

Exam Questions 70-483

Programming in C#

<https://www.2passeasy.com/dumps/70-483/>



NEW QUESTION 1

You are developing an application. The application calls a method that returns an array of integers named `employeeIds`. You define an integer variable named `employeeIdToRemove` and assign a value to it. You declare an array named `filteredEmployeeIds`.

You have the following requirements:

Remove duplicate integers from the `employeeIds` array.

Sort the array in order from the highest value to the lowest value.

Remove the integer value stored in the `employeeIdToRemove` variable from the `employeeIds` array. You need to create a LINQ query to meet the requirements.

Which code segment should you use?

- A.

```
int[] filteredEmployeeIds = employeeIds.Where(value => value != employeeIdToRemove).OrderBy(x => x).ToArray();
```
- B.

```
int[] filteredEmployeeIds = employeeIds.Where(value => value != employeeIdToRemove).OrderByDescending(x => x).ToArray();
```
- C.

```
int[] filteredEmployeeIds = employeeIds.Distinct().Where(value => value != employeeIdToRemove).OrderByDescending(x => x).ToArray();
```
- D.

```
int[] filteredEmployeeIds = employeeIds.Distinct().OrderByDescending(x => x).ToArray();
```

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

Answer: C

Explanation: The `Distinct` keyword avoids duplicates, and `OrderByDescending` provides the proper ordering from highest to lowest.

NEW QUESTION 2

You are developing an application that includes the following code segment. (Line numbers are included for reference only.)

```
01 class Animal
02 {
03     public string Color { get; set; }
04     public string Name { get; set; }
05 }
06 private static IEnumerable<Animal> GetAnimals(string sqlConnectionString)
07 {
08     var animals = new List<Animal>();
09     SqlConnection sqlConnection = new SqlConnection(sqlConnectionString);
10     using (sqlConnection)
11     {
12         SqlCommand sqlCommand = new SqlCommand("SELECT Name, ColorName FROM Animals", sqlConnection);
13
14         using (SqlDataReader sqlDataReader = sqlCommand.ExecuteReader())
15         {
16
17             {
18                 var animal = new Animal();
19                 animal.Name = (string)sqlDataReader["Name"];
20                 animal.Color = (string)sqlDataReader["ColorName"];
21                 animals.Add(animal);
22             }
23         }
24     }
25     return customers;
26 }
```

The `GetAnimals()` method must meet the following requirements: Connect to a Microsoft SQL Server database.

Create `Animal` objects and populate them with data from the database. Return a sequence of populated `Animal` objects.

You need to meet the requirements.

Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- A. Insert the following code segment at line 16: `while(sqlDataReader.NextResult())`
- B. Insert the following code segment at line 13: `sqlConnection.Open();`
- C. Insert the following code segment at line 13: `sqlConnection.BeginTransaction();`
- D. Insert the following code segment at line 16: `while(sqlDataReader.Read())`
- E. Insert the following code segment at line 16: `while(sqlDataReader.GetValues())`

Answer: BD

Explanation: B: `SqlConnection.Open` - Opens a database connection with the property settings specified by the `ConnectionString`.

Reference: <http://msdn.microsoft.com/en-us/library/system.data.sqlclient.sqlconnection.open.aspx> D: `SqlDataReader.Read` - Advances the `SqlDataReader` to the next record. Reference: <http://msdn.microsoft.com/en-us/library/system.data.sqlclient.sqldatareader.read.aspx>

NEW QUESTION 3

DRAG DROP

You are developing a custom collection named `LoanCollection` for a class named `Loan` class.

You need to ensure that you can process each `Loan` object in the `LoanCollection` collection by using a `foreach` loop.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

```
: IComparable
: IEnumerable
: IDisposable
public IEnumerator GetEnumerator()
public int CompareTo(object obj)
public void Dispose()
_loanCollection[0].Amount++;
return obj == null ? 1 : _loanCollection.Length;
return _loanCollection.GetEnumerator();
```

```
public class LoanCollection
{
    private readonly Loan[] _loanCollection;
    public LoanCollection(Loan[] loanArray)
    {
        _loanCollection = new Loan[loanArray.Length];

        for (int i = 0; i < loanArray.Length; i++)
        {
            _loanCollection[i] = loanArray[i];
        }
    }
}

{
}
}
```

Answer:

Explanation:

```
: IComparable  
  
: IDisposable  
  
public int CompareTo(object obj)  
public void Dispose()  
_loanCollection[0].Amount++;  
return obj == null ? 1 : _loanCollection.Length;
```

```
public class LoanCollection : IEnumerable  
{  
    private readonly Loan[] _loanCollection;  
    public LoanCollection(Loan[] loanArray)  
    {  
        _loanCollection = new Loan[loanArray.Length];  
  
        for (int i = 0; i < loanArray.Length; i++)  
        {  
            _loanCollection[i] = loanArray[i];  
        }  
    }  
  
    public IEnumerator GetEnumerator()  
    {  
        return _loanCollection.GetEnumerator();  
    }  
}
```

NEW QUESTION 4

You are developing an application that uses the Microsoft ADO.NET Entity Framework to retrieve order information from a Microsoft SQL Server database. The application includes the following code. (Line numbers are included for reference only.)

```
01 public DateTime? OrderDate;  
02 IQueryable<Order> LookupOrdersForYear(int year)  
03 {  
04     using (var context = new NorthwindEntities())  
05     {  
06         var orders =  
07             from order in context.Orders  
08  
09             select order;  
10         return orders.ToList().AsQueryable();  
11     }  
12 }
```

The application must meet the following requirements:

Return only orders that have an OrderDate value other than null.

Return only orders that were placed in the year specified in the OrderDate property or in a later year. You need to ensure that the application meets the requirements.

Which code segment should you insert at line 08?

- A. Where order.OrderDate.Value != null && order.OrderDate.Value.Year > = year
- B. Where order.OrderDate.Value = = null && order.OrderDate.Value.Year = = year
- C. Where order.OrderDate.HasValue && order.OrderDate.Value.Year = = year
- D. Where order.OrderDate.Value.Year = = year

Answer: A

Explanation: *For the requirement to use an OrderDate value other than null use: OrderDate.Value != null
 *For the requirement to use an OrderDate value for this year or a later year use: OrderDate.Value >= year

NEW QUESTION 5

You are developing an application. The application includes a method named ReadFile that reads data from a file. The ReadFile() method must meet the following requirements: It must not make changes to the data file. It must allow other processes to access the data file. It must not throw an exception if the application attempts to open a data file that does not exist. You need to implement the ReadFile() method. Which code segment should you use?

- A. var fs = File.Open(Filename, FileMode.OpenOrCreate, FileAccess.Read, FileShare.ReadWrite);
- B. var fs = File.Open(Filename, FileMode.Open, FileAccess.Read, FileShare.ReadWrite);
- C. var fs = File.Open(Filename, FileMode.OpenOrCreate, FileAccess.Read, FileShare.Write);
- D. var fs = File.ReadAllLines(Filename);
- E. var fs = File.ReadAllBytes(Filename);

Answer: A

Explanation: FileMode.OpenOrCreate - Specifies that the operating system should open a file if it exists; otherwise, a new file should be created. If the file is opened with FileAccess.Read, FileIOPermissionAccess.Read permission is required. If the file access is FileAccess.Write, FileIOPermissionAccess.Write permission is required. If the file is opened with FileAccess.ReadWrite, both FileIOPermissionAccess.Read and FileIOPermissionAccess.Write permissions are required. <http://msdn.microsoft.com/en-us/library/system.io.filemode.aspx>
 FileShare.ReadWrite - Allows subsequent opening of the file for reading or writing. If this flag is not specified, any request to open the file for reading or writing (by this process or another process) will fail until the file is closed. However, even if this flag is specified, additional permissions might still be needed to access the file. <http://msdn.microsoft.com/pl-pl/library/system.io.fileshare.aspx>

NEW QUESTION 6

An application receives JSON data in the following format:

```
{ "FirstName" : "David",
  "LastName" : "Jones",
  "Values" : [0, 1, 2] }
```

The application includes the following code segment. (Line numbers are included for reference only.)

```
01 public class Name
02 {
03     public int[] Values { get; set; }
04     public string FirstName { get; set; }
05     public string LastName { get; set; }
06 }
07 public static Name ConvertToName(string json)
08 {
09     var ser = new JavaScriptSerializer();
10
11 }
```

You need to ensure that the ConvertToName() method returns the JSON input string as a Name object. Which code segment should you insert at line 10?

- A. Return ser.ConvertToType<Name>(json);
- B. Return ser.DeserializeObject(json);
- C. Return ser.Deserialize<Name>(json);
- D. Return (Name)ser.Serialize(json);

Answer: C

Explanation: JavaScriptSerializer.Deserialize<T> - Converts the specified JSON string to an object of type T. <http://msdn.microsoft.com/en-us/library/bb355316.aspx>

NEW QUESTION 7

You are developing an application. The application converts a Location object to a string by using a method named WriteObject. The WriteObject() method accepts two parameters, a Location object and an XmlObjectSerializer object. The application includes the following code. (Line numbers are included for reference only.)

```
01 public enum Compass
02 {
03     North,
04     South,
05     East,
06     West
07 }
08 [DataContract]
09 public class Location
10 {
11     [DataMember]
12     public string Label { get; set; }
13     [DataMember]
14     public Compass Direction { get; set; }
15 }
16 void DoWork()
17 {
18     var location = new Location { Label = "Test", Direction = Compass.West };
19     Console.WriteLine(WriteObject(location,
20
21     ));
22 }
```

You need to serialize the Location object as a JSON object. Which code segment should you insert at line 20?

- A. New DataContractSerializer(typeof(Location))
- B. New XmlSerializer(typeof(Location))
- C. New NetDataContractSerializer()
- D. New DataContractJsonSerializer(typeof(Location))

Answer: D

Explanation: The code is using [DataContract] attribute here so need to use DataContractSerializer class.

The DataContractJsonSerializer class serializes objects to the JavaScript Object Notation (JSON) and deserializes JSON data to objects.

Use the DataContractJsonSerializer class to serialize instances of a type into a JSON document and to deserialize a JSON document into an instance of a type.

NEW QUESTION 8

DRAG DROP

You are developing a class named ExtensionMethods.

You need to ensure that the ExtensionMethods class implements the IsEmail() method on string objects.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

```
public static class ExtensionMethods
public class ExtensionMethods
this String str
String str
protected static class ExtensionMethods
```

```
{
    public static bool IsUrl(
    {
        var regex = new Regex(
            "(https?://)?([A-Za-z9-0-]*\\.)?([A-Za-z0-9-]*)" +
            "\\.[A-Za-z0-9-]*/*.*");
        return regex.IsMatch(str);
    }
}
```

Answer:

Explanation: Extensions must be in a static class as it kind of a shared source of extension methods. You do not instantiate the class. The key word "this" is simply a syntax how you tell the compiler, that your method IsUrl is extension for the String object

NEW QUESTION 9

You are developing an application that will convert data into multiple output formats. The application includes the following code. (Line numbers are included for reference only.)

```
01 public class TabDelimitedFormatter : IOutputFormatter<string>
02 {
03     readonly Func<int, char> suffix = col => col % 2 == 0 ? '\n' : '\t';
04     public string GetOutput(IEnumerable<string> iterator, int recordSize)
05     {
06
07     }
08 }
```

You are developing a code segment that will produce tab-delimited output. All output routines implement the following interface:

```
public interface IOutputFormatter<T>
{
    string GetOutput(IEnumerable<T> iterator, int recordSize);
}
```

You need to minimize the completion time of the GetOutput() method. Which code segment should you insert at line 06?

- A.

```
string output = null;
for (int i = 1; iterator.MoveNext(); i++)
{
    output = string.Concat(output, iterator.Current, suffix(i));
}
return output;
```
- B.

```
var output = new StringBuilder();
for (int i = 1; iterator.MoveNext(); i++)
{
    output.Append(iterator.Current);
    output.Append(suffix(i));
}
return output.ToString();
```
- C.

```
string output = null;
for (int i = 1; iterator.MoveNext(); i++)
{
    output = output + iterator.Current + suffix(i);
}
return output;
```
- D.

```
string output = null;
for (int i = 1; iterator.MoveNext(); i++)
{
    output += iterator.Current + suffix(i);
}
return output;
```

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

Answer: B

Explanation: A String object concatenation operation always creates a new object from the existing string and the new data.

A StringBuilder object maintains a buffer to accommodate the concatenation of new data. New data is appended to the buffer if room is available; otherwise, a new, larger buffer is allocated, data from the original buffer is copied to the new buffer, and the new data is then appended to the new buffer. The performance of a concatenation operation for a String or StringBuilder object depends on the frequency of memory allocations. A String concatenation operation always allocates memory, whereas a StringBuilder concatenation operation allocates memory only if the StringBuilder object buffer is too small to accommodate the new data. Use the String class if you are concatenating a fixed number of String objects. In that case, the compiler may even combine individual concatenation operations into a single operation. Use a StringBuilder object if you are concatenating an arbitrary number of strings; for example, if you're using a loop to concatenate a random number of strings of user input.

[http://msdn.microsoft.com/en-us/library/system.text.stringbuilder\(v=vs.110\).aspx](http://msdn.microsoft.com/en-us/library/system.text.stringbuilder(v=vs.110).aspx)

NEW QUESTION 10

You are creating a class named Employee. The class exposes a string property named EmployeeType. The following code segment defines the Employee class. (Line numbers are included for reference only.)

```
01 public class Employee
02 {
03     internal string EmployeeType
04     {
05         get;
06         set;
07     }
08 }
```

The EmployeeType property value must be accessed and modified only by code within the Employee class or within a class derived from the Employee class. You need to ensure that the implementation of the EmployeeType property meets the requirements. Which two actions should you perform? (Each correct answer represents part of the complete solution. Choose two.)

- A. Replace line 05 with the following code segment: protected get;
- B. Replace line 06 with the following code segment: private set;
- C. Replace line 03 with the following code segment: public string EmployeeType
- D. Replace line 05 with the following code segment: private get;
- E. Replace line 03 with the following code segment: protected string EmployeeType
- F. Replace line 06 with the following code segment: protected set;

Answer: BE

Explanation: protected string EmpType { get; private set;}

This is a quite common way to work with properties within base classes. Incorrect:

Not D: Cannot be used because of the internal keyword on line 03.

NEW QUESTION 10

HOTSPOT

You are implementing a library method that accepts a character parameter and returns a string. If the lookup succeeds, the method must return the corresponding string value. If the lookup fails, the method must return the value "invalid choice."

You need to implement the lookup algorithm.

How should you complete the relevant code? (To answer, select the correct keyword in each dropdown list in the answer area.)

Work Area

```
public string GetResponse(char letter)
{
    string response;
    [ ](letter)
    {
        [ ] 'a':
            response = "animal";
            break;
        [ ] 'm':
            response = "mineral";
            break;
        [ ]:
            response = "invalid choice";
            break;
    }
    return response;
}
```

Work Area

```
public string GetResponse(char letter)
{
    string response;
    switch (letter)
    {
        case 'a':
            response = "animal";
            break;
        case 'm':
            response = "mineral";
            break;
        default:
            response = "invalid choice";
            break;
    }
    return response;
}
```

Answer:

Explanation:

```
switch(letter){ case 'a':
case 'm': default:
}
```

Reference: switch (C# Reference)

[http://msdn.microsoft.com/en-us/library/06tc147t\(v=vs.110\).aspx](http://msdn.microsoft.com/en-us/library/06tc147t(v=vs.110).aspx)

NEW QUESTION 15

You use the Task.Run() method to launch a long-running data processing operation. The data processing operation often fails in times of heavy network congestion.

If the data processing operation fails, a second operation must clean up any results of the first operation.

You need to ensure that the second operation is invoked only if the data processing operation throws an unhandled exception.

What should you do?

- A. Create a TaskCompletionSource<T> object and call the TrySetException() method of the object.
- B. Create a task by calling the Task.ContinueWith() method.
- C. Examine the Task.Status property immediately after the call to the Task.Run() method.
- D. Create a task inside the existing Task.Run() method by using the AttachedToParent optio

Answer: B

Explanation: Task.ContinueWith - Creates a continuation that executes asynchronously when the target Task completes. The returned Task will not be scheduled for execution until the current task has completed, whether it completes due to running to completion successfully, faulting due to an unhandled exception, or exiting out early due to being canceled.

<http://msdn.microsoft.com/en-us/library/dd270696.aspx>

NEW QUESTION 20

You are modifying an application that processes leases. The following code defines the Lease class. (Line numbers are included for reference only.)

```
01 public class Lease
02 {
03
04     private int _term;
05     private const int MaximumTerm = 5;
06     private const decimal Rate = 0.034m;
07     public int Term
08     {
09         get
10         {
11             return _term;
12         }
13         set
14         {
15             if (value <= MaximumTerm)
16             {
17                 _term = value;
18             }
19             else
20             {
21
22             }
23         }
24     }
25 }
26 public delegate void MaximumTermReachedHandler(object source, EventArgs e);
```

Leases are restricted to a maximum term of 5 years. The application must send a notification message if a lease request exceeds 5 years. You need to implement the notification mechanism.

Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

A. Insert the following code segment at line 03:

```
public event MaximumTermReachedHandler OnMaximumTermReached;
```

B. Insert the following code segment at line 21:

```
if (OnMaximumTermReached != null)
{
    OnMaximumTermReached(this, new EventArgs());
}
```

C. Insert the following code segment at line 21:

```
value = MaximumTerm;
```

D. Insert the following code segment at line 03:

```
public string MaximumTermReachedEvent { get; set; }
```

E. Insert the following code segment at line 03:

```
private string MaximumTermReachedEvent;
```

F. Insert the following code segment at line 21:

```
value = 4;
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D
- E. Option E
- F. Option F

Answer: AB

NEW QUESTION 21

You are developing an application that uses structured exception handling. The application includes a class named ExceptionLogger.

The ExceptionLogger class implements a method named LogException by using the following code segment:

```
public static void LogException(Exception ex) You have the following requirements:
```

Log all exceptions by using the LogException() method of the ExceptionLogger class. Rethrow the original exception, including the entire exception stack.

You need to meet the requirements. Which code segment should you use?

- A.

```
catch (Exception ex)
{
    ExceptionLogger.LogException(ex);
    throw;
}
```
- B.

```
catch (Exception ex)
{
    ExceptionLogger.LogException(ex);
    throw ex;
}
```
- C.

```
catch
{
    ExceptionLogger.LogException(new Exception());
    throw;
}
```
- D.

```
catch
{
    var ex = new Exception();
    throw ex;
}
```

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

Answer: A

Explanation: Once an exception is thrown, part of the information it carries is the stack trace. The stack trace is a list of the method call hierarchy that starts with the method that throws the exception and ends with the method that catches the exception. If an exception is re-thrown by specifying the exception in the throw statement, the stack trace is restarted at the current method and the list of method calls between the original method that threw the exception and the current method is lost. To keep the original stack trace information with the exception, use the throw statement without specifying the exception.

Reference: [http://msdn.microsoft.com/en-us/library/ms182363\(v=vs.110\).aspx](http://msdn.microsoft.com/en-us/library/ms182363(v=vs.110).aspx)

NEW QUESTION 23

You are developing an application that includes a class named UserTracker. The application includes the following code segment. (Line numbers are included for reference only.)

```
01 public delegate void AddUserCallback(int i);
02 public class UserTracker
03 {
04     List<User> users = new List<User>();
05     public void AddUser(string name, AddUserCallback callback)
06     {
07         users.Add(new User(name));
08         callback(users.Count);
09     }
10 }
11
12 public class Runner
13 {
14
15     UserTracker tracker = new UserTracker();
16     public void Add(string name)
17     {
18
19     }
20 }
```

You need to add a user to the UserTracker instance. What should you do?

- A. Insert the following code segment at line 14:

```
private static void PrintUserCount(int i)
{
    ...
}
```

Insert the following code segment at line 18:

```
AddUserCallback callback = PrintUserCount;
```

- B. Insert the following code segment at line 11:

```
delegate void AddUserDelegate(UserTracker userTracker);
```

Insert the following code segment at line 18:

```
AddUserDelegate addDelegate = (userTracker) =>
{
    ...
};
addDelegate(tracker);
```

- C. Insert the following code segment at line 11:

```
delegate void AddUserDelegate(string name, AddUserCallback callback);
```

Insert the following code segment at line 18:

```
AddUserDelegate adder = (i, callback) =>
{
    ...
};
```

- D. Insert the following code segment at line 18:

```
tracker.AddUser(name, delegate(int i)
{
    ...
});
```

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

Answer: D

NEW QUESTION 26

DRAG DROP

You are developing an application that includes a class named Kiosk. The Kiosk class includes a static property named Catalog. The Kiosk class is defined by the following code segment. (Line numbers are included for reference only.)

```

01 public class Kiosk
02 {
03     static Catalog _catalog = null;
04     static object _lock = new object();
05     public static Catalog Catalog
06     {
07         get
08         {
09
10             return _catalog;
11         }
12     }
13 }

```

You have the following requirements:

Initialize the `_catalog` field to a `Catalog` instance. Initialize the `_catalog` field only once.

Ensure that the application code acquires a lock only when the `_catalog` object must be instantiated. You need to meet the requirements.

Which three code segments should you insert in sequence at line 09? (To answer, move the appropriate code segments from the list of code segments to the answer area and arrange them in the correct order.)

```

lock (_lock)
if (_catalog != null) _catalog = new Catalog ();
if (_catalog != null)
if (_catalog == null) _catalog = new Catalog ();
if (_catalog == null)

```

Answer:

Explanation: After taking a lock you must check once again the `_catalog` field to be sure that other threads didn't instantiated it in the meantime.

NEW QUESTION 29

DRAG DROP

You are developing an application that will include a method named `GetData`. The `GetData()` method will retrieve several lines of data from a web service by using a `System.IO.StreamReader` object. You have the following requirements:

The `GetData()` method must return a string value that contains the first line of the response from the web service.

The application must remain responsive while the `GetData()` method runs. You need to implement the `GetData()` method.

How should you complete the relevant code? (To answer, drag the appropriate objects to the correct locations in the answer area. Each object may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

ReadLineAsync ();

ReadToEndAsync ();

await

async

ReadLine ();

ReadToEnd ();

ToString ();

```

private void GetData(WebResponse response)
{
    var streamReader = new StreamReader(response.GetResponseStream());

    urlText.Text = streamReader.
}

```

Answer:

Explanation: Box 1. async

Box 2. await

Box 3. ReadLineAsync(); Incorrect:

Not Box 3: ReadToEndAsync() is not correct since only the first line of the response is required.

NEW QUESTION 33

You are adding a public method named UpdateScore to a public class named ScoreCard. The code region that updates the score field must meet the following requirements:

It must be accessed by only one thread at a time. It must not be vulnerable to a deadlock situation. You need to implement the UpdateScore() method. What should you do?

A. Place the code region inside the following lock statement:

```
lock (this)
{
    ...
}
```

B. Add a private object named **lockObject** to the **ScoreCard** class. Place the code region inside the following lock statement:

```
lock (lockObject)
{
    ...
}
```

C. Apply the following attribute to the **UpdateScore()** method signature:

```
[MethodImpl(MethodImplOptions.Synchronized)]
```

D. Add a public static object named **lockObject** to the **ScoreCard** class. Place the code region inside the following lock statement:

```
lock (typeof(ScoreCard))
{
    ...
}
```

A. Option A

B. Option B

C. Option C

D. Option D

Answer: B

Explanation: Because the class is public, you need a private lock Object. Reference: lock vs. MethodImplOptions.Synchronized [Kit George]

<http://blogs.msdn.com/b/bclteam/archive/2004/01/20/60719.aspx>

NEW QUESTION 37

DRAG DROP

You are developing an application that implements a set of custom exception types. You declare the custom exception types by using the following code segments:

```
public class AdventureWorksException : System.Exception { ... }
public class AdventureWorksDbException : AdventureWorksException { ... }
public class AdventureWorksValidationException : AdventureWorksException { ... }
```

The application includes a function named DoWork that throws .NET Framework exceptions and custom exceptions.

The application contains only the following logging methods:

```
static void Log(Exception ex) { ... }
static void Log(AdventureWorksException ex) { ... }
static void Log(AdventureWorksValidationException ex) { ... }
```

The application must meet the following requirements:

When AdventureWorksValidationException exceptions are caught, log the information by using the static void Log (AdventureWorksValidationException ex) method.

When AdventureWorksDbException or other AdventureWorksException exceptions are caught, log the information by using the static void Log (AdventureWorksException ex) method.

You need to meet the requirements.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

```

(AdventureWorksValidationException ex)
(AdventureWorksException ex)
(Exception ex)
(ContosoDbException ex)
try
{
    DoWork();
}
catch
{
    Log(ex);
}
catch
{
    Log(ex);
}
catch
{
    Log(ex);
}

```

Answer:

Explanation: Go from the most specific exception to the least on. So the order would be:

1. AdventureWorksValidationException – catch this ex
2. AdventureWorksException – catch AdventureWorksDbException and other AdventureWorksExceptions
3. Exception – catch all the rest

NEW QUESTION 40

You are developing a C# application that has a requirement to validate some string input data by using the Regex class. The application includes a method named ContainsHyperlink. The ContainsHyperlink() method will verify the presence of a URI and surrounding markup. The following code segment defines the ContainsHyperlink() method. (Line numbers are included for reference only.)

```

01 bool ContainsHyperlink(string inputData)
02 {
03     string regexPattern = "href\\s*=\\s*(?:\"(?<1>[^\"]*)\"| (?<1>\\S+)) ";
04
05     return evaluator.IsMatch(inputData);
06 }

```

The expression patterns used for each validation function are constant. You need to ensure that the expression syntax is evaluated only once when the Regex object is initially instantiated.

Which code segment should you insert at line 04?

- A. var evaluator = new Regex(regexPattern, RegexOptions.CultureInvariant);
- B. var evaluator = new Regex(inputData);
- C. var assemblyName = "Validation";
var compilationInfo = new RegexCompilationInfo(inputData, RegexOptions.IgnoreCase, "Href", assemblyName, true);
Regex.CompileToAssembly(new[] { compilationInfo }, new AssemblyName(assemblyName));
var evaluator = new Regex(regexPattern, RegexOptions.CultureInvariant);
- D. var evaluator = new Regex(regexPattern, RegexOptions.Compiled);

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

Answer: D

Explanation: RegexOptions.Compiled - Specifies that the regular expression is compiled to an assembly. This yields faster execution but increases startup time. This value should not be assigned to the Options property when calling the CompileToAssembly method.
<http://msdn.microsoft.com/en-us/library/system.text.regularexpressions.regexoptions.aspx> Additional info
<http://stackoverflow.com/questions/513412/how-does-regexoptions-compiled-work>

NEW QUESTION 42

You are developing a method named CreateCounters that will create performance counters for an application. The method includes the following code. (Line numbers are included for reference only.)

```
01 void CreateCounters()  
02 {  
03     if (!PerformanceCounterCategory.Exists("Contoso"))  
04     {  
05         var counters = new CounterCreationDataCollection();  
06         var ccdCounter1 = new CounterCreationData  
07         {  
08             CounterName = "Counter1",  
09             CounterType = PerformanceCounterType.SampleFraction  
11         };  
12         counters.Add(ccdCounter1);  
13         var ccdCounter2 = new CounterCreationData  
14         {  
15             CounterName = "Counter2",  
16  
17         };  
18         counters.Add(ccdCounter2);  
19         PerformanceCounterCategory.Create("Contoso", "Help string",  
20             PerformanceCounterCategoryType.MultiInstance, counters);  
21     }  
22 }
```

You need to ensure that Counter1 is available for use in Windows Performance Monitor (PerfMon). Which code segment should you insert at line 16?

- A. CounterType = PerformanceCounterType.RawBase
- B. CounterType = PerformanceCounterType.AverageBase
- C. CounterType = PerformanceCounterType.SampleBase
- D. CounterType = PerformanceCounterType.CounterMultiBase

Answer: C

Explanation: Note SampleFraction on line 9. The Base counter type SampleBase has the Parent (composite) counter type SampleFraction.

Reference: PerformanceCounterType Enumeration

<http://msdn.microsoft.com/en-us/library/system.diagnostics.performancecountertype.aspx>

NEW QUESTION 45

You are developing an assembly that will be used by multiple applications. You need to install the assembly in the Global Assembly Cache (GAC). Which two actions can you perform to achieve this goal? (Each correct answer presents a complete solution. Choose two.)

- A. Use the Assembly Registration tool (regasm.exe) to register the assembly and to copy the assembly to the GAC.
- B. Use the Strong Name tool (sn.exe) to copy the assembly into the GAC.
- C. Use Microsoft Register Server (regsvr32.exe) to add the assembly to the GAC.
- D. Use the Global Assembly Cache tool (gacutil.exe) to add the assembly to the GAC.
- E. Use Windows Installer 2.0 to add the assembly to the GA

Answer: DE

Explanation: There are two ways to deploy an assembly into the global assembly cache:

* Use an installer designed to work with the global assembly cache. This is the preferred option for installing assemblies into the global assembly cache.

* Use a developer tool called the Global Assembly Cache tool (Gacutil.exe), provided by the Windows

Software Development Kit (SDK). Note:

In deployment scenarios, use Windows Installer 2.0 to install assemblies into the global assembly cache. Use the Global Assembly Cache tool only in development scenarios, because it does not provide assembly reference counting and other features provided when using the Windows Installer. <http://msdn.microsoft.com/en-us/library/yf1d93sz%28v=vs.110%29.aspx>

NEW QUESTION 49

You are debugging an application that calculates loan interest. The application includes the following code. (Line numbers are included for reference only.)

```
01 private static decimal CalculateInterest(decimal loanAmount, int loanTerm, decimal loanRate)  
02 {  
03  
04     decimal interestAmount = loanAmount * loanRate * loanTerm;  
05  
06     return interestAmount;  
07 }
```

You need to ensure that the debugger breaks execution within the CalculateInterest() method when the loanAmount variable is less than or equal to zero in all

builds of the application.
 What should you do?

- A. Insert the following code segment at line 03: Trace.Assert(loanAmount > 0);
- B. Insert the following code segment at line 03: Debug.Assert(loanAmount > 0);
- C. Insert the following code segment at line 05: Debug.Write(loanAmount > 0);
- D. Insert the following code segment at line 05: Trace.Write(loanAmount > 0);

Answer: A

Explanation: By default, the Debug.Assert method works only in debug builds. Use the Trace.Assert method if you want to do assertions in release builds. For more information, see Assertions in Managed Code. <http://msdn.microsoft.com/en-us/library/kssw4w7z.aspx>

Incorrect:

Not B: Debug.Assert only works in debug mode. Here it must work in all builds of the application.

NEW QUESTION 52

You are developing an application that accepts the input of dates from the user.

Users enter the date in their local format. The date entered by the user is stored in a string variable named inputDate. The valid date value must be placed in a DateTime variable named validatedDate. You need to validate the entered date and convert it to Coordinated Universal Time (UTC). The code must not cause an exception to be thrown.

Which code segment should you use?

- A

```
bool validDate = DateTime.TryParse(inputDate,
    CultureInfo.CurrentCulture, DateTimeStyles.AdjustToUniversal | DateTimeStyles.AssumeLocal,
    out validatedDate);
```
- B

```
bool validDate = DateTime.TryParse(inputDate,
    CultureInfo.CurrentCulture, DateTimeStyles.AssumeUniversal, out validatedDate);
```
- C

```
bool validDate = true;
try
{
    validatedDate = DateTime.Parse(inputDate);
}
catch
{
    validDate = false;
}
```
- D

```
validatedDate = DateTime.ParseExact(inputDate, "g",
    CultureInfo.CurrentCulture, DateTimeStyles.AdjustToUniversal | DateTimeStyles.AssumeUniversal);
```

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

Answer: A

Explanation: AdjustToUniversal parses s and, if necessary, converts it to UTC.

Note: The DateTime.TryParse method converts the specified string representation of a date and time to its DateTime equivalent using the specified culture-specific format information and formatting style, and returns a value that indicates whether the conversion succeeded.

NEW QUESTION 54

DRAG DROP

You are developing an application by using C#. The application will process several objects per second.

You need to create a performance counter to analyze the object processing.

Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

Add the **CounterCreationData** objects to the collection by calling the **Add()** method of the collection.

Create a **PerformanceCounterPermissionEntryCollection** collection.

Call the **Create()** method of the **PerformanceCounterCategory** class and pass the collection to the method.

Get the **CategoryName** property of the **PerformanceCounterPermissionEntry** class.

Create a **CounterCreationDataCollection** collection. Then create the counters as **CounterCreationData** objects and set the necessary properties.

Answer:

Explanation: CounterCreationDataCollection counterDataCollection = new CounterCreationDataCollection(); // Box1
 // Add the counter. Box 1
 CounterCreationData averageCount64 = new CounterCreationData(); averageCount64.CounterType = PerformanceCounterType.AverageCount64;
 averageCount64.CounterName = "AverageCounter64Sample"; counterDataCollection.Add(averageCount64);
 // Add the base counter.
 CounterCreationData averageCount64Base = new CounterCreationData(); averageCount64Base.CounterType = PerformanceCounterType.AverageBase;
 averageCount64Base.CounterName = "AverageCounter64SampleBase"; counterDataCollection.Add(averageCount64Base); // Box 2
 // Create the category. Box 3 PerformanceCounterCategory.Create("AverageCounter64SampleCategory", "Demonstrates usage of the AverageCounter64
 performance counter type.", PerformanceCounterCategoryType.SingleInstance, counterDataCollection);

NEW QUESTION 58

You are developing an application by using C#. You provide a public key to the development team during development. You need to specify that the assembly is not fully signed when it is built. Which two assembly attributes should you include in the source code? (Each correct answer presents part of the solution. Choose two.)

- A. AssemblyKeyNameAttribute
- B. ObfuscateAssemblyAttribute
- C. AssemblyDelaySignAttribute
- D. AssemblyKeyFileAttribute

Answer: CD

Explanation: * AssemblyDelaySignAttribute Specifies that the assembly is not fully signed when created.
 * The following code example shows the use of the AssemblyDelaySignAttribute attribute with the AssemblyKeyFileAttribute.
 using System;
 using System.Reflection; [assembly:AssemblyKeyFileAttribute("TestPublicKey.snk")] [assembly:AssemblyDelaySignAttribute(true)]
 namespace DelaySign
 {
 public class Test { }
 }
 Reference: [http://msdn.microsoft.com/en-us/library/t07a3dye\(v=vs.110\).aspx](http://msdn.microsoft.com/en-us/library/t07a3dye(v=vs.110).aspx)

NEW QUESTION 60

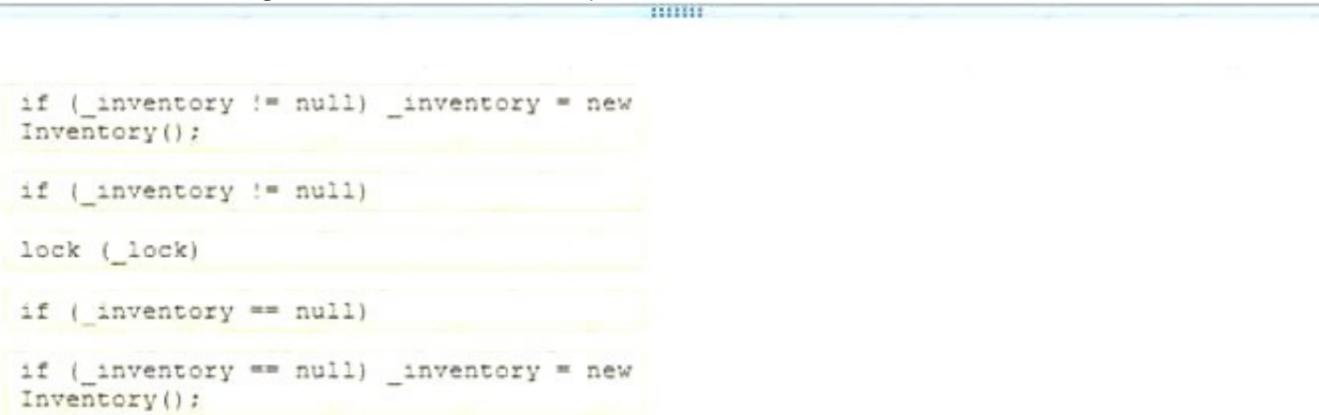
DRAG DROP

You are developing an application that includes a class named Warehouse. The Warehouse class includes a static property named Inventory- The Warehouse class is defined by the following code segment. (Line numbers are included for reference only.)

