➢ Vendor: Microsoft

➢ Exam Code: 70-483

➢ Exam Name: Microsoft Programming in C#

➢ Question 61 -- Question 90

QUESTION 61
You are developing an application that will process orders. The debug and release versions of the application will display different logo images.
You need to ensure that the correct image path is set based on the build configuration.
Which code segment should you use?

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

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

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

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

QUESTION 62
You are testing an application. The application includes methods named CalculateInterest aid LogLine. The CalculateInterest () method calculates loan interest. The Logl_ine() method sends diagnostic messages to a console window. The following code implements the methods. (Line numbers are included for reference only.)

```
01
02  private static decimal CalculateInterest(decimal loanAmount, int loanTerm, decimal loanRate)
03  {
04    decimal interestAmount = loanAmount * loanRate * loanTerm;
05
06    LogLine("Interest Amount : ", interestAmount.ToString("c"));
07
08    return interestAmount;
09  }
10
11  public static void LogLine(string message, string detail)
12  {
13    Console.WriteLine("Log: {0} = {1}", message, detail);
14  }
```

You have the following requirements:
- The CalculateInterest() method must run for all build configurations.
- The LogLine() method must run only for debug builds.

You need to ensure that the methods run correctly.
What are two possible ways to achieve this goal?
(Each correct answer presents a complete solution.
Choose two.)

A. Insert the following code segment at line 01: #region DEBUG
   Insert the following code segment at line 10: #endregion
B. Insert the following code segment at line 10: [Conditional(MDEBUG")]
C. Insert the following code segment at line 05: #region DEBUG
   Insert the following code segment at line 07: #endregion
D. Insert the following code segment at line 01: #if DE30G
   Insert the following code segment at line 10: #endif
E. Insert the following code segment at line 01: [Conditional(MDEBUG")]
F. Insert the following code segment at line 05: #if DEBUG
   Insert the following code segment at line 07: #endif
G. Insert the following code segment at line 10: [Conditional("RELEASE")]

Answer: BF

QUESTION 63
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

QUESTION 64
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: D

QUESTION 65
You are developing an assembly that will be used by multiple applications.
You need to install the assembly in the Global Assembly Cache (GAC). Which two actions can you perform to achieve this goal? (Each correct answer presents a complete solution.
Choose two.)

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

Answer: BD

QUESTION 66
You are developing a class named Account that will be used by several applications.
The applications that will consume the Account class will make asynchronous calls to the Account class to execute several different methods.
You need to ensure that only one call to the methods is executed at a time.
Which keyword should you use?

A. sealed
B. protected
C. checked
D. lock

Answer: D

QUESTION 67
Drag and Drop Question
You are creating a method that will split a single input file into two smaller output files.
The method must perform the following actions:
- Create a file named header.dat that contains the first 20 bytes of the input file.
- Create a file named body.dat that contains the remainder of the input file.
You need to create the method.
How should you complete the relevant code?
(To answer, drag the appropriate code segments to the correct locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

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

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

Answer:

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

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

QUESTION 68
You write the following method (line numbers are included for reference only):

```
01 public static List<string> TestIfWebSite(string url)
02 {
03   const string pattern = @"http://(www\.)?([^\.]+)\.com";
04   List<string> result = new List<string>();
05
06   MatchCollection myMatches = Regex.Matches(url, pattern);
07 ...
08   return result;
09 }
```

You need to ensure that the method extracts a list of URLs that match the following pattern:
`@http://(www\.)?([^\.]+)\.com;`
Which code should you insert at line 07?

A.
```
foreach (Match currentMatch in myMatches)
  result.Add(currentMatch.Groups.ToString());
```

B.
```
result = (List<string>) myMatches.GetEnumerator();
```

C.
```
foreach (Match currentMatch in myMatches)
  result.Add(currentMatch.Value);
```

D
```
result = (List<string>) myMatches.SyncRoot;
```

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

Answer: A
Explanation:
* MatchCollection
Represents the set of successful matches found by iteratively applying a regular expression pattern to the input string.
The collection is immutable (read-only) and has no public constructor. The Regex.Matches method returns a MatchCollection object.
* List<T>.Add Method
Adds an object to the end of the List<T>.
Incorrect:
Not D: ICollection.SyncRoot Property
For collections whose underlying store is not publicly available, the expected implementation is to return the current instance. Note that the pointer to the current instance might not be sufficient for collections that wrap other collections; those should return the underlying collection's SyncRoot property.

