70-483 Dumps

Programming in C#

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NEW QUESTION 1
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 2
DRAG DROP
You are developing an application by using C#. The application includes an array of decimal values named loanAmounts. You are developing a LINQ query to return the values from the array.
The query must return decimal values that are evenly divisible by two. The values must be sorted from the lowest value to the highest value.
You need to ensure that the query correctly returns the decimal values.
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.)

```
join            decimal[] loanAmounts = { 303m, 1000m, 85579m, 501.51m, 603m
from              1200m, 400m, 22m };
group           IEnumerable<decimal> loanQuery =
ascending                        amount in loanAmounts
descending                       amount % 2 == 0
where                            amount
orderby                          amount;
select
```

Answer:

Explanation: Note: In a query expression, the orderby clause causes the returned sequence or subsequence (group) to be sorted in either ascending or descending order.
Examples:
// Query for ascending sort. IEnumerable<string> sortAscendingQuery = from fruit in fruits
orderby fruit //"ascending" is default select fruit;

```
// Query for descending sort. IEnumerable<string> sortDescendingQuery = from w in fruits
orderby w descending select w;
```

NEW QUESTION 3
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 4
DRAG DROP
An application serializes and deserializes XML from streams. The XML streams are in the following format:

```
<Name xmlns="http://www.contoso.com/2012/06">
   <LastName>Jones</LastName>
   <FirstName>David</FirstName>
</Name>
```

The application reads the XML streams by using a DataContractSerializer object that is declared by the following code segment:
var ser = new DataContractSerializer(typeof(Name));
You need to ensure that the application preserves the element ordering as provided in the XML stream.
How should you complete the relevant code? (To answer, drag the appropriate attributes to the correct locations in the answer area-Each attribute 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.)

```
[DataContract(Namespace="http://www.contoso.com/2012/06")]
```

```
[DataMember(Order=10)]
```

```
[DataMember]
```

```
[DataContract(Name="http://www.contoso.com/2012/06")]
```

```
[DataMember(Name="http://www.contoso.com/2012/06", Order=10)]
```

```
[DataContract]
```

```
[DataMember(Name="http://www.contoso.com/2012/06")]
```

```
class Name
{

  public string FirstName { get; set; }


  public string LastName { get; set; }

}
```

Answer:

Explanation: Target 1: The DataContractAttribute.Namespace Property gets or sets the namespace for the data contract for the type. Use this property to specify a particular namespace if your type must return data that complies with a specific data contract.
Target2, target3: We put Order=10 on FirstName to ensure that LastName is ordered first. Note:
The basic rules for data ordering include:
* If a data contract type is a part of an inheritance hierarchy, data members of its base types are always first in the order.
* Next in order are the current type's data members that do not have the Order property of the DataMemberAttribute attribute set, in alphabetical order.
* Next are any data members that have the Order property of the DataMemberAttribute attribute set. These are ordered by the value of the Order property first and then alphabetically if there is more than one member of a certain Order value. Order values may be skipped.
Reference: Data Member Order
https://msdn.microsoft.com/en-us/library/ms729813(v=vs.110).aspx Reference: DataContractAttribute.Namespace Property https://msdn.microsoft.com/enus/library/system.runtime.serialization.datacontractattribute.namespace(v=vs.110).aspx

NEW QUESTION 5
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 NetDataContractSenalizer()
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 6
An application includes a class named Person. The Person class includes a method named GetData.
You need to ensure that the GetData() from the Person class. Which access modifier should you use for the GetData() method?

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

Answer: B

Explanation: Protected - The type or member can be accessed only by code in the same class or structure, or in a class that is derived from that class.
The protected keyword is a member access modifier. A protected member is accessible within its class and by derived class instances.
Reference: http://msdn.microsoft.com/en-us/library/ms173121.aspx

NEW QUESTION 7
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 not throw any exceptions when converting the obj object to the IDataContainer interface or 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. dynamic dataContainer = obj;
C. var dataContainer = obj is IDataContainer;
D. var dataContainer = obj as IDataContainer;

Answer: D

Explanation: As - The as operator is like a cast operation. However, if the conversion isn't possible, as returns null instead of raising an exception.
http://msdn.microsoft.com/en-us/library/cscsdfbt(v=vs.110).aspx

NEW QUESTION 8
You are creating an application that manages information about zoo animals. The application includes a class named Animal and a method named Save.
The Save() method must be strongly typed. It must allow only types inherited from the Animal class that uses a constructor that accepts no parameters.
You need to implement the Save() method. Which code segment should you use?

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

```
B.   public static void Save<T>(T target) where T : Animal
     {
         ...
     }
```

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

```
D.   public static void Save(Animal target)
     {
         ...
     }
```

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

Answer: C

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 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(IEnumerator<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(IEnumerator<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

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
You are implementing a method named Calculate that performs conversions between value types and reference types. The following code segment implements the method. (Line numbers are included for reference only.)

```
01  public static void Calculate(float amount)
02  {
03      object amountRef = amount;
04
05      Console.WriteLine(balance);
06  }
```

You need to ensure that the application does not throw exceptions on invalid conversions. Which code segment should you insert at line 04?

A. int balance = (int) (float)amountRef;
B. int balance = (int)amountRef;
C. int balance = amountRef;
D. int balance = (int) (double) amountRef;

Answer: A

Explanation: Explicit cast of object into float, and then another Explicit cast of float into int. Reference: explicit (C# Reference)
https://msdn.microsoft.com/en-us/library/xhbhezf4.aspx

NEW QUESTION 11
You are creating a console application by using C#. You need to access the application assembly. Which code segment should you use?

A. Assembly.GetAssembly(this);
B. this.GetType();
C. Assembly.Load();
D. Assembly.GetExecutingAssembly();

Answer: D

Explanation: Assembly.GetExecutingAssembly - Gets the assembly that contains the code that is currently executing.
Reference: http://msdn.microsoft.com/enus/ library/system.reflection.assembly.getexecutingassembly(v=vs.110).aspx Incorrect:
Not A: Assembly.GetAssembly - Gets the currently loaded assembly in which the specified class is defined.
http://msdn.microsoft.com/en-us/library/system.reflection.assembly.getassembly.aspx

NEW QUESTION 15
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

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

Work Area

```csharp
public string GetResponse(char letter)
{
    string response;
    [ ▼ ] (letter)
    case
    if
    switch
    {
        [ ▼ ] 'a':
        case
        default
        else
        if
        response = "animal";
        break;
        [ ▼ ] 'm':
        case
        default
        else
        if
        response = "mineral";
        break;
        [ ▼ ] :
        case
        default
        else
        if
        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

NEW QUESTION 17
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 18
DRAG DROP
You develop an application that displays information from log files when errors occur. The application will prompt the user to create an error report that sends details about the error and the session to
the administrator.
When a user opens a log file by using the application, the application throws an exception and closes. The application must preserve the original stack trace
information when an exception occurs during this process.
You need to implement the method that reads the log files.
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.)

```
using (StringReader sr = new StringReader("log.txt"))

using (StreamReader sr = new StreamReader("log.txt"))

throw new FileNotFoundException();

throw;
```

```
{
    try
    {
        string line;
        while ((line = sr.ReadLine()) != null)
        {
            Console.WriteLine(line);
        }
    }
    catch (FileNotFoundException e)
    {
        Console.Write(e.ToString());

    }
}
```

Answer:

Explanation: StreamReader - Implements a TextReader that reads characters from a byte stream in a particular encoding.
Reference: http://msdn.microsoft.com/en-us/library/system.io.streamreader(v=vs.110).aspx
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 Incorrect:
StringReader - Implements a TextReader that reads from a string.
Reference: http://msdn.microsoft.com/en-us/library/system.io.stringreader(v=vs.110).aspx

NEW QUESTION 22
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 25
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 28
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?

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

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

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

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

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

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

C 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 31
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 = PerformanccCounterType.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 35
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. HMACSHA256
B. RNGCryptoServiceProvider
C. DES
D. Aes

Answer: A

Explanation: The .NET Framework provides the following classes that implement hashing algorithms: HMACSHA1.
MACTripleDES. MD5CryptoServiceProvider. RIPEMD160.
SHA1Managed. SHA256Managed. SHA384Managed. SHA512Managed.
HMAC variants of all of the Secure Hash Algorithm (SHA), Message Digest 5 (MD5), and RIPEMD-160 algorithms.
CryptoServiceProvider implementations (managed code wrappers) of all the SHA algorithms. Cryptography Next Generation (CNG) implementations of all the MD5
and SHA algorithms. Reference: http://msdn.microsoft.com/en-us/library/92f9ye3s.aspx#hash_values

NEW QUESTION 37
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 40

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/c5kehkcz.aspx

NEW QUESTION 41

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 44
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 47
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 48
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.Append("\l");

var sb = new StringBuilder();

sb.Append("First Line");

sb.Append("\t");

sb.AppendLine();

sb.Append(String.Empty);

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

Answer:

Explanation: Box 1:

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

First we create the variable.
Box 2:

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

Finally we add the second line.

NEW QUESTION 49
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.)

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