```
01 public class Warehouse
02 {
03     static Inventory _inventory = null;
04     static object _lock = new object();
05     public static Inventory Inventory
06     {
07         get
08         {
09
10             return _inventory;
11         }
12     }
13 }
```

You have the following requirements:
 Initialize the _inventory field to an Inventory instance. Initialize the _inventory field only once.
 Ensure that the application code acquires a lock only when the _inventory object must be instantiated.
 You need to meet the requirements.

Which three code segments should you insert in sequence at line 09? (To answer, move the appropriate code segments from the list of code segments to the answer area and arrange them in the correct order.)



The screenshot shows a list of four code segments that can be dragged into the code block at line 09:

- if (_inventory != null) _inventory = new Inventory();
- if (_inventory != null)
- lock (_lock)
- if (_inventory == null)
- if (_inventory == null) _inventory = new Inventory();

Answer:

Explanation: After taking a lock you must check once again the _inventory field to be sure that other threads didn't instantiated it in the meantime. First, you check if the inventory is null, if so, you lock it to avoid other threads to change it. Second, you check again for the null, as in the tiny millisecond between

check for null and locking could another thread get it.
Finally you create the instance and release the lock.

NEW QUESTION 65

You are adding a public method named UpdateGrade to a public class named ReportCard. The code region that updates the grade field must meet the following requirements:

It must be accessed by only one thread at a time. It must not be vulnerable to a deadlock situation.

You need to implement the UpdateGrade() method. What should you do?

A. Add a private object named **lockObject** to the **ReportCard** class. Place the code region inside the following lock statement:

```
lock (lockObject)
{
    ...
}
```

B. Place the code region inside the following lock statement:

```
lock (this)
{
    ...
}
```

C. Add a public static object named **lockObject** to the **ReportCard** class. Place the code region inside the following lock statement:

```
lock (typeof(ReportCard))
{
    ...
}
```

D. Apply the following attribute to the **UpdateGrade()** method signature:

```
[MethodImpl(MethodImplOptions.Synchronized)]
```

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

Answer: A

Explanation: Because the class is public, you need a private lock Object. Incorrect:

Not B, not C: Once the ReportCard is public, other process can lock on type or instance. So, these options are leaning to a DEADLOCK.

Not D: [MethodImpl] attribute works locking on type (for static members) or on the instance(for instance members). It could cause a DEADLOCK.

Reference: <https://msdn.microsoft.com/en-us/library/c5kehkc2.aspx>

NEW QUESTION 66

You are developing an application that includes a class named BookTracker for tracking library books. The application includes the following code segment. (Line numbers are included for reference only.)

```
01 public delegate void AddBookCallback(int i);
02 public class BookTracker
03 {
04     List<Book> books = new List<Book>();
05     public void AddBook(string name, AddBookCallback callback)
06     {
07         books.Add(new Book(name));
08         callback(books.Count);
09     }
10 }
11
12 public class Runner
13 {
14
15     BookTracker tracker = new BookTracker();
16     public void Add(string name)
17     {
18
19     }
20 }
```

You need to add a user to the BookTracker instance. What should you do?

- A. Insert the following code segment at line 14:

```
private static void PrintBookCount(int i)
{
    ...
}
```

Insert the following code segment at line 18:

```
AddBookCallback callback = PrintBookCount;
```

- B. Insert the following code segment at line 18:

```
tracker.AddBook(name, delegate(int i)
{
    ...
});
```

- C. Insert the following code segment at line 11:

```
delegate void AddBookDelegate(BookTracker bookTracker);
```

Insert the following code segment at line 18:

```
AddBookDelegate addDelegate = (bookTracker) =>
{
    ...
};
addDelegate(tracker);
```

- D. Insert the following code segment at line 11:

```
delegate void AddBookDelegate(string name, AddBookCallback callback);
```

Insert the following code segment at line 18:

```
AddBookDelegate adder = (i, callback) =>
{
    ...
};
```

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

Answer: B

NEW QUESTION 69

DRAG DROP

You are implementing a method that creates an instance of a class named User. The User class contains a public event named Renamed. The following code segment defines the Renamed event: Public event EventHandler<RenameEventArgs> Renamed;

You need to create an event handler for the Renamed event by using a lambda expression.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

```

user.Renamed -= delegate(object sender, RenamedEventArgs e)
user.Renamed -= (sender, e) =>
user.Renamed += delegate(object sender, RenamedEventArgs e)
user.Renamed += (sender, e) =>
users[0] = user;
users.Add(user);
users.Insert(user);

List<User> users = new List<User>();

public void AddUser(string name)
{
    User user = new User(name);
    {
        Log("User {0} was renamed to {1}", e.OldName, e.Name);
    };
}
}

```

Answer:

Explanation:

```

user.Renamed -= delegate(object sender, RenamedEventArgs e)
user.Renamed -= (sender, e) =>
user.Renamed += delegate(object sender, RenamedEventArgs e)

users[0] = user;

users.Insert(user);

List<User> users = new List<User>();

public void AddUser(string name)
{
    User user = new User(name);
    user.Renamed += (sender, e) =>
    {
        Log("User {0} was renamed to {1}", e.OldName, e.Name);
    };
    users.Add(user);
}
}

```

NEW QUESTION 70

You are creating a console application by using C#. You need to access the assembly found in the file named car.dll. Which code segment should you use?

- A. Assembly.Load();
- B. Assembly.GetExecutingAssembly();
- C. This.GetType();
- D. Assembly.LoadFile("car.dll");

Answer: D

Explanation: Assembly.LoadFile - Loads the contents of an assembly file on the specified path. <http://msdn.microsoft.com/en-us/library/b61s44e8.aspx>

NEW QUESTION 73

An application includes a class named Person. The Person class includes a method named GetData. You need to ensure that the GetData() method can be used only by the Person class and not by any class derived from the Person class. Which access modifier should you use for the GetData() method?

- A. Public
- B. Protected internal
- C. Internal
- D. Private
- E. Protected

Answer: B

Explanation: The protected keyword is a member access modifier. A protected member is accessible within its class and by derived class instances.

NEW QUESTION 76

You are creating an application that manages information about your company's products. The application includes a class named Product and a method named Save.

The Save() method must be strongly typed. It must allow only types inherited from the Product class that use a constructor that accepts no parameters.

You need to implement the Save() method. Which code segment should you use?

- A.

```
public static void Save(Product target)
{
    ...
}
```
- B.

```
public static void Save<T>(T target) where T : new(), Product
{
    ...
}
```
- C.

```
public static void Save<T>(T target) where T : Product
{
    ...
}
```
- D.

```
public static void Save<T>(T target) where T : Product, new()
{
    ...
}
```

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

Answer: D

Explanation: The condition new() ensures the empty/default constructor and must be the last condition.

When you define a generic class, you can apply restrictions to the kinds of types that client code can use for type arguments when it instantiates your class. If client code tries to instantiate your class by using a type that is not allowed by a constraint, the result is a compile-time error. These restrictions are called constraints.

Constraints are specified by using the where contextual keyword. <http://msdn.microsoft.com/en-us/library/d5x73970.aspx>

NEW QUESTION 77

DRAG DROP

You are developing an application by using C#. The application will output the text string "First Line" followed by the text string "Second Line".

You need to ensure that an empty line separates the text strings.

Which four code segments should you use in sequence? (To answer, move the appropriate code segments to the answer area and arrange them in the correct order.)

```
sb.AppendLine();

var sb = new StringBuilder();

sb.AppendLine("First Line");

sb.AppendLine("\t");

sb.AppendLine();

sb.AppendLine(String.Empty);

sb.AppendLine("Second Line");
```

Answer:

Explanation: Box 1:

```
var sb = new StringBuilder();
```

First we create the variable.

Box 2:

```
sb.AppendLine("First Line");
```

We create the first text line.

Box 3:

```
sb.AppendLine();
```

We add a blank line.

The StringBuilder.AppendLine method appends the default line terminator to the end of the current StringBuilder object.

Box 4:

```
sb.AppendLine("Second Line");
```

Finally we add the second line.

NEW QUESTION 79

DRAG DROP

You are developing a class named ExtensionMethods.

You need to ensure that the ExtensionMethods class implements the IsEmail() extension method on string objects.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

Answer:

Explanation: Extensions must be in a static class as it kind of a shared source of extension methods. You do not instantiate the class. The key word "this" is simply a syntax how you tell the compiler, that your method IsUrl is extension for the String object

NEW QUESTION 84

You are developing an application by using C#. The application includes the following code segment. (Line numbers are included for reference only.)

```
01 public interface IDataContainer
02 {
03     string Data { get; set; }
04 }
05 void DoWork(object obj)
06 {
07
08     if (dataContainer != null)
09     {
10         Console.WriteLine(dataContainer.Data);
11     }
12 }
```

The DoWork() method must throw an InvalidCastException exception if the obj object is not of type IDataContainer when accessing the Data property. You need to meet the requirements. Which code segment should you insert at line 07?

- A. var dataContainer = (IDataContainer) obj;
- B. var dataContainer = obj as IDataContainer;
- C. var dataContainer = obj is IDataContainer;
- D. dynamic dataContainer = obj;

Answer: A

Explanation: direct cast. If object is not of the given type, an InvalidCastException is thrown. Incorrect:

Not B: If obj is not of the given type, result is null. Not C: If obj is not of a given type, result is false.

Not D: This simply check the variable during runtime. It will not throw an exception. Reference: <http://msdn.microsoft.com/en-us/library/ms173105.aspx>

NEW QUESTION 89

An application receives JSON data in the following format:

```
{ "FirstName" : "David",
  "LastName" : "Jones",
  "Values" : [0, 1, 2] }
```

The application includes the following code segment. (Line numbers are included for reference only.)

```
01 public class Name
02 {
03     public int[] Values { get; set; }
04     public string FirstName { get; set; }
05     public string LastName { get; set; }
06 }
07 public static Name ConvertToName(string json)
08 {
09     var ser = new JavaScriptSerializer();
10
11 }
```

You need to ensure that the ConvertToName() method returns the JSON input string as a Name object. Which code segment should you insert at line 10?

- A. Return ser.Deserialize(json, typeof(Name));
- B. Return ser.ConvertToType<Name>(json);
- C. Return ser.Deserialize<Name>(json);
- D. Return ser.ConvertToType(json, typeof(Name));

Answer: C

Explanation: JavaScriptSerializer.Deserialize<T> - Converts the specified JSON string to an object of type T. <http://msdn.microsoft.com/en-us/library/bb355316.aspx>

NEW QUESTION 94

DRAG DROP

You are developing an application that includes a class named Customer.

The application will output the Customer class as a structured XML document by using the following code segment:

```
<?xml version="1.0" encoding="utf-8"?>
<Prospect xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  ProspectId="9c027bb8-65f1-40a9-8afa-ac839f3cdc5d" xmlns="http://prospect">
  <FullName>David Jones</FullName>
  <DateOfBirth>1977-06-11T00:00:00</DateOfBirth>
</Prospect>
```

You need to ensure that the Customer class will serialize to XML.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

```
[XmlRoot("Customer", Namespace = "http://customer")]
```

```
[XmlRoot("Prospect", Namespace = "http://prospect")]
```

```
[XmlAttribute("ProspectId")]
```

```
[XmlElement("ProspectId")]
```

```
[XmlChoiceIdentifier]
```

```
[XmlIgnore]
```

```
[XmlArrayItem]
```

```
[XmlElement("FullName")]
```

```
public class Customer
```

```
{
```

```
    public Guid Id { get; set; }
```

```
    public string Name { get; set; }
```

```
    public DateTime DateOfBirth { get; set; }
```

```
    public int Tin { get; set; }
```

```
}
```

Answer:

Explanation: <http://msdn.microsoft.com/en-us/library/3dkta8ya.aspx>

NEW QUESTION 96

You are developing an application that includes a class named Order. The application will store a collection of Order objects.

The collection must meet the following requirements: Internally store a key and a value for each collection item. Provide objects to iterators in ascending order based on the key. Ensure that items are accessible by zero-based index or by key. You need to use a collection type that meets the requirements. Which collection type should you use?

- A. LinkedList
- B. Queue
- C. Array
- D. HashTable
- E. SortedList

Answer: E

Explanation: SortedList<TKey, TValue> - Represents a collection of key/value pairs that are sorted by key based on the associated IComparer<T> implementation.

<http://msdn.microsoft.com/en-us/library/ms132319.aspx>

NEW QUESTION 101

You are developing an application that includes the following code segment. (Line numbers are included for reference only.)

```
01 using System;
02 class MainClass
03 {
04     public static void Main(string[] args)
05     {
06         bool bValidInteger = false;
07         int value = 0;
08         do
09         {
10             Console.WriteLine("Enter an integer:");
11             bValidInteger = GetValidInteger(ref value);
12         } while (!bValidInteger);
13         Console.WriteLine("You entered a valid integer, " + value);
14     }
15     public static bool GetValidInteger(ref int val)
16     {
17         string sLine = Console.ReadLine();
18         int number;
19
20         {
21             return false;
22         }
23         else
24         {
25             val = number;
26             return true;
27         }
28     }
29 }
```

You need to ensure that the application accepts only integer input and prompts the user each time non-integer input is entered. Which code segment should you add at line 19?

- A. If (!int.TryParse(sLine, out number))
- B. If ((number = Int32.Parse(sLine)) == Single.NaN)
- C. If ((number = int.Parse(sLine)) > Int32.MaxValue)
- D. If (Int32.TryParse(sLine, out number))

Answer: A

Explanation:

Incorrect:

Not B, not C: These will throw exception when user enters non-integer value. Not D: This is exactly the opposite what we want to achieve.

Int32.TryParse - Converts the string representation of a number to its 32-bit signed integer equivalent. A return value indicates whether the conversion succeeded.

<http://msdn.microsoft.com/en-us/library/f02979c7.aspx>

NEW QUESTION 103

You are developing an application that will process orders. The debug and release versions of the application will display different logo images.

You need to ensure that the correct image path is set based on the build configuration. Which code segment should you use?

- A.

```
#if (DEBUG)
    imagePath = "TempFolder/Images/";
#elif (RELEASE)
    imagePath = "DevFolder/Images/";
#endif
```
- B.

```
if (DEBUG)
    imagePath = "TempFolder/Images/";
else
    imagePath = "DevFolder/Images/";
endif
```
- C.

```
#if (DEBUG)
    imagePath = "TempFolder/Images/";
#else
    imagePath = "DevFolder/Images/";
#endif
```
- D.

```
if(Debugger.IsAttached)
{
    imagePath = "TempFolder/Images/";
}
else
{
    imagePath = "DevFolder/Images/";
}
```

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

Answer: C

Explanation: There is no such constraint (unless you define one explicitly) RELEASE. <http://stackoverflow.com/questions/507704/will-if-release-work-like-if-debug-does-in-c>

NEW QUESTION 104

You are developing a method named `CreateCounters` that will create performance counters for an application. The method includes the following code. (Line numbers are included for reference only.)

