obtain the list of products. Users report that when they type a letter of the product name, the window stops responding for a varying amount of time. While the window stops responding, users cannot type more letters. The window stops responding even when the search generates few results. You need to ensure that the window responds while users type a name. What should you do?

A. Cache the results returned by the FindProducts method for each set of criteria.
B. Use a VirtualizingStackPanel class to display the list of client applications that match the given name.
C. Create a delegate for the FindProducts method. Pass the delegate to the Invoke method of the Dispatcher property of the window.
D. Before you call the FindProducts method, call the Freeze method on the Brush object that is used as the Background property of the window.

Answer: C

Question: 48

You are designing an application by using Windows Presentation Foundation (WPF) and Microsoft .NET Framework 4. The application retrieves customer data from an enterprise resource planning (ERP) system. You need to ensure that the following requirements are met:

- Customer data is retrieved only once.
- Customer data is available on multiple forms within the application.
- Forms can implement Two-Way binding to the customer data.

What should you do?

A. Store the results of the query in a static DataTable object that is used by all the forms.

B. Store the results of the query in a local XML file. Bind all forms to an XMLDataAdapter object that references the local XML file.
C. Design a static class for the data that implements the [Observable interface. Subscribe to the static class from each of the forms that use the data.
D. Design a static class for the data that implements the INotifyPropertyChanged interface. Raise the PropertyChanged event to notify the forms when data is changed.

Answer: D

Question: 49

You are designing an application by using Windows Presentation Foundation (WPF), Microsoft .NET Framework 4, and Microsoft SQL Server 2008. The application will contain several forms that include custom data validators. You need to ensure that data is validated before the database updates occur. You also need to ensure that the validation logic can be reused. How should you design the validation?

A. Implement the IDataErrorInfo interface in the data class of the application.
B. Implement the INotifyPropertyChanged interface in the data class of the application.
C.
- Subscribe to the MouseLeave event for all user interface (UI) components of the application.
- Perform data validation in the event handler and alert users when a data entry error occurs.

D.
- Subscribe to the TextChanged event for all user interface (UI) components of the application.
- Perform data validation in the event handler and alert users when a data entry error occurs.

Answer: A

Question: 50

You are designing a new feature for an existing Windows Forms application by using Microsoft .NET Framework 4. The application contains multiple forms that are loaded into a parent Multiple Document Interface (MDI) form. Your company policy does not allow the use of third-party controls. You need to ensure that the new feature meets the following requirements:

- It provides a three-dimensional scale model.
- It allows users to change the colors of the model and communicates the color selections back to the application.
- It allows the model to scale, based on the user's client computer display resolution.
- It is a child form in the MDI application.

What should you do?

A.
- Design the new feature in the existing Windows Forms application as a Windows form.
- Add the form as a child form to the MDI window.

B.
- Design the new feature in a new application by using Windows Presentation Foundation (WPF).
- Invoke the new WPF application from the existing Windows Forms application.

C.
- Design the new feature in a new Windows Presentation Foundation (WPF) application.
- Host the existing application inside the new WPF application by using the WindowsFormsHost class.

D.

- Design the new feature by using a Windows Presentation Foundation (WPF) user control.
- Use the ElementHost class to host the WPF user control in the existing Windows Forms application.

Answer: D

Question: 51

You are designing a .NET Framework 4 solution. The solution contains a Windows Presentation Foundation (WPF) application and a Windows Communication Foundation (WCF) Web service. The WPF application uses the WCF Web service to store data in a Microsoft SQL Server 2008 database. You have the following requirements:

- Ensure that the WPF application functions while users' computers are offline.
- Minimize the time spent sending data to the WCF Web service.
- Minimize disk space requirements for data storage.

You need to recommend an approach for synchronizing data between the WPF application and the database. Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

A. Store data in custom business objects. Serialize data locally by using custom serialization.
B. Create a local caching solution that periodically checks for Internet connectivity, uses local memory, and batches changes to the WCF Web service.
C. Create a local caching solution that periodically checks for Internet connectivity and writes directly to the local data store and to the WCF Web service.
D. Store data in DataSet objects. Serialize data locally by using XML serialization.

Answer: A, C

Question: 52

You are designing an n-tier .NET Framework 4 solution that includes a Windows Presentation Foundation (WPF) application. The WPF application will access data stored in a Microsoft SQL Server 2008 database by using the solution's data access tier. The data access tier must also be available from within Microsoft Excel 2010. You need to recommend a technology for accessing the data access tier. Which technology should you recommend?

A. ADO.NET Entity Framework 4
B. LINQ to SQL
C. WCF Data Services
D. LINQ to XML

Answer: C

Explanation:
ADO.NET Entity Framework 4 http://stackoverflow.com/questions/7385907/update-db-from-excel-withentity-framework-4-1
LINQ to SQL http://stackoverflow.com/questions/376524/populate-excel-with-data-from-linq-to-sql-query
(Sending individual OLE commands for each Excel cell is very slow)
WCF Data Services http://damianblog.com/2009/07/05/excel-wcf/
LINQ to XML http://blogs.msdn.com/b/bethmassi/archive/2007/10/30/quickly-import-and-export-excel-datawith-linq-to-xml.aspx (import export)
The parts of ADO.NET Data Services that were focused on the Windows implementation of OData are now known as WCF Data Services.

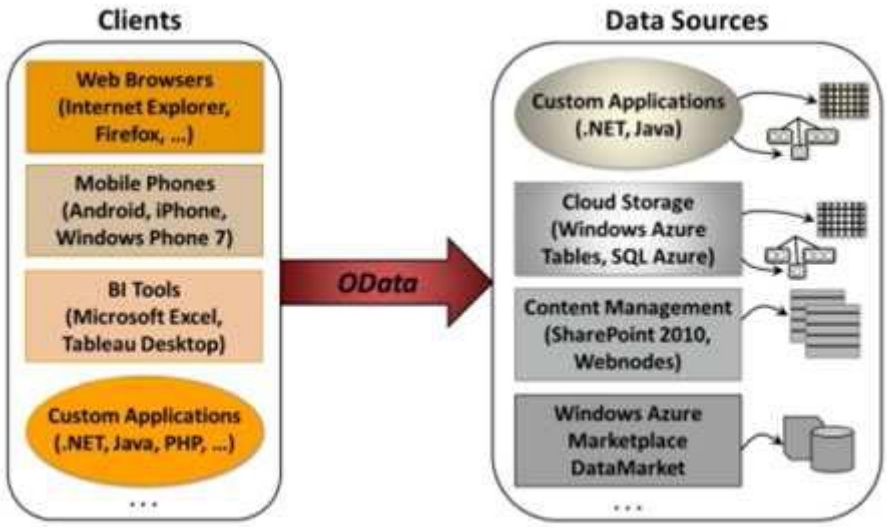

Figure 1: Any OData client can access data provided by any OData data source.

Question: 53

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4, Microsoft Visual Studio 2010, and Microsoft SQL Server 2008. You have designed the application to use the ADO.NET Entity Framework for the Data Access Layer (DAL). You have designed the user interface (UI) of the application by using the Model-View-ViewModel (M-V-VM) pattern. The middle tier of the application is designed by using Windows Communication Foundation (WCF). The database schema changes often. The DAL entity objects are required to be referenced from the middle tier and the ViewModel layer of the UI. You need to ensure that the DAL entity objects are updated when the database schema changes. What should you do?

A. Create an observable collection of objects.
B. Create typed DataSets.
C. Create persistent-aware objects.
D. Create persistent-ignorant objects.

Answer: C

Explanation:
This gives us:
a. Entity objects are being used. => A, B out
b. The DAL always have to be updated not only when you are retrieving the data. => D out
This will be achieved by non-POCO i.e. persistant aware objects or an observable collection of objects.
Since it's specified we are using Entity Objects we will not have to use an observable collection. My answer is therefore C.

POCO is often considered good because it allows for a strong separation of concerns. You can define your data objects to have absolutely zero knowledge of the mechanism that will be used to store them. (So it makes it easy to switch out the storage mechanism for something different in the future). It also means you don't have to design your data objects with any consideration for the database/framework that is used to store them.
persistence ignorant
All classes must have a default constructor
Some features don't work unless classes are unsealed and all members are virtual
Object identity doesn't work properly unless you abuse Equals/GetHashCode

(Aside: Before anybody gets upset, I don't mean to pick on NHibernate here, it's just a frequently quoted example of a framework that supposedly permits persistence ignorance. I'm sure similar arguments could be applied to other ORMs that claim the same.)
Now although the class in itself does not have any persistence-framework-specific attributes or base classes etc., to me it is not really "persistence ignorant" because it must follow a set of design guidelines to facilitate use by the chosen persistence framework

Question: 54

You are designing a Windows Presentation Foundation (WPF) application that will process data. The data is stored in a Microsoft SQL Server 2008 database. You plan to access the data by using ADO.NET Entity Framework 4. You need to recommend an approach that minimizes the number of calls to the database server. What should you recommend?

A. Use lazy loading.
B. Use SqlDependency objects.
C. Use change tracking in the ObjectContext object.
D. Use eager loading.

Answer: D

Explanation:
If we only consider number of calls it has to be D. since eager loading loads all related entities.
SqlDependency objects. (If we had to query the database for the entitlements on every single alert that flows through our system, we would take a tremendous hit in performance. Therefore, we cache the entitlements in memory and cache the result sets.) http://magmasystems.blogspot.com/2008/09/sqldependency-object-and-entitlements.html
Change Tracking
Once the View Generation cost is eliminated, the most expensive operation is Object Materialization. This operation eats up 75% of your query time because it has to read from the DbDataReader object and create an object. When you are using the Entity Framework, you have objects that represent the tables in your database. These objects are created by an internal process called object materialization. This process takes the returned data and builds the relevant objects for you. The object can be EntityObject derived objects, anonymous types, or DbDataRecord DbDataRecord.
The ObjectContext object will create an ObjectStateEntry object to help track changes made to related entities. Objects are tracked when queried, added, or attached to the cached references inside this class.
The tracking behavior is specified using the MergeOption enumeration. When updates to properties of the tracked objects occur, the properties are marked as modified and the original values are kept for performing updates back to the database. This enables users to write code against the objects themselves and call SaveChanges.
We can minimize the overhead of change tracking by using the MergeOption.NoTracking option. Doing so will increase the performance of your system in most situations. The loss of change tracking is irrelevant if you are sending your data across the network via a web service because this feature will not work in a "disconnected" mode. Even if you are not disconnected, you can use this option in a page where there are no updates to the database. Take a look at the code snippet below for one example of how to disable change tracking:
Eager loading returns all related entities together with the queried entities in a single query. This means that, while there is only one connection made to the data source, a larger amount of data is returned in the initial query. Also, query paths result in a more complex query because of the additional joins that are required in the query that is executed against the data source.
Explicit and lazy loading enables you to postpone the request for related object data until that data is actually needed. This yields a less complex initial query that returns less total data. However, each successive loading of a related object makes a connection to the data source and executes a query. In the case of lazy loading, this connection occurs whenever a navigation property is accessed and the related entity is not already loaded. If you are concerned about which related entities are returned by the initial query or with managing the timing of when related entities are

loaded from the data source, you should consider disabling lazy loading. Lazy loading is enabled in the constructor of the Entity Frameworkgenerated object context.
Lazy loading
In this type of loading, related entities are automatically loaded from the data source when you access a navigation property. With this type of loading, be aware that each navigation property that you access results in a separate query executing against the data source if the entity is not already in the ObjectContext.
Eager loading
When you know the exact shape of the graph of related entities that your application requires, you can use the Include method on the ObjectQuery to define a query path that controls which related entities to return as part of the initial query.
When you define a query path, only a single request against the database is required to return all entities defined by the path in a single result set, and all related entities of the type specified in the path are loaded with each object that the query returns.

Question: 55

You are analyzing an application that uses Microsoft .NET Framework 4 and Microsoft SQL Server 2008. The application is used to maintain an inventory database and is accessed from several remote Windows client applications. The application frequently updates multiple rows in a database table by using a DbDotoAdopter object. Users report that the application runs slowly during peak business hours. When large numbers of records are changed by multiple users, you discover the following:

- The CPU utilization of the client applications is normal.
- The network utilization increases slightly.
- The CPU utilization of the database server remains close to the normal average for a day.

You need to resolve the performance issue. What should you do?

A. Disable batch updates. Modify the client application to perform a single update.
B. Insert a random time interval between updates.
C. Move the update method calls to a separate BackgroundWorker thread.
D. Remove any limit on batch update sizes. Modify the client application to perform a single update.

Answer: D

Explanation:
Requirements
Several remote Windows client applications. The application frequently updates multiple rows in a database table by using a DbDataAdapter object.
(The DbDataAdapter class inherits from the DataAdapter class and helps a class implement a
DataAdapter designed for use with a relational database.
An application does not create an instance of the DbDataAdapter interface directly, but creates an instance of a class that inherits IDbDataAdapter and DbDataAdapter.)
The BackgroundWorker component is designed to allow you to execute time-consuming operations on a separate, dedicated thread. This allows you to run operations that take a lot of time, such as file downloads and database transactions asynchronously and allow the UI to remain responsive.

Question: 56

You are modifying an existing Windows Presentation Foundation (WPF) application that uses .NET Framework 4. The WPF application uses a wizard to capture data and insert the data into a database. The database includes one parent table and many child tables. Inserting captured data in the database locks many database tables and delays

application access. You have the following requirements:

- Reduce delays when saving data.
- Ensure that other application users are not blocked from reading data.
- Ensure that captured data is available only after all child tables are updated.

You need to recommend an approach for inserting captured data into the database. What should you recommend?

A. Insert all captured data in a single transaction when the user completes the wizard.
B. Insert captured data by using a single transaction as the user completes each wizard page.
C. Insert captured data by using non-transactional operations when the user completes the wizard.
D. Insert captured data by using optimistic concurrency as the user completes each wizard page.

Answer: A

Explanation:
A. one transaction in the end => Yes
B. Works but to many transactions => otut
C. non-transactional operations: users should not blocked from reading data => out
D. optimistic concurrency for each page-- we need one operation for all pages =>out
Pessimistic: In Pessimistic concurrency control a transaction blocks data access operations of other transactions upon conflicts, and conflicts are non-materialized until blocking is removed. This to ensure that operations that may violate serializability (and in practice also recoverability) do not occur.
Optimistic: In Optimistic concurrency control data access operations of other transactions are not blocked upon conflicts, and conflicts are immediately materialized. When the transaction reaches the ready state, i.e., its running state has been completed, possible serializability (and in practice also recoverability) violation by the transaction's operations (relatively to other running transactions) is checked:
If violation has occurred, the transaction is typically aborted (sometimes aborting another transaction to handle serializability violation is preferred). Otherwise it is committed.

Question: 57

You are developing an application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application contains a grid that displays customer data stored in a database table. Users report that the grid takes a long time to display. You plan to implement data caching to improve loading time for the grid. You need to ensure that the cached data expires when the customer data is updated. What should you do?

A. Use the System.Web.Caching.CacheDependency class.
B. Use the System.Runtime.Caching.SqlChangeMonitor class.
C. Use the ADO.NET Entity Framework.
D. Use a static variable to store the Grid object.