```
{
    public static bool IsEmail(

    }
    {
        var regex = new Regex(@"^([\w\.\-]+)@([\w\-]+)((\.(\w){2,3})+)$");
        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 51
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 55
An application will upload data by using HTML form-based encoding. The application uses a method named SendMessage.
The SendMessage() method includes the following code. (Line numbers are included for reference only.)

```
01 public Task<byte[]> SendMessage(string url, int intA, int intB)
02 {
03    var client = new WebClient();
04
05 }
```

The receiving URL accepts parameters as form-encoded values.
You need to send the values intA and intB as form-encoded values named a and b, respectively. Which code segment should you insert at line 04?

```
A.  var data = string.Format("a={0}&b={1}", intA, intB);
    return client.UploadStringTaskAsync(new Uri(url), data);

B.  var data = string.Format("a={0}&b={1}", intA, intB);
    return client.UploadFileTaskAsync(new Uri(url), data);

C.  var data = string.Format("a={0}&b={1}", intA, intB);
    return client.UploadDataTaskAsync(new Uri(url), Encoding.UTF8.GetBytes(data));

D.  var nvc = new NameValueCollection() { { "a", intA.ToString() }, { "b", intB.ToString() } };
    return client.UploadValuesTaskAsync(new Uri(url), nvc);
```

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

Answer: D

Explanation: WebClient.UploadValuesTaskAsync - Uploads the specified name/value collection to the resource identified by the specified URI as an asynchronous operation using a task object. These methods do not block the calling thread.
http://msdn.microsoft.com/en-us/library/system.net.webclient.uploadvaluestaskasync.aspx

NEW QUESTION 59
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 XML. Which code segment should you insert at line 20?

A. new XmlSerializer(typeof(Location))
B. new NetDataContractSerializer()
C. new DataContractJsonSerializer(typeof (Location))
D. new DataContractSerializer(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 61
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 have the following requirements:
The debugger must break execution within the CalculateInterest() method when the loanAmount variable is less than or equal to zero.
The release version of the code must not be impacted by any changes. You need to meet the requirements.
What should you do?

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

Answer: C

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

NEW QUESTION 63
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?

```
C A.    #if (DEBUG)
           imgPath = "TempFolder/Images/";
        #elif (RELEASE)
           imgPath = "DevFolder/Images/";
        #endif


C B.    if (DEBUG)
           imgPath = "TempFolder/Images/";
        else
           imgPath = "DevFolder/Images/";
        endif


C C.    #if (DEBUG)
           imgPath = "TempFolder/Images/";
        #else
           imgPath = "DevFolder/Images/";
        #endif


C D.    if(Debugger.IsAttached)
        {
           imgPath = "TempFolder/Images/";
        }
        else
        {
           imgPath = "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 67
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. ECDsa
B. RNGCryptoServiceProvider
C. Rfc2898DeriveBytes
D. HMACSHA512

Answer: D

Explanation: The HMACSHA512 class computes a Hash-based Message Authentication Code (HMAC) using the SHA512 hash function.
Reference: https://msdn.microsoft.com/enus/ library/system.security.cryptography.hmacsha512(v=vs.110).aspx

NEW QUESTION 71
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. WaitForFullGCComplete()
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

NEW QUESTION 74
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 78
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 entire 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();
```

```
public                    void GetData(WebResponse response)
{
  string urlText;

  var sr = new StreamReader(response.GetResponseStream());

  urlText =                await sr.
}
```

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 82
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:

```
delegatevoidAddBookDelegate(stringname, AddBookCallback callback);
```

Insert the following code segment at line 18:

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

C.   Insert the following code segment at line 11:

```
delegatevoidAddBookDelegate(BookTracker bookTracker);
```

Insert the following code segment at line 18:

```
AddBookDelegateaddDelegate = (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 87
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. AssemblyFlagsAttribute
B. AssemblyKeyFileAttribute
C. AssemblyConfigurationAttribute
D. AssemblyDelaySignAttribute

Answer: BD

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

NEW QUESTION 91
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. HMACSHA256
C. Aes
D. RNGCryptoServiceProvider

Answer: B

Explanation: The HMACSHA256 class computes a Hash-based Message Authentication Code (HMAC) by using the SHA256 hash function.
Reference: https://msdn.microsoft.com/enus/ library/system.security.cryptography.hmacsha256(v=vs.110).aspx

NEW QUESTION 92
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 93
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 95
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 100
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 101
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. DES
B. HMACSHA512
C. RNGCryptoServiceProvider
D. ECDsa

Answer: B

Explanation: The HMACSHA512 class computes a Hash-based Message Authentication Code (HMAC) using the SHA512 hash function.
Reference: https://msdn.microsoft.com/enus/ library/system.security.cryptography.hmacsha512(v=vs.110).aspx

NEW QUESTION 103
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 107
HOTSPOT
You are reviewing the following code:

```
[System.FlagsAttribute()]
public enum Group
{
    Users = 1,
    Supervisors = 2,
    Managers = 4,
    Administrators = 8
}
public class User
{
    public Group UserGroup { get; set; }
}
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

	Yes	No
A user can be a member of more than one of the groups.	○	○
If the user belongs to only the Administrators group, the following code will return a value of true: user.UserGroup == Group.Administrators	○	○
If the user belongs to only the Supervisors group, the following code will return a value of true: user.UserGroup lt; Group.Administrators	○	○

Answer:

Explanation: 1) Yes, because Group is enum with FlagAttribute
2) Yes, because only Administrator = 8 and 8 == 8 is true
3) Yes, becaues only Supervisor = 2 and 2 < 8 is true

NEW QUESTION 110
HOTSPOT
You have the following code:

```
private static Dictionary<string, int> CreateTestData()
{
    Dictionary<string, int> dict = new Dictionary<string, int>()
    {
        {"Accounting", 1},
        {"Marketing",  2},
        {"Operations", 3}
    };
    return dict;
}
private static bool? FindInList(string searchTerm)
{
    Dictionary<string, int> data = CreateTestData();

    if (data.ContainsKey(searchTerm))
    {
        return true;
    }
    else
    {
        return false;
    }

}
```

To answer, complete each statement according to the information presented in the code.

If the search term is set to "Finance", the
result will be ...

false
true
null

If the search term is set to "1", the result
will be ...

false
true
null

If the search term is set to "Operations",
the result will be ...

false
true
null

Answer:

Explanation:

If the search term is set to "Finance", the
result will be ...

false
true
null

If the search term is set to "1", the result
will be ...

false
true
null

If the search term is set to "Operations",
the result will be ...

false
true
null

NEW QUESTION 113
DRAG DROP
You have a method named GetCustomerIDs that returns a list of integers. Each entry in the list represents a customer ID that is retrieved from a list named
Customers. The Customers list contains 1,000 rows.
Another developer creates a method named ValidateCustomer that accepts an integer parameter and returns a Boolean value. ValidateCustomer returns true if
the integer provided references a valid customer. ValidateCustomer can take up to one second to run.
You need to create a method that returns a list of valid customer IDs. The code must execute in the shortest amount of time.
What should you do? (Develop the solution by selecting and ordering the required code snippets. You may not need all of the code snippets.)

```
public List<Int32> GetValidCustomers()
{
```

```
Task<List<Int32>> validCustomers =
```

```
(from c in customers
where ValidateCustomer(c)
select c).ToList();
```

```
return validCustomers;
}
```

```
(from c in customers
where ValidateCustomer(c)
select c).AsParallel().ToList();
```

```
public async Task<List<Int32>> GetValidCusto
mers()
```

```
(from c in customers.AsParallel()
where ValidateCustomer(c)
select c).ToList();
```

```
List<Int32> validCustomers =
```

Answer:

Explanation: Note:
* ParallelEnumerable.AsParallel Method Enables parallelization of a query.
/ We parallelize the execution of the ValidateCustomer instances.

NEW QUESTION 116
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 117
You have the following code (line numbers are included for reference only):

```
01 class Bar
02 {
03    pub lic 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 fooSqlConn = new SqlConnection();
09       using (fooSqlConn)
10       {
11          SqlCommand fooSqlCmd = new SqlCommand
             ("Select sqlName,sqlColor from Animals", fooSqlConn);
12          fooSqlConn.Open();
13          using (SqlDataReader fooSqlReader = fooSqlCmd.ExecuteReader())
14          {
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 (fooSqlConn.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

NEW QUESTION 119
HOTSPOT
You are developing an application in C#.
The application will display the temperature and the time at which the temperature was recorded. You have the following method (line numbers are included for reference only):

```
01 public void DisplayTemperature(DateTime date, double temp)
02 {
03    string output;
04
05    string lblMessage = output;
06 }
```

You need to ensure that the message displayed in the lblMessage object shows the time formatted according to the following requirements:
The time must be formatted as hour:minute AM/PM, for example 2:00 PM. The date must be formatted as month/day/year, for example 04/21/2013.
The temperature must be formatted to have two decimal places, for example 23-45.
Which code should you insert at line 04? (To answer, select the appropriate options in the answer area.)