```
01 void CreateCounters()
02 {
03     if (!PerformanceCounterCategory.Exists("Contoso"))
04     {
05         var counters = new CounterCreationDataCollection();
06         var ccdCounter1 = new CounterCreationData
07         {
08             CounterName = "Counter1",
09             CounterType = PerformanceCounterType.AverageTimer32
10         };
11         counters.Add(ccdCounter1);
12         var ccdCounter2 = new CounterCreationData
13         {
14             CounterName = "Counter2",
15         };
16         counters.Add(ccdCounter2);
17         PerformanceCounterCategory.Create("Contoso", "Help string",
18             PerformanceCounterCategoryType.MultiInstance, counters);
19     }
20 }
21 }
22 }
```

You need to ensure that Counter2 is available for use in Windows Performance Monitor (PerfMon). Which code segment should you insert at line 16?

- A. `CounterType = PerformanceCounterType.RawBase`
B. `CounterType = PerformanceCounterType.AverageBase`
C. `CounterType = PerformanceCounterType.SampleBase`

D. CounterType = PerformanceCounterType.CounterMultiBase

Answer: B

Explanation: Note AverageTimer32 on line 09. The Base counter type AverageBase has the Parent (composite) counter types AverageTimer32, AverageCount64.

Reference:

<http://msdn.microsoft.com/en-us/library/system.diagnostics.performancecountertype.aspx>

NEW QUESTION 106

You are developing an application by using C#.

The application includes an object that performs a long running process.

You need to ensure that the garbage collector does not release the object's resources until the process completes.

Which garbage collector method should you use?

- A. WaitForFullGCCComplete()
- B. SuppressFinalize()
- C. collect()
- D. RemoveMemoryPressure()

Answer: B

Explanation: You can use the SuppressFinalize method in a resource class to prevent a redundant garbage collection from being called.

Reference: GC.SuppressFinalize Method (Object)

[https://msdn.microsoft.com/en-us/library/system.gc.suppressfinalize\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/system.gc.suppressfinalize(v=vs.110).aspx)

NEW QUESTION 111

You are developing an application by using C#.

The application includes an object that performs a long running process.

You need to ensure that the garbage collector does not release the object's resources until the process completes.

Which garbage collector method should you use?

- A. WaitForFullGCCComplete()
- B. SuppressFinalize()
- C. WaitForFullGCApproach()
- D. WaitForPendingFinalizers()

Answer: B

Explanation: You can use the SuppressFinalize method in a resource class to prevent a redundant garbage collection from being called.

Reference: GC.SuppressFinalize Method (Object)

[https://msdn.microsoft.com/en-us/library/system.gc.suppressfinalize\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/system.gc.suppressfinalize(v=vs.110).aspx)

NEW QUESTION 116

DRAG DROP

You are developing an application that implements a set of custom exception types. You declare the custom exception types by using the following code segments:

```
public class ContosoException : System.Exception { ... }
public class ContosoDbException : ContosoException { ... }
public class ContosoValidationException : ContosoException { ... }
```

The application includes a function named DoWork that throws .NET Framework exceptions and custom exceptions. The application contains only the following logging methods:

```
static void Log(Exception ex) { ... }
static void Log(ContosoException ex) { ... }
static void Log(ContosoValidationException ex) { ... }
```

The application must meet the following requirements:

When ContosoValidationException exceptions are caught, log the information by using the static void Log (ContosoValidationException ex) method.

When ContosoDbException or other ContosoException exceptions are caught, log the information by using the static void Log(ContosoException ex) method.

You need to meet the requirements.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

```

(ContosoValidationException ex)
(ContosoException ex)
(Exception ex)
(ContosoDbException ex)

try
{
    DoWork();
}
catch
{
    Log(ex);
}
catch
{
    Log(ex);
}
catch
{
    Log(ex);
}

```

Answer:

Explanation: Catch the most specific exception first.

NEW QUESTION 120

You are developing an application that uses structured exception handling. The application includes a class named Logger. The Logger class implements a method named Log by using the following code segment:

`public static void Log(Exception ex) { }` You have the following requirements:

Log all exceptions by using the Log() method of the Logger class. Rethrow the original exception, including the entire exception stack. You need to meet the requirements. Which code segment should you use?

- A.

```
catch
{
    var ex = new Exception();
    throw ex;
}
```
- B.

```
catch (Exception ex)
{
    Logger.Log(ex);
    throw ex;
}
```
- C.

```
catch
{
    Logger.Log(new Exception());
    throw;
}
```
- D.

```
catch (Exception ex)
{
    Logger.Log(ex);
    throw;
}
```

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

Answer: D

NEW QUESTION 124

You are developing an application that includes a class named BookTracker for tracking library books. The application includes the following code segment. (Line numbers are included for reference only.)

```

01 public delegate void AddBookCallback(int i);
02 public class BookTracker
03 {
04     List<Book> books = new List<Book>();
05     public void AddBook(string name, AddBookCallback callback)
06     {
07         books.Add(new Book(name));
08         callback(books.Count);
09     }
10 }
11
12 public class Book
13 {
14
15     BookTracker tracker = new BookTracker();
16     public void Add(string name)
17     {
18
19     }
20 }

```

You need to add a book to the BookTracker instance. What should you do?

- A. Insert the following code segment at line 18:

```

tracker.AddBook(name, delegate(int i)
{
    ...
});

```

- B. Insert the following code segment at line 11:

```

delegate void AddBookDelegate(string name, AddBookCallback callback);

```

Insert the following code segment at line 18:

```

AddBookDelegate adder = (i, callback) =>
{
    ...
};

```

- C. Insert the following code segment at line 11:

```

delegate void AddBookDelegate(BookTracker bookTracker);

```

Insert the following code segment at line 18:

```

AddBookDelegate addDelegate = (bookTracker) =>
{
    ...
};
addDelegate(tracker);

```

- D. Insert the following code segment at line 14:

```

private static void PrintBookCount(int i)
{
    ...
}

```

Insert the following code segment at line 18:

```

AddBookCallback callback = PrintBookCount;

```

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

Answer: A

NEW QUESTION 129

You use the Task.Run() method to launch a long-running data processing operation. The data processing operation often fails in times of heavy network congestion.

If the data processing operation fails, a second operation must clean up any results of the first operation.

You need to ensure that the second operation is invoked only if the data processing operation throws an unhandled exception.

What should you do?

- A. Create a task within the operation, and set the Task.StartOnError property to true.
- B. Create a TaskFactory object and call the ContinueWhenAll() method of the object.
- C. Create a task by calling the Task.ContinueWith() method.
- D. Use the TaskScheduler class to create a task and call the TryExecuteTask() method on the clas

Answer: C

Explanation: Task.ContinueWith - Creates a continuation that executes asynchronously when the target Task completes. The returned Task will not be scheduled for execution until the current task has completed, whether it completes due to running to completion successfully, faulting due to an unhandled exception, or exiting out early due to being canceled.

<http://msdn.microsoft.com/en-us/library/dd270696.aspx>

NEW QUESTION 133

You are developing an application that uses the Microsoft ADO.NET Entity Framework to retrieve order information from a Microsoft SQL Server database. The application includes the following code. (Line numbers are included for reference only.)

```
01 public DateTime? OrderDate;
02 IQueryable<Order> LookupOrdersForYear(int year)
03 {
04     using (var context = new NorthwindEntities())
05     {
06         var orders =
07             from order in context.Orders
08
09             select order;
10         return orders.ToList().AsQueryable();
11     }
12 }
```

The application must meet the following requirements:

Return only orders that have an OrderDate value other than null.

Return only orders that were placed in the year specified in the year parameter.

You need to ensure that the application meets the requirements. Which code segment should you insert at line 08?

- A. `where order.OrderDate.Value.Year == year`
- B. `where order.OrderDate.HasValue && order.OrderDate.Value.Year == year`
- C. `where order.OrderDate.Value != null && order.OrderDate.Value.Year >= year`
- D. `where order.OrderDate.Value == null && order.OrderDate.Value.Year == year`

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

Answer: B

NEW QUESTION 136

You are creating an application that manages information about your company's products. The application includes a class named Product and a method named Save.

The Save() method must be strongly typed. It must allow only types inherited from the Product class that use a constructor that accepts no parameters.

You need to implement the Save() method. Which code segment should you use?

- A. `public static void Save(Product target)`
`{`
`...`
`}`
- B. `public static void Save<T>(T target) where T : Product`
`{`
`...`
`}`
- C. `public static void Save<T>(T target) where T : new()`
`{`
`...`
`}`
- D. `public static void Save<T>(T target) where T : Product, new()`
`{`
`...`
`}`

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

Answer: D

Explanation: The condition `new()` ensures the empty/default constructor and must be the last condition.

When you define a generic class, you can apply restrictions to the kinds of types that client code can use for type arguments when it instantiates your class. If client code tries to instantiate your class by using a type that is not allowed by a constraint, the result is a compile-time error. These restrictions are called constraints.

Constraints are specified by using the `where` contextual keyword. <http://msdn.microsoft.com/en-us/library/d5x73970.aspx>

NEW QUESTION 139

You are creating a class named `Employee`. The class exposes a string property named `EmployeeType`. The following code segment defines the `Employee` class. (Line numbers are included for reference only.)

```
01 public class Employee
02 {
03     internal string EmployeeType
04     {
05         get;
06         set;
07     }
08 }
```

The `EmployeeType` property value must meet the following requirements:

The value must be accessed only by code within the `Employee` class or within a class derived from the `Employee` class.

The value must be modified only by code within the `Employee` class.

You need to ensure that the implementation of the `EmployeeType` property meets the requirements. Which two actions should you perform? (Each correct answer represents part of the complete solution. Choose two.)

- A. Replace line 03 with the following code segment: `public string EmployeeType`
 B. Replace line 06 with the following code segment: `protected set;`
 C. Replace line 05 with the following code segment: `private get;`
 D. Replace line 05 with the following code segment: `protected get;`
 E. Replace line 03 with the following code segment: `protected string EmployeeType`
 F. Replace line 06 with the following code segment: `private set;`

Answer: EF

Explanation: Incorrect:

Not D: Cannot be used because of the `internal` keyword on line 03.

NEW QUESTION 144

You are developing an application by using C#.

The application includes an object that performs a long running process.

You need to ensure that the garbage collector does not release the object's resources until the process completes.

Which garbage collector method should you use?

- A. `RemoveMemoryPressure()`
 B. `ReRegisterForFinalize()`
 C. `WaitForFullGCCComplete()`

D. KeepAlive()

Answer: D

Explanation: The purpose of the KeepAlive method is to ensure the existence of a reference to an object that is at risk of being prematurely reclaimed by the garbage collector.

Reference: GC.KeepAlive Method (Object)

[https://msdn.microsoft.com/en-us/library/system.gc.keepalive\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/system.gc.keepalive(v=vs.110).aspx)

NEW QUESTION 148

You are developing an application that will transmit large amounts of data between a client computer and a server. You need to ensure the validity of the data by using a cryptographic hashing algorithm. Which algorithm should you use?

- A. RSA
- B. Aes
- C. HMACSHA256
- D. DES

Answer: C

NEW QUESTION 149

DRAG DROP

You are developing an application by using C#. The application will process several objects per second.

You need to create a performance counter to analyze the object processing.

Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

Add the **PerformanceCounterPermissionEntry** objects to the collection by calling the **Add()** method of the collection.

Add the **CounterCreationData** objects to the collection by calling the **Add()** method of the collection.

Create a **CounterCreationDataCollection** collection. Then create the counters as **CounterCreationData** objects and set the necessary properties.

Create a **PerformanceCounterPermissionEntryCollection** collection.

Call the **Create()** method of the **PerformanceCounterCategory** class and pass the collection to the method.

Get the **CategoryName** property of the **PerformanceCounterPermissionEntry** class.

Answer:

Explanation: Note:

: Example:

```
CounterCreationDataCollection counterDataCollection = new CounterCreationDataCollection(); // Box1
```

```
// Add the counter. Box 1
```

```
CounterCreationData averageCount64 = new CounterCreationData(); averageCount64.CounterType = PerformanceCounterType.AverageCount64;
```

```
averageCount64.CounterName = "AverageCounter64Sample"; counterDataCollection.Add(averageCount64);
```

```
// Add the base counter.
```

```
CounterCreationData averageCount64Base = new CounterCreationData(); averageCount64Base.CounterType = PerformanceCounterType.AverageBase;
```

```
averageCount64Base.CounterName = "AverageCounter64SampleBase"; counterDataCollection.Add(averageCount64Base); // Box 2
```

```
// Create the category. Box 3 PerformanceCounterCategory.Create("AverageCounter64SampleCategory", "Demonstrates usage of the AverageCounter64 performance counter type.", PerformanceCounterCategoryType.SingleInstance, counterDataCollection);
```

NEW QUESTION 151

You are developing an application. The application calls a method that returns an array of integers named customerIds. You define an integer variable named customerIdToRemove and assign a value to it. You declare an array named filteredCustomerIds.

You have the following requirements.

Remove duplicate integers from the customerIds array.
 Sort the array in order from the highest value to the lowest value.
 Remove the integer value stored in the customerIdToRemove variable from the customerIds array. You need to create a LINQ query to meet the requirements.
 Which code segment should you use?

- A.

```
int[] filteredCustomerIds = customerIds.Distinct().OrderByDescending(x => x).ToArray();
```
- B.

```
int[] filteredCustomerIds = customerIds.Where(value => value != customerIdToRemove).OrderByDescending(x => x).ToArray();
```
- C.

```
int[] filteredCustomerIds = customerIds.Distinct().Where(value => value != customerIdToRemove).OrderByDescending(x => x).ToArray();
```
- D.

```
int[] filteredCustomerIds = customerIds.Where(value => value != customerIdToRemove).OrderBy(x => x).ToArray();
```

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

Answer: C

Explanation: The Distinct keyword avoids duplicates, and OrderByDescending provides the proper ordering from highest to lowest.

NEW QUESTION 154

You are developing a C# application that includes a class named Product. The following code segment defines the Product class:

```
public class Product
{
    public int Id { get; set; }
    public int CategoryId { get; set; }
    public string Name { get; set; }
    public bool IsValid { get; set; }
}
```

You implement System.ComponentModel.DataAnnotations.IValidateableObject interface to provide a way to validate the Product object.
 The Product object has the following requirements: The Id property must have a value greater than zero.
 The Name property must have a value other than empty or null.

You need to validate the Product object. Which code segment should you use?

- A.

```
public bool Validate()
{
    IsValid = Id > 0 || !string.IsNullOrEmpty(Name);
    return IsValid;
}
```
- B.

```
public IEnumerable<ValidationResult> Validate(ValidationContext validationContext)
{
    if (Id <= 0)
        yield return new ValidationResult("Product Id is required.", new[] { "Id" });
    if (string.IsNullOrEmpty(Name))
        yield return new ValidationResult("Product Name is required.", new[] { "Name" });
}
```
- C.

```
public bool Equals(Product productToValidate)
{
    productToValidate.IsValid = productToValidate.Id > 0 || !string.IsNullOrEmpty(productToValidate.Name);
    return productToValidate.IsValid;
}
```
- D.

```
public ValidationResult Validate()
{
    ValidationResult validationResult = null;
    if (Id <= 0)
    {
        validationResult = new ValidationResult("Product Id is required.");
    }
    if (string.IsNullOrEmpty(Name))
    {
        validationResult = new ValidationResult("Product Name is required.");
    }
    return validationResult;
}
```

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

Answer: B

NEW QUESTION 157

DRAG DROP

You have the following class:

```
public class Class1 : IEquatable<Class1>
{
    public Int32 ID { get; set; }
    public String Name { get; set; }
    public bool Equals(Class1 other)
    {
    }
}
```

You need to implement IEquatable. The Equals method must return true if both ID and Name are set to the identical values. Otherwise, the method must return false. Equals must not throw an exception.

What should you do? (Develop the solution by selecting and ordering the required code snippets. You may not need all of the code snippets.)

```
if (!Object.Equals
(this.Name, other.Name)) return false;
```

```
if (this.ID == other.ID) return false;
```

```
return false;
```

```
return true;
```

```
if (other == null) return false;
```

```
break
```

```
if (this.ID != other.ID) return false;
```

```
if (!this.Name.Equals
(other.Name)) return false;
```

Answer:

Explanation: In Box 3 we must use Name.Equals, not Object.Equals, to properly compare two strings. Incorrect:

Not Box 3: Object.Equals (obj, obj) compares the REFERENCE (true if they point to same object). Two strings, even having the same value will never have the same reference. So it is not applicable here.

NEW QUESTION 161

You are creating a class named Game.

The Game class must meet the following requirements: Include a member that represents the score for a Game instance. Allow external code to assign a value to the score member.

Restrict the range of values that can be assigned to the score member. You need to implement the score member to meet the requirements. In which form should you implement the score member?

- A. protected field
- B. public static field
- C. public static property
- D. public property

Answer: D

Explanation: For a public the type or member can be accessed by any other code in the same assembly or another assembly that references it.

Reference: Access Modifiers (C# Programming Guide) <https://msdn.microsoft.com/en-us/library/ms173121.aspx>

NEW QUESTION 166

You are developing code for a class named Account. The Account class includes the following method:

```
public void Deposit(int dollars, int cents)
{
    int totalCents = cents + this.cents;
    int extraDollars = totalCents / 100;
    this.cents = totalCents - 100 * extraCents;
    this.dollars += dollars + extraDollars;
}
```

You need to ensure that overflow exceptions are thrown when there is an error. Which type of block should you use?

- A. checked
- B. try
- C. using
- D. unchecked

Answer: A

Explanation: C# statements can execute in either checked or unchecked context. In a checked context, arithmetic overflow raises an exception. In an unchecked context, arithmetic overflow is ignored and the result is truncated.

checked Specify checked context. unchecked Specify unchecked context.

Reference: Checked and Unchecked (C# Reference) <https://msdn.microsoft.com/en-us/library/khy08726.aspx>

NEW QUESTION 169

You are developing an application that uses a .config file. The relevant portion of the .config file is shown as follows:

```
<system.diagnostics>
  <trace autoflush="false" indentsize="0">
    <listeners>
      <add name="appListener"
          type="System.Diagnostics.EventLogTraceListener"
          initializeData="TraceListenerLog" />
    </listeners>
  </trace>
</system.diagnostics>
```

You need to ensure that diagnostic data for the application writes to the event log by using the configuration specified in the .config file. What should you include in the application code?

- A.

