Vendor: Microsoft

Exam Code: 70-483

Exam Name: Microsoft Programming in C#

Questions and Answers No.: 91-100 (231Q&As)

QUESTION 91
Drag and Drop Question
You have an application that accesses a Microsoft SQL Server database.
The database contains a stored procedure named Proc1.
Procl accesses several rows of data across multiple tables.
You need to ensure that after Proc1 executes, the database is left in a consistent state.
While Proc1 executes, no other operation can modify data already read or changed by Proc1.
(Develop the solution by selecting and ordering the required code snippets. You may not need all of the code snippets.)

Answer:

QUESTION 92

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
Explanation:
B: Raise the event.
D: Declare the event handler.

QUESTION 93
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

QUESTION 94
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();
}
}
```

QUESTION 95
You are writing the following method (line numbers are included for reference only):
You need to ensure that CreateObject compiles successfully.
What should you do?

```
01 public T CreateObject<T>()
02
03 {
04   T obj = new T();
05   return obj;
06 }
```

A. Insert the following code at line 02:
`where T : new()`
B. Replace line 01 with the following code:
`public void CreateObject<T>()`
C. Replace line 01 with the following code:
`public Object CreateObject<T>()`
D. Insert the following code at line 02:
`where T : Object`

Answer: A

QUESTION 96
Hotspot Question
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:

	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.	○	☐

QUESTION 97
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

QUESTION 98
Hotspot Question
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:

	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.	○	○

QUESTION 99
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

QUESTION 100
An application is throwing unhandled NullReferenceException and FormatException errors.
The stack trace shows that the exceptions occur in the GetWebResult() method.
The application includes the following code to parse XML data retrieved from a web service. (Line numbers are included for reference only.)

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

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

A. Replace line 03 with the following code segment:

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

B. Replace line 03 with the following code segment:

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

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

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

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

Answer: AC
Explanation:
A: The TryParse method is like the Parse method, except the TryParse method does not throw an exception if the conversion fails. It eliminates the need to use exception handling to test for a FormatException in the event that s is invalid and cannot be successfully parsed.
C: UnhandledException event handler
If the UnhandledException event is handled in the default application domain, it is raised there for any unhandled exception in any thread, no matter what application domain the thread started in. If the thread started in an application domain that has an event handler for UnhandledException, the event is raised in that application domain.