```
output = string.Format("Temperature at          on          ", date, temp)
                                    {0:t}          {0:d}                    {0}
                                    {1:t}          {1:d}                    {1}
                                    {0:hh:mm}      {0:dd/mm/yy}             {0:N2}
                                    {1:hh:mm}      {1:mm/dd/yy}            {1:N2}
```

Answer:

Explanation: {0:t}
{0:d}
{1:N2}

NEW QUESTION 120
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. XmlSerlalizer serializer = new XmlSerlalizer();
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 121
You are developing an application that uses several objects. The application includes the following code segment. (Line numbers are included for reference only.)

```
01 private bool IsNull(object obj)
02 {
03
04   return false;
05 }
```

You need to evaluate whether an object is null. Which code segment should you insert at line 03?

```
A.  if (obj = null)
    {
      return true;
    }


B.  if (null)
    {
      return true;
    }


C.  if (obj ==  0)
    {
      return true;
    }


D.  if (obj == null)
    {
      return true;
    }
```

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

Answer: D

Explanation: Use the == operator to compare values and in this case also use the null literal.

NEW QUESTION 125
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 = arrayl[0] is int;
B. var2 = ((List<int>)arrayl) [0];
C. var2 = arrayl[0].Equals(typeof(int));
D. var2 = (int) arrayl [0];

Answer: D

NEW QUESTION 127
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 130
HOTSPOT
You are developing the following classes named: Class1
Class2 Class3
All of the classes will be part of a single assembly named Assembly.dll. Assembly.dll will be used by multiple applications.
All of the classes will implement the following interface, which is also part of Assembly.dll: public interface Interface1
{
void Method1(decimal amount); void Method2(decimal amount);
}
You need to ensure that the Method2 method for the Class3 class can be executed only when instances of the class are accessed through the Interface1 interface.
The solution must ensure that calls to the Method1 method can be made either through the interface or through an instance of the class.
Which signature should you use for each method? (To answer, select the appropriate signature for each method in the answer area.)

Method1:

```
internal void Method1(decimal amount)
private void Method1(decimal amount)
public void Method1(decimal amount)
void Interface1.Method1(decimal amount)
```

Method2:

```
internal void Method2(decimal amount)
private void Method2(decimal amount)
public void Method2(decimal amount)
void Inteface1. Method2 (decimal amount)
```

Answer:

Explanation:

Method1:

```
internal void Method1(decimal amount)
private void Method1(decimal amount)
public void Method1(decimal amount)
void Interface1.Method1(decimal amount)
```

Method2:

```
internal void Method2(decimal amount)
private void Method2(decimal amount)
public void Method2(decimal amount)
void Inteface1. Method2 (decimal amount)
```

NEW QUESTION 133
You are implementing a method named ProcessReports that performs a long-running task. The ProcessReports() method has the following method signature:
public void ProcessReports(List<decimal> values,CancellationTokenSource cts, CancellationToken ct) If the calling code requests cancellation, the method must perform the following actions:
Cancel the long-running task.
Set the task status to TaskStatus.Canceled.
You need to ensure that the ProcessReports() method performs the required actions. Which code segment should you use in the method body?

A. if (ct.IsCancellationRequested) return;
B. ct.ThrowIfCancellationRequested() ;
C. cts.Cancel();
D. throw new AggregateException();

Answer: B

Explanation: The CancellationToken.ThrowIfCancellationRequested method throws a OperationCanceledException if this token has had cancellation requested.
This method provides functionality equivalent to: C#
if (token.IsCancellationRequested)
throw new OperationCanceledException(token);
Reference: CancellationToken.ThrowIfCancellationRequested Method () https://msdn.microsoft.com/enus/
library/system.threading.cancellationtoken.throwifcancellationrequested(v=vs.110).aspx

NEW QUESTION 134
You are developing an application that includes the following code segment. (Line numbers are included for reference only.)

```
01 public class ItemBase
02 {
03 }
04 public class Widget : ItemBase
05 {
06 }
07 class Worker
08 {
09   void DoWork(object obj)
10   {
11     Console.WriteLine("In DoWork(object)");
12   }
13   void DoWork(Widget widget)
14   {
15     Console.WriteLine("In DoWork(Widget)");
16   }
17   void DoWork(ItemBase itembase)
18   {
19     Console.WriteLine("In DoWork(ItemBase)");
20   }
21   private void Run()
22   {
23     object o = new Widget();
24     DoWork(o);
25   }
26 }
```

You need to ensure that the DoWork(Widget widget) method runs. With which code segment should you replace line 24?

A. DoWork((Widget)o);
B. DoWork(new Widget(o));
C. DoWork(o is Widget);
D. DoWork((ItemBase)o);

Answer: A

NEW QUESTION 139
An application uses X509 certificates for data encryption and decryption. The application stores certificates in the Personal certificates collection of the Current User store. On each computer, each certificate subject is unique.
The application includes a method named LoadCertificate. The LoadCertificate() method includes the following code. (Line numbers are included for reference only.)

```
01 X509Certificate2 LoadCertificate(string searchValue)
02 {
03   var store = new X509Store(StoreName.My, StoreLocation.CurrentUser);
04   store.Open(OpenFlags.ReadOnly | OpenFlags.OpenExistingOnly);
05   var certs = store.Certificates.Find(
06
07     searchValue, false);
08     ...
09 }
```

The LoadCertificate() method must load only certificates for which the subject exactly matches the searchValue parameter value.
You need to ensure that the LoadCertificate() method loads the correct certificates. Which code segment should you insert at line 06?

A. X509FindType.FindBySubjectName,

B. X509FindType.FindBySubjectKeyIdentifier,

C. X509FindType.FindByIssuerName,

D. X509FindType.FindBySubjectDistinguishedName,

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

Answer: D

Explanation: X509FindType.FindBySubjectDistiguishedName is a more specific search than that provided by the FindBySubjectName enumeration value. Using the FindBySubjectDistinguishedName value, the Find method performs a case-insensitive string comparison for the entire distinguished name. Searching by subject name is a less precise search.
Reference: X509FindType Enumeration https://msdn.microsoft.com/enus/
library/system.security.cryptography.x509certificates.x509findtype(v=vs.110).aspx

NEW QUESTION 144
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 148
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 151
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

NEW QUESTION 154
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 157
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 162
HOTSPOT
You have the following code:

```
public class Alert
{
  public event EventHandler<EventArgs> SendMessage;

  public void Execute()
  {
    SendMessage(this, new EventArgs());
  }
}

public class Subscriber
{
  Alert alert = new Alert();

  public void Subscribe()
  {
    alert.SendMessage += (sender, e) => { Console.WriteLine("First"); };
    alert.SendMessage += (sender, e) => { Console.WriteLine("Second"); };
    alert.SendMessage += (sender, e) => { Console.WriteLine("Third"); };
    alert.SendMessage += (sender, e) => { Console.WriteLine("Third"); };
  }

  public void Execute()
  {
    alert.Execute();
  }

  public static void Main()
  {
    Subscriber subscriber = new Subscriber();
    subscriber.Subscribe();
    subscriber.Execute();
  }
}
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

	Yes	No
If there are no subscribers to the SendMessage event, the Execute method on the Alert class will throw an exception.	○	
When the application runs, "First" will always appear before "Second".	○	
When the application runs, "Third" will be displayed once.	○	

Answer:

Explanation: Explanation for second Answer
Events are multicast delegates and that one has a linked list to store the delegates in. The order of execution is always the same as they are inserted.

NEW QUESTION 166
HOTSPOT
You are building a data access layer in an application that contains the following code:

```
public static Object GetTypeDefault(DbType dbDataType)
{
  switch (dbDataType)
  {
    case DbType.Boolean:
      return false;
    case DbType.DateTime:
      return DateTime.MinValue;
    case DbType.Decimal:
      return 0m;
    case DbType.Int32:
      return 0;
    case DbType.String:
      return String.Empty;
    default:
      return null;
  }
}
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

	Yes	No
If dbDataType is DateTime, today's date is returned.	○	
If dbDatatype is Int64, Null is returned.	○	
If dbDatatype is Double, 0 is returned.	○	

Answer:

Explanation:

	Yes	No
If dbDataType is DateTime, today's date is returned.	○	**◉**
If dbDatatype is Int64, Null is returned.	**◉**	○
If dbDatatype is Double, 0 is returned.	○	**◉**

NEW QUESTION 170
HOTSPOT
You have the following code:

```
public class Customer
{

    private int CustomerId   { get; set; }
    public string CompanyName { get; set; }
    protected string State     { get; set; }
    public string City        { get; set; }

    public Customer(int customerId, string companyName, string state, string city)
    {
        CustomerId = customerId;
        CompanyName = companyName;
        State = state;
        City = city;
    }
    public  Customer() {}
}
public interface ICustomer
{
    string GetCustomerById(int customerId);
    string GetCustomerByDate(DateTime dateFrom, DateTime dateTo);
}

public class MyCustomerClass : Customer, ICustomer
{
    public string Zip { get; set; }
    public string Phone { get; set; }
    public string GetCustomerById(int customerId)
    {
        ...
    }
    public string GetCustomerByDate(DateTime dateFrom, DateTime dateTo)
    {
        ...
    }
}
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

	Yes	No
All of the objects derived from MyCustomerClass have CustomerID as a property.	○	○
All of the objects derived from MyCustomerClass have CompanyName as a property.	○	○
All of the objects derived from MyCustomerClass have State as a property.	○	○

Answer:

Explanation: Note:

* CustomerID is declared private.
* CompanyName is declted protected.
* State is declared protected.
The protected keyword is a member access modifier. A protected member is accessible from within the class in which it is declared, and from within any class derived from the class that declared this member.