Answer: A

Explanation:
Requirements:
Improve loading time for the grid. You need to ensure that the cached data expires when the customer data is updated.
A. CacheDependency class: it's a filewatcher one => out
B. Runtime.Caching.SqlChangeMonitor: class Monitors changes to a database. You can use the CacheItemPolicy to specify expiration policies. page 190 => Yes
C. Use the ADO.NET Entity Framework: I wouldn't advise it (caching Entity). The ObjectContext needs to be active to

observe changes to any entities you are actively working with or you'd need to disconnect any active entities prior to caching the ObjectContext. Detaching could work provided the original context is disposed properly => out
D. Use a static variable to store the Grid object: Won't help to impove loading time => out
Reference:
SqlChangeMonitor -> monitor change in database
http://msdn.microsoft.com/en-us/library/system.runtime.caching.sqlchangemonitor.aspx

Question: 58

You are designing a Windows Presentation Foundation (WPF) application. The WPF application displays indicators to compare your company's past performance to the current day's operations data. The WPF application accesses historic data from your company's data warehouse through a Web service, and accesses current data directly from a Microsoft SQL Server 2008 database. The WPF application must meet the following requirements:

- Retrieve historic data from the data warehouse at application startup and then once per day.
- Retrieve current data from the database every five minutes, and then update the indicators.
- Cache all retrieved data.
- Target the .NET Framework 4 Client Profile.

You need to recommend an approach to data caching. What should you recommend?

A. Use System.Web.Caching with a sliding expiration.
B. Use System.Runtime.Caching with an absolute expiration.
C. Use System.Runtime.Caching with a sliding expiration.
D. Use System.Web.Caching with are absolute expiration.

Answer: C

Explanation:
Runtime.Caching is the critical here since it is updated every five minites=> A, D out. Sliding expiration will not loose cached data so easily. B out => C
Better Answer : Use System.Runtime.Caching with a sliding expiration.

Question: 59

You are analyzing a Windows client application that uses Microsoft Visual Studio 2010 and Microsoft SQL Server 2008. The application updates two database tables from the main user interface (UI) thread. You need to ensure that the following requirements are met:

- The database tables are either updated simultaneously or not updated at all.
- Users are notified of the success or failure of the updates.
- Users are able to perform other tasks during the update process.

What should you do?

A.
- Use TransactionScope in a using block on the UI thread.
- Batch the database updates by setting the DbDataAdapter.UpdateBatchSize property to 2.

B.
- Move the database update logic to a BackgroundWorker thread.
- Ensure that the thread is enclosed in a TransactionScopeusing block in the BackgroundWorker DoWork method.

C.
- Use TransactionScope in a using block on the main thread.
- Create a BackgroundWorker thread within the block.

- Move the database updates to the BackgroundWorker DoWork method.

D.

- Use TransactionScope in a using block on the UI thread.
- Create a DependentTransaction object within the block and pass the object to the BackgroundWorker ReportProgress method
- Use the object in the ReportProgress method to create a new TransactionScope block.

Answer: B

Explanation:
We need a background worker process => A out.
Users are able to perform other tasks during the update process. =>
Users are notified of the success or failure of the updates. => yes for B,C,D (whether because the process is completed or because the process is cancelled, the RunWorkerCompleted event is raised)
The DependentTransaction is a clone of a Transaction object created using the DependentClone method.
Its sole purpose is to allow the application to come to rest and guarantee that the transaction cannot commit while work is still being performed on the transaction (for example, on a worker thread). => Users are able to perform other tasks during the update process => D out
B, C => still left => DoWork event handler is used for a worker thread => B correct
The code in the DoWork event handler is executed on a separate, dedicated thread, allowing the UI to remain responsive.

```
private void backgroundWorker1_DoWork(object sender, DoWorkEventArgs e)
{
for (int i = 1;i < 11; i++)
{
RunTimeConsumingProcess();
// Calls the Report Progress method, indicating the percentage
// complete
backgroundWorker1.ReportProgress(i*10);
}
}
```

Question: 60

You are designing a Windows Presentation Foundation (WPF) application that accesses a Microsoft SQL Server 2008 database. You must ensure that database administrators can change the structure of database tables without requiring redeployment of the WPF application. You need to recommend a data modeling and data access strategy. What should you recommend?

A. Model the data layer by using DataSet objects with automatically generated Create, Read, Update, and Delete (CRUD) statements.
B. Model the data layer by using custom data access objects. Access the database by using stored procedures.
C. Model the data layer by using LINQ to SQL with attribute-based mapping of objects to tables.
D. Model the data layer by using typed DataSet objects with automatically generated Create, Read, Update, and Delete (CRUD) statements

Answer: B

Question: 61

You are designing an application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application includes Windows Workflow Foundation (WF) hosts that run thousands of workflow instances. Workflows usually take 2 hours of time to complete. The application also includes a Windows Communication Foundation (WCF) service that contains a method to check the completion status of a workflow stored in a database. External applications that use the WCF service to check the status of workflows every minute causes performance degradation of the workflow that hosts the application. You need to eliminate the performance degradation caused by workflow status checks. What should you do?

A.
- Cache the status of the workflow.
- Assign a callback function based on a SqlDependencyobject.
- Reload the cache in the callback function.

B.
- Cache the status of the workflow.
- Set the expiry time of the Cache object to 30 minutes.

C.
- Create a status checking workflow.
- Return the status of the original workflow to the external application in 30 minute intervals.

D.
- Create a status checking workflow.
- Return the status of the original workflow to the external application after 10 requests have been made.

Answer: A

Explanation:
Reference:
http://msdn.microsoft.com/en-us/library/system.data.sqlclient.sqldependency(v=vs.80).aspx

Question: 62

You are designing a Windows Presentation Foundation (WPF) application that uses .NET Framework 4. The application uses a subset of the functionality provided by a third-party COM component that will be replaced later. The application developers must have access to only the required subset of functionality. You need to recommend a solution that meets the requirements. Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

A. Create an adapter assembly that exposes the entire functionality of the COM component.
B. In the adapter assembly, use an embedded interop reference.
C. In the adapter assembly, use a standard interop reference.
D. Create an adapter assembly that exposes the required subset of the COM component functionality.

Answer: C, D

Question: 63

You are designing an n-tier solution for use by multiple groups of users. The solution consists of a client application that collects information from users and transmits it to a business layer for processing. The business layer sends the information to a service layer by using Windows Communication Foundation (WCF). The service layer exists on multiple servers. The solution must send the collected information to a specific server in the service layer based on the user's group. You need to recommend an approach that will allow the information to be sent to the correct server.

What should you recommend?

A. Impersonate the client in the business layer.
B. Implement a duplex contract on the service layer.
C. Create a Windows Workflow Foundation (WF) activity on the client.
D. Implement the WCF 4 Routing Service.

Answer: D

Question: 64

You are designing a Windows application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The business logic layer of the application is implemented by using Windows Communication Foundation (WCF). You create a duplex bidirectional WCF service that contains a single operation. The service operation sends the result back to the client application by using a two-way callback operation. You plan to design a service interaction strategy. You need to ensure that deadlocks are prevented. What should you do?

A. Configure the CallbackBehaviorAttribute attribute to use the Reentrant or Multiple concurrency mode in the callback class.
B. Configure the ServiceBehaviorAttribute attribute to use the Reentrant or Multiple concurrency mode in the service class.
C. Configure the ServiceBehaviorAttribute attribute to use the Synchronization context in the service class.
D. Configure the CallbackBehaviorAttribute attribute to use the Synchronization context in the callback class.

Answer: B

Question: 65

You are designing a Windows Presentation Foundation (WPF) application. The WPF application contains code that will be executed by both full trust callers and partial trust callers. The WPF application code does not have the AllowPartialTmstCallers attribute set. You have the following requirements:

- The application security settings must allow partial trust callers to create and write to a file.
- Users must have access only to files that they create and not to files created by other users.

You need to recommend a location for storing each user' s files. Which location should you recommend?

A. the user's Roaming folder
B. the user's LocalSettings folder
C. the user's IsolatedStorage folder
D. the user's My Documents folder

Answer: C

Question: 66

You are designing an application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application will store data that includes a time and date stamp. The middle tier of the application is implemented by using Windows Communication Foundation (WCF). The middle tier connects to geographically separated database servers. You need to ensure that the application meets the following requirements:

- Data stored contains time and date information local to the database server.

- Data stored contains Universal Coordinated Time (UTC).

Which class should you use?

A. DateTime
B. DateTime Offset
C. TimeZoneInfo
D. TimeZone

Answer: B

Question: 67

You are designing a Windows Presentation Foundation (WPF) application. The application calls methods that perform long-running computational tasks. You need to recommend an approach for ensuring that the application remains responsive while the tasks are executing. What are two possible ways to achieve this goal? (Each correct answer presents a complete solution. Choose two.)

A. Use synchronous method calls from a thread other than the thread on which the user interface runs.
B. Run the user interface from a new multi-threaded apartment (MTA) thread.
C. Use synchronous method calls from the user interface thread.
D. Use asynchronous method calls from the user interface thread.

Answer: A, D

Question: 68

You are designing a Windows Presentation Foundation (WPF) client application that requests reports from a Windows Communication Foundation (WCF) Web service. Users must be able to perform other tasks while the WCF Web service generates the report. You need to recommend a message exchange pattern for the communication between the WPF application and the WCF Web service. What are two possible message exchange patterns that will meet the requirements? (Each correct answer presents a complete solution. Choose two.)

A. Datagram with session
B. Request-Response
C. Duplex
D. Datagram without session

Answer: C, D

Question: 69

You are designing an n-tier solution that includes a Windows Presentation Foundation (WPF) client application. The WPF application connects to a middle-tier server that runs the data access layer. The data access layer connects to a Microsoft SQL Server 2008 database and to a mainframe-based database. The mainframe-based database will be replaced in one year. You have the following requirements:

- Centrally manage all database connections.
- Minimize changes to the code base when the database is replaced.
- Ensure that the WPF application will not need to be redeployed when the database is replaced.

You need to recommend an approach for designing the data access layer. What should you recommend?

A. Create a data access layer class that uses a database factory class to access all databases. Add the connection string information for the databases to the configuration file for the WPF application.
B. Add the connection string information for the databases to the configuration file for the WPF application. Implement one class in the WPF application for each data source.
C. Create a data access layer class that uses a database factory class to access all databases. Add the connection string information for the databases to the configuration file for the data access layer class.
D. Add the connection string information for the databases to the configuration file for the WPF application. Implement a database factory class from within the WPF application.

Answer: C

Question: 70

You are designing a Windows application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You need to use a replacement culture for the application at runtime. You also need to ensure that the information in the custom culture will be available to the application. Which two tasks should you perform? (Each correct answer presents part of the solution. Choose two.)

A. Restart the process that is displaying the user interface,
B. Register the replacement culture by using the CultureAndRegionInfoBuilder class.
C. Register the replacement culture by using the CultureInfo class.
D. Call the Save method of the CultureAndRegionInfoBuilder class instance.

Answer: A, B

Question: 71

You are designing a Windows Presentation Foundation (WPF) application that will be used to display real-time data from a Microsoft SQL Server 2008 database. You need to recommend an approach for displaying the data. Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

A. Implement Oneway binding between the controls in the WPF application and objects in the data layer.
B. Implement OneWayToSource binding between the controls in the WPF application and objects in the data layer.
C. Use a SqlCacheDependency object in the data layer to query the database when a change is detected.
D. Use a System.Runtime.Caching object in the data layer with a sliding expiration, and query the database when the Cache object expires.

Answer: A, C

Question: 72

You are designing a Windows application. The application must meet the following requirements:
- Provide three-dimensional views of data.
- Display images, text, graphs, and videos.
- Support porting to a browser-based application.

You need to recommend a technology that meets the requirements. Which technology should you recommend?

A. Windows Presentation Foundation (WPF)

B. Direct3D
C. GDI+
D. Windows Forms

Answer: A

Question: 73

You are working with an existing Windows Presentation Foundation (WPF) application in Microsoft Visual Studio 2010. The WPF application requires approximately one minute to initialize before displaying its main window. You have the following requirements:

- Immediately display a splash screen when the WPF application launches.
- Allow for the display of an initialization progress bar on the splash screen.
- Close the splash screen when the WPF application is ready to display the main window.

You need to recommend an approach for meeting the requirements. What should you recommend?

A. Launch a custom splash screen by using a Window object. When the initialization completes, launch the main window from the splash screen.
B. Create a SplashScreen object. Display the object in the code-behind of the App.xaml file.
C. Move the initialization code to the code-behind of the main window.
D. Compile an image into the WPF application with a Build Action value of SplashScreen.

Answer: A

Question: 74

You are designing a Windows Presentation Foundation (WPF) application. Business entity objects are bound to controls on each data entry window. The WPF application must meet the following requirements:

- Display a watermark in each empty text box.
- Display watermarks in a lighter color than user entries.

The watermark code must be reusable with other user interface controls. You need to recommend an approach for creating the watermarks. What should you recommend?

A. Modify each business entity object to return the watermark text if the property has no data.
B. Attach a custom attached property and an Adorner to each text box.
C. Create a value converter to format the bound value of the business entity objects.
D. Create handlers for the OnFocus and OnFocusLost events of the text boxes in the code-behind.

Answer: B

Question: 75

You are designing a Windows Presentation Foundation (WPF) application that displays thumbnail images of photographs. The thumbnails are arranged in rows and columns. The number of columns must automatically update based on the size of the application window. You need to recommend a container for displaying all the thumbnail images at the same size. Which container should you recommend?

A. a WrapPanel control
B. a StackPanel control

C. a Canvas control
D. a DockPanel control

Answer: A

Question: 76

You are designing an application by using Windows Presentation Foundation (WPF) and Microsoft .NET Framework 4. The application will run on Windows 7-based kiosks that are located indoors and outdoors. The kiosk displays have a photo sensor that will update the application with the current ambient luminosity. You need to ensure that the user interface (UI) of the application dynamically changes the application theme based on the ambient luminosity. What should you use?

A. a visual state manager to add VisualStateGroup objects
B. a VisualBrush control to paint the UI
C. a RenderTransform control applied to the root canvas
D. an attached behavior to change a merged resource dictionary

Answer: D

Question: 77

You are designing a Windows Presentation Foundation (WPF) application. The WPF application must always display real-time status information while the user is working in the WPF application. You need to recommend a container for displaying the status information. Which container should you recommend?

A. a modeless window
B. a console window
C. a message box
D. a modal window

Answer: A

Question: 78

You are designing a Windows Forms application that allows users to search a product catalog and place orders. You have the following requirements:

- Display a progress indicator while the application is searching the catalog.
- Ensure that users can cancel search operations.

You need to recommend an approach that meets the requirements. What should you recommend?

A. Use a BackgroundWorker component to perform the search.
B. Implement the search as a Windows Communication Foundation (WCF) service by using the AsyncPattern property of the OperationContract attribute.
C. Implement the search as a duplex service.
D. Execute the search on the user interface thread. Provide a Cancel button to cancel the search.

Answer: A

Question: 79

You are designing a Windows Forms application. You intend to display graphics on a form in the application by using a third-party Windows Presentation Foundation (WPF) control. You need to recommend a control for hosting the third-party WPF control. What should you recommend?

A. a Panel control
B. an ElementHost control
C. a WindowsFormsHost control
D. a Canvas control

Answer: B

Question: 80

You are designing an application by using Windows Presentation Foundation (WPF) and Microsoft .NET Framework 4. The application allows users to view product details. Product managers can modify the product details for the products that they manage. You plan to design the application by using the Model-View-ViewModel (M-V-VM) pattern. You need to ensure that the product details can be viewed by all users and modified only by product managers. What should you do?

A.
- Create a separate StackPanel in the window to modify data.
- Create a separate StackPanel in the window to view data.

B. In the ViewModel, disable all input controls if the user's role is not a Product Manager.
C.
- Create a separate window to modify data.
- Create a separate window to view data,

D. In the ViewModel, hide all input controls if the user's role is a Product Manager.

Answer: B

Question: 81

You are designing Windows Presentation Foundation (WPF) applications by using Microsoft .NET Framework 4. You need to maintain a common appearance and behavior across all applications in your company. You also need to ensure that the look and feel of the applications can be modified without recompiling them. What should you create?