```
EventLog log = new EventLog();
log.WriteEntry("Trace data...");
```
- B.

```
Debug.WriteLine("Trace data...");
```
- C.

```
Console.SetOut(new StreamWriter("System.Diagnostics.EventLogTraceListener"));
Console.WriteLine("Trace data...");
```
- D.

```
Trace.WriteLine("Trace data...");
```

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

Answer: D

Explanation: Incorrect:

Not B: There is only a "TraceListener" defined in the config file. In fact, there is no "eventlogDebugListener" class.

NEW QUESTION 172

You have the following code (line numbers are included for reference only):

```
01class Bar
02{
03  public string barColor { get; set; }
04  public string barName { get; set; }
05  private static IEnumerable<Bar> GetBars(string sqlConnectionString)
06  {
07      var bars = new List<Bar>();
08      SqlConnection fooSqlConnection = new SqlConnection();
09      using (fooSqlConnection)
10      {
11          SqlCommand fooSqlCommand = new SqlCommand
12              ("Select sqlName,sqlColor from Animals", fooSqlConnection);
13          fooSqlConnection.Open();
14          using (SqlDataReader fooSqlReader = fooSqlCommand.ExecuteReader())
15          {
16              {
17                  var bar = new Bar();
18                  bar.barName = (String)fooSqlReader["sqlName"];
19                  bar.barColor = (String)fooSqlReader["sqlColor"];
20                  bars.Add(bar);
21              }
22          }
23      }
24      return bars;
25  }
26}
```

You need to identify the missing line of code at line 15. Which line of code should you identify?

- A. using (fooSqlConnection.BeginTransaction())
- B. while (fooSqlReader.Read())
- C. while (fooSqlReader.NextResult())
- D. while (fooSqlReader.GetBoolean(0))

Answer: B

Explanation: The SqlDataReader.Read method advances the SqlDataReader to the next record. Example:

```
SqlCommand command =
new SqlCommand(queryString, connection); connection.Open();
SqlDataReader reader = command.ExecuteReader();
// Call Read before accessing data. while (reader.Read())
{
ReadSingleRow((IDataRecord)reader);
}
// Call Close when done reading. reader.Close();
}
```

Reference: SqlDataReader.Read Method ()

[https://msdn.microsoft.com/en-us/library/system.data.sqlclient.sqldatareader.read\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/system.data.sqlclient.sqldatareader.read(v=vs.110).aspx)

NEW QUESTION 173

HOTSPOT

You are developing an application that includes a Windows Communication Foundation (WCF) service. The service includes a custom TraceSource object named ts and a method named DoWork. The application must meet the following requirements:

Collect trace information when the DoWork() method executes.

Group all traces for a single execution of the DoWork() method as an activity that can be viewed in the WCF Service Trace Viewer Tool.

You need to ensure that the application meets the requirements.

How should you complete the relevant code? (To answer, select the correct code segment from each drop-down list in the answer area.)

```
static TraceSource ts = new TraceSource("Contoso",
    [redacted]
);
public void DoWork()
{
    var originalId = Trace.CorrelationManager.ActivityId;
    try
    {
        var guid = Guid.NewGuid();
        [redacted]
        Trace.CorrelationManager.ActivityId = guid;
        [redacted]
    }
    finally
    {
        [redacted]
        [redacted]
        Trace.CorrelationManager.ActivityId = originalId;
    }
}
```

```
static TraceSource ts = new TraceSource("Contoso",
    [redacted]
);
public void DoWork()
{
    var originalId = Trace.CorrelationManager.ActivityId;
    try
    {
        var guid = Guid.NewGuid();
        [redacted]
        ts.TraceTransfer(1, "Changing Activity", guid);
        ts.TraceEvent(TraceEventType.Start, 0, "Start");
        ts.TraceTransfer(1, "Changing Activity", originalGuid);
        ts.TraceInformation("Start");

        Trace.CorrelationManager.ActivityId = guid;
        [redacted]
        ts.TraceTransfer(1, "Changing Activity", guid);
        ts.TraceEvent(TraceEventType.Start, 0, "Start");
        ts.TraceTransfer(1, "Changing Activity", originalId);
        ts.TraceInformation("Start");
    }
    finally
    {
        [redacted]
        ts.TraceTransfer(1, "Changing Activity", guid);
        ts.TraceTransfer(1, "Changing Activity", originalId);
        ts.TraceInformation("Stop");
        [redacted]
        ts.TraceTransfer(1, "Changing Activity", guid);
        ts.TraceEvent(TraceEventType.Stop, 0, "Stop");
        ts.TraceInformation("Stop");

        Trace.CorrelationManager.ActivityId = originalId;
    }
}
```

Answer:

Explanation: Activities are logical unit of processing. You can create one activity for each major processing unit in which you want traces to be grouped together. For example, you can create one activity for each request to the service. To do so, perform the following steps.
 Save the activity ID in scope.
 Create a new activity ID.
 Transfer from the activity in scope to the new one, set the new activity in scope and emit a start trace for that activity.

The following code demonstrates how to do this. Guid oldID = Trace.CorrelationManager.ActivityId; Guid traceID = Guid.NewGuid(); ts.TraceTransfer(0, "transfer", traceID);
 Trace.CorrelationManager.ActivityId = traceID; // Trace is static ts.TraceEvent(TraceEventType.Start, 0, "Add request"); Reference: Emitting User-Code Traces
[https://msdn.microsoft.com/en-us/library/aa738759\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/aa738759(v=vs.110).aspx)

NEW QUESTION 174

DRAG DROP

You are developing a class named Temperature.

You need to ensure that collections of Temperature objects are sortable.

How should you complete the relevant code segment? (To answer, drag the appropriate code segments to the correct locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

```
public class Temperature : IComparable
public class Temperature : IComparer
CompareTo
Equals
this.Fahrenheit.CompareTo(otherTemperature.Fahrenheit);
otherTemperature.Fahrenheit.CompareTo(this.Fahrenheit);
```

```
{
    public double Fahrenheit { get; set; }
    public int
        (object obj)
    {
        if (obj == null) return 1;
        var otherTemperature = obj as Temperature;
        if(otherTemperature != null)
            return
        throw new ArgumentException("Object is not a Temperature");
    }
}
```

Answer:

Explanation:

```
public class Temperature : IComparable
{
    public double Fahrenheit { get; set; }
    public int CompareTo
        (object obj)
    {
        if (obj == null) return 1;
        var otherTemperature = obj as Temperature;
        if(otherTemperature != null)
            return this.Fahrenheit.CompareTo(otherTemperature.Fahrenheit);
        throw new ArgumentException("Object is not a Temperature");
    }
}
```

NEW QUESTION 179

DRAG DROP

You are developing an application that will populate an extensive XML tree from a Microsoft SQL Server 2008 R2 database table named Contacts.

You are creating the XML tree. The solution must meet the following requirements: Minimize memory requirements.

Maximize data processing speed.

You open the database connection. You need to create the XML tree.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

```

XElement root = new XElement
    ("ContactList:contacts", "content");

XNamespace ew = "ContactList";
XElement root = new XElement(ew + "Root");

XAttribute contacts =
    new XAttribute("contacts",

XElement contacts =
    new XElement("contacts",

```

```

Console.WriteLine(root);

from c in db.Contacts
orderby c.ContactId
select new XElement("contact",
    new XAttribute("contactId", c.ContactId)
    new XElement("firstName", c.FirstName),
    new XElement("lastName", c.LastName)
);

```

Answer:

Explanation: The second box should be XElement and not the XAttribute as contacts, as you cannot have XElement as a child of an XAttribute.

NEW QUESTION 183

DRAG DROP

You are creating a class named Data that includes a dictionary object named _data.

You need to allow the garbage collection process to collect the references of the _data object.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

```

staticDictionary<int, WeakReference> _data;
staticDictionary<int, Int32> _data;
_data.Add(1, new WeakReference(new Class(1 * 2), false));
_data.Add(1, (Int32)(1 * 2));

```

```

public class Data
{
    public Data(int count)
    {
        for (int i = 0; i < count; i++)
        {
        }
    }
}

```

Answer:

Explanation:

```

public class Data
{
    staticDictionary<int, WeakReference> _data;
    public Data(int count)
    {
        for (int i = 0; i < count; i++)
        {
            _data.Add(i, new WeakReference(new Class(i * 2), false));
        }
    }
}

```

NEW QUESTION 186

You are creating a console application named App1.

App1 retrieves data from the Internet by using JavaScript Object Notation (JSON).

You are developing the following code segment (line numbers are included for reference only):

```

01 public bool ValidateJson(string json, Dictionary<string, object> result)
02 {
03
04     try
05     {
06         result = serializer.Deserialize<Dictionary<string, object>>(json);
07         return true;
08     }
09     catch
10     {
11         return false;
12     }
13 }

```

You need to ensure that the code validates the JSON string. Which code should you insert at line 03?

- A.DataContractSerializer serializer = new DataContractSerializer();
- B. var serializer = new DataContractSerializer();
- C. XmlSerializer serializer = new XmlSerializer();
- D. var serializer = new JavaScriptSerializer();

Answer: D

Explanation: The JavaScriptSerializer Class Provides serialization and deserialization functionality for AJAXenabled applications.

The JavaScriptSerializer class is used internally by the asynchronous communication layer to serialize and deserialize the data that is passed between the browser and the Web server. You cannot access that instance of the serializer. However, this class exposes a public API. Therefore, you can use the class when you want to work with JavaScript Object Notation (JSON) in managed code.

NEW QUESTION 187

You are developing an application.

The application contains the following code segment (line numbers are included for reference only):

```
01 ArrayList array1 = new ArrayList();
02 int var1 = 10;
03 int var2;
04 array1.Add(var1);
05 var2 = array1[0];
```

When you run the code, you receive the following error message: "Cannot implicitly convert type 'object' to 'int'. An explicit conversion exists (are you missing a cast?)."

You need to ensure that the code can be compiled. Which code should you use to replace line 05?

- A. var2 = array1[0] is int;
- B. var2 = ((List<int>)array1) [0];
- C. var2 = array1[0].Equals(typeof(int));
- D. var2 = (int) array1 [0];

Answer: D

NEW QUESTION 192

You need to write a method that retrieves data from a Microsoft Access 2013 database. The method must meet the following requirements:

Be read-only.

Be able to use the data before the entire data set is retrieved.

Minimize the amount of system overhead and the amount of memory usage. Which type of object should you use in the method?

- A. SqlDataAdapter
- B. DataContext
- C. DbDataAdapter
- D. OleDbDataReader

Answer: D

Explanation: OleDbDataReader Class

Provides a way of reading a forward-only stream of data rows from a data source. Example:

```
OleDbConnection cn = new OleDbConnection(); OleDbCommand cmd = new OleDbCommand(); DataTable schemaTable;
```

```
OleDbDataReader myReader;
```

```
//Open a connection to the SQL Server Northwind database.
```

```
cn.ConnectionString = "Provider=SQLOLEDB;Data Source=server;User ID=login; Password=password;Initial Catalog=Northwind";
```

NEW QUESTION 195

You have the following code:

```
List<Int32> items = new List<int>() {
    100,
    95,
    80,
    75,
    95
};
```

You need to retrieve all of the numbers from the items variable that are greater than 80. Which code should you use?

- A. `var result = from i in items
 where i > 80
 select i;`
- B. `var result = items.Take(80);`
- C. `var result = items.First(i => i > 80);`
- D. `var result = items.Any(i => i > 80);`

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

Answer: A

NEW QUESTION 200

DRAG DROP

You are creating a method that will split a single input file into two smaller output files. The method must perform the following actions: Create a file named header.dat that contains the first 20 bytes of the input file. Create a file named body.dat that contains the remainder of the input file. You need to create the method.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

```
fsSource.Seek(20, SeekOrigin.Current);
byte[] body = new byte[fsSource.Length];
byte[] body = new byte[fsSource.Length - 20];
fsHeader.Write(header, 0, header.Length);
fsHeader.Write(header, 20, header.Length);
fsBody.Write(body, 0, body.Length);
fsBody.Write(body, 20, body.Length);
```

```
using (FileStream fsSource = File.OpenRead(SourceFilePath))
using (FileStream fsHeader = File.OpenWrite(HeaderFilePath))
using (FileStream fsBody = File.OpenWrite(BodyFilePath))
{
    byte[] header = new byte[20];
    fsSource.Read(header, 0, header.Length);
    fsSource.Read(body, 0, body.Length);
}
```

Answer:

Explanation: "offset" and "count" parameters of "Stream.Read" / "Stream.Write" methods ALWAYS refer to the array you are sending in the first parameter. The position of fsSource advances as you read it, unless you seek on it.

NEW QUESTION 202

DRAG DROP

You are adding a function to a membership tracking application. The function uses an integer named memberCode as an input parameter and returns the membership type as a string.

The function must meet the following requirements: Return "Non-Member" if the memberCode is 0. Return "Member" if the memberCode is 1. Return "Invalid" if the memberCode is any value other than 0 or 1. You need to implement the function to meet the requirements.

How should you complete the relevant code? (To answer, drag the appropriate statements to the correct locations in the answer area. Each statement may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

```

default
switch
break
case

private string GetMemberType(int memberCode)
{
    string memberType;
    switch (memberCode)
    {
        case 0:
            memberType = "Non-Member";
            break;
        case 1:
            memberType = "Member";
            break;
        default:
            memberType = "Invalid";
            break;
    }
    return memberType;
}

```

Answer:

Explanation: Example:

```

int caseSwitch = 1; switch (caseSwitch)
{
case 1:
Console.WriteLine("Case 1"); break;
case 2:
Console.WriteLine("Case 2"); break;
default: Console.WriteLine("Default case"); break;
}

```

Reference: switch (C# Reference) <https://msdn.microsoft.com/en-us/library/06tc147t.aspx>

NEW QUESTION 207

You are developing an application that will be deployed to multiple computers. You set the assembly name. You need to create a unique identity for the application assembly. Which two assembly identity attributes should you include in the source code? (Each correct answer presents part of the solution. Choose two.)

- A. AssemblyTitleAttribute
- B. AssemblyCultureAttribute
- C. AssemblyVersionAttribute
- D. AssemblyKeyNameAttribute
- E. AssemblyFileVersion

Answer: BC

Explanation: The AssemblyName object contains information about an assembly, which you can use to bind to that assembly. An assembly's identity consists of the following:

- Simple name
- Version number
- Cryptographic key pair
- Supported culture

B: AssemblyCultureAttribute

Specifies which culture the assembly supports.

The attribute is used by compilers to distinguish between a main assembly and a satellite assembly. A main assembly contains code and the neutral culture's resources. A satellite assembly contains

only resources for a particular culture, as in [assembly:AssemblyCultureAttribute("de")] **C: AssemblyVersionAttribute**

Specifies the version of the assembly being attributed.

The assembly version number is part of an assembly's identity and plays a key part in binding to the assembly and in version policy.

NEW QUESTION 211

You are developing an application. You need to declare a delegate for a method that accepts an integer as a parameter, and then returns an integer. Which type of delegate should you use?

- A. Action<int>
- B. Action<int, int>
- C. Func<int, int>
- D. Func<int>

Answer: C

Explanation: The Func<T, TResult> delegate encapsulates a method that has one parameter and returns a value of the type specified by the TResult parameter.

Reference: [https://msdn.microsoft.com/en-us/library/bb549151\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/bb549151(v=vs.110).aspx)

NEW QUESTION 214

You are developing a class named Scorecard. The following code implements the Scorecard class. (Line numbers are included for reference only.)