NEW QUESTION 171
HOTSPOT
You have the following code (line numbers are included for reference only):

```
01 DataTable dataTable;
02 string connString = "Data Source=192.168.1.100;Initial Catalog=Database1;User Id=sa;Password=p@ssw0rd";
03 using (SqlConnection sqlConn = new SqlConnection(connString))
04 {
05   sqlConn.Open();
06   using (SqlCommand sqlCmd = new SqlCommand())
07   {
08     sqlCmd.Connection = sqlConn;
09     sqlCmd.CommandType = CommandType.StoredProcedure;
10     sqlCmd.CommandText = "p_Procedure1";
11     using (SqlDataAdapter adapter = new SqlDataAdapter(sqlCmd))
12     {
13       using (dataTable = new DataTable())
14       {
15         adapter.Fill(dataTable);
16       }
17     }
18   }
19 }
```

To answer, complete each statement according to the information presented in the code.

The database connection gets closed at line...
| 15 |
| 16 |
| 17 |
| 18 |
| 19 |

The adapter object gets disposed at line..
| 15 |
| 16 |
| 17 |
| 18 |
| 19 |

Answer:

Explanation:

The database connection gets closed at line...
| 15 |
| 16 |
| 17 |
| 18 |
| **19** |

The adapter object gets disposed at line..
| 15 |
| 16 |
| **17** |
| 18 |
| 19 |

NEW QUESTION 172
You need to create a method that can be called by using a varying number of parameters. What should you use?

A. Method overloading
B. Interface
C. Named parameters
D. Lambda expressions

Answer: A

Explanation: Member overloading means creating two or more members on the same type that differ only in the number or type of parameters but have the same name.

Overloading is one of the most important techniques for improving usability, productivity, and readability of reusable libraries. Overloading on the number of parameters makes it possible to provide simpler versions of constructors and methods. Overloading on the parameter type makes it possible to use the same member name for members performing identical operations on a selected set of different types.

NEW QUESTION 177
You need to store the values in a collection.
The solution must meet the following requirements:
The values must be stored in the order that they were added to the collection. The values must be accessed in a first-in, first-out order.
Which type of collection should you use?

A. SortedList
B. Queue
C. ArrayList
D. Hashtable

Answer: B

Explanation: The Queue class implements a queue as a circular array. Objects stored in a Queue are inserted at one end and removed from the other.
Queues and stacks are useful when you need temporary storage for information; that is, when you might want to discard an element after retrieving its value. Use Queue if you need to access the information in the same order that it is stored in the collection.
Reference: https://msdn.microsoft.com/en-us/library/system.collections.queue(v=vs.110).aspx

NEW QUESTION 182
You have an application that will send confidential information to a Web server. You need to ensure that the data is encrypted when it is sent across the network. Which class should you use?

A. CryptoStream
B. AuthenticatedStream
C. PipeStream
D. NegotiateStream

Answer: A

Explanation: The CryptoStream Class defines a stream that links data streams to cryptographic transformations. The common language runtime uses a stream-oriented design for cryptography. The core of this design is CryptoStream.
Reference: CryptoStream Class https://msdn.microsoft.com/enQuestions
& Answers PDF P-137 us/library/system.security.cryptography.cryptostream(v=vs.110).aspx

NEW QUESTION 187
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 188
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 190
HOTSPOT
You define a class by using the following code:

```
public class Department
{
  public int Id { get; set; }
  public string Name { get; set; }
  public string Manager { get; set; }
  public int BuildingId { get; set; }
}
```

You create a collection by using the following code:

```
Department[] departments =
{
  new Department
  { Id = 1, Name = "Accounting", Manager = "User1", BuildingId = 15 },
  new Department
  { Id = 2, Name = "Sales", Manager = "User2", BuildingId = 3 },
  new Department
  { Id = 3, Name = "IT", Manager = "User3" , BuildingId = 15},
  new Department
  { Id = 4, Name = "Marketing", Manager = "User4", BuildingId = 3 }
};
var output =
  from d in departments
  group d by d.BuildingId into dp
  select new { sorted = dp.Key, Department = dp };
```

To answer, complete each statement according to the information presented in the code.

The output collection will contain ...
object(s).

0
1
2
3
4

The sorted property of the output
collection will be the ... type.

byte
int
string
var

Answer:

Explanation:

The output collection will contain ...
object(s).

0
1
2
3
4

The sorted property of the output
collection will be the ... type.

byte
int
string
var

NEW QUESTION 191
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

NEW QUESTION 196
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.
```
#if ERROR
    System.Diagnostics.Trace.TraceError(ex.Message, "ApplicationLog");
#endif
```

B.
```
System.Diagnostics.XmlWriterTraceListener listener =
 new XmlWriterTraceListener("./Error.log");
listener.WriteLine(ex.Message);
listener.Flush();
listener.Close();
```

C.
```
using (System.Diagnostics.XmlWriterTraceListener log1 =
 new XmlWriterTraceListener("./Error.log"))
{
  log1.TraceEvent(
   new TraceEventCache(), ex.Message, TraceEventType.Error, ex.HResult);
  log1.Flush();
}
```

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: C

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
)

NEW QUESTION 198
You are creating a console application named Appl.
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 NetDataContractSerializer();`

C. `NetDataContractSerializer serializer = new NetDataContractSerializer();`

D. `JavaScriptSerializer serializer = new JavaScriptSerializer();`

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

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.
Incorrect:
Not B, not C: The NetDataContractSerializer works with XML, but not with JSON.
Reference: JavaScriptSerializer Class https://msdn.microsoft.com/enus/
library/system.web.script.serialization.javascriptserializer(v=vs.110).aspx

NEW QUESTION 201
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 203
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 206
You are developing an application for a bank. The application includes a method named ProcessLoan that processes loan applications. The ProcessLoan() method uses a method named CalculateInterest. The application includes the following code:

```
static decimal CalculateInterest(decimal amount, decimal rate, int term)
{
  return amount * rate * term;
}
static decimal ProcessLoan()
{
  CalculateLoanInterest loanInterestProcessor = CalculateInterest;
  return loanInterestProcessor(4500m, 0.065m, 4);
}
```

You need to declare a delegate to support the ProcessLoan() method. Which code segment should you use?

A. `public delegate decimal LoanProcessor(decimal loanAmount, decimal loanRate, int term);`

B. `public delegate int LoanProcessor(decimal loanAmount, decimal loanRate, int term);`

C. `public delegate decimal CalculateLoanInterest(decimal loanAmount, decimal loanRate, int term);`

D. `public delegate decimal ProcessLoan();`

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

Answer: C

NEW QUESTION 207
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 211
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(CancellationToken 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 CancellationTokenSource();
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 CancellationTokenSource.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: CancellationTokenSource.Cancel Method (Boolean) https://msdn.microsoft.com/en-us/library/dd321703(v=vs.110).aspx

NEW QUESTION 214
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 218
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 221
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.)

```
al.exe

gacutil.exe          Program    -k assemblyKey.snk

ildasm.exe           Program    /out:Assembly1.dll /keyfile assemblyKey.snk

resgen.exe

sn.exe
```

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

NEW QUESTION 225
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.)

```
.Skip(2)

.First(10)

.Take(10)

var page = items               )

.Take(1)                       )

.Skip(30)

int page = items

.Skip(20)
```

Answer:

Explanation: Skip the first two page (first 20 items) then select the next page (next 10 items),
* Use the Take operator to return a given number of elements in a sequence and then skip over the remainder.
Use the Skip operator to skip over a given number of elements in a sequence and then return the remainder.

NEW QUESTION 226
You have an application that accesses a Web server named Server1.
You need to download an image named Imagel.jpg from Server1 and store the image locally as Filel.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 229
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 231
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

NEW QUESTION 234
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 237
You are developing an application that uses several objects. The application includes the following code segment. (Line numbers are included for reference only.)

```
01 private bool IsNull(object obj)
02 {
03
04   return false;
05 }
```

You need to evaluate whether an object is null. Which code segment should you insert at line 03?

```
A.  if (null = obj)
    {
      return true;
    }
```

```
B.  if (null == obj)
    {
      return true;
    }
```

```
C.  if (null)
    {
      return true;
    }
```

```
D.  if (!obj)
    {
      return true;
    }
```

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

Answer: B

Explanation: Use the == operator to compare values and in this case also use the null literal.