A. a merged resource dictionary
B. user controls in a shared assembly
C. an instance of the System.Windows.Media.StyleSimulations class
D. custom controls in a shared assembly

Answer: A

Question: 82

You are designing a mission-critical Windows Presentation Foundation (WPF) application that uses .NET Framework 4. You need to recommend an approach for identifying repair and recovery time. What should you recommend?

A. Test for buffer overflows.
B. Use component stress testing.
C. Test the failover technologies.
D. Use integration stress testing.

Answer: C

Question: 83

You are working with a Windows Presentation Foundation (WPF) application that uses .NET Framework 4. Your team is responsible for making significant changes to the application functionality. You need to recommend an approach for identifying features that no longer work properly as a result of code changes Which testing methodology should you recommend?

A. stress testing
B. integration testing
C. stability testing
D. regression testing

Answer: D

Question: 84

You are designing a Windows Forms application. The application connects to a Microsoft SQL Server 2008 database. You need to recommend an approach for retrieving and logging all informational messages and error messages reported by the database. What should you recommend?

A. Retrieve informational messages in a SqlException object. Retrieve error messages by creating a handler for the InfoMessage event.
B. Retrieve informational messages by creating a handler for the InfoMessage event. Retrieve error messages in a SqlException object.
C. Retrieve informational messages and error messages by creating a handler for the InfoMessage event.
D. Retrieve informational messages and error messages in a SqlException object.

Answer: B

Question: 85

You are designing a Windows Presentation Foundation (WPF) application that connects to a data access layer on a server. You have the following requirements for all security-related exceptions:

- Exceptions that occur in the data access layer must be handled in a single exception handler in the WPF application.
- Exceptions must pass customized messages back to the WPF application.

You need to recommend an approach for creating new exception classes in the data access layer. From which class should you inherit?

A. System.ApplicationException
B. System.AccessViolationException

C. System.InvalidOperationException
D. System.Security.SecurityException

Answer: D

Question: 86

You are designing a distributed application that will be deployed to 5,000 users worldwide. Servers on five continents will host the Web services and the Microsoft SQL Server 2008 databases that support the application. You have the following requirements:

- Collect information about all errors associated with the application.
- Store and view all error information in a centralized location.
- Minimize the network bandwidth required for the transfer of error information.

You need to recommend a strategy for reporting error information. Which strategy should you recommend?

A. Write error messages to the SQL Server databases. Synchronize the databases by using merge replication.
B. Write error messages to the event logs on the local computers. Use Windows Error Reporting to view the error information.
C. Write error messages to the SQL Server databases. Synchronize the databases by using transactional replication.
D. Write error messages to the event logs on the local computers. Use Windows Management Instrumentation (WMI) to view the error information.

Answer: B

Question: 87

You are designing a distributed Windows Presentation Foundation (WPF) application. You have the following requirements:

- Ensure that all errors are logged in a central location.
- Ensure that the WPF application logs related errors within a single transaction.
- Secure error information during transmission.

You need to recommend a strategy for collecting error information. What should you recommend?

A. Write the information to the Windows Application log on each client system. Use Windows Error Reporting to collect the results.
B. Write the information to the Windows Application log on each client system. Use Windows Management Instrumentation (WMI) to collect the results.
C. Create a Windows Communication Foundation (WCF) service. Use the basicHttpBinding protocol to transport the information.
D. Create a Windows Communication Foundation (WCF) service. Use the wsHttpBinding protocol to transport the information.

Answer: A

Question: 88

You are designing an n-tier solution that connects to a Microsoft SQL Server 2008 database. You plan to deploy the database to development machines and to a staging database server from within Microsoft Visual Studio 2010. You plan to set up separate build configurations for development and staging. You also plan to deploy to multiple

production database servers managed by an outside vendor. You must not allow the outside vendor to access the visual Studio projects. You need to recommend an approach for configuring and deploying the production database servers. Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

A. Use SQL Server 2008 Management Studio to deploy the production databases.
B. Use VSDBCMD to deploy the production databases.
C. Use a Visual C# SQL CLR Database Project.
D. Use a SQL Server 2008 Database Project.

Answer: A, B

Question: 89

You are designing an update to an existing Windows Presentation Foundation (WPF) application. Users can purchase and download photographs from the company's Web server by using the WPF application. Photographs must be viewable only when logged in as the user who purchased the photographs. You need to recommend a download location for the photographs. Which location should you recommend?

A. the application's IsolatedStorage folder
B. the user's IsolatedStorage folder
C. the application's installation folder
D. the user's local Temp folder

Answer: B

Question: 90

You are designing an update to an existing Windows Presentation Foundation (WPF) application. You plan to use Microsoft Visual Studio 2010. The updated WPF application will require a specific version of a third-party component. You have the following requirements:

- Deploy the update by using Windows Installer.
- Update the WPF application only if the required version of the third-party component is present on the client computer.

You need to recommend configuration settings for the application installer. Which property should you recommend be set?

A. The Version property of the .NET Launch Condition
B. The Condition property of a new Launch Condition
C. The RemovePreviousVersions property of the Setup Project
D. The Version property of the Setup Project

Answer: B

Question: 91

You are designing updates to an existing Windows Presentation Foundation (WPF) application that connects to a Microsoft SQL Server 2008 database. The application updates will require updates to the database. You have the following requirements:

- Prevent data loss.

- Recover the database if the database update fails.

You need to recommend a database deployment strategy. Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

A. Place the database in single-user mode before deploying the changes.
B. Specify the simple recovery model for the database.
C. Specify the full recovery model for the database.
D. Place the database in restricted user mode before deploying the changes.

Answer: A, C

Question: 92

You are designing a .NET Framework 4 solution that contains a Windows Presentation Foundation (WPF) application and a Windows Communication Framework (WCF) Web service. The WPF application will be deployed to users' desktops located in the company's corporate network. The WCF Web service will be deployed to a Web farm located in the company's perimeter network. The firewall between the perimeter network and the Internet allows only HTTP and HTTPS traffic. You need to recommend an approach for minimizing the attack surface of the WCF Web service. What should you recommend?

A. Add a load-balancing router to the Web farm configuration.
B. Configure a WCF endpoint to use the basicHttpBinding binding.
C. Configure a WCF endpoint to use the NetTcpBinding binding.
D. Set up an SSL certificate on the server.

Answer: D

Question: 93

You are preparing to deploy a solution that includes a Windows Forms application and several COM components. Unsigned interop assemblies have been created for each of the COM components. You need to recommend an approach for deploying the solution. What should you recommend?

A. Deploy the windows Forms application and interop assemblies to a folder on the client computer. Sign the interop assemblies.
B. Deploy the Windows Forms application and COM components to a folder on the client computer. Deploy the interop assemblies to the Global Assembly Cache (GAC).
C. Deploy the Windows Forms application, COM components, and interop assemblies to a folder on the client computer. Register the COM components.
D. Deploy the Windows Forms application to a folder on the client computer. Deploy the COM components and interop assemblies to the Global Assembly Cache (GAC). Register the COM components.

Answer: C

Question: 94

You are designing a multi-tenant Windows Presentation Foundation (WPF) application that will connect to a Microsoft SQL Server 2008 database. The WPF application will change the structure of database tables and views at runtime based on the tenant's configuration. The WPF application must meet the following requirements:

- Keep each tenant's data separate.
- Allow changes to the structure of the tables and views for each tenant without interfering with other tenants' data.

You need to recommend an approach for managing the database structure. What should you recommend?

A. Create a Partition Scheme for each tenant.
B. Create an Application Role for each tenant.
C. Create a Schema for each tenant.
D. Create a Synonym for each tenant.

Answer: C

Question: 95

You are designing a Windows Presentation Foundation (WPF) application that accesses a business tier. The business tier is implemented as a Windows Communication Foundation (WCF) service and stores data in a Microsoft SQL Server 2008 database. The WCF service will be accessed by external applications that do not use the .NET Framework. You need to recommend an approach for passing data between layers. What should you recommend?

A. Use custom .NET classes with XML serialization.
B. Use custom .NET classes with binary serialization.
C. Use the DiffGram XML format.
D. Use a DataSet object.

Answer: A

Question: 96

You are designing a Windows Presentation Foundation (WPF) application. The WPF application must run against either Microsoft SQL Server 2008 or a third-party database system without duplicating data access logic. You need to recommend a data access technology. What should you recommend?

A. ADO.NET using DataSet objects and SqlDataAdapter objects
B. LINQ to Entities
C. LINQ to SQL
D. ADO.NET using DataSet objects and SqlDataReader objects

Answer: B

Question: 97

You are designing a .NET Framework 4 solution that contains a Windows Presentation Foundation (WPF) application. The WPF application includes CPU-intensive calculations. The calculations can be run on a separate process and can effectively be isolated from the rest of the WPF application. You need to recommend a deployment strategy that maximizes the scalability of the calculations for each user. What should you recommend?

A. Deploy the calculation logic as a separate assembly along with the WPF application to each client computer. Invoke methods in the assembly asynchronously.
B. Deploy the calculation logic as a separate assembly along with the WPF application to each client computer. Invoke

methods in the assembly synchronously.
C. Deploy the calculation logic as a Windows Communication Foundation (WCF) service to servers. Deploy the WPF application to each client computer.
D. Deploy the calculation logic as a Windows Communication Foundation (WCF) service to servers. Deploy the WPF application to the same servers.

Answer: C

Question: 98

You are designing a .NET Framework 4 solution that includes a Windows Presentation Foundation (WPF) application, a Windows service, and a private assembly shared by the WPF application and by the Windows service. The solution stores data in a local Microsoft SQL Server Compact 3.5 database. The WPF application and Windows service will each access the database directly. The solution will be installed by using Windows Installer. You have the following requirements:

- The installer must allow users to specify the installation folders for the WPF application and for the database.
- The solution must support the deployment of updates to the WPF application without restarting the Windows service.

You need to recommend an approach for installing the solution. Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

A. Install the Windows service to a different folder from the WPF application.
B. Install the Windows service to the same folder as the WPF application.
C. In the installer, create a registry key that stores the WPF application installation path.
D. In the installer, set an environment variable that defines the database installation path.

Answer: BD

Question: 99

You are designing an n-tier .NET Framework 4 solution that includes a Windows Presentation Foundation (WPF) application and a Windows Workflow Foundation (WF) component. The WF component contains functionality to incorporate frequently changing rules. You need to recommend a tier for the deployment of the WF component that will not degrade the performance of the WPF application. Which tier should you recommend?

A. The business tier
B. The data access tier
C. The data tier
D. The presentation tier

Answer: A

Question: 100

You are designing a Windows Presentation Foundation (WPF) application that uses .NET Framework 4. The WPF application will be deployed to 5,000 users worldwide. You need to recommend an approach for identifying problems that users will experience. Which testing methodology should you recommend?

A. Acceptance testing

B. Integration testing
C. Functional testing
D. Usability testing

Answer: A

Question: 101

You are designing a Windows Presentation Foundation (WPF) client application from which employees will access a Web service. Business partners will access the Web service by using proprietary client applications. You need to recommend a solution for ensuring the integrity of data in the system. What should you recommend?

A. Secure the Web service by using SSL.
B. Implement data validation at the service layer and reject invalid data.
C. Implement data validation on the client and reject invalid data.
D. Encrypt data while storing it in the database.

Answer: B

Question: 102

You are designing a .NET Framework 4 solution that includes a Windows Presentation Foundation (WPF) application. The WPF application connects to a Microsoft SQL Server 2008 database. You plan to deploy the WPF application to millions of client computers. The SQL Server database will be hosted in a data center. The WPF application will query the database to provide type-ahead assistance as users enter data. The WPF application will send a query after each character is entered. Each query will access multiple joined tables. You need to recommend an approach for maximizing scalability of the solution. What should you recommend?

A. Denormalize the data to fewer tables.
B. Create stored procedures to abstract the tables.
C. Use System.Runtime.Caching to cache query results on the client.
D. Create a separate data layer with caching.

Answer: D

Question: 103

You are reviewing multiple Windows Presentation Foundation (WPF) applications that capture postal addresses. The WPF applications have different appearances and functionality. Each WPF application uses a different control to visualize the captured addresses. You plan to modify all WPF applications to allow developers to visualize addresses by using a common template. You need to recommend an approach for standardizing the visualization of captured addresses. What should you recommend?

A. Use a DataTemplate object.
B. Use a ControlTemplate object.
C. Use a FrameworkTemplate object.
D. Use an ItemsPanelTemplate object.

Answer: A

Question: 104

You are evaluating an existing Windows Presentation Foundation (WPF) application. The WPF application runs in a Web browser as a XAML browser application (XBAP). The WPF application runs in the Intranet zone with Full Trust. A client certificate for the WPF application has been generated. Users are unable to access the WPF application. You locate the following message in the security log: "User has refused to grant required permissions to the application." Users state that they are clicking OK in all message boxes that appear. You need to recommend an approach for ensuring that the WPF application runs correctly on all client computers. Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

A. Use the Code Access Security Policy Tool to grant the appropriate permissions.
B. Sign the ClickOnce manifest for the WPF application.
C. Modify the ClickOnce manifest for the WPF application to grant the appropriate permissions.
D. Import the client certificate to the Trusted Root store.

Answer: AB

Question: 105

An existing Windows application uses a Windows Communication Foundation (WCF) Web service that is available only to employees. You have the following requirements:

- Make the WCF Web service available to business partners.
- Enable business partners to send a profile token.
- Ensure that the currently deployed application continues to function.

You need to recommend a solution that meets the requirements. What should you recommend?

A. Convert the WCF Web service to a Duplex service that implements a callback to accept the profile token.
B. Use SOAP headers to pass the profile token to the service operations.
C. Modify the WCF Web service operations to accept the profile token as an additional parameter.
D. Implement the WCF Web service as a REST service.

Answer: B

Question: 106

You are designing a Windows Presentation Foundation (WPF) application. The application will be localized into multiple languages. You need to recommend an approach for preparing the application for localization. Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

A. Add UID attributes to language-specific elements in the XAML file.
B. Define a UICulture element for each language in the project file.
C. Add an application setting for each language to the App.config file.
D. Translate the contents of the appropriate XAML elements into each localization language.

Answer: AB

Question: 107

You are reviewing an existing Windows application that uses .NET Framework 4. When the user clicks a button, the application sequentially processes thousands of image files contained in a directory. The user interface becomes unresponsive while the application processes the files. You have the following requirements:

- Modify the button's click event.
- Increase application throughput by processing multiple image files concurrently.
- Ensure that the user interface remains responsive while the application processes the image files.

You need to recommend an approach for meeting the requirements. What should you recommend?

A. Iterate over the image files. For each image file, use the Process.Start() method to launch a console application that processes the image file.
B. Use the ThreadPool.QueueUserWorkItem() method to queue up a single work item that uses the Parallel.ForEach () method to process the image files concurrently.
C. Use the Parallel.ForEach() method to process the images concurrently.
D. Iterate over the image files by using the Parallel.ForEach() method. For each image file, start a separate thread that processes the image file, by using the Thread.Start() method.

Answer: B

Question: 108

You are designing an n-tier Windows solution that includes a data entry application. The solution uses Microsoft .NET Framework 4 and Microsoft SQL Server 2008. The data entry application sends customer orders to a middle-tier server. The middle-tier server sends orders to a set of services that perform operations on the orders. Business rules determine which services to call and whether to run them in sequence or in parallel. The business rules are complex and data dependent. The Windows solution must meet the following requirements:

- Optimize application performance by using dynamic load balancing.
- Allow for business rules to be changed at runtime.