```
01 public class Scorecard
02 {
03     private Dictionary<string, int> players = new Dictionary<string, int>();
04     public void Add(string name, int score)
05     {
06         players.Add(name, score);
07     }
08
09 }
```

You create the following unit test method to test the Scorecard class implementation:

```
[TestMethod]
public void UnitTest1()
{
    Scorecard scorecard = new Scorecard();
    scorecard.Add("Player1", 10);
    scorecard.Add("Player2", 15);
    int expectedScore = 15;
    int actualScore = scorecard["Player2"];
    Assert.AreEqual(expectedScore, actualScore);
}
```

You need to ensure that the unit test will pass. What should you do?

- A. Insert the following code segment at line 08:

```
public int this[string name]
{
    get
    {
        return players[name];
    }
}
```

- B. Insert the following code segment at line 08:

```
public Dictionary<string, int> Players
{
    get
    {
        return players;
    }
}
```

- C. Replace line 03 with the following code segment:

```
public Dictionary<string, int> Players = new Dictionary<string, int>();
```

- D. Insert the following code segment at line 08:

```
public int score(string name)
{
    return players[name];
}
```

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

Answer: A

Explanation: You need to add indexer to the class.

NEW QUESTION 219

You are developing an application that will parse a large amount of text.

You need to parse the text into separate lines and minimize memory use while processing data. Which object type should you use?

- A. DataContractSerializer

- B. StringBuilder
- C. StringReader
- D. JsonSerializer

Answer: C

Explanation: There are many ways to separate a string into lines. With StringReader, we read lines from a string individually in the order they appear. This type enables us to access string data through a streamoriented interface.

Reference: <http://www.dotnetperls.com/stringreader>

NEW QUESTION 223

You are developing code for an application that retrieves information about Microsoft .NET Framework assemblies. The following code segment is part of the application (line numbers are included for reference only):

```
01 public void ViewMetadata(string filePath)
02 {
03     var bytes = File.ReadAllBytes(filePath);
04
05     ...
06 }
```

You need to insert code at line 04. The code must load the assembly. Once the assembly is loaded, the code must be able to read the assembly metadata, but the code must be denied access from executing code from the assembly.

Which code segment should you insert at line 04?

- A. Assembly.ReflectionOnlyLoadFrom(bytes);
- B. Assembly.ReflectionOnlyLoad(bytes);
- C. Assembly.Load(bytes);
- D. Assembly.LoadFrom(bytes);

Answer: B

Explanation: The Assembly.ReflectionOnlyLoad method (Byte[]) loads the assembly from a common object file format (COFF)-based image containing an emitted assembly. The assembly is loaded into the reflection-only context of the caller's application domain.

You cannot execute code from an assembly loaded into the reflection-only context. Incorrect:

Not A: The Assembly.ReflectionOnlyLoadFrom method (String) loads an assembly into the reflectiononly context, given its path.

Reference: Assembly.ReflectionOnlyLoad Method (Byte[]) [https://msdn.microsoft.com/en-us/library/h55she1h\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/h55she1h(v=vs.110).aspx)

NEW QUESTION 227

You are developing a method named GenerateHash that will create the hash value for a file. The method includes the following code. (Line numbers are included for reference only.)

```
01 public byte[] GenerateHash(string filename, string hashAlgorithm)
02 {
03     var signatureAlgo = HashAlgorithm.Create(hashAlgorithm);
04     var fileBuffer = System.IO.File.ReadAllBytes(filename);
05
06 }
```

You need to return the cryptographic hash of the bytes contained in the fileBuffer variable. Which code segment should you insert at line 05?

- A.

```
var outputBuffer = new byte[fileBuffer.Length];
signatureAlgo.TransformBlock(fileBuffer, 0, fileBuffer.Length, outputBuffer, 0);
signatureAlgo.TransformFinalBlock(fileBuffer, fileBuffer.Length - 1, fileBuffer.Length);
return outputBuffer;
```
- B.

```
signatureAlgo.ComputeHash(fileBuffer);
return signatureAlgo.GetHashCode();
```
- C.

```
var outputBuffer = new byte[fileBuffer.Length];
signatureAlgo.TransformBlock(fileBuffer, 0, fileBuffer.Length, outputBuffer, 0);
return outputBuffer;
```
- D.

```
return signatureAlgo.ComputeHash(fileBuffer);
```

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

Answer: D

Explanation: The ComputeHash(Byte[]) method computes the hash value for the specified byte array.

NEW QUESTION 228

You are modifying an existing application that manages employee payroll. The application includes a class named PayrollProcessor. The PayrollProcessor class

connects to a payroll database and processes batches of paychecks once a week. You need to ensure that the PayrollProcessor class supports iteration and releases database connections after the batch processing completes. Which two interfaces should you implement? (Each correct answer presents part of the complete solution. Choose two.)

- A. IEquatable
- B. IEnumerable
- C. IDisposable
- D. IComparable

Answer: BC

Explanation: B: IEnumerable to implement iteration. Exposes an enumerator, which supports a simple iteration over a non-generic collection. C: IDisposable Interface to implement disposing connections. Defines a method to release allocated resources. The primary use of this interface is to release unmanaged resources.

NEW QUESTION 229

You are developing an application that will read data from a text file and display the file contents. You need to read data from the file, display it, and correctly release the file resources.

Which code segment should you use?

```
A. string inputLine;
using (StreamReader reader = new StreamReader("data.txt"))
{
    while ((inputLine = reader.ReadLine()) != null)
    {
        Console.WriteLine(inputLine);
    }
}
```

```
B. string inputLine;
StreamReader reader = null;
using (reader = new StreamReader("data.txt")) ;
while ((inputLine = reader.ReadLine()) != null)
{
    Console.WriteLine(inputLine);
}
```

```
C. string inputLine;
StreamReader reader = new StreamReader("data.txt");
while ((inputLine = reader.ReadLine()) != null)
{
    Console.WriteLine(inputLine);
}
```

```
D. string inputLine;
StreamReader reader = null;
try
{
    reader = new StreamReader("data.txt");
    while ((inputLine = reader.ReadLine()) != null)
    {
        Console.WriteLine(inputLine);
    }
    reader.Close();
    reader.Dispose();
}
finally
{
}
```

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

Answer: A

Explanation: The StreamReader object must be part of the using statement.

NEW QUESTION 234

DRAG DROP

You are creating a method that saves information to a database.

You have a static class named LogHelper. LogHelper has a method named Log to log the exception. You need to use the LogHelper Log method to log the exception raised by the database server. The solution must ensure that the exception can be caught by the calling method, while preserving the original stack trace.

How should you write the catch block? (Develop the solution by selecting and ordering the required code snippets. You may not need all of the code snippets.)

```
catch {  
  
catch (SQLException ex) {  
  
catch (FileNotFoundException ex) {  
  
throw;  
  
}  
  
throw new FileNotFoundException();  
  
throw ex;  
  
LogHelper.Log(ex);  
  
throw new SQLException();  
  
}
```

Answer:**Explanation:** Note:

Catch the database exception, log it, and then rethrow it.

* SQLException

An exception that provides information on a database access error or other errors. Example:

```
catch (SQLException ex)  
{  
LogHelper.Log(ex); throw;  
}
```

NEW QUESTION 238

You are developing an application.

The application contains the following code segment (line numbers are included for reference only):

```
01 ArrayList array1 = new ArrayList();  
02 int var1 = 10;  
03 int var2;  
04 array1.Add(var1);  
05 var2 = array1[0];
```

When you run the code, you receive the following error message: "Cannot implicitly convert type 'object' to 'int'. An explicit conversion exists (are you missing a cast?)."

You need to ensure that the code can be compiled. Which code should you use to replace line 05?

- A. var2 = ((List<int>) array1) [0];
- B. var2 = array1[0].Equals(typeof(int));
- C. var2 = Convert.ToInt32(array1[0]);
- D. var2 = ((int[])array1)[0];

Answer: C

Explanation: The Convert.ToInt32 method converts a specified value to a 32-bit signed integer. Reference: [https://msdn.microsoft.com/en-us/library/system.convert.toint32\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/system.convert.toint32(v=vs.110).aspx)

NEW QUESTION 240

You have the following code (line numbers are included for reference only):

```
01 public class Program
02 {
03     private static System.Diagnostics.Stopwatch _execTimer =
04         new System.Diagnostics.Stopwatch();
05     public static void Delay(int delay)
06     {
07         Thread.Sleep(delay);
08     }
09     public static void LogLongExec(string msg)
10     {
11         if (_execTimer.Elapsed.Seconds >= 5)
12             throw new Exception(
13                 string.Format("Execution is too long > {0} > {1}",
14                     msg, _execTimer.Elapsed.TotalMilliseconds));
15     }
16     public static void Main()
17     {
18         _execTimer.Start();
19         try
20         {
21             Delay(10);
22             LogLongExec("Delay(10)");
23             Delay(5000);
24             LogLongExec("Delay(5000)");
25         }
26         catch (Exception ex)
27         {
28
29         }
30     }
31 }
```

You need to ensure that if an exception occurs, the exception will be logged. Which code should you insert at line 28?

- A. `System.Diagnostics.TraceSource trace = new TraceSource("./Trace.log");`
`trace.TraceEvent(TraceEventType.Error, ex.HResult, ex.Message);`
- B. `using (System.Diagnostics.XmlWriterTraceListener log1 =`
`new XmlWriterTraceListener("./Error.log"))`
{
`log1.TraceEvent(`
`new TraceEventCache(), ex.Message, TraceEventType.Error, ex.HResult);`
`log1.Flush();`
}
- C. `System.Diagnostics.EventInstance errorEvent =`
`new System.Diagnostics.EventInstance(ex.HResult, 1, EventLogEntryType.Error);`
`System.Diagnostics.EventLog.WriteEvent("MyAppErrors", errorEvent, ex.Message);`
- D. `EventLog logEntry = new EventLog();`
`logEntry.Source = "Application";`
`logEntry.WriteEntry(ex.Message, EventLogEntryType.Error);`

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

Answer: B

Explanation: * XmlWriterTraceListener

Directs tracing or debugging output as XML-encoded data to a TextWriter or to a Stream, such as a FileStream.

* TraceListener.TraceEvent Method (TraceEventCache, String, TraceEventType, Int32) Writes trace and event information to the listener specific output.

Syntax: [ComVisibleAttribute(false)] public virtual void TraceEvent(TraceEventCache eventCache, string source, TraceEventType eventType, int id)

Reference: XmlWriterTraceListener Class

[https://msdn.microsoft.com/en-us/library/system.diagnostics.xmlwritertracelistener\(v=vs.110\)](https://msdn.microsoft.com/en-us/library/system.diagnostics.xmlwritertracelistener(v=vs.110))

NEW QUESTION 245

You are creating a class library that will be used in a web application. You need to ensure that the class library assembly is strongly named. What should you do?

- A. Use the gacutil.exe command-line tool.
B. Use the xsd.exe command-line tool.
C. Use the aspnet_regiis.exe command-line tool.

D. Use assembly attributes.

Answer: D

Explanation: The Windows Software Development Kit (SDK) provides several ways to sign an assembly with a strong name:

* Using the Assembly Linker (AL.exe) provided by the Windows SDK.

* Using assembly attributes to insert the strong name information in your code. You can use either the AssemblyKeyFileAttribute or the AssemblyKeyNameAttribute, depending on where the key file to be used is located.

* Using compiler options such /keyfile or /delaysign in C# and Visual Basic, or the /KEYFILE or /DELAGNSIGN linker option in C++. (For information on delay signing, see Delay Signing an Assembly.)

NEW QUESTION 250

An application is throwing unhandled NullReferenceException and FormatException errors. The stack trace shows that the exceptions occur in the GetWebResult() method.

The application includes the following code to parse XML data retrieved from a web service. (Line numbers are included for reference only.)

```
01 int GetWebResult(XElement result)
02 {
03     return int.Parse(result.Element("response").Value);
04 }
```

You need to handle the exceptions without interfering with the existing error-handling infrastructure. Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

A. Replace line 03 with the following code segment:

```
int returnValue;
int.TryParse(result.Element("response").Value, out returnValue);
return returnValue;
```

B. Replace line 03 with the following code segment:

```
return int.ParseOptions.Safe(result.Element("response").Value);
```

C. Register an event handler with AppDomain.CurrentDomain.UnhandledException.

D. Use a **try...catch** statement to handle the exceptions in the **GetWebResult()** method.

A. Option A

B. Option B

C. Option C

D. Option D

Answer: AC

Explanation: A: The TryParse method is like the Parse method, except the TryParse method does not throw an exception if the conversion fails. It eliminates the need to use exception handling to test for a FormatException in the event that s is invalid and cannot be successfully parsed.

C: UnhandledException event handler

If the UnhandledException event is handled in the default application domain, it is raised there for any unhandled exception in any thread, no matter what application domain the thread started in. If the thread started in an application domain that has an event handler for UnhandledException, the event is raised in that application domain.

NEW QUESTION 255

You are developing an application that retrieves patient data from a web service. The application stores the JSON messages returned from the web service in a string variable named PatientAsJson. The variable is encoded as UTF-8. The application includes a class named Patient that is defined by the following code:

```
public class Patient
{
    public bool IsActive { get; set; }
    public string Name { get; set; }
    public int Id { get; set; }
}
```

You need to populate the Patient class with the data returned from the web service. Which code segment should you use?

- A.

```
DataContractJsonSerializer jsSerializer = new DataContractJsonSerializer(typeof(Patient));
using (MemoryStream stream = new MemoryStream(Encoding.UTF8.GetBytes(PatientAsJson)))
{
    Patient patientFromJson = (Patient)jsSerializer.ReadObject(stream);
}
```
- B.

```
XmlSerializer xmlSerializer = new XmlSerializer(typeof(Patient));
using (MemoryStream stream = new MemoryStream(Encoding.UTF8.GetBytes(PatientAsJson)))
{
    Patient patientFromJson = (Patient)xmlSerializer.Deserialize(stream);
}
```
- C.

```
DataContractJsonSerializer jsSerializer = new DataContractJsonSerializer(typeof(Patient));
using (MemoryStream stream = new MemoryStream(Encoding.UTF8.GetBytes(PatientAsJson)))
{
    Patient patientFromJson = new Patient();
    jsSerializer.WriteObject(stream, patientFromJson);
}
```
- D.

```
IFormatter formatter = new BinaryFormatter();
Stream stream = new FileStream(PatientAsJson, FileMode.Open, FileAccess.Read, FileShare.Read);
Patient patientFromJson = (Patient)formatter.Deserialize(stream);
stream.Close();
```

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

Answer: A

NEW QUESTION 258

You are developing a class named EmployeeRoster. The following code implements the EmployeeRoster class. (Line numbers are included for reference only.)

```
01 public class EmployeeRoster
02 {
03     private Dictionary<string, int> employees = new Dictionary<string, int>();
04     public void Add(string name, int salary)
05     {
06         employees.Add(name, salary);
07     }
08
09 }
```

You create the following unit test method to test the EmployeeRoster class implementation:

```
public void UnitTest1()
{
    EmployeeRoster employeeRoster = new EmployeeRoster();
    employeeRoster.Add("David Jones", 50000);
    employeeRoster.Add("Phyllis Harris", 75000);
    int expectedSalary = 75000;
    int actualSalary = employeeRoster["Phyllis Harris"];
    Assert.AreEqual(expectedSalary, actualSalary);
}
```

You need to ensure that the unit test will pass. What should you do?

A. Insert the following code segment at line 08:

```
public Dictionary<string, int> Employees
{
    get
    {
        return employees;
    }
}
```

B. Insert the following code segment at line 08:

```
public int this[string name]
{
    get
    {
        return employees[name];
    }
}
```

C. Replace line 03 with the following code segment:

```
public Dictionary<string, int> Employees = new Dictionary<string, int>();
```

D. Insert the following code segment at line 08:

```
public int salary(string name)
{
    return employees[name];
}
```

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

Answer: B

NEW QUESTION 263

You are developing an application that produces an executable named MyApp.exe and an assembly named MyApp.dll.

The application will be sold to several customers.

You need to ensure that enough debugging information is available for MyApp.exe, so that if the application throws an error in a customer's environment, you can debug the error in your own development environment.

What should you do?

- A. Digitally sign MyApp.dll.
- B. Produce program database (PDB) information when you compile the code.
- C. Compile MyApp.exe by using the /unsafe compiler option.
- D. Initializes a new instance of the AssemblyDelaySignAttribute class in the MyApp.dll constructor.

Answer: B

Explanation: A program database (PDB) file holds debugging and project state information that allows incremental linking of a debug configuration of your program. A PDB file is created when you build with /debug. Reference: Program Database Files (C#, F#, and Visual Basic)

[https://msdn.microsoft.com/library/ms241903\(v=vs.100\).aspx](https://msdn.microsoft.com/library/ms241903(v=vs.100).aspx)

NEW QUESTION 265

You are modifying an existing banking application.

The application includes an Account class and a Customer class. The following code segment defines the classes.

```

class Account
{
    public Account(decimal balance, int term, decimal rate)
    {
        Term = term;
        Balance = balance;
        Rate = rate;
    }
    public decimal Balance { get; set; }
    public decimal Rate { get; set; }
    public int Term { get; set; }
}

class Customer
{
    public Customer(string firstName, string lastName, Collection<Account> accounts)
    {
        FirstName = firstName;
        LastName = lastName;
        AccountCollection = accounts;
    }
    public string FirstName { get; set; }
    public string LastName { get; set; }
    public Collection<Account> AccountCollection { get; set; }
}

```

You populate a collection named customerCollection with Customer and Account objects by using the following code segment:

```

Collection<Customer> customerCollection = new Collection<Customer>();
Collection<Account> customerAccounts = new Collection<Account>();
customerAccounts.Add(new Account(1000m, 2, 0.025m));
customerAccounts.Add(new Account(3000m, 4, 0.045m));
customerAccounts.Add(new Account(5000m, 6, 0.045m));
customerCollection.Add(new Customer("David", "Jones", customerAccounts));

```

You create a largeCustomerAccounts collection to store the Account objects by using the following code segment:

```
Collection<Account> largeCustomerAccounts = new Collection<Account> ();
```

All accounts with a Balance value greater than or equal to 1,000,000 must be tracked. You need to populate the largeCustomerAccounts collection with Account objects. Which code segment should you use?

- A.

```
foreach (Customer customer in customerCollection)
{
    foreach (Account account in customer.AccountCollection)
    {
        if (account.Balance >= 1000000m)
        {
            customer.AccountCollection.Add(account);
        }
    }
}
```
- B.