NEW QUESTION 238
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	○	○
OrderDate	○	○
CustomerName	○	○

Answer:

Explanation: OrderId – NO (this will serialize as an element, not as aa attribute)
OrderDate – NO (doesn't have DataMember attribute, thus is completely ignored) CustomerName – YES (DataMember is set correctly)

NEW QUESTION 241
You are developing an application that includes methods named ConvertAmount and TransferFunds. You need to ensure that the precision and range of the value in the amount variable is not lost when the TransferFunds() method is called.
Which code segment should you use?

A.
```
private static void ConvertAmount(float amount)
{
  TransferFunds(amount);
}
private static void TransferFunds(int funds)
{
  ...
  Console.WriteLine(funds);
}
```

B.
```
private static void ConvertAmount(float amount)
{
  TransferFunds((int)funds);
}
private static void TransferFunds(float funds)
{
  ...
}
```

C.
```
private static void ConvertAmount(float amount)
{
  TransferFunds(amount);
}
private static void TransferFunds(float funds)
{
  ...
}
```

D.
```
private static void ConvertAmount(float amount)
{
  TransferFunds(Double.Parse(amount));
}
private static void TransferFunds(double funds)
{
  ...
  Console.WriteLine(funds);
}
```

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

Answer: C

Explanation: Simply use float for the TransferFunds parameter. Note:
* The float keyword signifies a simple type that stores 32-bit floating-point values.
* The double keyword signifies a simple type that stores 64-bit floating-point values
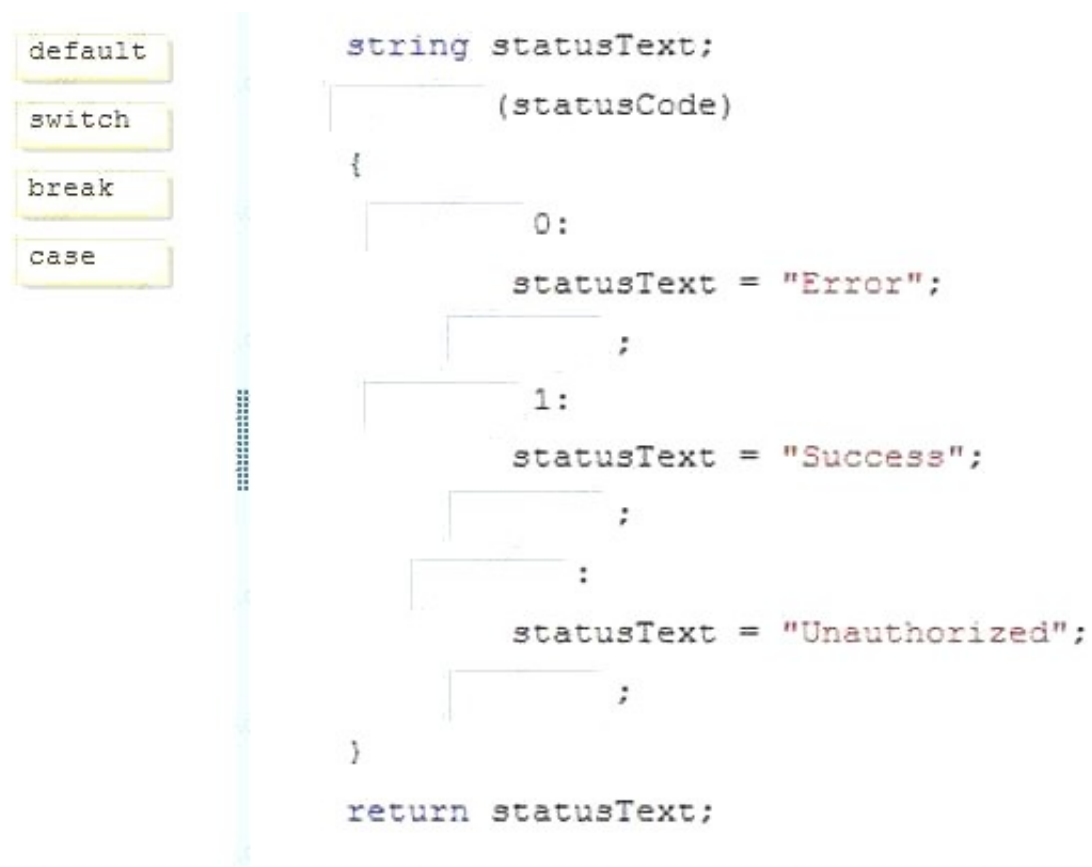
NEW QUESTION 246
DRAG DROP
You are adding a method to an existing application. The method uses an integer named statusCode as an input parameter and returns the status code as a string.
The method must meet the following requirements: Return "Error" if the statusCode is 0.
Return "Success" if the statusCode is 1.
Return "Unauthorized" if the statusCode is any value other than 0 or l. 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.)

```
default            string statusText;

switch                     (statusCode)

break              {

case                       0:
                               statusText = "Error";
                                   ;
                           1:
                               statusText = "Success";
                                   ;
                           :
                               statusText = "Unauthorized";
                                   ;
                   }

                   return statusText;
```

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 251
You are developing an application that includes the following code segment:

```
interface IFile
{
    void Open();
}
interface IDbConnection
{
    void Open();
}
```

You need to implement the Open() method of each interface in a derived class named UseResources and call the Open() method of each interface.
Which two code segments should you use? (Each correct answer presents part of the solution. Choose two.)

```
A.  class UseResources : IFile, IDbConnection
    {
      void IFile.Open()
      {
        ...
      }
      void IDbConnection.Open()
      {
        ...
      }
    }
```

```
B.  var manager = new UseResources ();
    manager.Open();
```

```
C.  var manager = new UseResources ();
    ((IFile)manager).Open();
    ((IDbConnection)manager).Open();
```

```
D.  class UseResources : IFile, IDbConnection
    {
      public void IFile.Open()
      {
        ...
      }
      public void IDbConnection.Open()
      {
        ...
      }
    }
```

```
E.  var manager = new UseResources ();
    manager.Open(IFile);
    manager.Open(IDbConnection);
```

```
F.  var manager = new UseResources ();
    ((IFile, IDbConnection)manager).Open();
```

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

Answer: AC

Explanation: * An interface contains only the signatures of methods, properties, events or indexers. A class or struct that implements the interface must implement the members of the interface that are specified in the interface definition.
* Example:
interface ISampleInterface
{
void SampleMethod();
}
class ImplementationClass : ISampleInterface
{
// Explicit interface member implementation: void ISampleInterface.SampleMethod()
{
// Method implementation.
}
static void Main()
{
// Declare an interface instance.
ISampleInterface obj = new ImplementationClass();
// Call the member. obj.SampleMethod();
}
}

NEW QUESTION 254
You are implementing a method named ProcessData that performs a long-running task. The ProcessData() method has the following method signature:
public void ProcessData(List<decimal> values, CancellationTokenSource source, CancellationToken token)
If the calling code requests cancellation, the method must perform the following actions: Cancel the long-running task.
Set the task status to TaskStatus.Canceled.
You need to ensure that the ProcessData() method performs the required actions. Which code segment should you use in the method body?

A. if (token.IsCancellationRequested) return;

B. throw new AggregateException();
C. token.ThrowIfCancellationRequested();
D. source.Cancel();

Answer: C

Explanation: The CancellationToken.ThrowIfCancellationRequested method throws a OperationCanceledException if this token has had cancellation requested.
This method provides functionality equivalent to: C#
if (token.IsCancellationRequested)
throw new OperationCanceledException(token);
Reference: CancellationToken.ThrowIfCancellationRequested Method ()
https://msdn.microsoft.com/enus/ library/system.threading.cancellationtoken.throwifcancellationrequested(v=vs.110).aspx

NEW QUESTION 259
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      }
010   }
011 }
```

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 261
You are developing an application in C#.
The application uses exception handling on a method that is used to execute mathematical calculations by using integer numbers.
You write the following catch blocks for the method (line numbers are included for reference only):

```
01
02 catch(ArithmeticException e) {Console.WriteLine("Arithmetic error");}
03
04 catch(ArgumentException e) {Console.WriteLine("Bad Argument");}
05
06 catch(Exception e) {Console.WriteLine("General error");}
07
```

You need to add the following code to the method:

```
catch(DivideByZeroException e) {Console.WriteLine("Divide by zero");}
```

At which line should you insert the code?

A. 01
B. 03
C. 05
D. 07

Answer: A

Explanation: Use the most specific exception first.

NEW QUESTION 265
You are developing an application that uses multiple asynchronous tasks to optimize performance. The application will be deployed in a distributed environment.
You need to retrieve the result of an asynchronous task that retrieves data from a web service. The data will later be parsed by a separate task.
Which code segment should you use?

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

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

C.  protected async void StartTask()
    {
      string result = GetData();
      ...
    }
    public 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: B

Explanation: Example:
// Signature specifies Task<TResult>
async Task<int> TaskOfTResult_MethodAsync()
{
int hours;
// . . .
// Return statement specifies an integer result. return hours;
}
// Calls to TaskOfTResult_MethodAsync
Task<int> returnedTaskTResult = TaskOfTResult_MethodAsync(); int intResult = await returnedTaskTResult;
// or, in a single statement
int intResult = await TaskOfTResult_MethodAsync();
// Signature specifies Task
async Task Task_MethodAsync()
{

```
// . . .
// The method has no return statement.
}
// Calls to Task_MethodAsync
Task returnedTask = Task_MethodAsync(); await returnedTask;
// or, in a single statement await Task_MethodAsync();
```
Reference: Asynchronous Programming with Async and Await (C# and Visual Basic) https://msdn.microsoft.com/en-us/library/hh191443.aspx

NEW QUESTION 268
DRAG DROP
You are developing an application that will write data to a file. The application includes the following code segment. (Line numbers are included for reference only.)
* Missing code *
You need to ensure that the WriteData() method will write data to a file.
Which four code segments should you insert in sequence at line 03? (To answer, move the appropriate code segments from the list of code segments to the answer area and arrange them in the correct order.)