You need to recommend an approach that meets the requirements. What should you recommend?

A. Private message queues with a controller class on the middle-tier server
B. SQL Server stored procedures
C. A routed service that uses Windows Communication Foundation (WCF) messaging
D. A Windows Communication Foundation (WCF) service for each operation, with a controller class on the middle-tier server

Answer: C

Question: 109

You are designing an n-tier .NET Framework 4 solution that includes a Windows Presentation Foundation (WPF) application. You need to recommend an approach for ensuring that the solution can support 5,000 concurrent users. What should you recommend?

A. Buffer overflow testing
B. Integration testing
C. Component stress testing
D. Stress testing

Answer: A

Question: 110

You design a Windows Presentation Foundation (WPF) application that connects to a Microsoft SQL Server 2008 database. The WPF application becomes unresponsive at times. When the WPF application is running, physical memory usage is between 90 percent and 95 percent. You need to recommend a tool that will identify the memory usage characteristics of the WPF application. Which tool should you recommend?

A. Application Center Test (ACT)
B. CLR Profiler
C. Event Tracing for Windows (ETW)
D. SQL Profiler

Answer: A

Question: 111

You design a Windows Presentation Foundation (WPF) application that interacts with a Windows Communication Foundation (WCF) Web service. The WCF Web service throws exceptions of type Exception. The WPF application crashes when the WCF Web service throws an exception. You need to recommend an error-handling strategy that allows users to submit updated data to the WCF Web service without restarting the WPF application. What should you recommend?

A. Modify the Web service to throw exceptions of type FaultException.
B. Modify the Web service to throw custom exceptions derived from the Exception class.
C. Modify the Web service to throw exceptions of type InvalidOperationException.
D. Modify the Web service to throw custom exceptions derived from the ApplicationException class.

Answer: A

Question: 112

You are designing a Windows Presentation Foundation (WPF) application. You have the following requirements:

- Run client-side validation tests on a large result set from a Microsoft SQL Server 2008 database.
- Validate each row of data without storing the entire result set in memory.

You need to recommend a data access technology. What should you recommend?

A. LINQ to SQL using the ElementAt() method
B. ADO.NET using SqlDataReader objects
C. LINQ to Entities using the ElementAt() method
D. ADO.NET using SqlDataAdapter objects and DataSet objects

Answer: B

Question: 113

You are designing updates to a Windows solution that processes complex scientific data. The solution extracts analyzed data from Microsoft Excel by using an application-level add-in. You have the following requirements:

- Deploy the Excel add-in to client machines with the application.
- Ensure that the solution supports Excel 2007 and Excel 2010.

- Minimize the size of the deployment package.

You need to recommend an approach that meets the requirements. What should you recommend?

A. Include the primary interop assembly for Excel 2007.
B. Embed the Excel 2010 COM library.
C. Include the primary interop assembly for Excel 2010.
D. Embed the type information from the Excel 2010 COM library.

Answer: D

Question: 114

You are designing a Windows Presentation Foundation (WPF) application. The application data files have the file name extension.abc. The WPF application installer must meet the following requirements:

- Add a shortcut to the desktop.
- Install infrequently used assemblies on demand.
- Associate the .abc file name extension with the WPF application.
- Roll back the installation in the event of a failure.

You need to recommend a deployment method. What should you recommend?

A. ClickOnce
B. Background Intelligent Transfer Service (BITS)
C. Windows Installer
D. XCopy

Answer: A

Question: 115

You are designing a Windows Presentation Foundation (WPF) application. The main window of the WPF application includes two panels: panel1 and panel2. The WPF application must meet the following requirements:

- Panel2 must be enabled only after users have entered values into multiple text boxes in panel1.
- The background color of panel2 must be set to a specific color based on one of the text box values in panel1.
- The background color of panel2 must be set at the same time the panel is enabled.

You need to recommend an approach for meeting the requirements. What should you recommend?

A. Use Dependency properties.
B. Use a DataTemplate object.
C. Use a Command object.
D. Use a MultiDataTrigger object.

Answer: C

Question: 116

You are designing a Windows Presentation Foundation (WPF) data entry application. The application uses data binding to bind controls in the user interface (UI) to business objects. The UI uses validation rules for each input control. The data validation rules change based on the state of the business object. You need to recommend a validation strategy that will allow changes to the validation rules without changes to the UI code. What should you

recommend?

A. Implement the IDataErrorInfo interface in the business objects and replace all ValidationRule elements with ExceptionValidationRule elements.
B. Set the ValidationStep attribute on ValidationRule elements to CommittedValue.
C. Set the ValidationStep attribute on ValidationRule elements to RawProposedValue.
D. Implement the IDataErrorInfo interface in the business objects and replace all ValidationRule elements with DataErrorValidationRule elements.

Answer: D

70-518VB

Question: 117

You are designing an n-tier Windows application by using Microsoft .NET Framework 4, Microsoft Visual Studio 2010, and Microsoft SQL Server 2008. The application will replace an existing client/server application. The existing application was created by using Microsoft Visual Basic 6.0 and consists of a series of COM components that access a SQL Server database. You plan to move the existing COM components into a Windows Communication Foundation (WCF) tier. You need to ensure that the COM components can be replaced without impacting the existing user interface (UI) tier. You also need to ensure that the COM components can be replaced separately. What should you do?

A. Create a common assembly on the UI tier of the new application to interface with the COM components.
B. Create a common assembly on the WCF tier of the new application to interface with the COM components.
C. Use .NET COM Interop on the client tier to interact directly with the COM components until they are replaced by the managed code.
D. Convert the Visual Basic 6.0 source code to managed code by using the Visual Studio converters. Use these code components on the client/server application until they are replaced individually with the new permanent managed code functionality.

Answer: A

Question: 118

You are designing an application by using Windows Presentation Foundation (WPF) and Microsoft .NET Framework 4. The user interface (UI) tier of the application will be implemented in WPF. The middle tier of the application is implemented by using an existing COM component. The middle tier contains a long-running method named ProcessData. You need to ensure that users can continue to use the UI while ProcessData is running. What should you do?

A. Use an asynchronous worker thread to call ProcessData.
B. Use the Invoke method of the Dispatcher class to call ProcessData.
C. Call the Run method of the Dispatcher class before invoking ProcessData.
D. Call the DoEvents method of the Application class before invoking ProcessData.

Answer: A

Question: 119

You are designing a Windows client application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application will read and write data that is stored in a mainframe application. A hardware device that is located between the application and the mainframe removes all XML-formatted messages. You need to ensure that the application can request and receive data from the mainframe application. What should you create?

A. a RSS-based WCF service
B. a REST-based WCF service
C. a .NET Remoting service that uses the SOAP formatter
D. a .NET Web Service that uses the wsHttpBinding binding

Answer: B

Question: 120

You are designing a Windows application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You plan to add a feature to the application. The application will be used in several different locales. The application will send data to a centralized server and log the date and time information. You need to ensure that the date and time information includes the local Universal Time Coordinate (UTC) offset value. Which class should you use?

A. CultureInfo
B. DateTimeOffset
C. CultureInfoConverter
D. DateTimeOffsetConverter

Answer: B

Question: 121

You are updating a Windows desktop client application that was created by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application displays data derived from several database queries. The display takes a long time to update. The application currently uses a BackgroundWorker thread and a Parallel.ForEach statement on that thread. Users have requested a modification to the program that would allow them to interrupt the display of data and begin processing a new and different query. You decide to provide a new Stop button on the user interface (UI) to allow the user to terminate the current data display and initiate the new query. The main UI thread must be notified when the current data processing is terminated so that the new query can be started. You need to implement the Stop button event handler. What should you do?

A.
- Use the DoWork handler of the worker thread and test a shared status value.
- Use a break statement to terminate the Parallel.ForEach loop.

B.
- Use the DoWork handler of the worker thread and test a shared status value.
- Use a loopStatus.Stop() statement to terminate the Parallel.ForEach loop.

C.
- Use the DoWork handler of the worker thread and test a shared status value.
- Use the Thread.AbortQ statement to terminate the worker thread.
- Start a new BackgroundWorker thread from the main UI thread.

D.
- Use a CancelAsync() function to cancel the worker thread.

- In the Parallel.ForEach loop, test the CancellationPending property.
- If the property is set to true, perform the following tasks:
  - Write a loopStatus.Stop() statement.
  - Set the DoWorkEventArgs.Cancel property to true.
  - Use a return statement to exit from the loop.

Answer: D

Question: 122

You are creating a Windows application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The business logic layer of the application is implemented by using Windows Communication Foundation (WCF). The application must provide maximum availability. It must be able to run in a reliable manner even when network connectivity is not available. You need to design the WCF service interaction for the business layer of the application. What should you do?

A. Create a WCF queued service.
B. Create a WCF proxy class that uses synchronous operations.
C. Create a WCF proxy class that uses asynchronous operations.
D. Create a WCF service that uses the Ws2007HttpBinding binding.

Answer: A

Question: 123

You are designing a Windows application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application retrieves data from multiple heterogeneous data sources. The retrieved data is aggregated into a single record set. You need to ensure that the application takes advantage of new multi-core server processors. Which technology should you use?

A. LINQ
B. PLINQ
C. ADO.NET DataSet
D. ADO.NET Typed DataSet

Answer: B

Question: 124

You are upgrading a stand-alone Windows Presentation Foundation (WPF) application and an XAML browser application (XBAP) to Microsoft .NET Framework 4. You plan to add .NET 4 types and members to both applications. Both applications consume a common utility assembly that modifies files on a local file system. The utility assembly requires full trust. You need to ensure that both applications can use the common utility assembly without any security-related exceptions. What should you do?

A. Change the <supportedRuntime> element for the WPF application to the .NET Framework 3.5.
B. Change the <supportedRuntime> element for the XBAP application to the .NET Framework 3.5.
C. Apply the AllowPartiallyTrustedCallersAttribute attribute to the utility assembly.
D. Apply the AllowPartiallyTrustedCallersAttribute attribute to the XBAP application.

Answer: C

Question: 125

You are designing a Windows Presentation Foundation (WPF) application for your company by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The business layer of the application is implemented by using Windows Communication Foundation (WCF). You plan to support non-repudiation and data integrity for WCF messages. You need to design the security strategy for the application. What should you do?

A. Attach a digital signature to the WCF messages.
B. Encrypt the WCF messages by using the Secure Sockets Layer (SSL) protocol.
C. Encrypt the WCF messages by using the Internet Protocol Security (IPSec) protocol.
D. Implement message-level security by using digital certificates as client computer credentials.

Answer: A

Question: 126

You are creating a Windows application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The business logic layer of the application is implemented by using Windows Communication Foundation (WCF). You create a WCF service that contains a single operation to upload large binary data files. You configure the binding of the WCF service to enable data streaming. You need to ensure that the WCF service operation receives binary data files along with a string parameter that contains the description of each file. You create a service operation that receives a single parameter. What should you do next?

A. Implement the service parameter as a Serializable class that contains a property for the description of the file and another property for the content of the data file
B. Implement the service parameter as a DataContract class that contains a DataMember property for the description of the file and another DataMember property for the content of the data file.
C. Implement the service parameter as a MessageContract class that contains a MessageHeader property for the description of the file and a MessageBodyMember property for the content of the data file.
D. Implement the service parameter as a MessageContract class that contains a MessageBodyMember property for the description of the file and another MessageBodyMember property for the content of the data file.

Answer: C

Question: 127

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application will be deployed on Windows 7 computers in the United States and Europe. You need to ensure that array data is sorted based on the culture of the operating system. What should you do?

A. Add a configuration setting to the appSettings section of the App.config file.
B. Use a comparison method to compare ASCII values.
C. Use the Resource Manager to create culture-sorted lists.
D. se a comparison method that specifies a CultureInfo class or the CompareOptions enumeration parameter.

Answer: D

Question: 128

You are creating a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4. You create a photo album-browsing application. When the user opens an album, pictures in the album are displayed in sets of 10. Pictures are obtained from a Windows Communication Foundation (WCF) service. Most of the memory of the application is allocated in the native heap. The memory usage of the application increases when new albums are opened. You need to ensure that the memory usage of the application remains within a specific range. What should you do?

A. Use a reduced color palette to render pictures.
B. Use the NetTcpBinding binding to communicate with the WCF service.
C. Load the pictures from the WCF service on a background thread. Implement the IDisposable interface.
D. Assign the null value to every variable pointing to a picture that is not displayed. Implement the IDisposable interface.

Answer: D

Question: 129

You are designing an application by using Windows Presentation Foundation (WPF) and Microsoft .NET Framework 4. The application retrieves customer data from an enterprise resource planning (ERP) system. You need to ensure that the following requirements are met:

- Customer data is retrieved only once.
- Customer data is available on multiple forms within the application.
- Forms can implement Two-Way binding to the customer data.

What should you do?

A. Store the results of the query in a static DataTable object that is used by all the forms.
B. Store the results of the query in a local XML file. Bind all forms to an XMLDataAdapter object that references the local XML file.
C. Design a static class for the data that implements the [Observable interface. Subscribe to the static class from each of the forms that use the data.
D. Design a static class for the data that implements the INotifyPropertyChanged interface. Raise the PropertyChanged event to notify the forms when data is changed.

Answer: D

Question: 130

You are designing an application by using Windows Presentation Foundation (WPF) and Microsoft .NET Framework 4. You create a control named HelpViewer to view the Help documentation of the application. The HelpViewer control must be available to a windows in the application. You need to ensure that the application allows users to perform the following tasks:

- Bookmark their location in the documentation and return to the bookmark from any window.
- Hide the HelpViewer control.
- Dock the HelpViewer control.

You create a main window as a base class. What should you do next?

A.
- Add the HelpViewer control to the window at runtime.
- Inherit all other window classes in the application from the main window base class.

B.
- Add the HelpViewer control to a DockPanel control at runtime.
- Inherit all other window classes in the application from the main window base class.

C.
- Add the HelpViewer control and a Frame control to a DockPanel control to the window at runtime.
- Create all other windows in the application as pages and host them in the Frame control.

D.
- Add the HelpViewer control and a Frame control to a StackPanel control to the window at runtime.
- Create all other windows in the application as pages and host them in the Frame control.

Answer: C

Question: 131

You are creating a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft SQL Server 2008. You create a window that allows users to search for products that match a given name. Search results are displayed when the user types each letter of the product name. You use a method named FindProducts to obtain the list of products. Users report that when they type a letter of the product name, the window stops responding for a varying amount of time. While the window stops responding, users cannot type more letters. The window stops responding even when the search generates few results. You need to ensure that the window responds while users type a name. What should you do?

A. Cache the results returned by the FindProducts method for each set of criteria.
B. Use a VirtualizingStackPanel class to display the list of client applications that match the given name.
C. Create a delegate for the FindProducts method. Pass the delegate to the Invoke method of the Dispatcher property of the window.
D. Before you call the FindProducts method, call the Freeze method on the Brush object that is used as the Background property of the window.

Answer: C

Question: 132

You are creating a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application will consist of several data entry forms. Each data entry form requires a user to enter phone numbers and addresses.
You need to design a solution that promotes code reusability. What should you do?

A. Add multiple text boxes for each data entry form.
B. Use the same style resource for each data entry form.
C. Create a new user control and reference it on each data entry form.
D. Create a new merged resource dictionary and reference it from each data entry form.