```
foreach (Account customer in customerCollection)
{
    foreach (Account account in largeCustomerAccounts)
    {
        if (account.Balance >= 1000000m)
        {
            largeCustomerAccounts.Add(account);
        }
    }
}
```
- C.

```
foreach (Customer customer in customerCollection)
{
    foreach (Account account in customer.AccountCollection)
    {
        if (account.Balance >= 1000000m)
        {
            largeCustomerAccounts.Add(account);
        }
    }
}
```
- D.

```
foreach (Account account in largeCustomerAccounts)
{
    foreach (Customer customer in customerCollection)
    {
        if (account.Balance >= 1000000m)
        {
            customer.AccountCollection.Add(account);
        }
    }
}
```

- A. Option A
 B. Option B

- C. Option C
- D. Option D

Answer: C

NEW QUESTION 268

You are implementing a method named GetValidEmailAddresses. The GetValidEmailAddresses() method processes a list of string values that represent email addresses.

The GetValidEmailAddresses() method must return only email addresses that are in a valid format. You need to implement the GetValidEmailAddresses() method. Which two code segments can you use to achieve this goal? (Each correct answer presents a complete solution. Choose two.)

- A.

```
private static List<String> GetValidEmailAddresses(string input, string pattern)
{
    var regex = new Regex(pattern);
    var matches = regex.Matches(input);
    var validEmailAddresses = new List<String>();
    foreach (Match match in matches)
    {
        if (!match.Success)
        {
            validEmailAddresses.Add(match.Value);
        }
    }
    return validEmailAddresses;
}
```
- B.

```
private static List<String> GetValidEmailAddresses(string input, string pattern)
{
    var regex = new Regex(pattern);
    var matches = regex.Matches(input);
    return (from Match match in matches where match.Success select match.Value).ToList();
}
```
- C.

```
private static List<String> GetValidEmailAddresses(string input, string pattern)
{
    var regex = new Regex(pattern);
    var matches = regex.Matches(input);
    return (from Match match in matches where match.Success select match.Success.ToString()).ToList();
}
```
- D.

```
private static List<String> GetValidEmailAddresses(string input, string pattern)
{
    var regex = new Regex(pattern);
    var matches = regex.Matches(input);
    var validEmailAddresses = new List<String>();
    foreach (Match match in matches)
    {
        if (match.Success)
        {
            validEmailAddresses.Add(match.Value);
        }
    }
    return validEmailAddresses;
}
```

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

Answer: BD

Explanation: Note:

* List<T>.Add Method

Adds an object to the end of the List<T>.

NEW QUESTION 273

You are troubleshooting an application that uses a class named FullName. The class is decorated with the DataContractAttribute attribute. The application includes the following code. (Line numbers are included for reference only.)

```
01 class Program
02 {
03     MemoryStream WriteName (Name name)
04     {
05         var ms = new MemoryStream();
06         var binary = XmlDictionaryWriter.CreateBinaryWriter(ms);
07         var ser = new DataContractSerializer (typeof (FullName));
08         ser.WriteObject (binary, name);
09
10         return ms;
11     }
12 }
```

You need to ensure that the entire FullName object is serialized to the memory stream object. Which code segment should you insert at line 09?

- A. binary.WriteEndElement();
- B. binary.WriteEndElementAsync();
- C. binary.WriteEndElementAsync();
- D. binary.Flush();

Answer: D

Explanation: Example:

```
MemoryStream stream2 = new MemoryStream();
XmlDictionaryWriter binaryDictionaryWriter = XmlDictionaryWriter.CreateBinaryWriter(stream2);
serializer.WriteObject(binaryDictionaryWriter, record1);
binaryDictionaryWriter.Flush();
```

Incorrect:
 Not A: throws InvalidOperationException.
 Reference: [https://msdn.microsoft.com/en-us/library/ms752244\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/ms752244(v=vs.110).aspx)

NEW QUESTION 277

You need to write a method that retrieves data from a Microsoft Access 2013 database. The method must meet the following requirements:
 Be read-only.
 Be able to use the data before the entire data set is retrieved.
 Minimize the amount of system overhead and the amount of memory usage. Which type of object should you use in the method?

- A. DbDataReader
- B. DataContext
- C. unTyped DataSet
- D. DbDataAdapter

Answer: A

Explanation: DbDataReader Class

Reads a forward-only stream of rows from a data source.

Reference: DbDataReader Class

[https://msdn.microsoft.com/en-us/library/system.data.common.dbdatareader\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/system.data.common.dbdatareader(v=vs.110).aspx)

NEW QUESTION 282

You are creating a console application named App1. App1 will validate user input for order entries. You are developing the following code segment (line numbers are included for reference only):

```
01 Console.WriteLine("Enter unit price: ");
02 string price = Console.ReadLine();
03
04 Console.WriteLine("Valid price");
05 else
06 Console.WriteLine("Invalid price")
```

You need to complete the code segment.

The solution must ensure that prices are positive and have two decimal places. Which code should you insert at line 03?

- A. `if (!Regex.IsMatch(price, @"^(-)?\d+(\.\d\d)?$"))`
- B. `if (Regex.IsMatch(price, @"^(-)?\d+(\.\d\d)?$"))`
- C. `Regex reg = new Regex(@"^\d+(\.\d\d)?$");`
`if (reg.IsMatch(price))`
- D. `Regex reg = new Regex(@"^(-)?\d+(\.\d\d)?$");`
`if (reg.IsMatch(price))`

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

Answer: C

Explanation: `^\d+(\.\d\d)?$` only allows positive numbers. Incorrect:
`^(-)?\d+(\.\d\d)?$` allows for negative numbers because of the (-) group

NEW QUESTION 287

You have the following code:

```
List<Int32> items = new List<int>() {
    100,
    95,
    80,
    75,
    95
};
```

You need to retrieve all of the numbers from the items variable that are greater than 80. Which code should you use?

- A. `var result = from i in items
 where i > 80
 select i;`
- B. `var result = from i in items
 groupby i into grouped
 where grouped.Key > 80
 select i;`
- C. `var result = items.Take(80);`
- D. `var result = items.Skip(80);`

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

Answer: A

NEW QUESTION 288

You are evaluating a method that calculates loan interest- The application includes the following code segment. (Line numbers are included for reference only.)

```
01 private static decimal CalculateInterest(decimal loanAmount, int loanTerm)
02 {
03     decimal interestAmount;
04     decimal loanRate;
05     if (loanTerm > 0 && loanTerm < 5 && loanAmount < 5000m)
06     {
07         loanRate = 0.045m;
08     }
09     else if (loanTerm > 5 && loanAmount > 5000m)
10     {
11         loanRate = 0.085m;
12     }
13     else
14     {
15         loanRate = 0.055m;
16     }
17     interestAmount = loanAmount * loanRate * loanTerm;
18     return interestAmount;
19 }
```

When the loanTerm value is 3 and the loanAmount value is 9750, the loanRate must be set to 8.25 percent. You need to adjust the loanRate value to meet the requirements. What should you do?

- A. Replace line 04 with the following code segment: `decimal loanRate = 0.0325m;`
 B. Replace line 17 with the following code segment: `interestAmount = loanAmount * 0.0825m * loanTerm;`
 C. Replace line 15 with the following code segment: `loanRate = 0.0825m;`
 D. Replace line 07 with the following code segment: `loanRate = 0.0825m;`

Answer: C

NEW QUESTION 292

You are implementing a new method named ProcessData. The ProcessData() method calls a thirdparty component that performs a long-running operation. The third-party component uses the IAsyncResult pattern to signal completion of the long-running operation. You need to ensure that the calling code handles the long-running operation as a System.Threading.Tasks.Task object. Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- A. Call the component by using the TaskFactory.FromAsync() method.
 B. Create a TaskCompletionSource<T> object.
 C. Apply the async modifier to the method signature.
 D. Apply the following attribute to the method signature: `[MethodImpl(MethodImplOptions.Synchronized)]`

Answer: AB

Explanation: A: TaskFactory.FromAsync Method

Creates a Task that represents a pair of begin and end methods that conform to the Asynchronous Programming Model pattern. Overloaded.
 Example:

TaskFactory.FromAsync Method (IAsyncResult, Action<IAsyncResult>)

Creates a Task that executes an end method action when a specified IAsyncResult completes.

B: In many scenarios, it is useful to enable a Task<TResult> to represent an external asynchronous operation. TaskCompletionSource<TResult> is provided for this purpose. It enables the creation of a task that can be handed out to consumers, and those consumers can use the members of the task as they would any other. However, unlike most tasks, the state of a task created by a TaskCompletionSource is controlled explicitly by the methods on TaskCompletionSource. This enables the completion of the external asynchronous operation to be propagated to the underlying Task. The separation also ensures that consumers are not able to transition the state without access to the corresponding TaskCompletionSource.

Note:

* System.Threading.Tasks.Task Represents an asynchronous operation.

NEW QUESTION 296

You are modifying an application that processes loans. The following code defines the Loan class. (Line numbers are included for reference only.)

```
01 public class Loan
02 {
03
04     private int _term;
05     private const int MaximumTerm = 10;
06     private const decimal Rate = 0.034m;
07     public int Term
08     {
09         get
10         {
11             return _term;
12         }
13         set
14         {
15             if (value <= MaximumTerm)
16             {
17                 _term = value;
18             }
19             else
20             {
21
22             }
23         }
24     }
25 }
26 public delegate void MaximumTermReachedHandler(object source, EventArgs e);
```

Loans are restricted to a maximum term of 10 years. The application must send a notification message if a loan request exceeds 10 years. You need to implement the notification mechanism.

Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- A. Insert the following code segment at line 03:

```
public string MaximumTermReachedEvent { get; set; }
```

- B. Insert the following code segment at line 21:

```
if (OnMaximumTermReached != null)
{
    OnMaximumTermReached(this, new EventArgs());
}
```

- C. Insert the following code segment at line 03:

```
private string MaximumTermReachedEvent;
```

- D. Insert the following code segment at line 03:

```
public event MaximumTermReachedHandler OnMaximumTermReached;
```

- E. Insert the following code segment at line 21:

```
value = MaximumTerm;
```

- F. Insert the following code segment at line 21:

```
value = 9;
```

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

Answer: BD

NEW QUESTION 299

An application contains code that measures reaction times. The code runs the timer on a thread separate from the user interface. The application includes the

following code. (Line numbers are included for reference only.)

```
01 static int RunTimer(CancellationTok... cancellationToken)
02 {
03     var time = 0;
04     while (!cancellationToken.IsCancellationRequested)
05         time++;
06     return time;
07 }
08 static void Main(string[] args)
09 {
10     var tokenSource = new CancellationTok... ();
11     var task = Task.Factory.StartNew<int>(() => RunTimer(tokenSource.Token));
12     Console.WriteLine("Press [Enter] to stop the timer.");
13     Console.ReadLine();
14
15     Console.WriteLine("Timer stopped at {0}", task.GetAwaiter().GetResult());
16     Console.ReadLine();
17 }
```

You need to ensure that the application cancels the timer when the user presses the Enter key. Which code segment should you insert at line 14?

- A. tokenSource.Token.Register(() => tokenSource.Cancel());
- B. tokenSource.Cancel();
- C. tokenSource.IsCancellationRequested = true;
- D. tokenSource.Dispose();

Answer: B

Explanation: The CancellationTok... Cancel method communicates a request for cancellation, and specifies whether remaining callbacks and cancelable operations should be processed.

Incorrect:

Not C: The IsCancellationRequested property is ReadOnly. Reference: CancellationTok... Cancel Method (Boolean) [https://msdn.microsoft.com/en-us/library/dd321703\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/dd321703(v=vs.110).aspx)

NEW QUESTION 303

You are developing an application that will process personnel records. The application must encrypt highly sensitive data. You need to ensure that the application uses the strongest available encryption. Which class should you use?

- A. System.Security.Cryptography.DES
- B. System.Security.Cryptography.Aes
- C. System.Security.Cryptography.TripleDES
- D. System.Security.Cryptography.RC2

Answer: B

Explanation: Advanced Encryption Standard (AES) has been adopted by the U.S. government and is now used worldwide. It supersedes the Data Encryption Standard (DES). AES key sizes are 128, 192 or 256 bits.

Incorrect:

DES, 3DES, and RC2 are all less secure.

Reference: https://en.wikipedia.org/wiki/Advanced_Encryption_Standard

NEW QUESTION 305

You are developing an application that uses a .config file. The relevant portion of the .config file is shown as follows:

```
<system.diagnostics>
  <trace autoflush="false" indentsize="0">
    <listeners>
      <add name="appListener"
        type="System.Diagnostics.EventLogTraceListener"
        initializeData="TraceListenerLog" />
    </listeners>
  </trace>
</system.diagnostics>
```

You need to ensure that diagnostic data for the application writes to the event log by using the configuration specified in the .config file. What should you include in the application code?

- A. `Debug.WriteLine("Trace data...");`
- B. `Console.SetOut(new StreamWriter("System.Diagnostics.EventLogTraceListener"));`
`Console.WriteLine("Trace data...");`
- C. `Trace.WriteLine("Trace data...");`
- D. `EventLog log = new EventLog();`
`log.WriteEntry("Trace data...");`

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

Answer: C

Explanation: The Trace.WriteLine statements will be included in the Release compilation by default. Incorrect: Not A: Debug.WriteLine() statements will not be included in the Release compilation by default.

NEW QUESTION 308

DRAG DROP

You create an assembly named Assembly1.dll.

You need to ensure that Assembly1.dll can be deployed to the global assembly cache (GAC). Which commands should you run? (To answer, drag the appropriate programs to the correct locations. Each program may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

Answer:

Explanation: The al.exe command has the /out and /keyfile options. Incorrect: gacutil.exe command does not have the /out and /keyfile options.
 Reference: [https://msdn.microsoft.com/en-us/library/ex0ss12c\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/ex0ss12c(v=vs.110).aspx)

NEW QUESTION 313

DRAG DROP

You have an application that accesses a Microsoft SQL Server database.

The database contains a stored procedure named Proc1. Proc1 accesses several rows of data across multiple tables.

You need to ensure that after Proc1 executes, the database is left in a consistent state. While Proc1 executes, no other operation can modify data already read or changed by Proc1. (Develop the solution by selecting and ordering the required code snippets.)

You may not need all of the code snippets.)

```
SqlConnection transaction = connection.BeginTransaction  
(System.Data.IsolationLevel.RepeatableRead);
```

```
SqlConnection transaction = connection.BeginTransaction  
(System.Data.IsolationLevel.ReadUncommitted)  
;
```

```
} finally {
```

```
command.Dispose();  
connection.Dispose();  
}
```

```
try {  
connection.Open();  
command.ExecuteNonQuery();
```

```
TransactionScope transaction = new TransactionScope();
```

```
SqlConnection connection = new SqlConnection  
(connectionString);  
SqlCommand command = new SqlCommand  
("proc1", connection);
```

```
} catch {
```

```
transaction.Rollback();
```

```
transaction.Commit();
```

Answer:**Explanation:** Note:

* Box 1: Start with the sqlconnection

* Box 2: Open the SQL transaction (RepeatableRead)

/ IsolationLevel

Specifies the isolation level of a transaction.

/ RepeatableRead

Volatile data can be read but not modified during the transaction. New data can be added during the transaction.

/ ReadCommitted

Volatile data cannot be read during the transaction, but can be modified.

/ ReadUncommitted

Volatile data can be read and modified during the transaction. Box 3: Try the query

Box 4: commit the transaction

Box 5: Catch the exception (a failed transaction) Box 6: Rollback the transaction

Box 7: Final cleanup

Box 8: Clean up (close command and connection).

Reference: SqlConnection.BeginTransaction Method Incorrect:

The transaction is not set up by transactionscope here. Begintransaction is used.

NEW QUESTION 316**DRAG DROP**

You have an application that uses paging. Each page displays 10 items from a list.

You need to display the third page. (Develop the solution by selecting and ordering the required code snippets. You may not need all of the code snippets.)

- A.

```
protected async void StartTask()
{
    string result = await GetData();
    ...
}
public Task<string> GetData()
{
    ...
}
```
- B.

```
protected async void StartTask()
{
    string result = GetData();
    ...
}
public Task<string> GetData()
{
    ...
}
```
- C.

```
protected async void StartTask()
{
    string result = await GetData();
    ...
}
public async Task<string> GetData()
{
    ...
}
```
- D.

```
protected async void StartTask()
{
    string result = async GetData();
    ...
}
public await Task<string> GetData()
{
    ...
}
```

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

Answer: C

Explanation: Use the async modifier to specify that a method, lambda expression, or anonymous method is asynchronous. If you use this modifier on a method or expression, it's referred to as an async method.

Example:

```
public async Task<int> ExampleMethodAsync()
{
    // ...
}
```

Reference: async (C# Reference) <https://msdn.microsoft.com/en-us/library/hh156513.aspx>

NEW QUESTION 325

You are developing an application.
The application contains the following code:

```
class Program
{
    static void ProcessOrders (string orderRefNumber)
    {
        if (orderRefNumber == null)
        {
            throw new ArgumentNullException();
        }
        ...
    }

    static void Main()
    {
        try
        {
            string orderRefNumber = null;
            ProcessOrders (orderRefNumber);
        }
        catch (ArgumentNullException e)
        {
            Console.WriteLine("{0} An exception caught.", e);
        }

        catch (Exception e)
        {
            Console.WriteLine("{0} An exception caught.", e);
        }
    }
}
```

When you compile the code, you receive the following syntax error message: "A previous catch clause already catches all exceptions of this or a super type ('System.Exception')."

You need to ensure that the code can be compiled. What should you do?

- A. Catch the ArgumentException exception instead of the ArgumentNullException exception.
- B. Throw a new exception in the second catch block.
- C. Catch the ArgumentNullException exception first.
- D. Re-throw the exception caught by the second catch block.

Answer: A

NEW QUESTION 326

You have an application that accesses a Web server named Server1.

You need to download an image named Image1.jpg from Server1 and store the image locally as File1.jpg.

Which code should you use?

- A.