```
writer.Write(data);

writer = new StreamWriter(fileName);

StreamWriter writer = null;

writer.Close();

writer.Open();
```

Answer:

Explanation: Note:
* StreamWriter Constructor (String)
Initializes a new instance of the StreamWriter class for the specified file by using the default encoding and buffer size.
Incorrect:
The StreamWriter class has no method Open.

NEW QUESTION 271
You are creating an application that reads from a database.
You need to use different databases during the development phase and the testing phase by using conditional compilation techniques.
What should you do?

A. Configure the Define TRACE constant setting in Microsoft Visual Studio.
B. Decorate the code by using the [DebuggerDisplay("Mydebug")] attribute.
C. Configure the Define DEBUG constant setting in Microsoft Visual Studio.
D. Disable the strong-name bypass feature of Microsoft .NET Framework in the registry.

Answer: C

Explanation: Use one debug version to connect to the development database, and a standard version to connect to the live database.

NEW QUESTION 276
You are creating a class named Loan.
The Loan class must meet the following requirements: Include a member that represents the rate for a Loan instance. Allow external code to assign a value to the rate member.
Restrict the range of values that can be assigned to the rate member.
You need to implement the rate member to meet the requirements. In which form should you implement the rate member?

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

Answer: B

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 278
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 csc.exe /target:Library option when building the application.
B. Use the AL.exe command-line tool.
C. Use the aspnet_regiis.exe command-line tool.
D. Use the EdmGen.exe command-line tool.

Answer: B

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 /DELAYSIGN linker option in C++. (For information on delay signing, see Delay Signing an Assembly.) Note:
* A strong name consists of the assembly's identity—it's simple text name, version number, and culture information (if provided)—plus a public key and a digital signature. It is generated from an assembly file (the file that contains the assembly manifest, which in turn contains the names and hashes of all the files that make up the assembly), using the corresponding private key. Microsoft® Visual Studio® .NET and other development tools provided in the .NET Framework SDK can assign strong names to an assembly. Assemblies with the same strong name are expected to be identical.

NEW QUESTION 279
You are developing an application that includes methods named EvaluateLoan, ProcessLoan, and FundLoan. The application defines build configurations named TRIAL, BASIC, and ADVANCED.
You have the following requirements:
The TRIAL build configuration must run only the EvaluateLoan() method. The BASIC build configuration must run all three methods.
The ADVANCED build configuration must run only the EvaluateLoan() and ProcessLoan() methods. You need to meet the requirements.
Which code segment should you use?

```
A.  #if TRIAL
        #warning EvaluateLoan();
        #error ProcessLoan();
        #error FundLoan();
        #elif ADVANCED
        #warning EvaluateLoan();
        #warning ProcessLoan();
        #warning FundLoan();
        #else
        #warning EvaluateLoan();
        #warning ProcessLoan();
        #error FundLoan();
        #endif
```

```
B.  #if TRIAL
        EvaluateLoan();
    #elif ADVANCED
        EvaluateLoan();
        ProcessLoan();
        FundLoan();
    #else
        EvaluateLoan();
        ProcessLoan();
    #endif
```

```
C.  #if TRIAL
        EvaluateLoan();
    #elif BASIC
        EvaluateLoan();
        ProcessLoan();
        FundLoan();
    #else
        EvaluateLoan();
        ProcessLoan();
    #endif
```

```
D.  #if TRIAL
        EvaluateLoan();
    #elif BASIC
        EvaluateLoan();
        ProcessLoan();
    #error FundLoan();
    #else
        EvaluateLoan();
        ProcessLoan();
        FundLoan();
    #endif
```

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

Answer: C

Explanation: Incorrect:

Not B: The BASIC configuration must run all three methods. Not D: The BASIC configuration must run all three methods.

NEW QUESTION 281
You are debugging a 64-bit C# application.
Users report System.OutOfMemoryException exceptions. The system is attempting to use arrays larger than 2 GB in size.
You need to ensure that the application can use arrays larger than 2 GB. What should you do?

A. Add the /3GB switch to the boot.ini file for the operating system.
B. Set the IMAGE_FILE_LARGE_ADDRESS_AWARE flag in the image header for the application executable file.
C. Set the value of the gcAllowVeryLargeObjects property to true in the application configuration file.
D. Set the value of the user-mode virtual address space setting for the operating system to MAX.

Answer: C

Explanation: On 64-bit platforms the gcAllowVeryLargeObjects enables arrays that are greater than 2 gigabytes (GB) in total size.
Reference: <gcAllowVeryLargeObjects> Element https://msdn.microsoft.com/en-us/library/hh285054(v=vs.110).aspx

NEW QUESTION 286
You develop an application by using C#. The application counts the number of times a specific word appears within a set of text files. The application includes the following code. (Line numbers are included for reference only.)

```
01 class Counter
02 {
03   System.Collections.Concurrent.ConcurrentDictionary<string, int> _wordCounts =
04     new System.Collections.Concurrent.ConcurrentDictionary<string, int>();
05   public Action<DirectoryInfo> ProcessDirectory()
06   {
07     return (dirInfo =>
08     {
09       var files = dirInfo.GetFiles("*.cs").AsParallel<FileInfo>();
10       files.ForAll<FileInfo>(
11         fileInfo =>
12         {
13           var fileContent = File.ReadAllText(fileInfo.FullName);
14           var sb = new StringBuilder();
15           foreach (var val in fileContent)
16           {
17             sb.Append(char.IsLetter(val) ? val.ToString().ToLowerInvariant() : " ");
18           }
19           string[] wordsInFile = sb.ToString().Split(new []{' '},
20             StringSplitOptions.RemoveEmptyEntries);
21           foreach (var word in wordsInFile)
22           {
23
24           }
25         });
26       var directories = dirInfo.GetDirectories().AsParallel<DirectoryInfo>();
27       directories.ForAll<DirectoryInfo>(ProcessDirectory());
28     });
29   }
30 }
```

You have the following requirements:
Populate the _wordCounts object with a list of words and the number of occurrences of each word. Ensure that updates to the ConcurrentDictionary object can happen in parallel.
You need to complete the relevant code.
Which code segment should you insert at line 23?

```
A.   _wordCounts.AddOrUpdate(word, 1, (s, n) => n + 1);


B.   int value;
     if (_wordCounts.TryGetValue(word, out value))
     {
       _wordCounts[word] = value++;
     }
     else
     {
       _wordCounts[word] = 1;
     }


C.   var value = _wordCounts.GetOrAdd(word, 0);
     _wordCounts[word] = value++;


D.   var value = _wordCounts.GetOrAdd(word, 0);
     _wordCounts.TryUpdate(word, value + 1, value);
```

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

Answer: A

Explanation: The ConcurrentDictionary<TKey,TValue>.AddOrUpdate method adds a key/value pair to the ConcurrentDictionary<TKey,TValue> if the key does not already exist, or updates a key/value pair in the ConcurrentDictionary<TKey,TValue> if the key already exists.
Example:
// Construct a ConcurrentDictionary
ConcurrentDictionary<int, int> cd = new ConcurrentDictionary<int, int>();
// Bombard the ConcurrentDictionary with 10000 competing AddOrUpdates Parallel.For(0, 10000, i =>
{
// Initial call will set cd[1] = 1.
// Ensuing calls will set cd[1] = cd[1] + 1 cd.AddOrUpdate(1, 1, (key, oldValue) => oldValue + 1);
});
Console.WriteLine("After 10000 AddOrUpdates, cd[1] = {0}, should be 10000", cd[1]); Reference: ConcurrentDictionary<TKey,TValue>.AddOrUpdate Method
https://msdn.microsoft.com/en-us/library/ee378665(v=vs.110).aspx

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 5 and the loanAmount value is 4500, the loanRate must be set to 6.5 percent.
You need to adjust the loanRate value to meet the requirements. What should you do?

A. Replace line 15 with the following code segment: loanRate = 0.065m;
B. Replace line 07 with the following code segment: loanRate = 0.065m;
C. Replace line 17 with the following code segment: interestAmount = loanAmount * 0.065m * loanTerm;
D. Replace line 04 with the following code segment: decimal loanRate = 0.065m;

Answer: A

Explanation: Line 15 will be executed when the loanTerm value is 5.

NEW QUESTION 291
You are developing a C# application. The application includes the following code segment, (Line numbers are included for reference only.)