Answer: C

Question: 133

You are designing an application by using Windows Presentation Foundation (WPF) and Microsoft .NET Framework 4. You plan to create a wizard by using a Window, a Frame, and several Page objects. The wizard will use the NavigationService. The NavigationService will be invoked by buttons on the user interface (UI). You need to ensure that prior-page navigation can be disabled. What should you do?

A. In the button Onclick event, remove the previous wizard page from the journal.
B. In the button Onclick event, remove the previous wizard page from the Window.
C. In the button OnMouseDown event, remove the previous wizard page from the Frame.
D. In the button OnMouseDown event, remove the previous wizard page from the Window.

Answer: A

Question: 134

You are designing an application by using Windows Presentation Foundation (WPF) and Microsoft .NET Framework 4. The application consists of multiple data entry screens. You need to ensure that users can return to previous screens. You also need to ensure that users can view a history of screens, What should you do?

A. Create buttons to allow a user to open a new window for the data entry screens.
B. Create buttons to allow a user to open a new Window as an MDI child window for the data entry screens.
C. Create hyperlinks to allow a user to move between data entry screens. Use the NavigationService class to manage navigation history.
D. Create hyperlinks to allow a user to move between data entry screens. Use the NavigationProgressEventArgs class to manage navigation history.

Answer: C

Question: 135

You are designing a new feature for an existing Windows Forms application by using Microsoft .NET Framework 4. The application contains multiple forms that are loaded into a parent Multiple Document Interface (MDI) form. Your company policy does not allow the use of third-party controls. You need to ensure that the new feature meets the following requirements:

- It provides a three-dimensional scale model.
- It allows users to change the colors of the model and communicates the color selections back to the application.
- It allows the model to scale, based on the user's client computer display resolution.
- It is a child form in the MDI application.

What should you do?

A.
- Design the new feature in the existing Windows Forms application as a windows form.
- Add the form as a child form to the MDI window.

B.
- Design the new feature in a new application by using Windows Presentation Foundation (WPF).
- Invoke the new WPF application from the existing Windows Forms application.

C.
- Design the new feature in a new Windows Presentation Foundation (WPF) application.

- Host the existing application inside the new WPF application by using the WindowsFormsHost class.

D.

- Design the new feature by using a Windows Presentation Foundation (WPF) user control.
- Use the ElementHost class to host the WPF user control in the existing Windows Forms application.

Answer: D

Question: 136

You are debugging a Windows application that uses Windows Presentation Foundation (WPF) and Microsoft Visual Studio 2010. The application is deployed as an XAML browser application (XBAP). Some users report that they are not able to use the drag-and-drop functionality. You need to ensure that all users can use the drag-and-drop functionality. What should you do?

A. Use loose XAML.
B. Require the FullTrust permission on the XBAP application.
C. Add the URL for the application to the browser's trusted sites list.
D. Register the assembly that contains the IDataObject objects to the GAC on all client computers.

Answer: C

Question: 137

You are designing an application by using Windows Presentation Foundation (WPF), Microsoft .NET Framework 4, and Microsoft SQL Server 2008. The application will contain several forms that include custom data validators. You need to ensure that data is validated before the database updates occur. You also need to ensure that the validation logic can be reused. How should you design the validation?

A. Implement the IDataErrorInfo interface in the data class of the application.
B. Implement the INotifyPropertyChanged interface in the data class of the application.

C.

- Subscribe to the MouseLeave event for all user interface (UI) components of the application.
- Perform data validation in the event handler and alert users when a data entry error occurs.

D.

- Subscribe to the TextChanged event for all user interface (UI) components of the application.
- Perform data validation in the event handler and alert users when a data entry error occurs.

Answer: A

Question: 138

You are designing an application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application is used mostly in a disconnected scenario. The application requires offline data from a Microsoft SQL Server 2008 database. When the application connects to the network, data will be modified and synchronized. You need to ensure that the application does not access the database server directly to synchronize data when online. Which technology should you use?

A. WCF Data Service
B. Remote Data Access

C. ADO.NET Sync Services
D. SQL Server Merge Replication

Answer: C

Question: 139

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You plan to create an Author object that contains a Books property. The Books property contains a large array of Book objects. When users browse through author data in the application, they must be able to view all information related to books written by that author without additional queries. You need to design a data access strategy that meets the requirement. Which strategy should you use?

A. lazy loading
B. eager loading
C. optimistic locking
D. pessimistic locking

Answer: B

Question: 140

You are designing a Windows application by using Microsoft .NET Framework 4, Microsoft Visual Studio 2010, and Microsoft SQL Server 2008. You need to design a data access strategy that meets the following requirements:
• Automatically tracks changes
• Maps the database data model to the object model
Which data access technology should you use?

A. LINQ to SQL
B. LINQ to XML
C. ADO.NET DataSet
D. ADO.NET DataReader

Answer: A

Question: 141

You are developing an application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You plan to use Microsoft Sync Framework to synchronize the data stored in a local Microsoft SQL Server Compact Edition database with the data stored in a centralized SQL Server 2008 database. Four columns are added to each table involved in the synchronization process to track changes to the database. You add the following four columns to the database table.

Column Name	Data Type
CreatedUser	Int
UpdatedUser	Int
CreatedTime	Datetime
UpdatedTime	Datetime

Users report that the synchronization process is not always successful. You need to ensure that the application synchronizes data successfully. What should you do?

A. • Replace the UpdatedTime and CreatedTime columns with the updated columns and data types as shown in the following table.

Original Column Name	Updated Column Name	Updated Data Type
CreatedTime	CreatedTimestamp	Rowversion
UpdatedTime	UpdatedTimestamp	Binary(8)

• Modify the synchronization anchor to use the min_active_rowversion() function.

B. • Replace the UpdatedTime and CreatedTime columns with the updated columns and data types as shown in the following table.

Original Column Name	Updated Column Name	Updated Data Type
CreatedCounter	CreatedTime	Int
UpdatedCounter	UpdatedTime	Int

• Modify the application to update the counter before and after synchronization.

C. • Replace the UpdatedTime and CreatedTime columns with the updated columns and data types as shown in the following table.

Original Column Name	Updated Column Name	Updated Data Type
CreatedTime	CreatedTimestamp	Rowversion
UpdatedTime	UpdatedTimestamp	Binary(8)

• Modify the synchronization anchor to use the getdate() function.

D. • Replace the UpdatedTime and CreatedTime columns with the updated columns and data types as shown in the following table.

Original Column Name	Updated Column Name	Updated Data Type
CreatedCounter	CreatedTime	Int
UpdatedCounter	UpdatedTime	Int

• Modify the synchronization anchor to obtain the maximum value of the UpdatedCounter or CreatedCounter columns across the database.
• Add one to the value obtained from the UpdatedCounter or CreatedCounter columns and use that as the new value of the UpdatedCounter or CreatedCounter column based on the operation performed.

A. Option A
B. Option B
C. Option C
D. Option D

Answer: A

Question: 142

You are designing the data access layer (DAL) for an application that uses Microsoft SQL Server 2008, Microsoft

ADO.NET, and Microsoft Visual Studio 2010. Conflicts are occurring in the SQL Server database due to concurrent updates. You need to design a database locking strategy that meets the following requirements:

- Resolves concurrent update conflicts without loss of data
- Ensures that data conflicts can be resolved by users
- Locks only the data necessary for updates

What should you do?

A. Use optimistic locking. Terminate the update when a DBConcurrencyException occurs.
B. Use pessimistic locking. Terminate the update when a DBConcurrencyException occurs.
C. Use pessimistic locking. Retry the failing update operation in the DBConcurrencyException exception handler until it succeeds.
D. Use optimistic locking. In the DBConcurrencyException exception handler, display the data of both original and updated records to the user. Allow the user to resolve the conflicts.

Answer: D

Question: 143

You are developing a Windows application by using Microsoft .NET Framework 4, Microsoft Visual Studio 2010, and Microsoft SQL Server 2003. New features that require changes to be made to the database schema are added to the application every week. You need to ensure that the changes made to the database schema do not require the application to be recompiled. Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

A. Modify the xml mapping file when the schema changes occur,
B. Modify the conceptual schema xml file when the schema changes occur.
C. Build a storage model and use it to access data from the business entities.
D. Build a conceptual model and use it to access data from the business entities.

Answer: A, D

Question: 144

You are designing an application by using Microsoft .NET Framework 4, Microsoft Visual Studio 2010, and Microsoft SQL Server 2008. The application will be used by a sales team to enter sales orders and update customer information. You need to ensure that the application meets the following requirements:

- Allows users to enter sales orders while their computers are disconnected from the network
- Uploads sales orders to the server database when connected to the network
- Compiles against the .NET Framework 4 client profile

What should you use?

A. XML files
B. WCF services
C. Microsoft Sync Framework
D. The System.Web.Caching namespace classes

Answer: C

Question: 145

You are developing a Windows application by using Microsoft .NET Framework 4, Microsoft Visual Studio 2010, and Microsoft SQL Server 2008. The application will store data in a SQL Server database instance. You plan to use the Code Generation technology to develop data entities. You need to ensure that the following requirements are met:
• When the application runs, a database must be created if it does not already exist.
• When the database schema changes, data entities must be added dynamically.
Which data access technology should you use?

A. LINQ to SQL
B. ADO.NET Data View
C. ADO.NET Typed DataSets
D. ADO.NET Entity Framework

Answer: D

Question: 146

You are developing a Windows application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application will consume a Windows Communication Foundation (WCF) service. The WCF service will provide data to the application. You plan to use the ADO.NET Entity Framework to create a data model that will be used by the application. Another development team makes changes to the WCF service data contract. You need to ensure that changes made to the WCF service data contract do not require the application to be recompiled. What should you do?

A. Create a conceptual model and a storage model based on the existing version of the WCF service.
B. Create a storage model based on the business model. Use a class generated from the storage model for programming.
C. Create a storage model based on the schema of the existing WCF service. Update the mapping file when the new version of the WCF service is available.
D. Create a conceptual model based on the business model. Use a class generated from the conceptual model for programming. Update the mapping file when the new version of the WCF service is available.

Answer: D

Question: 147

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You plan to create a Customer object that contains an Orders property. The Orders property contains an array of Order objects. When users browse Customer objects, they must be able to optionally view Order objects. You need to design a data access strategy that retrieves data only when necessary. Which strategy should you use?

A. lazy loading
B. eager loading
C. file streaming
D. pessimistic locking

Answer: A

Question: 148

You are designing a sales and inventory tracking system by using Microsoft Visual Studio 2010 and Microsoft SQL Server 2008. The sales, inventory, and shipping tables will reside in different databases on different database servers. You need to ensure that the tables are updated simultaneously. What should you do?

A. Use LINQ to SQL.
B. Use Distributed transactions.
C. Use Microsoft Sync Framework.
D. Use the ADO.NET Entity Framework.

Answer: B

Question: 149

You are designing a Windows application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You plan to implement control caching to improve the loading time of a control. It is not required to refresh the content of the control after the application loads. The application will be compiled by using the .NET 4 client profile. You need to ensure that the following requirements are met:

- The control is reusable in multiple forms.
- Data in the control is cached when the application is loaded.

What should you do?

A. In the Load event of the application window, add code to load the control. Save the control to an instance variable.
B. In the Load event of the application window, add code to load the control. Save the control to the cache by using objects in the System.Web.Caching namespace.
C. In the constructor of the application window, add code to load the control. Save the control to a static variable.
D. In the constructor of the application window, add code to load the control. Save the control to the cache by using objects in the System.Web.Caching namespace.

Answer: C

Question: 150

You are designing an application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You plan to design an instrumentation strategy for the application. You need to ensure that the strategy meets the following requirements:

- Captures detailed performance information.
- Enables or disables diagnostic messages by using an application configuration option without requiring the application to restart.

What should you design?

A. A custom trace listener
B. A custom performance counter
C. An override to the Debug class
D. An override to the EventLog class

Answer: B

Question: 151

You are designing a Windows application by using Microsoft .NET Framework 4. Remote users have limited network connectivity. Users will not have write permissions to the local file system. You plan to design the error logging strategy for the application. You need to ensure that the application can collect error information. You also need to ensure that the errors can be analyzed from a centralized location. What should you do?

A. Use a local log file.
B. Use the Microsoft Sync Framework.
C. Log the errors to a Web service.
D. Log the errors to the Windows System event log.

Answer: B

Question: 152

You are developing a Windows application by using Microsoft .NET Framework 4. You plan to design a diagnostic logging strategy that will be used in a production environment. You need to ensure that the strategy meets the following requirements:

- Enables or disables diagnostic messages by using an application configuration option.
- Changes the level of detail in the diagnostic messages without recompiling the application.

Which class should you use?

A. Trace
B. Debug
C. Contract
D. EventLog

Answer: A

Question: 153

You are developing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4. You need to recommend a testing strategy to identify the additional hardware resources that are necessary to support future projected growth. Which testing strategy should you recommend?

A. Load testing
B. Stress testing
C. Capacity testing
D. Integration testing

Answer: C

Question: 154

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. During testing of the application, you identify several bottlenecks by using Windows Task Manager and Windows Performance Monitor. You need to recommend a system test strategy that will meet the following requirements:

- Identify major application workloads.

- Identify the functions of the application that are most impacted.

Which testing strategy should you recommend?

A. Usability testing
B. Security testing
C. Stability testing
D. Scalability testing

Answer: D

Question: 155

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application will consist of a user interface (UI) tier and a middle tier. The middle tier will be implemented by using Windows Communication Foundation (WCF). You plan to design the exception handling strategy for the application. Each method in the middle tier will contain the following catch block.

```
Catch e As ArgumentNullException
Throw e
```

When testing the application, you discover that all ArgumentNullExceptions that occur in the middle tier do not contain accurate stack trace information.

What should you do?

A. Create an ArgumentNullException handler in the UI tier.
B. Use a DispatcherUnhandledExceptionEvent handler in the UI tier.
C. Use a DispatcherUnhandledExceptionEvent handler in the middle tier.
D. Remove the exception parameter from the ArgumentNullException handler.

Answer: D

Question: 156

You are developing an application by using Microsoft .NET Framework 4. The application will be used by all employees of your company. Local file stores on the computers are secure and inaccessible remotely. You need to design a remote monitoring strategy to monitor the usage time of the application by each user. What should you do?

A. Create a TraceLog object and the Trace object by using the System.Diagnostics element to trace startup, shutdown, and user idle time events throughout the application.
B. Create a TraceLog object by using the System.Diagnostics element in the application configuration file. Add the TraceSource element for startup, shutdown, and user idle time events.
C. Use the System.Management.Instrumentation namespace to publish startup, shutdown, and user idle time events of the application. Publish the events to Microsoft Operations Manager.
D. Use the System.Management.Instrumentation namespace to issue event queries against methods that pass ProgressEvent and StoppedEvent arguments. Publish the events to the Event Log.

Answer: C

Question: 157

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and

Microsoft Visual Studio 2010. You need to ensure that the following requirements are met:

- All UI elements are labeled,
- All property values are exposed.
- Keyboard navigation contains tab stops for all controls.
- The application functions on high contrast displays.

Which testing strategy should you recommend?

A. Stress testing
B. Stability testing
C. Usability testing
D. Accessibility testing

Answer: D

Question: 158

You are designing a complex and critical Windows desktop application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You plan to implement a logging strategy for the application. You need to record all unexpected errors that occur in the application. What should you do?

A.
- Subscribe to the unhandled exception event handler for the AppDomain object.
- Record relevant application-specific information to an external log.

B.
- Subscribe to the unhandled exception event handler for the application's dispatcher on the main application thread.
- Record relevant application-specific information to an external log.

C.
- Create a generic catch (Exception e) block in the Main method of the application. • Record relevant application-specific information to a log in the Main method.