```
WebRequest request = HttpWebRequest.Create("http://server1/image1.jpg");
StreamWriter writer = new StreamWriter(request.GetResponse().GetResponseStream());
writer.WriteLine("C:\\file1.jpg");
writer.Dispose();
```
- B.

```
WebClient client = new WebClient();
StreamWriter writer = new StreamWriter("C:\\file1.jpg");
writer.Write(client.DownloadData("http://server1/image1.jpg"));
writer.Dispose();
client.Dispose();
```
- C.

```
WebClient client = new WebClient();
client.DownloadFile("http://server1/image1.jpg", "C:\\file1.jpg");
client.Dispose();
```
- D.

```
WebRequest request = HttpWebRequest.Create("http://server1/image1.jpg");
StreamWriter writer = new StreamWriter(request.GetResponse().GetResponseStream());
writer.Write("C:\\file1.jpg");
writer.Dispose();
```

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

Answer: C

NEW QUESTION 328

You are developing a C# application. The application references and calls a RESTful web service named EmployeeService. The EmployeeService web service includes a method named GetEmployee, which accepts an employee ID as a parameter. The web service returns the following JSON data from the method.

```
{ "Id":1, "Name": "David Jones" }
```

The following code segment invokes the service and stores the result:

```
WebClient client = new WebClient();
byte[] employeeData = client.DownloadData("http://localhost:2588/EmployeeService.svc/GetEmployee/1");
```

You need to convert the returned JSON data to an Employee object for use in the application. Which code segment should you use?

- A.

```
using (Stream stream = new MemoryStream(employeeData))
{
    XmlSerializer xmlSerializer = new XmlSerializer(typeof(Employee));
    Employee retrievedEmployee = xmlSerializer.Deserialize(stream) as Employee;
    ...
}
```
- B.

```
using (Stream stream = new MemoryStream(employeeData))
{
    DataContractSerializer dataContractSerializer = new DataContractSerializer(typeof(Employee));
    Employee retrievedEmployee = dataContractSerializer.ReadObject(stream) as Employee;
    ...
}
```
- C.

```
using (Stream stream = new MemoryStream(employeeData))
{
    DataContractJsonSerializer dataContractJsonSerializer = new DataContractJsonSerializer(typeof(Employee));
    Employee retrievedEmployee = dataContractJsonSerializer.ReadObject(stream) as Employee;
    ...
}
```
- D.

```
using (Stream stream = new MemoryStream(employeeData))
{
    NetDataContractSerializer netDataContractSerializer = new NetDataContractSerializer();
    Employee retrievedEmployee = netDataContractSerializer.ReadObject(stream) as Employee;
    ...
}
```

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

Answer: C

NEW QUESTION 330

You are developing an assembly.

You plan to sign the assembly when the assembly is developed. You need to reserve space in the assembly for the signature.

What should you do?

- A. Run the Assembly Linker tool from the Windows Software Development Kit (Windows SDK).
- B. Run the Strong Name tool from the Windows Software Development Kit (Windows SDK).
- C. Add the AssemblySignatureKeyAttribute attribute the assembly.
- D. Add the AssemblyDelaySignAttribute attribute to the assembly.

Answer: D

Explanation: The AssemblyDelaySignAttribute class specifies that the assembly is not fully signed when created. Reference: [https://msdn.microsoft.com/enus/library/system.reflection.assemblydelaysignattribute\(v=vs.110\).aspx](https://msdn.microsoft.com/enus/library/system.reflection.assemblydelaysignattribute(v=vs.110).aspx)

NEW QUESTION 335

You have the following code (line numbers are included for reference only):

```
01 public class Program
02 {
03     private static System.Diagnostics.Stopwatch _execTimer =
04         new System.Diagnostics.Stopwatch();
05     public static void Delay(int delay)
06     {
07         Thread.Sleep(delay);
08     }
09     public static void LogLongExec(string msg)
10     {
11         if (_execTimer.Elapsed.Seconds >= 5)
12             throw new Exception(
13                 string.Format("Execution is too long > {0} > {1}",
14                     msg, _execTimer.Elapsed.TotalMilliseconds));
15     }
16     public static void Main()
17     {
18         _execTimer.Start();
19         try
20         {
21             Delay(10);
22             LogLongExec("Delay(10)");
23             Delay(5000);
24             LogLongExec("Delay(5000)");
25         }
26         catch (Exception ex)
27         {
28
29         }
30     }
31 }
```

You need to ensure that if an exception occurs, the exception will be logged. Which code should you insert at line 28?

- A. `System.Diagnostics.XmlWriterTraceListener listener = new XmlWriterTraceListener("./Error.log"); listener.WriteLine(ex.Message); listener.Flush(); listener.Close();`
- B. `System.Diagnostics.XmlWriterTraceListener loggingListener = new XmlWriterTraceListener("./Trace.log"); loggingListener.Flush(); loggingListener.Close();`
- C. `System.Diagnostics.Trace.WriteLine(ex.Message, "Error.log");`
- D. `System.Diagnostics.TraceSource trace = new TraceSource("./Trace.log"); trace.TraceEvent(TraceEventType.Error, ex.HResult, ex.Message);`

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

Answer: A

Explanation: * XmlWriterTraceListener

Directs tracing or debugging output as XML-encoded data to a TextWriter or to a Stream, such as a FileStream.

NEW QUESTION 336

You are troubleshooting an application that uses a class named FullName. The class is decorated with the DataContractAttribute attribute. The application includes the following code. (Line numbers are included for reference only.)

```

01 class Program
02 {
03     MemoryStream WriteName(Name name)
04     {
05         var ms = new MemoryStream();
06         var binary = XmlDictionaryWriter.CreateBinaryWriter(ms);
07         var ser = new DataContractSerializer(typeof(FullName));
08         ser.WriteObject(binary, name);
09
10         return ms;
11     }
12 }

```

You need to ensure that the entire FullName object is serialized to the memory stream object. Which code segment should you insert at line 09?

- A. binary.WriteEndElement();
- B. binary.NriteEndDocument();
- C. ms.Close();
- D. binary.Flush();

Answer: D

Explanation: Example:

```

MemoryStream stream2 = new MemoryStream();
XmlDictionaryWriter binaryDictionaryWriter = XmlDictionaryWriter.CreateBinaryWriter(stream2);
serializer.WriteObject(binaryDictionaryWriter, record1);
binaryDictionaryWriter.Flush();
Incorrect:
Not A: throws InvalidOperationException.
Reference: https://msdn.microsoft.com/en-us/library/ms752244\(v=vs.110\).aspx

```

NEW QUESTION 338

You have the following code:

```

List<Int32> items = new List<int>() {
    100,
    95,
    80,
    75,
    95
};

```

You need to retrieve all of the numbers from the items variable that are greater than 80. Which code should you use?

- A. `var result = items.First(i => i > 80);`
- B. `var result = items.Where(i => i > 80);`
- C. `var result = from i in items
 groupby i into grouped
 where grouped.Key > 80
 select i;`
- D. `var result = items.Any(i => i > 80);`

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

Answer: B

Explanation: Enumerable.Where<TSource> Method (IEnumerable<TSource>, Func<TSource, Boolean>) Filters a sequence of values based on a predicate.

Example: `List<string> fruits = new List<string> { "apple", "passionfruit", "banana", "mango", "orange", "blueberry", "grape", "strawberry" }; IEnumerable<string> query = fruits.Where(fruit => fruit.Length < 6);` foreach (string fruit in query)

```

{
    Console.WriteLine(fruit);
}
/*

```

This code produces the following output: apple
mango
grape
*/

NEW QUESTION 342

You are implementing a new method named ProcessData. The ProcessData() method calls a thirdparty component that performs a long-running operation to retrieve stock information from a web

service.
 The third-party component uses the IAsyncResult pattern to signal completion of the long-running operation so that the UI can be updated with the new values. You need to ensure that the calling code handles the long-running operation as a System.Threading.Tasks.Task object to avoid blocking the UI thread. Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- A. Create a TaskCompletionSource<T> object.
- B. Call the component by using the TaskFactory.FromAsync() method.
- C. Apply the following attribute to the ProcessData() method signature: [MethodImpl(MethodImplOptions.Synchronized)]
- D. Apply the async modifier to the ProcessData() method signature.

Answer: AB

Explanation: A: In many scenarios, it is useful to enable a Task<TResult> to represent an external asynchronous operation. TaskCompletionSource<TResult> is provided for this purpose. It enables the creation of a task that can be handed out to consumers, and those consumers can use the members of the task as they would any other. However, unlike most tasks, the state of a task created by a TaskCompletionSource is controlled explicitly by the methods on TaskCompletionSource. This enables the completion of the external asynchronous operation to be propagated to the underlying Task. The separation also ensures that consumers are not able to transition the state without access to the corresponding TaskCompletionSource.

B: TaskFactory.FromAsync Method

Creates a Task that represents a pair of begin and end methods that conform to the Asynchronous Programming Model pattern. Overloaded.

Example:

TaskFactory.FromAsync Method (IAsyncResult, Action<IAsyncResult>)

Creates a Task that executes an end method action when a specified IAsyncResult completes. Note:

* System.Threading.Tasks.Task Represents an asynchronous operation.

NEW QUESTION 347

You are developing an application by using C#. The application will write events to an event log. You plan to deploy the application to a server. You create an event source named MySource and a custom log named MyLog on the server. You need to write events to the custom log. Which code segment should you use?

- A.

```
public void WriteToEventLog(string message)
{
    EventLog eventLog = new EventLog() { Source = "Application" };
    eventLog.WriteEntry(message);
}
```
- B.

```
public void WriteToEventLog(string message)
{
    EventLog eventLog = new EventLog() { Source = "MyLog", EnableRaisingEvents = true };
    EventInstance eventInstance = new EventInstance(0, 1);
    eventLog.WriteEvent(eventInstance, message);
}
```
- C.

```
public void WriteToEventLog(string message, EventLogEntryType eventLogEntryType)
{
    EventLog eventLog = new EventLog() { Source = "MyLog" };
    eventLog.WriteEntry(message, eventLogEntryType);
}
```
- D.

```
public void WriteToEventLog(string message, EventLogEntryType eventLogEntryType)
{
    EventLog eventLog = new EventLog() { Source = "MySource", EnableRaisingEvents = true };
    eventLog.WriteEntry(message, eventLogEntryType);
}
```

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

Answer: D

NEW QUESTION 351

HOTSPOT

You have an existing order processing system that accepts .xml files, The following code shows an example of a properly formatted order in XML:

```
<Order OrderID="42">
  <Customer>Ben Smith</Customer>
  <CustomerID>206</CustomerID>
  <OrderDate>2013-04-19T09:13:14.7265994-05:00</OrderDate>
</Order>
```

You create the following class that will be serialized:

```
[DataContract()]
public class Order
{
    [DataMember()]
    public Int32 OrderID { get; set; }

    [DataMember(Name = "Customer")]
    public String CustomerName { get; set; }

    [DataMember()]
    private Int32 CustomerID { get; set; }

    public DateTime OrderDate { get; set; }
}
```

For each of the following properties, select Yes if the property is serialized according to the defined schema. Otherwise, select No.

	Yes	No
OrderID	<input type="radio"/>	<input type="radio"/>
OrderDate	<input type="radio"/>	<input type="radio"/>
CustomerName	<input type="radio"/>	<input type="radio"/>

Answer:

Explanation: OrderId – NO (this will serialize as an element, not as an attribute)
 OrderDate – NO (doesn't have DataMember attribute, thus is completely ignored) CustomerName – YES (DataMember is set correctly)

NEW QUESTION 352

You need to write a console application that meets the following requirements:

If the application is compiled in Debug mode, the console output must display Entering debug mode. If the application is compiled in Release mode, the console output must display Entering release mode.

Which code should you use?

- A.

```
#if (TRACE)
    Console.WriteLine("Entering debug mode");
#else
    Console.WriteLine("Entering release mode");
#endif
```
- B.

```
#if (DEBUG)
    Console.WriteLine("Entering debug mode");
#else
    Console.WriteLine("Entering release mode");
#endif
```
- C.

```
if(System.Diagnostics.Debugger.IsAttached)
    Console.WriteLine("Entering debug mode");
else
    Console.WriteLine("Entering release mode");
```
- D.

```
#region DEBUG
    Console.WriteLine("Entering debug mode");
#endregion
#region RELEASE
    Console.WriteLine("Entering release mode");
#endregion
```

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

Answer: B

Explanation: When the C# compiler encounters an #if directive, followed eventually by an #endif directive, it will compile the code between the directives only if the specified symbol is defined. Unlike C and C++, you cannot assign a numeric value to a symbol; the #if statement in C# is Boolean and only tests whether the symbol has been defined or not. For example,
 #define DEBUG

```
// ...  
#if DEBUG  
Console.WriteLine("Debug version");  
#endif
```

NEW QUESTION 354**DRAG DROP**

You are adding a method to an existing application. The method uses an integer named `statusCode` as an input parameter and returns the status code as a string. The method must meet the following requirements: Return "Error" if the `statusCode` is 0.

Return "Success" if the `statusCode` is 1.

Return "Unauthorized" if the `statusCode` is any value other than 0 or 1. You need to implement the method to meet the requirements.

How should you complete the relevant code? (To answer, drag the appropriate statements to the correct locations in the answer area. Each statement may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

```
string statusText;  
    (statusCode)  
{  
    0:  
        statusText = "Error";  
        ;  
    1:  
        statusText = "Success";  
        ;  
        ;  
        statusText = "Unauthorized";  
        ;  
}  
return statusText;
```

drag-and-drop options: default, switch, break, case

Answer:**Explanation:** Example:

```
int caseSwitch = 1; switch (caseSwitch)
```

```
{  
case 1:  
Console.WriteLine("Case 1"); break;  
case 2:  
Console.WriteLine("Case 2"); break;  
default: Console.WriteLine("Default case"); break;  
}
```

Reference: switch (C# Reference) <https://msdn.microsoft.com/en-us/library/06tc147t.aspx>

NEW QUESTION 358

You have the following class (line numbers are included for reference only):

```
01 public class Class1
02 {
03     private String value = String.Empty;
04     private ServiceProxy proxy = new ServiceProxy();
05
06     public String Value
07     {
08         get {return value;}
09     }
10     public void Modify(Object newValue)
11     {
12
13         value += proxy.Update(newValue.ToString());
14     }
15 }
16 public class Test
17 {
18     public void Execute()
19     {
20         Class1 class1 = new Class1();
21         (new ParameterizedThreadStart(class1.Modify)).Invoke(1);
22         (new ParameterizedThreadStart(class1.Modify)).Invoke(2);
23         (new ParameterizedThreadStart(class1.Modify)).Invoke(3);
24         Console.WriteLine(class1.Value);
25     }
26 }
```

ServiceProxy is a proxy for a web service. Calls to the Update method can take up to five seconds. The Test class is the only class the uses Class1. You run the Execute method three times, and you receive the following results:

213
312
231

You need to ensure that each value is appended to the Value property in the order that the Modify methods are invoked. What should you do?

- A. Insert the following at line 5:
`Object obj1 = new Object();`
- Insert the following at line 12:
`Monitor.Enter(obj1);`
- B. Insert the following at line 5:
`Object obj1 = new Object();`
- Insert the following at line 12:
`lock (obj1)`
- C. Insert the following at line 12:
`Monitor.Enter(this);`
- D. Insert the following at line 12:
`lock (value)`

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

Answer: B

Explanation: Need to lock statement. The lock keyword marks a statement block as a critical section by obtaining the mutual-exclusion lock for a given object, executing a statement, and then releasing the lock. Reference: lock Statement (C# Reference)
<https://msdn.microsoft.com/en-us/library/c5kehkc.z.aspx>

NEW QUESTION 360

HOTSPOT

You have the following code (line numbers are included for reference only):

```

01 using (StreamWriter writer = new StreamWriter(@"C:\console.txt"))
02 {
03     Console.SetOut(writer);
04     using (FileStream stream = new FileStream(@"C:\file.txt", FileMode.Open))
05     {
06         using (StreamReader reader = new StreamReader(stream))
07         {
08             while (!reader.EndOfStream) Console.WriteLine(reader.ReadLine());
09         }
10     }
11 }
    
```

To answer, complete each statement according to the information presented in the code.

If File.txt does NOT exist in the root of C:, ... will be thrown.

- ArgumentNullException
- FileLoadException
- FileNotFoundException
- PipeException

The final output of the streaming operation will be ...

- a console window.
- the Console.txt file.
- the file.txt file.
- the Visual Studio Debug console.

Answer:

Explanation: If File.txt does NOT exist in the root of C:, ... will be thrown.

- ArgumentNullException
- FileLoadException
- FileNotFoundException
- PipeException

The final output of the streaming operation will be ...

- a console window.
- the Console.txt file.
- the file.txt file.
- the Visual Studio Debug console.

NEW QUESTION 363

.....

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