```
01  class Beam
02  {
03      public string Description { get; set; }
04      public int Weight { get; set; }
05      public int Id { get; set; }
06      public decimal Length { get; set; }
07  }
08  Dictionary<int, Beam> beams = new Dictionary<int, Beam>
09  {
10      { 111, new Beam { Description = "Iron", Weight = 4297, Id = 211, Length = 22.23m } },
11      { 112, new Beam { Description = "Copper", Weight = 6822, Id = 317, Length = 11.13m } },
12      { 113, new Beam { Description = "Steel", Weight = 88021, Id = 198, Length = 7.91m } },
13      { 114, new Beam { Description = "Titanium", Weight = 14014, Id = 192, Length = 17.13m } },
14      { 115, new Beam { Description = "Aluminum", Weight = 3263, Id = 196, Length = 8.45m } }
15  };
16
17  beams.Add(115, new Beam { Description = "Brass", Weight = 24331, Id = 214, Length = 28.15m });
18
```

The application fails at line 17 with the following error message: "An item with the same key has already been added."
You need to resolve the error.
Which code segment should you insert at line 16?

A. `if (!beams.ContainsKey(115))`

B. `foreach (Beam beam in beams.Values.Where(t => t.Id != 115))`

C. `foreach (KeyValuePair<int, Beam> key in beams.Where(t => t.Key != 115))`

D. `foreach (int key in beams.Keys.Where(k => k != 115))`

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

Answer: A

Explanation: The dictionary<TKey,TValue>.ContainsKey method (TKey) determines whether the Dictionary<TKey,TValue> contains the specified key.
Reference: Dictionary<TKey, TValue>.ContainsKey Method (TKey) https://msdn.microsoft.com/en-us/library/kw5aaea4(v=vs.110).aspx

NEW QUESTION 295
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.
```
#define DEBUG
    Console.WriteLine("Entering debug mode");
#define RELEASE
    Console.WriteLine("Entering release mode");
```

B.
```
if(System.Reflection.Assembly.GetExecutingAssembly().IsDefined
   (typeof(System.Diagnostics.Debugger), false))
    Console.WriteLine("Entering debug mode");
else
    Console.WriteLine("Entering release mode");
```

C.
```
#region DEBUG
    Console.WriteLine("Entering debug mode");
#endregion
#region RELEASE
    Console.WriteLine("Entering release mode");
#endregion
```

D.
```
#if (DEBUG)
    Console.WriteLine("Entering debug mode");
#elif (RELEASE)
    Console.WriteLine("Entering release mode ");
#endif
```

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

Answer: D

Explanation: #elif lets you create a compound conditional directive. The #elif expression will be evaluated if neither the preceding #if (C# Reference) nor any preceding, optional, #elif directive expressions evaluate to true. If a #elif expression evaluates to true, the compiler evaluates all the code between the #elif and the next conditional directive. For example:
#define VC7
//...
#if debug Console.Writeline("Debug build");
#elif VC7
Console.Writeline("Visual Studio 7");
#endif Incorrect: Not B:
* System.Reflection.Assembly.GetExecutingAssembly Method Gets the assembly that contains the code that is currently executing.
* Assembly.IsDefined Method
Indicates whether or not a specified attribute has been applied to the assembly.
* System.Dignostics.Debugger Class Enables communication with a debugger. Property: IsAttached
Gets a value that indicates whether a debugger is attached to the process.

NEW QUESTION 299
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 AppSource and a custom log named AppLog on the server. You need to write events to the custom log.
Which code segment should you use?

```
A.  public void WriteToEventLog(string message, EventLogEntryType eventLogEntryType)
    {
        EventLog eventLog = new EventLog() { Source = "AppSource", EnableRaisingEvents = true };
        eventLog.WriteEntry(message, eventLogEntryType);
    }

B.  public void WriteToEventLog(string message)
    {
        EventLog eventLog = new EventLog() { Source = "AppLog", EnableRaisingEvents = true };
        EventInstance eventInstance = new EventInstance(0, 1);
        eventLog.WriteEvent(eventInstance, message);
    }

C.  public void WriteToEventLog(string message)
    {
        EventLog eventLog = new EventLog() { Source = "Application" };
        eventLog.WriteEntry(message);
    }

D.  public void WriteToEventLog(string message, EventLogEntryType eventLogEntryType)
    {
        EventLog eventLog = new EventLog() { Source = "AppLog" };
        eventLog.WriteEntry(message, eventLogEntryType);
    }
```

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

Answer: A

Explanation: Source should be AppSource:
* New-EventLog
Creates a new event log and a new event source on a local or remote computer. Parameters include:
-Source<String[]>
Specifies the names of the event log sources, such as application programs that write to the event log. This parameter is required.

NEW QUESTION 301
You are developing an application that will manage customer records. The application includes a method named FindCustomer.
Users must be able to locate customer records by using the customer identifier or customer name. You need to implement the FindCustomer() method to meet the requirement.
Which two sets of method signatures can you use to achieve this goal? (Each correct answer presents a complete solution. Choose two.)

```
A.  public static Customer FindCustomer(int id)
    public static Customer FindCustomer(string id)
    public static void FindCustomer(int id)

B.  public static Customer FindCustomer(int id)
    public static Customer FindCustomer(string id)
    public static Customer FindCustomer(int id, string name)

C.  public static Customer FindCustomer(int id)
    public static Customer FindCustomer(string id)
    public static Customer FindCustomer(Int32 id)

D.  public static Customer FindCustomer(int id)
    public static Customer FindCustomer(string id)
    public static Customer FindCustomer(int? id)
```

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

Answer: BD

NEW QUESTION 303
You are modifying an existing application.
The application includes a Loan class and a Customer class. The following code segment defines the classes.

```
class Loan
{
  public Loan(decimal amount, int term, decimal rate)
  {
    Term = term;
    Amount = amount;
    Rate = rate;
  }
  public decimal Amount { get; set; }
  public decimal Rate { get; set; }
  public int Term { get; set; }
}

class Customer
{
  public Customer(string firstName, string lastName, Collection<Loan> loans)
  {
    FirstName = firstName;
    LastName = lastName;
    LoanCollection = loans;
  }
  public string FirstName { get; set; }
  public string LastName { get; set; }
  public Collection<Loan> LoanCollection { get; set; }
}
```

You populate a collection named customer-Collection with Customer and Loan objects by using the following code segment:

```
Collection<Customer> customerCollection = new Collection<Customer>();
Collection<Loan> customerLoans = new Collection<Loan>();
customerLoans.Add(new Loan(1000m, 2, 0.025m));
customerLoans.Add(new Loan(3000m, 4, 0.045m));
customerLoans.Add(new Loan(5000m, 6, 0.045m));
customerCollection.Add(new Customer("Steve", "Jones", customerLoans));
```

You create a largeCustomerLoans collection to store the Loan objects by using the following code segment:
Collection<Loan> largeCustomerLoans = new Collection<Loan>();
All loans with an Amount value greater than or equal to 4000 must be tracked. You need to populate the largeCustomerLoans collection with Loan objects. Which code segment should you use?

```
A.   foreach (Customer customer in customerCollection)
     {
       foreach (Loan loan in customer.LoanCollection)
       {
         if (loan.Amount >= 4000m)
         {
           customer.LoanCollection.Add(loan);
         }
       }
     }


B.   foreach (Loan customer in customerCollection)
     {
       foreach (Loan loan in largeCustomerLoans)
       {
         if (loan.Amount >= 4000m)
         {
           largeCustomerLoans.Add(loan);
         }
       }
     }


C.   foreach (Loan loan in largeCustomerLoans)
     {
       foreach (Customer customer in customerCollection)
       {
         if (loan.Amount >= 4000m)
         {
           customer.LoanCollection.Add(loan);
         }
       }
     }


D.   foreach (Customer customer in customerCollection)
     {
       foreach (Loan loan in customer.LoanCollection)
       {
         if (loan.Amount >= 4000m)
         {
           largeCustomerLoans.Add(loan);
         }
       }
     }
```

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

Answer: D

Explanation: We must add to the largeCustomerLoans collection, not the customerLoanCollection.
We iterate through each customer in customerCollection and check each loan belonging to this customer.

NEW QUESTION 304

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

```
01 List<Product> products = new List<Product>()
02 {
03   new Product() { Name = "Strawberry", CategoryID = 1 },
04   new Product() { Name = "Banana", CategoryID = 1 },
05 };
06 List<Product> B_Products = (List<Product>)
07 (
08 from product in products
09   where (product.Name.StartsWith("B"))
10   select new { Name = product.Name }
11 );
```

When you execute the code, you get an exception.
You need to ensure that B_Products contain all of the products that start with the letter "B". What should you do?

  A. Replace line 06 with the following code.