D.
- Create a global WIN 32 unhandled exception filter.
- Record relevant application-specific information to an external log from within the filter.

Answer: D

Question: 159

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application contains a COM component. You plan to deploy the application to several client computers by using read-only media. You need to ensure that the COM component is registered during deployment of the application. Which deployment technology should you use?

A. XCopy
B. Microsoft Windows Installer (MSI)
C. ClickOnce along with full trust
D. ClickOnce along with partial trust

Answer: B

Question: 160

You have developed a Windows Forms server application by using Microsoft .NET Framework 4. Client applications connect to the server application to receive streaming media on demand on a single server. Each incoming connection is launched on a separate thread. As the number of client applications increases, users report that connection attempts intermittently fail. You need to ensure that users can connect to the server application even when the number of client applications increases. What should you do?

A. Add additional RAM to the server. Increase the size of the thread pool.
B. Add additional RAM to the server. Decrease the size of the thread pool.
C. Install a network load balancer. Increase the size of the connection pool.
D. Install a network load balancer. Decrease the size of the connection pool.

Answer: A

Question: 161

You are packaging updates for multiple Windows Presentation Foundation (WPF) applications by using Microsoft .NET Framework 4. Updates to the applications and to third-party control files are available. Updates to the applications have dependencies upon updates to the third-party control files. An update script is run at logon that allows only a single command to be executed. You need to package the application updates and updates to the third party controls to ensure that they are successfully installed. What should you do?

A. Package application updates as a single installer. Package third-party control files as a merge module.
B. Package application updates as a single installer. Package third-party control files as a separate installer.
C. Prepare the installers for individual application updates and include the third-party control files as individual files.
D. Prepare the installers for individual application updates and include the third-party control files as a merge module.

Answer: A

Question: 162

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft SQL Server 2008. The application runs successfully on a local client computer by using your user account. You deploy the database of the application to the production server. You configure the application connection string to use the Windows Authentication mode. You deploy the application to several client computers that use other applications on the network. The client computers access different databases on the production server by using the Windows Authentication mode. Users report that the application is not working and that they receive a database connection exception. You need to identify the source of the problem. What is the source of the problem?

A. The database is currently blocked due to locks.
B. The users do not have the correct database permissions.
C. The users do not have valid SQL Server 2008 database logins.
D. The client computers are not configured to use the network.

Answer: B

Question: 163

You have developed a Windows application by using Microsoft .NET Framework 4, Windows Presentation Foundation (WPF), and Microsoft SQL Server 2008. The application is deployed as an XAML Browser Application (XBAP) and executes in the Internet Zone in Internet Explorer. The application updates data in a SQL Server 2008 database. Users report that a SecurityException exception occurs when the application attempts to save data to the database. You need to design a solution to resolve the problem. What should you do?

A. Redesign the XBAP application by using partial trust.
B. Redesign the XBAP code to utilize stored procedures.
C. Design a WCF Service tier to provide database access.
D. Design a data access layer that uses ASP.NET Entity Framework to communicate with the database by using the System.Data.SqlClient class.

Answer: C

Question: 164

You are deploying an application on Windows client computers by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You need to ensure that the deployment package meets the following requirements:
• Grants only the necessary permissions
• Adds a shortcut to the Windows Start menu
• Registers the application within Programs and Features
• Can be published to a Web site
Which deployment strategy should you use?

A. XCopy
B. ClickOnce
C. Merge module
D. Windows Installer

Answer: B

Question: 165

You are creating a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4. You need to ensure that when the user attempts to run the application, the user cannot use the application if a new version of the application is available. What should you do?

A. Deploy the application by using the XCopy technology.
B. Create a Custom Action within the MSI package to check for updates.
C. Use the ClickOnce technology along with the Search for updates during application startup setting.
D. Use a BackgroundWorker object on an application load to connect to a Background Intelligent Transfer Service (BITS) service.

Answer: C

Question: 166

You are developing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application will run in a partially trusted sandbox. You plan to deploy the application

on client computers by using the ClickOnce deployment technology. You plan to sign the deployment and application manifest by using a trusted publisher certificate. You need to ensure that the following requirements are met:

- Users are not prompted for elevated permissions during application deployment.
- The application can request elevated permissions at runtime.

Where should you install the trusted publisher certificate?

A. in the trusted root store on the deployment server
B. in the trusted publisher store on the deployment server
C. in the trusted root store on each client computer
D. in the trusted publisher store on each client computer

Answer: D

Question: 167

You are designing an update to an existing Windows Presentation Foundation (WPF) application. Users can purchase and download photographs from the company's Web server by using the WPF application. Photographs must be viewable only when logged in as the user who purchased the photographs. You need to recommend a download location for the photographs. Which location should you recommend?

A. the user's local Temp folder
B. the application's installation folder
C. the application's IsolatedStorage folder
D. the user's IsolatedStorage folder

Answer: D

Question: 168

You are preparing to deploy a solution that includes a Windows Forms application and several COM components. Unsigned interop assemblies have been created for each of the COM components. You need to recommend an approach for deploying the solution. What should you recommend?

A. Deploy the Windows Forms application to a folder on the client computer. Deploy the COM components and interop assemblies to the Global Assembly Cache (GAC). Register the COM components.
B. Deploy the Windows Forms application and interop assemblies to a folder on the client computer. Sign the interop assemblies.
C. Deploy the Windows Forms application, COM components, and interop assemblies to a folder on the client computer. Register the COM components.
D. Deploy the Windows Forms application and COM components to a folder on the client computer. Deploy the interop assemblies to the Global Assembly Cache (GAC).

Answer: C

Question: 169

You are designing an n-tier solution that connects to a Microsoft SQL Server 2008 database. You plan to deploy the database to development machines and to a staging database server from within Microsoft Visual Studio 2010. You plan to set up separate build configurations for development and staging. You also plan to deploy to multiple

production database servers managed by an outside vendor. You must not allow the outside vendor to access the visual Studio projects. You need to recommend an approach for configuring and deploying the production database servers. Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

A. Use a SQL Server 2008 Database Project.
B. Use SQL Server 2008 Management Studio to deploy the production databases.
C. Use VSDBCMD to deploy the production databases.
D. Use a Visual Basic SQL CLR Database Project.

Answer: B, C

Question: 170

You are designing a .NET Framework 4 solution that contains a Windows Presentation Foundation (WPF) application and a Windows Communication Framework (WCF) Web service. The WPF application will be deployed to users' desktops located in the company's corporate network. The WCF Web service will be deployed to a Web farm located in the company's perimeter network. The firewall between the perimeter network and the Internet allows only HTTP and HTTPS traffic. You need to recommend an approach for minimizing the attack surface of the WCF Web service. What should you recommend?

A. Configure a WCF endpoint to use the MetTcpBinding binding.
B. Configure a WCF endpoint to use the basicHttpBinding binding.
C. Add a load-balancing router to the Web farm configuration.
D. Set up an SSL certificate on the server.

Answer: D

Question: 171

You are designing a multi-tenant Windows Presentation Foundation (WPF) application that will connect to a Microsoft SQL Server 2008 database. The WPF application will change the structure of database tables and views at runtime based on the tenant's configuration. The WPF application must meet the following requirements:

- Keep each tenant’s data separate.
- Allow changes to the structure of the tables and views for each tenant without interfering with other tenants' data.

You need to recommend an approach for managing the database structure. What should you recommend?

A. Create an Application Role for each tenant.
B. Create a Partition Scheme for each tenant.
C. Create a Synonym for each tenant.
D. Create a Schema for each tenant.

Answer: D

Question: 172

You are designing an update to an existing Windows Presentation Foundation (WPF) application. You plan to use Microsoft Visual Studio 2010. The updated WPF application will require a specific version of a third-party component. You have the following requirements:

- Deploy the update by using Windows Installer.
- Update the WPF application only if the required version of the third-party component is present on the client computer.

You need to recommend configuration settings for the application installer. Which property should you recommend be set?

A. The RemovePreviousVersions property of the Setup Project
B. The Version property of the Setup Project
C. The Version property of the .NET Launch Condition
D. The Condition property of a new Launch Condition

Answer: D

Question: 173

You are designing updates to an existing Windows Presentation Foundation (WPF) application that connects to a Microsoft SQL Server 2008 database. The application updates will require updates to the database. You have the following requirements:

- Prevent data loss.
- Recover the database if the database update fails.

You need to recommend a database deployment strategy. Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

A. Place the database in single-user mode before deploying the changes.
B. Specify the simple recovery model for the database.
C. Specify the full recovery model for the database.
D. Place the database in restricted user mode before deploying the changes.

Answer: A, C

Question: 174

You are designing an application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application will store data that includes a time and date stamp. The middle tier of the application is implemented by using Windows Communication Foundation (WCF). The middle tier connects to geographically separated database servers. You need to ensure that the application meets the following requirements;

- Data stored contains time and date information local to the database server.
- Data stored contains Universal Coordinated Time (UTC).

Which class should you use?

A. DateTime
B. TimeZone
C. DateTimeOffset
D. TimeZoneInfo

Answer: C

Question: 175

You are designing a Windows Presentation Foundation (WPF) application. The WPF application contains code that will be executed by both full trust callers and partial trust callers. The WPF application code does not have the AllowPartialTrustCallers attribute set. You have the following requirements:

- The application security settings must allow partial trust callers to create and write to a file.
- Users must have access only to files that they create and not to files created by other users.

You need to recommend a location for storing each user's files. Which location should you recommend?

A. the user's LocalSettings folder
B. the user's My Documents folder
C. the user's Roaming folder
D. the user's IsolatedStorage folder

Answer: D

Question: 176

You are designing a Windows application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. You need to use a replacement culture for the application at runtime. You also need to ensure that the information in the custom culture will tie available to the application. Which two tasks should you perform? (Each correct answer presents part of the solution. Choose two.)

A. Restart the process that is displaying the user interface,
B. Register the replacement culture by using the CultureAndRegionInfoBuilder class.
C. Register the replacement culture by using the CultureInfo class.
D. Call the Save method of the CultureAndRegionInfoBuilder class instance.

Answer: A, B

Question: 177

You are designing a Windows Presentation Foundation (WPF) client application that requests reports from a Windows Communication Foundation (WCF) Web service. Users must be able to perform other tasks while the WCF Web service generates the report. You need to recommend a message exchange pattern for the communication between the WPF application and the WCF Web service. What are two possible message exchange patterns that will meet the requirements? (Each correct answer presents a complete solution. Choose two.)

A. Datagram with session
B. Request-Response
C. Duplex
D. Datagram without session

Answer: A, C

Question: 178

You are designing a Windows Presentation Foundation (WPF) application. The application calls methods that perform long-running computational tasks. You need to recommend an approach for ensuring that the application remains responsive while the tasks are executing. What are two possible ways to achieve this goal? (Each correct answer presents a complete solution. Choose two.)

A. Use synchronous method calls from a thread other than the thread on which the user interface runs.
B. Run the user interface from a new multi-threaded apartment (MTA) thread.
C. Use synchronous method calls from the user interface thread.
D. Use asynchronous method calls from the user interface thread.

Answer: A, D

Question: 179

You are designing a Windows application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The business logic layer of the application is implemented by using Windows Communication Foundation (WCF). You create a duplex bidirectional WCF service that contains a single operation. The service operation sends the result back to the client application by using a two-way callback operation. You plan to design a service interaction strategy. You need to ensure that deadlocks are prevented. What should you do?

A. Configure the CallbackBehaviorAttribute attribute to use the Synchronization context in the callback class,
B. Configure the ServiceBehaviorAttribute attribute to use the Synchronization context in the service class.
C. Configure the CallbackBehaviorAttribute attribute to use the Reentrant or Multiple concurrency mode in the callback class.
D. Configure the ServiceBehaviorAttribute attribute to use the Reentrant or Multiple concurrency mode in the service class.

Answer: D

Question: 180

You are designing a Windows Presentation Foundation (WPF) application that uses .NET Framework 4. The application uses a subset of the functionality provided by a third-party COM component that will be replaced later. The application developers must have access to only the required subset of functionality. You need to recommend a solution that meets the requirements. Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

A. Create an adapter assembly that exposes the entire functionality of the COM component.
B. In the adapter assembly, use an embedded interop reference.
C. In the adapter assembly, use a standard interop reference.
D. Create an adapter assembly that exposes the required subset of the COM component functionality.

Answer: C, D

Question: 181

You are designing an n-tier solution for use by multiple groups of users. The solution consists of a client application that collects information from users and transmits it to a business layer for processing. The business layer sends the information to a service layer by using Windows Communication Foundation (WCF). The service layer exists on multiple servers. The solution must send the collected information to a specific server in the service layer based on the user's group. You need to recommend an approach that will allow the information to be sent to the correct server. What should you recommend?

A. Create a Windows Workflow Foundation (WF) activity on the client.
B. Implement the WCF 4 Routing Service.
C. Impersonate the client in the business layer.
D. Implement a duplex contract on the service layer.

Answer: B

Question: 182

You are designing an n-tier solution that includes a Windows Presentation Foundation (WPF) client application. The WPF application connects to a middle-tier server that runs the data access layer. The data access layer connects to a Microsoft SQL Server 2008 database and to a mainframe-based database. The mainframe-based database will be replaced in one year. You have the following requirements:

- Centrally manage all database connections.
- Minimize changes to the code base when the database is replaced.
- Ensure that the WPF application will not need to be redeployed when the database is replaced.

You need to recommend an approach for designing the data access layer. What should you recommend?

A. Create a data access layer class that uses a database factory class to access all databases. Add the connection string information for the databases to the configuration file for the WPF application.
B. Add the connection string information for the databases to the configuration file for the WPF application. Implement one class in the WPF application for each data source.
C. Create a data access layer class that uses a database factory class to access all databases. Add the connection string information for the databases to the configuration file for the data access layer class.
D. Add the connection string information for the databases to the configuration file for the WPF application. Implement a database factory class from within the WPF application.

Answer: C

Question: 183

You are designing a Windows Presentation Foundation (WPF) application that will process data. The data is stored in a Microsoft SQL Server 2008 database. You plan to access the data by using ADO.NET Entity Framework 4. You need to recommend an approach that minimizes the number of calls to the database server. What should you recommend?

A. Use eager loading.
B. Use SqlDependency objects.
C. Use lazy loading.
D. Use change tracking in the ObjectContext object.

Answer: A

Question: 184

You are analyzing an application that uses Microsoft .NET Framework 4 and Microsoft SQL Server 2008. The application is used to maintain an inventory database and is accessed from several remote Windows client applications. The application frequently updates multiple rows in a database table by using a DbDataAdapter object. Users report that the application runs slowly during peak business hours. When large number of records are changed by multiple users, you discover the following:

- The CPU utilization of the client applications is normal.
- The network utilization increases slightly.
- The CPU utilization of the database server remains close to the normal average for a day.

You need to resolve the performance issue. What should you do?

A. Disable batch updates. Modify the client application to perform a single update.
B. Insert a random time interval between updates.
C. Remove any limit on batch update sizes. Modify the client application to perform a single update.
D. Move the update method calls to a separate BackgroundWorker thread.

Answer: C

Question: 185

You are designing a .NET Framework 4 solution. The solution contains a Windows Presentation Foundation (WPF) application and a Windows Communication Foundation (WCF) Web service. The WPF application uses the WCF Web service to store data in a Microsoft SQL Server 2008 database. You have the following requirements:

- Ensure that the WPF application functions while users' computers are offline.
- Minimize the time spent sending data to the WCF Web service.
- Minimize disk space requirements for data storage.

