Vendor: Microsoft

Exam Code: 70-483

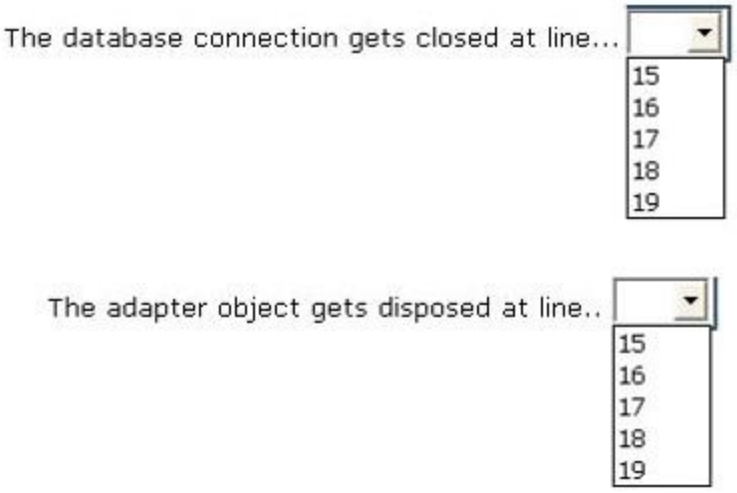
Exam Name: Microsoft Programming in C#

Questions and Answers No.: 81-90 (231Q&As)

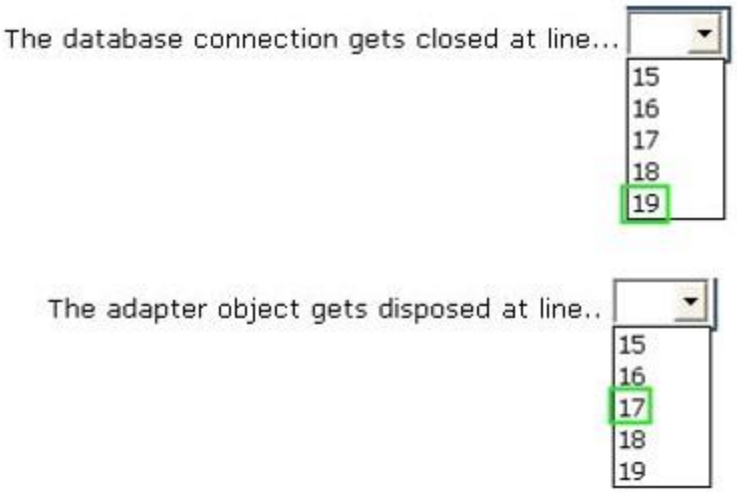
QUESTION 81
Hotspot Question
You have the following code (line numbers are included for reference only):

```
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:

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 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 87
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 88
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 89
You are developing an application that includes the following code segment. (Line numbers are

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

```
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 }
```

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

Answer: A

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>.