```
Product[] B_Products = (Product[])
```

  B. Replace line 10 with the following code.

```
select product.Name
```

  C. Replace line 06 with the following code.

```
Array<Product> B_Products = (Array <Product>)
```

  D. Replace line 10 with the following code.

```
select product
```

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

Answer: D

Explanation: Simply select the product items.

NEW QUESTION 308

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. DbDataAdapter
B. unTyped DataSet
C. OleDbDataAdapter
D. DbDataReader

Answer: D

Explanation: The 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

NEW QUESTION 309
You are developing an application that contains a class named TheaterCustomer and a method named ProcessTheaterCustomer. The ProcessTheaterCustomer() method accepts a TheaterCustomer object as the input parameter.
You have the following requirements:
Store the TheaterCustomer objects in a collection.
Ensure that the ProcessTheaterCustomer() method processes the TheaterCustomer objects in the
reverse order in which they are placed into the collection. You need to meet the requirements.
What should you do?

A. Create a System.Collections.Queue collectio
B. Use the Enqueue() method to add TheaterCustomer objects to the collectio
C. Use the Dequeue() method to pass the objects to the ProcessTheaterCustomer() method.
D. Create a System.Collections.ArrayList collectio
E. Use the Insert() method to add TheaterCustomer objects to the collectio
F. Use the Remove() method to pass the objects to the ProcessTheaterCustomer() method.
G. Create a System.Collections.Stack collectio
H. Use the Push() method to add TheaterCustomer objects to the collectio
I. Use the Pop() method to pass the objects to the ProcessTheaterCustomer() method.
J. Create a System.Collections.Queue collectio
K. Use the Enqueue() method to add TheaterCustomer objects to the collectio
L. Use the Peek() method to pass the objects to the ProcessTheaterCustomer() method.

Answer: C

Explanation: A stack is the appropriate collection here. In computer science, a stack or LIFO (last in, first out) is an abstract data type that serves as a collection of elements, with two principal operations: push, which adds an element to the collection, and pop, which removes the last element that was added. Reference: https://en.wikipedia.org/wiki/Stack_(abstract_data_type)

NEW QUESTION 310
DRAG DROP
You are developing a class named Temperature.
You need to ensure that collections of Temperature objects are sortable. You have the following code:

```
Target 1
{
  public double Fahrenheit { get; set; }
  public int Target 2
    (object obj)
  {
    if (obj == null) return 1;
    var otherTemperature = obj as Temperature;
    if(otherTemperature != null)
      return Target 3
    throw new ArgumentException("Object is not a Temperature");
  }
}
```

Which code segments should you include in Target 1, Target 2 and Target 3 to complete the code? (To answer, drag the appropriate code segments to the correct targets 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.)

Code Segments

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

Answer Area

Target 1:
Code Segment

Target 2:
Code Segment

Target 3:
Code Segment

Answer:

Explanation: Note: Target 1:
The role of IComparable is to provide a method of comparing two objects of a particular type. This is necessary if you want to provide any ordering capability for your object.
Incorrect: The role of IComparer is to provide additional comparison mechanisms. For example, you may want to provide ordering of your class on several fields or properties, ascending and descending order on the same field, or both.
Target 2, Target 3: Example:
// Implement IComparable CompareTo method - provide default sort order. int IComparable.CompareTo(object obj)
{

```
car c=(car)obj;
return String.Compare(this.make,c.make);
}
```
Reference: How to use the IComparable and IComparer interfaces in Visual C# https://support.microsoft.com/en-us/kb/320727

NEW QUESTION 313
HOTSPOT
A developer designs an interface that contains the following code:

```
public class Class1 : Class2
{
}
public interface INewInterface
{
    void Method1();
}
public class Class2 : INewInterface
{
    void INewInterface.Method1()
    {
        throw new NotImplementedException();
    }
}
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

Answer Area

Statement	Yes	No
If you call Method1 from an instance of Class2, an exception will be thrown.	○	○
If you cast an instance of Class1 into INewInterface, an exception will be thrown.	○	○
Class2 uses an implicit implementation of INewInterface.	○	○

Answer:

Explanation:

Statement	Yes	No
If you call Method1 from an instance of Class2, an exception will be thrown.	●	○
If you cast an instance of Class1 into INewInterface, an exception will be thrown.	○	●
Class2 uses an implicit implementation of INewInterface.	○	●

NEW QUESTION 317
You have the following code (line numbers are included for reference only):

```
01 public class Connection
02 {
03 public static Connection Create()
04 {
05 return new Connection();
06 }
07
08 }
```

You need to ensure that new instances of Connection can be created only by other classes by calling the Create method. The solution must allow classes to inherit from Connection.
What should you do?

- A. Replace line 01 with the following code:

  ```
  public abstract class Connection
  ```

- B. Replace line 01 with the following code:

  ```
  public static class Connection
  ```

- C. Insert the following code at line 07:

  ```
  private Connection () {}
  ```

- D. Insert the following code at line 07:

  ```
  protected Connection () {}
  ```

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

Answer: B

Explanation: The following list provides the main features of a static class:
* Contains only static members.
* Cannot be instantiated.
* Is sealed.
* Cannot contain Instance Constructors.
Creating a static class is therefore basically the same as creating a class that contains only static members and a private constructor. A private constructor prevents the class from being instantiated. Incorrect:
Not A: An abstract method is a method that is declared without an implementation. Not C: Private methods can be called from derived classes.
Reference: Static Classes and Static Class Members (C# Programming Guide) https://msdn.microsoft.com/en-us/library/79b3xss3.aspx

NEW QUESTION 320
DRAG DROP
You write the following code.

```
List<Type> types = (Target 1.CurrentDomain.GetAssemblies()
    .Target 2(t => t.GetTypes())
    .Where(t => t.IsClass && t.Assembly == this.GetType().Target 3)).ToList<Type>();
```

You need to get the list of all the types defined in the assembly that is being executed currently. How should you complete the code? To answer, drag the appropriate code elements to the correct targets in the answer area. Each code element 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.

Code Segments

| AppDomain |
| Assembly |
| IsClass |
| Select |
| SelectMany |

Answer Area

Target 1:

Target 2:

Target 3:

Answer:

Explanation: The AppDomain.CurrentDomain.GetAssemblies() gives you all assemblies loaded in the current application domain.

The Assembly class provides a GetTypes() method to retrieve all types within that particular assembly.
Example: Using Linq: IEnumerable<Type> types =
from a in AppDomain.CurrentDomain.GetAssemblies() from t in a.GetTypes()
select t;
Reference: http://stackoverflow.com/questions/4692340/find-types-in-all-assemblies

NEW QUESTION 325
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.  #region DEBUG
       Console.WriteLine("Entering debug mode");
    #endregion
    #region RELEASE
       Console.WriteLine("Entering release mode");
    #endregion
```

```
B.  #if (TRACE)
       Console.WriteLine("Entering debug mode");
    #else
       Console.WriteLine("Entering release mode");
    #endif
```

```
C.  if(System.Reflection.Assembly.GetExecutingAssembly().IsDefined
       (typeof(System.Diagnostics.Debugger), false))
       Console.WriteLine("Entering debug mode");
    else
       Console.WriteLine("Entering release mode");
```

```
D.  #if (DEBUG)
       Console.WriteLine("Entering debug mode");
    #elif (RELEASE)
       Console.WriteLine("Entering release mode ");
    #endif
```

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

Answer: D

Explanation: * Programmatically detecting Release/Debug mode (.NET) Boolean isDebugMode = false;
#if DEBUG
isDebugMode = true;
* #elif
#elif lets you create a compound conditional directive. Example:
#define VC7
//…
#if debug Console.Writeline("Debug build");
#elif VC7
Console.Writeline("Visual Studio 7");
#endif
Reference: http://stackoverflow.com/questions/654450/programmatically-detecting-release-debugmode- net

NEW QUESTION 330
You are creating an application that reads from a database.
You need to use different databases during the development phase and the testing phase by using conditional compilation techniques.
What should you do?

A. Configure the Define TRACE constant setting in Microsoft Visual Studio.
B. Specify the /define compiler option.
C. Run the Assembly Linker tool from the Windows Software Development Kit (Windows SDK).
D. Decorate the code by using the [assembly:AssemblyDelaySignAttribute(true)] attribute.

Answer: B

Explanation: You can specify the compiler settings for your application in several ways:
* The property pages
* The command line
* #CONST (for Visual Basic) and #define (for C#)
Note: You can have either the Trace or Debug conditional attribute turned on for a build, or both, or neither. Thus, there are four types of build: Debug, Trace, both, or neither. Some release builds for production deployment might contain neither; most debugging builds contain both.
Incorrect answers:
Not A: TRACE is used to enable tracing. It is not used for conditional compilation. Reference: How to: Compile Conditionally with Trace and Debug
https://msdn.microsoft.com/en-us/library/64yxa344(v=vs.110).aspx

NEW QUESTION 332
......

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