You need to recommend an approach for synchronizing data between the WPF application and the database. Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

A. Store data in custom business objects. Serialize data locally by using custom serialization.
B. Create a local caching solution that periodically checks for Internet connectivity, uses local memory, and batches changes to the WCF Web service.
C. Create a local caching solution that periodically checks for Internet connectivity and writes directly to the local data store and to the WCF Web service.
D. Store data in DataSet objects. Serialize data locally by using XML serialization.

Answer: A, C

Question: 186

You are designing an n-tier .NET Framework 4 solution that includes a Windows Presentation Foundation (WPF) application. The WPF application will access data stored in a Microsoft SQL Server 2008 database by using the solution's data access tier. The data access tier must also be available from within Microsoft Excel 2010. You need to recommend a technology for accessing the data access tier. Which technology should you recommend?

A. ADO.NET Entity Framework 4
B. LINQ to XML
C. LINQ to SQL
D. WCF Data Services

Answer: D

Question: 187

You are designing an application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The

application includes Windows Workflow Foundation (WF) hosts that run thousands of workflow instances. Workflows usually take 2 hours of time to complete. The application also includes a Windows Communication Foundation (WCF) service that contains a method to check the completion status of a workflow stored in a database. External applications that use the WCF service to check the status of workflows every minute causes performance degradation of the workflow that hosts the application. You need to eliminate the performance degradation caused by workflow status checks. What should you do?

A.
- Cache the status of the workflow.
- Assign a callback function based on a SqlDependencyobject.
- Reload the cache in the callback function.

B.
- Cache the status of the workflow.
- Set the expiry time of the Cache object to 30 minutes.

C.
- Create a status checking workflow.
- Return the status of the original workflow to the external application in 30 minute intervals.

D.
- Create a status checking workflow.
- Return the status of the original workflow to the external application after 10 requests have been made.

Answer: A

Question: 188

You are analyzing a Windows client application that uses Microsoft Visual Studio 2010 and Microsoft SQL Server 2008. The application updates two database tables from the main user interface (UI) thread. You need to ensure that the following requirements are met:
- The database tables are either updated simultaneously or not updated at all.
- Users are notified of the success or failure of the updates.
- Users are able to perform other tasks during the update process.

What should you do?

A.
- Use TransactionScope in a using block on the UI thread.
- Batch the database updates by setting the DbDataAdapter.UpdateBatchSize property to 2.

B.
- Move the database update logic to a BackgroundWorker thread.
- Ensure that the thread is enclosed in a TransactionScopeusing block in the BackgroundWorker DoWork method.

C.
- Use TransactionScope in a using block on the main thread.
- Create a BackgroundWorker thread within the block.
- Move the database updates to the BackgroundWorker DoWork method.

D.
- Use TransactionScope in a using block on the UI thread.
- Create a DependentTransaction object within the block and pass the object to the BackgroundWorker ReportProgress method
- Use the object in the ReportProgress method to create a new TransactionScope block.

Answer: B

Question: 189

You are designing a Windows Presentation Foundation (WPF) application. The WPF application displays indicators to compare your company's past performance to the current day,s operations data. The WPF application accesses historic data from your company's data warehouse through a Web service, and accesses current data directly from a Microsoft SQL Server 2008 database. The WPF application must meet the following requirements:

- Retrieve historic data from the data warehouse at application startup and then once per day.
- Retrieve current data from the database every five minutes, and then update the indicators.
- Cache all retrieved data.
- Target the .NET Framework 4 Client Profile.

You need to recommend an approach to data caching. What should you recommend?

A. Use System.Runtime.Caching with an absolute expiration.
B. Use System.Web.Caching with a sliding expiration.
C. Use System.Runtime.Caching with a sliding expiration.
D. Use System.Web.Caching with an absolute expiration.

Answer: A

Question: 190

You are designing a Windows Presentation Foundation (WPF) application that accesses a Microsoft SQL Server 2008 database. You must ensure that database administrators can change the structure of database tables without requiring redeployment of the WPF application. You need to recommend a data modeling and data access strategy. What should you recommend?

A. Model the data layer by using typed DataSet objects with automatically generated Create, Read, Update, and Delete (CRUD) statements.
B. Model the data layer by using DataSet objects with automatically generated Create, Read, Update, and Delete (CRUD) statements.
C. Model the data layer by using LINQ to SQL with attribute-based mapping of objects to tables.
D. Model the data layer by using custom data access objects. Access the database by using stored procedures.

Answer: D

Question: 191

You are designing a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 4, Microsoft Visual Studio 2010, and Microsoft SQL Server 2008. You have designed the application to use the ADO.NET Entity Framework for the Data Access Layer (DAL). You have designed the user interface (UI) of the application by using the Model-View-ViewModel (M-V-VM) pattern. The middle tier of the application is designed by using Windows Communication Foundation (WCF). The database schema changes often. The DAL entity objects are required to be referenced from the middle tier and the ViewModel layer of the UI. You need to ensure that the DAL entity objects are updated when the database schema changes. What should you do?

A. Create an observable collection of objects.
B. Create persistent-aware objects.
C. Create typed DataSets.
D. Create persistent-ignorant objects.

Answer: D

Question: 192

You are developing an application by using Microsoft .NET Framework 4 and Microsoft Visual Studio 2010. The application contains a grid that displays customer data stored in a database table. Users report that the grid takes a long time to display. You plan to implement data caching to improve loading time for the grid. You need to ensure that the cached data expires when the customer data is updated. What should you do?

A. Use the System.Runtime.Caching.SqlChangeMonitor class.
B. Use the ADO.MET Entity Framework.
C. Use the System.Web.Caching.CacheDependency class.
D. Use a static variable to store the Grid object.

Answer: A

Question: 193

You are modifying an existing Windows Presentation Foundation (WPF) application that uses .NET Framework 4. The WPF application uses a wizard to capture data and insert the data into a database. The database includes one parent table and many child tables. Inserting captured data in the database locks many database tables and delays application access. You have the following requirements:

- Reduce delays when saving data.
- Ensure that other application users are not blocked from reading data.
- Ensure that captured data is available only after all child tables are updated.

You need to recommend an approach for inserting captured data into the database. What should you recommend?

A. Insert captured data by using optimistic concurrency as the user completes each wizard page.
B. Insert captured data by using a single transaction as the user completes each wizard page.
C. Insert captured data by using non-transactional operations when the user completes the wizard.
D. Insert all captured data in a single transaction when the user completes the wizard.

Answer: D

Question: 194

You are working with a Windows Presentation Foundation (WPF) application that uses .NET Framework 4. Your team is responsible for making significant changes to the application functionality. You need to recommend an approach for identifying features that no longer work properly as a result of code changes. Which testing methodology should you recommend?

A. stability testing
B. integration testing
C. regression testing
D. stress testing

Answer: C

Question: 195

You are designing a Windows Forms application. The application connects to a Microsoft SQL Server 2008 database. You need to recommend an approach for retrieving and logging all informational messages and error messages reported by the database. What should you recommend?

A. Retrieve informational messages in a SqlException object. Retrieve error messages by creating a handler for the InfoMessage event.
B. Retrieve informational messages and error messages in a SqlException object.
C. Retrieve informational messages by creating a handler for the InfoMessage event. Retrieve error messages in a SqlException object.
D. Retrieve informational messages and error messages by creating a handler for the InfoMessage event.

Answer: C

Question: 196

You are designing a distributed application that will be deployed to 5,000 users worldwide. Servers on five continents will host the Web services and the Microsoft SQL Server 2008 databases that support the application. You have the following requirements:

- Collect information about all errors associated with the application.
- Store and view all error information in a centralized location.
- Minimize the network bandwidth required for the transfer of error information.

You need to recommend a strategy for reporting error information. Which strategy should you recommend?

A. Write error messages to the SQL Server databases. Synchronize the databases by using merge replication.
B. Write error messages to the event logs on the local computers. Use Windows Error Reporting to view the error information.
C. Write error messages to the event logs on the local computers. Use Windows Management Instrumentation (WMI) to view the error information.
D. Write error messages to the SQL Server databases. Synchronize the databases by using transactional replication.

Answer: B

Question: 197

You are designing a distributed Windows Presentation Foundation (WPF) application. You have the following requirements:

- Ensure that all errors are logged in a central location.
- Ensure that the WPF application logs related errors within a single transaction.
- Secure error information during transmission.

You need to recommend a strategy for collecting error information. What should you recommend?

A. Write the information to the Windows Application log on each client system. Use Windows Error Reporting to collect the results.
B. Write the information to the Windows Application log on each client system. Use Windows Management Instrumentation (WMI) to collect the results.
C. Create a Windows Communication Foundation (WCF) service. Use the basicHttpBinding protocol to transport the information.
D. Create a Windows Communication Foundation (WCF) service. Use the wsHttpBinding protocol to transport the information.

Answer: A

Question: 198

You are designing a Windows Presentation Foundation (WPF) application that connects to a data access layer on a server. You have the following requirements for all security-related exceptions:

- Exceptions that occur in the data access layer must be handled in a single exception handler in the WPF application.
- Exceptions must pass customized messages back to the WPF application.

You need to recommend an approach for creating new exception classes in the data access layer. From which class should you inherit?

A. System.AccessViolationException
B. System.ApplicationException
C. System.Security .SecurityException
D. System.InvalidOperationException

Answer: C

Question: 199

You are designing a mission-critical Windows Presentation Foundation (WPF) application that uses .NET Framework 4. You need to recommend an approach for identifying repair and recovery time. What should you recommend?

A. Test the failover technologies.
B. Test for buffer overflows.
C. Use component stress testing.
D. Use integration stress testing.

Answer: A

Question: 200

You are designing an application by using Windows Presentation Foundation (WPF) and Microsoft .NET Framework 4. The application will run on Windows 7-based kiosks that are located indoors and outdoors. The kiosk displays have a photo sensor that will update the application with the current ambient luminosity. You need to ensure that the user interface (UI) of the application dynamically changes the application theme based on the ambient luminosity. What should you use?

A. a RenderTransform control applied to the root canvas
B. a visual state manager to add VisualStateGroup objects
C. an attached behavior to change a merged resource dictionary
D. a VisualBrush control to paint the UI

Answer: C

Question: 201

You are working with an existing Windows Presentation Foundation (WPF) application in Microsoft Visual Studio 2010.

The WPF application requires approximately one minute to initialize before displaying its main window. You have the following requirements:

- Immediately display a splash screen when the WPF application launches.
- Allow for the display of an initialization progress bar on the splash screen.
- Close the splash screen when the WPF application is ready to display the main window.

You need to recommend an approach for meeting the requirements. What should you recommend?

A. Move the initialization code to the code-behind of the main window.
B. Launch a custom splash screen by using a Window object. When the initialization completes, launch the main window from the splash screen.
C. Create a SplashScreen object. Display the object in the code-behind of the App.xaml file.
D. Compile an image into the WPF application with a Build Action value of SplashScreen.

Answer: C

Question: 202

You are designing an application by using Windows Presentation Foundation (WPF) and Microsoft .NET Framework 4. The application allows users to view product details. Product managers can modify the product details for the products that they manage. You plan to design the application by using the Model-View-ViewModel (M-V-VM) pattern. You need to ensure that the product details can be viewed by all users and modified only by product managers. What should you do?

A.
- Create a separate window to modify data.
- Create a separate window to view data.

B. In the ViewModel, hide all input controls if the user's role is a Product Manager.
C. In the ViewModel, disable all input controls if the user's role is not a Product Manager,
D.
- Create a separate StackPanel in the window to modify data.
- Create a separate StackPanel in the window to view data.

Answer: B

Question: 203

You are designing a Windows Presentation Foundation (WPF) application. Business entity objects are bound to controls on each data entry window. The WPF application must meet the following requirements:

- Display a watermark in each empty text box.
- Display watermarks in a lighter color than user entries.

The watermark code must be reusable with other user interface controls. You need to recommend an approach for creating the watermarks. What should you recommend?

A. Create a value converter to format the bound value of the business entity objects.
B. Attach a custom attached property and an Adorner to each text box.
C. Create handlers for the OnFocus and OnFocusLost events of the text boxes in the code-behind.
D. Modify each business entity object to return the watermark text if the property has no data.

Answer: B

Question: 204

You are designing a Windows Presentation Foundation (WPF) application that will be used to display real-time data from a Microsoft SQL Server 2008 database. You need to recommend an approach for displaying the data. Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

A. Implement Oneway binding between the controls in the WPF application and objects in the data layer.
B. Implement OneWayToSource binding between the controls in the WPF application and objects in the data layer.
C. Use a SqlCacheDependency object in the data layer to query the database when a change is detected.
D. Use a System.Runtime.Caching object in the data layer with a sliding expiration, and query the database when the Cache object expires.

Answer: A, C

Question: 205

You are designing Windows Presentation Foundation (WPF) applications by using Microsoft .NET Framework 4. You need to maintain a common appearance and behavior across all applications in your company. You also need to ensure that the look and feel of the applications can be modified without recompiling them. What should you create?

A. custom controls in a shared assembly
B. an instance of the System.Windows.Media.StyleSimulations class
C. user controls in a shared assembly
D. a merged resource dictionary

Answer: D

Question: 206

You are designing a Windows application. The application must meet the following requirements:

- Provide three-dimensional views of data.
- Display images, text, graphs, and videos.
- Support porting to a browser-based application.

You need to recommend a technology that meets the requirements. Which technology should you recommend?

A. Windows Presentation Foundation (WPF)
B. Direct3D
C. Windows Forms
D. GDI+

Answer: A

Question: 207

You are designing a Windows Forms application that allows users to search a product catalog and place orders. You have the following requirements:

- Display a progress indicator while the application is searching the catalog.
- Ensure that users can cancel search operations.

You need to recommend an approach that meets the requirements. What should you recommend?

A. Use a BackgroundWorker component to perform the search.
B. Execute the search on the user interface thread. Provide a Cancel button to cancel the search.
C. Implement the search as a duplex service.
D. Implement the search as a Windows Communication Foundation (WCF) service by using the AsyncPattern property of the OperationContract attribute.

Answer: A

Question: 208

You are designing a Windows Forms application. You intend to display graphics on a form in the application by using a third-party Windows Presentation Foundation (WPF) control. You need to recommend a control for hosting the third-party WPF control. What should you recommend?

A. An ElementHost control
B. A Panel control
C. A Canvas control
D. A WindowsFormsHost control

Answer: A

Question: 209

You are designing a Windows Presentation Foundation (WPF) application. The WPF application must always display real-time status information while the user is working in the WPF application. You need to recommend a container for displaying the status information. Which container should you recommend?

A. a message box
B. a console window
C. a modeless window
D. a modal window

Answer: C

Question: 210

You are designing a Windows Presentation Foundation (WPF) application that displays thumbnail images of photographs. The thumbnails are arranged in rows and columns. The number of columns must automatically update based on the size of the application window. You need to recommend a container for displaying all the thumbnail images at the same size. Which container should you recommend?

A. a WrapPanel control
B. a StackPanel control
C. a DockPanel control
D. a Canvas control

Answer: A

Question: 211

Developers required to use part of functionality of COM assembly. You must to design an interop assembly that expose COM functionality. Choose 2 as part.

A. Design assembly that expose required functionality of COM
B. Design assembly that expose full functionality of COM
C. Use embedded referencing
D. Use normal referencing

Answer: A, D

Question: 212

Which to possible ways to call operation without blocking of UI thread?

A. Use async call of operation in main thread
B. Use sync call of operation in main thread
C. Use sync call of operation in other threads

Answer: A, C

Question: 213

The application includes multiple Windows Workflow Foundation (WF) hosts along with thousands of instances. The application will continue to execute over extended periods of time. You need to ensure that the performance of the application does not degrade over extended periods of time. Which type of testing should you perform on the application?