QUESTION 69
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

QUESTION 70
Hotspot Question
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:

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.

QUESTION 71
You are developing an application by using G#.

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: AB

QUESTION 72
You are developing an application. The application includes a method named ReadFile that reads data from a file.
The ReadFile() method must meet the following requirements:
- It must not make changes to the data file.
- It must allow other processes to access the data file.
- It must not throw an exception if the application attempts to open a data file that does not exist.

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

A.
```
var fs = File.ReadAllBytes(Filename);
```

B.
```
var fs = File.Open(Filename, FileMode.OpenOrCreate, FileAccess.Read, FileShare.ReadWrite);
```

C.
```
var fs = File.ReadAllLines(Filename);
```

D.
```
var fs = File.Open(Filename, FileMode.Open, FileAccess.Read, FileShare.ReadWrite);
```

E.
```
var fs = File.Open(Filename, FileMode.OpenOrCreate, FileAccess.Read, FileShare.Write);
```

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

Answer: B

QUESTION 73
You are developing an application.
You need to declare a delegate for a method that accepts an integer as a parameter, and then returns an integer.
Which type of delegate should you use?

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

D. Func<int>

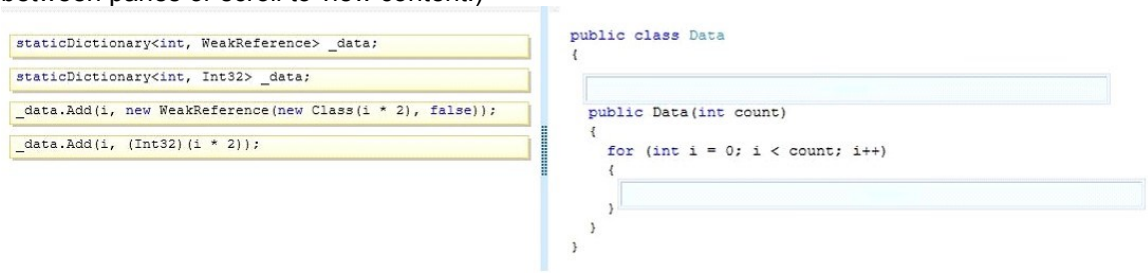
Answer: C

QUESTION 74
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?

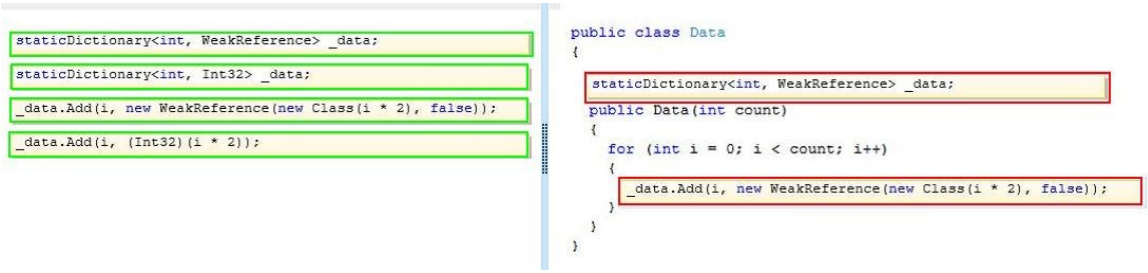
A. DES
B. HMACSHA512
C. RNGCryptoServiceProvider
D. ECDsa

Answer: B

QUESTION 75
Drag and Drop Question
You are creating a class named Data that includes a dictionary object named _data.
You need to allow the garbage collection process to collect the references of the _data object.
How should you complete the relevant code?
(To answer, drag the appropriate code segments to the correct locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)



Answer:



QUESTION 76
Drag and Drop Question
You have the following class:

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

You need to implement IEquatable. The Equals method must return true if both ID and Name are set to the identical values. Otherwise, the method must return false. Equals must not throw an exception.
What should you do? (Develop the solution by selecting and ordering the required code snippets. You may not need all of the code snippets.)