A. Stress testing
B. Duration testing
C. Functional testing
D. Scalability testing

Answer: B

Question: 214

You are developing a Windows application. The application will process data that is stored on the user's computer. You plan to design a data storage strategy. You need to ensure that the following requirements are met:

- Local data can be accessed only by the application
- Local data can be encrypted and compressed
- Local data can be shared between multiple users by sending them the data file by email
- Users must be able to open the data file directly from the email message

Which local data storage technology should you use?

A. XML File
B. Microsoft Access
C. Microsoft SQL Server Express Edition database

D. Microsoft SQL Server Compact Edition database

Answer: D

Question: 215

You are designing an application by using Windows Presentation Foundation (WPF) and Microsoft NET Framework 4. The application is designed to allow novice users to enter data into a form. If a user enters invalid data into an input control, the control blinks between two colors. You need to ensure that the blinking visual feature can be applied to other controls without writing any additional code. What should you do?

A. Create a timer.
B. Create a shared style.
C. Create a WPF behavior
D. Use a merged resource dictionary.

Answer: C

Question: 216

You are designing an application by using Windows Presentation Foundation (WPF) and Microsoft NET Framework 4. The user interface (UI) tier of the application will be implemented by using WPF. The middle tier of the application will be implemented by using Windows Communication Foundation (WCF). The middle tier will contain several methods that update data in a remote database. The middle tier will also contain a long-running method named Process Data. The Process Data method performs database operations and can take several minutes to complete. You need to ensure that the UI of the application can continue to call other methods while the Process Data method is running What should you do?

A. Implement the Process Data method by using Windows Workflow Foundation (WF).
B. Implement the Process Data method by using the Invoke method on the Dispatcher class.
C. Call the Run method of the Dispatcher class before invoking the Process Data method
D. Call the Do Events method of the Application class before invoking the Process Data method

Answer: A

Question: 217

You are developing an application by using Windows Forms and Microsoft NET Framework 4. The user interface (UI) of the application can be resized. You need to ensure that the images in the application scale to the entire height and width of the UI without degradation. What should you do?

A. Convert the images to PNG format.
B. Use a Picture Box control.
Set the Size Mode property to use auto-sizing.
C. Use an Element Host control.
Convert the images to XAML-based images.
D. Use a Picture Box control.
Add events to resize the control based on the size of the main UI form.

Answer: C

Question: 218

You are designing an application by using Microsoft NET Framework 4 and Microsoft Visual Studio 2010. Your development team consists of designers and C# developers.

- You need to ensure that the application meets the following requirements:
- Kit allows separation of user interface (UI) code and business logic.
- "It allows the UI to be data-bound without requiring a code-behind file.

Which technology should you use?

A. Windows Forms along with Model View Presenter (MVP)
B. Windows Forms without Model View Presenter (MVP)
C. Windows Presentation Foundation (WPF) along with Model-View-View Model (M-V-VM)
D. Windows Presentation Foundation (WPF) without Model-View-View Model (M-V-VM)

Answer: C

Question: 219

You are designing a Windows client application by using Microsoft NET Framework 4 and Microsoft Visual Studio 2010. The business logic layer of the application is implemented by using Windows Communication Foundation (WCF). You write the following code segment in the middle tier:

<ServiceContractO> —
Public Interface lWcf Service
<OperationContractO> —
<FaultContract(GetType(ApplicationException))> —
Sub ProcessData(ByVal d As Data)
End Interface

The Process Data service method is a long-running operation.
You need to ensure that the application meets the following requirements:
"Users can continue to use the user interface while the Process Data service method is running.
"Message delivery is reliable.
What should you use?

A. A Session full One-Way operation on Process Data with a proxy-based synchronous class invocation
B. A Session full Request-Reply operation on Process Data with a proxy-based asynchronous invocation
C. A Session less One-Way operation of Process Data with a proxy-based synchronous class invocation
D. A Session less Request-Reply operation on Process Data with a proxy-based asynchronous invocation

Answer: C

Question: 220

You are designing an n-tier .NET Framework 4 solution that includes a Windows Presentation Foundation (WPF) application and a Windows Workflow Foundation (WF) component. The WF component contains functionality to incorporate frequently changing rules. You need to recommend a tier for the deployment of the WF component that will not degrade the performance of the WPF application. Which tier should you recommend?

A. The data tier
B. The data access tier
C. The presentation tier
D. The business tier

Answer: D

Question: 221

You are designing a .NET Framework 4 solution that contains a Windows Presentation Foundation (WPF) application. The WPF application includes CPU-intensive calculations. The calculations can be run on a separate process and can effectively be isolated from the rest of the WPF application. You need to recommend a deployment strategy that maximizes the scalability of the calculations for each user. What should you recommend?

A. Deploy the calculation logic as a Windows Communication Foundation (WCF) service to servers. Deploy the WPF application to the same servers.
B. Deploy the calculation logic as a Windows Communication Foundation (WCF) service to servers. Deploy the WPF application to each client computer.
C. Deploy the calculation logic as a separate assembly along with the WPF application to each client computer. Invoke methods in the assembly asynchronously.
D. Deploy the calculation logic as a separate assembly along with the WPF application to each client computer. Invoke methods in the assembly synchronously.

Answer: B

Question: 222

You are designing a .NET Framework 4 solution that includes a Windows Presentation Foundation (WPF) application, a Windows service, and a private assembly shared by the WPF application and by the Windows service. The solution stores data in a local Microsoft SQL Server Compact 3.5 database. The WPF application and Windows service will each access the database directly. The solution will be installed by using Windows Installer. You have the following requirements:

- The installer must allow users to specify the installation folders for the WPF application and for the database.
- The solution must support the deployment of updates to the WPF application without restarting the Windows service.

You need to recommend an approach for installing the solution. Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

A. Install the Windows service to a different folder from the WPF application.
B. Install the Windows service to the same folder as the WPF application.
C. In the installer, create a registry key that stores the WPF application installation path.
D. In the installer, set an environment variable that defines the database installation path.

Answer: BD

Question: 223

You are designing a Windows Presentation Foundation (WPF) application that accesses a business tier. The business tier is implemented as a Windows Communication Foundation (WCF) service and stores data in a Microsoft SQL

Server 2008 database. The WCF service will be accessed by external applications that do not use the .NET Framework. You need to recommend an approach for passing data between layers. What should you recommend?

A. Use custom .NET classes with XML serialization.
B. Use custom .NET classes with binary serialization.
C. Use a DataSet object.
D. Use the DiffGram XML format.

Answer: A

Question: 224

You are designing a Windows Presentation Foundation (WPF) application. The WPF application must run against either Microsoft SQL Server 2008 or a third-party database system without duplicating data access logic. You need to recommend a data access technology. What should you recommend?

A. ADO.NET using DataSet objects and SqlDataReader objects
B. ADO.NET using DataSet objects and SqlDataAdapter objects
C. LINQ to Entities
D. LINQ to SQL

Answer: C

Question: 225

You are reviewing multiple Windows Presentation Foundation (WPF) applications that capture postal addresses. The WPF applications have different appearances and functionality. Each WPF application uses a different control to visualize the captured addresses. You plan to modify all WPF applications to allow developers to visualize addresses by using a common template. You need to recommend an approach for standardizing the visualization of captured addresses. What should you recommend?

A. Use a ControlTemplate object.
B. Use a FrameworkTemplate object.
C. Use a Data Template object.
D. Use an ItemsPanelTemplate object.

Answer: C

Question: 226

You are designing a Windows Presentation Foundation (WPF) application that uses .NET Framework 4. The WPF application will be deployed to 5,000 users worldwide. You need to recommend an approach for identifying problems that users will experience. Which testing methodology should you recommend?

A. Usability testing
B. Integration testing
C. Acceptance testing
D. Functional testing

Answer: A

Question: 227

You are designing a .NET Framework 4 solution that includes a Windows Presentation Foundation (WPF) application. The WPF application connects to a Microsoft SQL Server 2008 database. You plan to deploy the WPF application to millions of client computers. The SQL Server database will be hosted in a data center. The WPF application will query the database to provide type-ahead assistance as users enter data. The WPF application will send a query after each character is entered. Each query will access multiple joined tables. You need to recommend an approach for maximizing scalability of the solution. What should you recommend?

A. Denormalize the data to fewer tables.
B. Create stored procedures to abstract the tables.
C. Use System.Runtime.Caching to cache query results on the client.
D. Create a separate data layer with caching.

Answer: D

Question: 228

You are designing a Windows Presentation Foundation (WPF) application. The main window of the WPF application includes two panels: panel1 and panel2. The WPF application must meet the following requirements:

- Panel2 must be enabled only after users have entered values into multiple text boxes in panel1.
- The background color of panel2 must be set to a specific color based on one of the text box values in panel1.
- The background color of panel2 must be set at the same time the panel is enabled.

You need to recommend an approach for meeting the requirements. What should you recommend?

A. Use a Command object.
B. Use Dependency properties.
C. Use a DataTemplate object.
D. Use a MultiDataTrigger object.

Answer: C

Question: 229

You are designing a Windows Presentation Foundation (WPF) data entry application. The application uses data binding to bind controls in the user interface (UI) to business objects. The UI uses validation rules for each input control. The data validation rules change based on the state of the business object. You need to recommend a validation strategy that will allow changes to the validation rules without changes to the UI code. What should you recommend?

A. Set the ValidationStep attribute on ValidationRule elements to RawProposedValue.
B. Set the ValidationStep attribute on ValidationRule elements to CommittedValue.
C. Implement the IDataErrorInfo interface in the business objects and replace all ValidationRule elements with Exception ValidationRule elements.
D. Implement the IDataErrorInfo interface in the business objects and replace all ValidationRule elements with DataErrorValidat ion Rule elements.

Answer: D

Question: 230

You are designing a Windows Presentation Foundation (WPF) application. The application data files have the file name extension.abc. The WPF application installer must meet the following requirements:

- Add a shortcut to the desktop.
- Install infrequently used assemblies on demand.
- Associate the .abc file name extension with the WPF application.
- Roll back the installation in the event of a failure.

You need to recommend a deployment method. What should you recommend?

A. ClickOnce
B. XCopy
C. Background Intelligent Transfer Service (BITS)
D. Windows Installer

Answer: A

Question: 231

You are evaluating an existing Windows Presentation Foundation (WPF) application. The WPF application runs in a Web browser as a XAML browser application (XBAP). The WPF application runs in the Intranet zone with Full Trust. A client certificate for the WPF application has been generated. Users are unable to access the WPF application. You locate the following message in the security log: "User has refused to grant required permissions to the application." Users state that they are clicking OK in all message boxes that appear. You need to recommend an approach for ensuring that the WPF application runs correctly on all client computers. Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

A. Use the Code Access Security Policy Tool to grant the appropriate permissions.
B. Sign the ClickOnce manifest for the WPF application.
C. Import the client certificate to the Trusted Root store.
D. Modify the ClickOnce manifest for the WPF application to grant the appropriate permissions.

Answer: AB

Question: 232

You are designing an n-tier Windows solution that includes a data entry application. The solution uses Microsoft .NET Framework 4 and Microsoft SQL Server 2008. The data entry application sends customer orders to a middle-tier server. The middle-tier server sends orders to a set of services that perform operations on the orders. Business rules determine which services to call and whether to run them in sequence or in parallel. The business rules are complex and data dependent. The Windows solution must meet the following requirements:

- Optimize application performance by using dynamic load balancing.
- Allow for business rules to be changed at runtime.

You need to recommend an approach that meets the requirements. What should you recommend?

A. Private message queues with a controller class on the middle-tier server
B. A Windows Communication Foundation (WCF) service for each operation, with a controller class on the middle-tier

server
C. SQL Server stored procedures
D. A routed service that uses Windows Communication Foundation (WCF) messaging

Answer: D

Question: 233

You are designing a Windows Presentation Foundation (WPF) application. The application will be localized into multiple languages. You need to recommend an approach for preparing the application for localization. Which two actions should you recommend? (Each correct answer presents part of the solution. Choose two.)

A. Translate the contents of the appropriate XAML elements into each localization language.
B. Add an application setting for each language to the App.config file.
C. Define a UICulture element for each language in the project file.
D. Add UID attributes to language-specific elements in the XAML file.

Answer: AB

Question: 234

An existing Windows application uses a Windows Communication Foundation (WCF) Web service that is available only to employees. You have the following requirements:

- Make the WCF Web service available to business partners.
- Enable business partners to send a profile token.
- Ensure that the currently deployed application continues to function.

You need to recommend a solution that meets the requirements. What should you recommend?

A. Convert the WCF Web service to a Duplex service that implements a callback to accept the profile token.
B. Use SOAP headers to pass the profile token to the service operations.
C. Modify the WCF Web service operations to accept the profile token as an additional parameter.
D. Implement the WCF Web service as a REST service.

Answer: B

Question: 235

You are reviewing an existing Windows application that uses .NET Framework 4. When the user clicks a button, the application sequentially processes thousands of image files contained in a directory. The user interface becomes unresponsive while the application processes the files. You have the following requirements:

- Modify the button's click event.
- Increase application throughput by processing multiple image files concurrently.
- Ensure that the user interface remains responsive while the application processes the image files.

You need to recommend an approach for meeting the requirements. What should you recommend?

A. Iterate over the image files by using the Parallel.ForEach() method. For each image file, start a separate thread that processes the image file, by using the Thread.Start() method.
B. Iterate over the image files. For each image file, use the Process.Start() method to launch a console application that processes the image file.

C. Use the Parallel.ForEach() method to process the images concurrently.
D. Use the ThreadPool.QueueUserWorkItem() method to queue up a single work item that uses the Parallel.ForEach () method to process the image files concurrently.

Answer: D

Question: 236

You are designing an n-tier .NET Framework 4 solution that includes a Windows Presentation Foundation (WPF) application. You need to recommend an approach for ensuring that the solution can support 5,000 concurrent users. What should you recommend?

A. Buffer overflow testing
B. Stress testing
C. Component stress testing
D. Integration testing

Answer: B

Question: 237

You design a Windows Presentation Foundation (WPF) application that interacts with a Windows Communication Foundation (WCF) Web service. The WCF Web service throws exceptions of type Exception. The WPF application crashes when the WCF Web service throws an exception. You need to recommend an error-handling strategy that allows users to submit updated data to the WCF Web service without restarting the WPF application. What should you recommend?

A. Modify the Web service to throw custom exceptions derived from the Exception class.
B. Modify the Web service to throw exceptions of type InvalidOperationException.
C. Modify the Web service to throw exceptions of type FaultException.
D. Modify the Web service to throw custom exceptions derived from the ApplicationException class.

Answer: C

Question: 238

You design a Windows Presentation Foundation (WPF) application that connects to a Microsoft SQL Server 2008 database. The WPF application becomes unresponsive at times. When the WPF application is running, physical memory usage is between 90 percent and 95 percent. You need to recommend a tool that will identify the memory usage characteristics of the WPF application. Which tool should you recommend?

A. SQL Profiler
B. CLR Profiler
C. Event Tracing for Windows (ETW)
D. Application Center Test (ACT)

Answer: A

Question: 239

You are designing a Windows Presentation Foundation (WPF) application. You have the following requirements:

- Run client-side validation tests on a large result set from a Microsoft SQL Server 2008 database.
- Validate each row of data without storing the entire result set in memory.

You need to recommend a data access technology. What should you recommend?

A. ADO.NET using SqlDataReader objects
B. LINQ to SQL using the ElementAt() method
C. ADO.NET using SqlDataAdapter objects and DataSet objects
D. LINQ to Entities using the ElementAt() method

Answer: A