Answer:

QUESTION 77

You are developing an application by using C#. The application will write events to an event log.
You plan to deploy the application to a server.
You create an event source named MySource and a custom log named MyLog on the server.
You need to write events to the custom log.
Which code segment should you use?

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

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

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

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

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

Answer: D

QUESTION 78
You are implementing a method named GetValidPhoneNumbers. The GetValidPhoneNumbers() method processes a list of string values that represent phone numbers.
The GetValidPhoneNumbers() method must return only phone numbers that are in a valid format.
You need to implement the GetValidPhoneNumbers() method.
Which two code segments can you use to achieve this goal?
(Each correct answer presents a complete solution. Choose two.)

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

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

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

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

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

Answer: AB
Explanation:
* Regex.Matches
Searches an input string for all occurrences of a regular expression and returns all the matches.
* MatchCollection
Represents the set of successful matches found by iteratively applying a regular expression pattern to the input string.
The collection is immutable (read-only) and has no public constructor.
The Regex.Matches method returns a MatchCollection object.
* List<T>.Add Method
Adds an object to the end of the List<T>.

QUESTION 79
You have a List object that is generated by executing the following code:

```
List<string> departments = new List<string>()
{
  "Accounting", "Marketing", "Sales", "Manufacturing", "Information Systems", "Training"
};
```

You have a method that contains the following code (line numbers are included for reference only):

```
01  private bool GetMatches(List<string> departments, string searchTerm)
02  {
03    var findDepartment = departments.Exists((delegate(string deptName)
04    {
05      return deptName.Equals(searchTerm);
06    }
07    ));
08    return findDepartment;
09  }
```

You need to alter the method to use a lambda statement.
How should you rewrite lines 03 through 06 of the method?

A.
```
var findDepartment = departments.First(x => x == searchTerm);
```

B.
```
var findDepartment = departments.Where(x => x == searchTerm);
```

C.
```
var findDepartment = departments.Exists(x => x.Equals(searchTerm));
```

D.
```
var findDepartment = departments.Where(x => x.Equals(searchTerm));
```

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

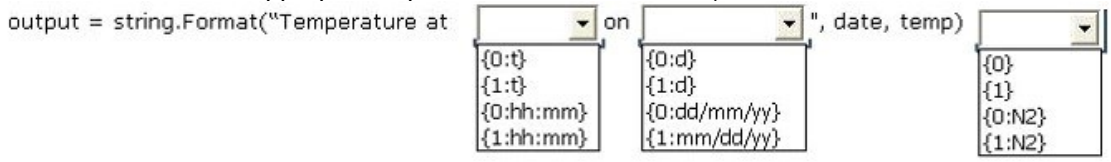
Answer: C

QUESTION 80
Hotspot Question
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):

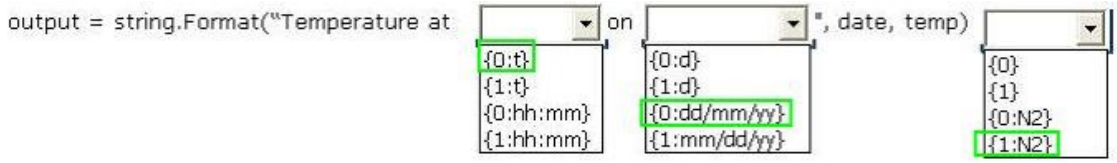
```
01 public void DisplayTemperature(DateTime date, double temp)
02 {
03   string output;
04
05   string lblMessage = output;
06 }
```

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.)



Answer:

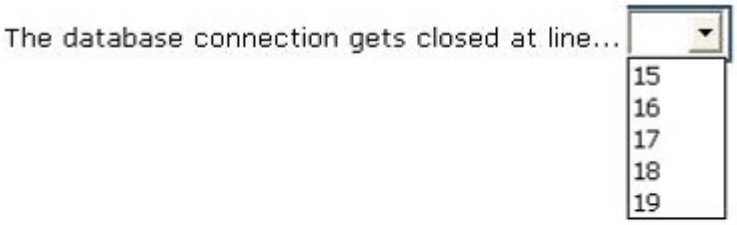


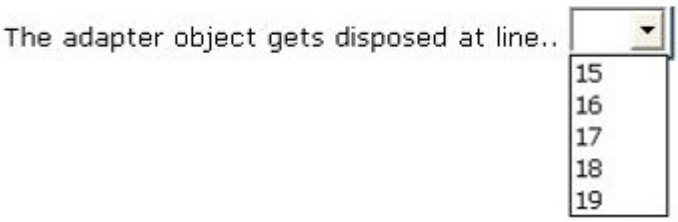
QUESTION 81

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

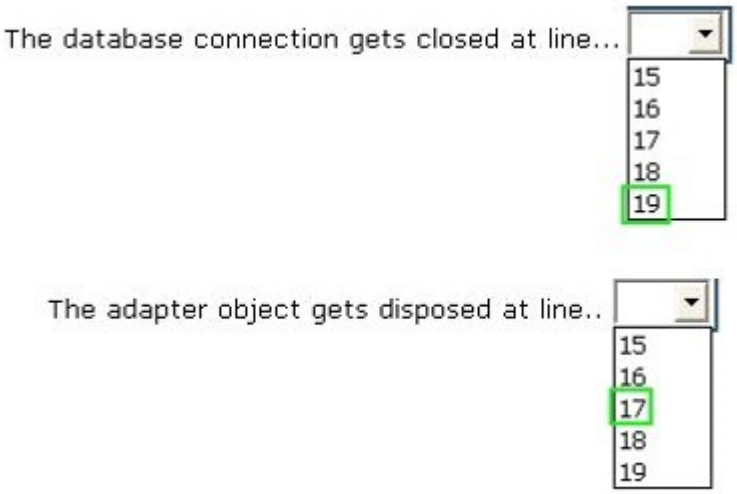
```
01 DataTable dataTable;
02 string connString = "Data Source=192.168.1.100;Initial Catalog=Database1;User Id=sa;Password=p@ssw0rd";
03 using (SqlConnection sqlConn = new SqlConnection(connString))
04 {
05   sqlConn.Open();
06   using (SqlCommand sqlCmd = new SqlCommand())
07   {
08     sqlCmd.Connection = 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.





Answer:



QUESTION 82
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.

QUESTION 83
Drag and Drop Question
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:

```
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 =
```

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

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

QUESTION 84

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

QUESTION 85
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

QUESTION 86
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

QUESTION 87
You have the following code (line numbers are included for reference only):

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

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

A.
```
System.Diagnostics.TraceSource trace = new TraceSource("./Trace.log");
trace.TraceEvent(TraceEventType.Error, ex.HResult, ex.Message);
```

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

C.
```
System.Diagnostics.EventInstance errorEvent =
 new System.Diagnostics.EventInstance(ex.HResult, 1, EventLogEntryType.Error);
System.Diagnostics.EventLog.WriteEvent("MyAppErrors", errorEvent, ex.Message);
```

D.
```
EventLog logEntry = new EventLog();
logEntry.Source = "Application";
logEntry.WriteEntry(ex.Message, EventLogEntryType.Error);
```

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

Answer: B
Explanation:
* XmlWriterTraceListener
Directs tracing or debugging output as XML-encoded data to a TextWriter or to a Stream, such as a FileStream.
* TraceListener.TraceEvent Method (TraceEventCache, String, TraceEventType, Int32) Writes trace and event information to the listener specific output.
Syntax:
[ComVisibleAttribute(false)]
public virtual void TraceEvent(
TraceEventCache eventCache,
string source,
TraceEventType eventType,
int id
)

QUESTION 88
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

QUESTION 89
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: B
Explanation:
The JavaScriptSerializer Class Provides serialization and deserialization functionality for AJAX-enabled 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.

QUESTION 90
You are implementing a method named GetValidEmailAddresses. The GetValidEmailAddresses() method processes a list of string values that represent email addresses.
The GetValidEmailAddresses() method must return only email addresses that are in a valid format.
You need to implement the GetValidEmailAddresses() method.
Which two code segments can you use to achieve this goal? (Each correct answer presents a complete solution. Choose two.)

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

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

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

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

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

Answer: BD
Explanation:
Note:
* List<T>.Add Method
Adds an object to the end of the List<T>.