Test-king.70-487.113.QA

Number: 70-487
Passing Score: 800
Time Limit: 120 min
File Version: 6.7

VCEplus.com

Microsoft 70-487

Developing Windows Azure and Web Services

Testlet 1

Flight Information

Background

You are developing a flight information consolidation service. The service retrieves flight information from a number of sources and combines them into a single data set. The consolidated flight information is stored in a SQL Server database. Customers can query and retrieve the data by using a REST API provided by the service.
The service also offers access to historical flight information. The historical flight information can be filtered and queried in an ad hoc manner.
The service runs on a Windows Azure Web Role. SSL is not used.

Business Requirements

- A new data source for historical flight information is being developed by a contractor located on another continent.
- If a time zone is not specified, then it should be interpreted as Coordinated Universal Time (UTC).
- When you upgrade a service from a staging deployment to a production deployment, the time that the service is unavailable must be minimized.
- The default port must be used for HTTP.

Technical Requirements

The existing sources of flight information and the mechanism of exchange are listed below.
- Blue Yonder Airlines provides flight information in an XML file.
- Consolidated Messenger provides flight information in a Microsoft Access database that is uploaded every 12 hours to the service using SFTP. The company uses port 22 for SFTP.
- Margie's Travel provides and consumes flight information using serialized ADO.NET DataSets. Data is periodically synced between the service and Margie's Travel.
- Trey Research provides data from multiple sources serialized in proprietary binary formats. The data must be read by using .NET assemblies provided by Trey Research. The assemblies use a common set of dependencies. The current version of the Trey Research assemblies is 1.2.0.0.
All assemblies provided by Trey Research are signed with a key pair contained in a file named Trey.snk, which Trey Research also supplies.
- The application specification requires that any third-party assemblies must have strong names.

Application Structure

FlightInfo.cs

```
public class FlightInfo
{
  string DataSource { get; set; }
  public string Airline { get; set; }
  public string Flight { get; set; }
  public DateTimeOffset Arrival { get; set; }
  public int Seats { get; set; }
  public bool WasLate { get; set; }
}
```

BlueYonderLoader.cs

```
public class BlueYonderLoader
{
  public IEnumerable<RawFlightData> LoadFlights(XDocument feed)
  {
    ...
  }

  private RawFlightData Parse(XElement flightElement)
  {
    ...
  }
}
```

HistoricalDataLoader.cs

```
public class HistoricalDataLoader
{
  public static IEnumerable<HistoricalFlightInfo> LoadHistoricalFlights()
  {
    ...
  }

  public void StreamHistoricalFlights(XmlWriter responseWriter, string airline)
  {

    ...
  }

  private XElement ConvertToHistoricalFlight(XElement flight)
  {
    return new XElement("Flight", flight);
  }

  private string GetAirline(XElement flightName)
  {
    return flightName.Value.Substring(0, 2);
  }

  IEnumerable<XElement> RemoteDataStream()
  {
    return XDocument.Load("").Elements();
  }
}
```

MargiesTravelSync.cs

```
public class MargiesTravelSync
{
  public void Sync()
  {
    ...
  }

  private DataSet LoadLocal()
  {
    var dataSet = new DataSet();
    dataSet.ReadXml("local");
    return dataSet;
  }

  private StreamWriter SendStream()
  {
    return new StreamWriter("SendStream");
  }

  private StreamReader ReceiveStream()
  {
    return new StreamReader("ReceiveStream");
  }
}
```

FlightInfoContext.cs

```
public class FlightInfoContext : DbContext
{
  public DbSet<FlightInfo> FlightInfo { get; set; }

  public override int SaveChanges()
  {
    return base.SaveChanges();
  }

  private bool IsTransient(int ex)
  {
    var errors = new[] { 10053, 10054, 64 };
    return errors.Contains(ex);
  }
}
```

FlightDataController.cs

```
public class FlightDataController : ApiController
{
  FlightInfoContext _Context;

  public FlightDataController()
  {
    _Context = new FlightInfoContext();
  }

  [HttpGet]
  public IEnumerable<FlightInfo> GetFlightInfo()
  {
    return _Context.FlightInfo.Select(x => x).AsEnumerable();
  }

  private IEnumerable<HistoricalFlightInfo> LoadHistorical()
  {
    return HistoricalDataLoader.LoadHistoricalFlights();
  }
}
```

QUESTION 1
You need to load flight information provided by Consolidated Messenger.

Which should you use?

A. SQL Server Data Transformation Services (DTS)
B. EntityTransaction and EntityCommand
C. Office Open XML
D. OleDbConnection and OleDbDataReader

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:

QUESTION 2
You are adding a new REST service endpoint to the FlightDataController controller that returns the total number of seats for each airline.

You need to write a LINQ to Entities query to extract the required data.

Which code segment should you use?

A.
```
var query = from flight in _Context.FlightInfo
 group flight by flight.Seats into agg
 let airline = agg.First()
 select new
 {
   TotalSeats = agg.Key,
   Airline = airline,
 };
```

B.
```
var query = from flight1 in _Context.FlightInfo
 from flight2 in _Context.FlightInfo
 where flight1.Airline == flight2.Airline
 select new
 {
   Airline = flight1.Airline,
   TotalSeats = Math.BigMul(flight1.Seats, flight2.Seats),
 };
```

C.
```
var query = from flight in _Context.FlightInfo
 from airline in flight.Airline
 group airline by airline into agg
 select new
 {
   Airline = agg.Key,
   TotalSeats = agg.Sum(x => Convert.ToInt32(x)),
 };
```

D.
```
var query = from flight in _Context.FlightInfo
 group flight by flight.Airline into agg
 select new
 {
   Airline = agg.Key,
   TotalSeats = agg.Sum(x => x.Seats),
 };
```

A. Option A

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

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Answer is appropriate.

QUESTION 3
Errors occasionally occur when saving data using the FlightInfoContext ADO.NET Entity Framework context. Updates to the data are being lost when an error occurs.

You need to ensure that data is still saved when an error occurs by retrying the operation. No more than five retries should be performed.

With which code segment should you replace the body of the SaveChanges() method in the FlightInfoContext.es file?

A.
```
var result = FlightInfo.SqlQuery("UPDATE WITH RETRY", FlightInfo, "IsTransient", 5);
if (result.Count() > 5)
{
  result.AsNoTracking();
  return -1;
}
return 0;
```

B.
```
try
{
  return base.SaveChanges();
}
catch (EntityCommandExecutionException ex)
{
  if (ex.Data.Keys.Cast<int>().Any(x => IsTransient(x)))
  {
    return 5 & SaveChanges();
  }
  return -1;
}
```

C.
```
for (var i = 0; i < 5; i++)
{
  try
  {
    return base.SaveChanges();
  }
  catch (SqlException ex)
  {
    if (IsTransient(ex.Number))
    {
      continue;
    }
  }
}
return base.SaveChanges();
```

D.
```
var exception = new EntitySqlException();
while (exception.HResult != 0 && exception.Data.Count < 5)
{
  try
  {
    return base.SaveChanges();
  }
```

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

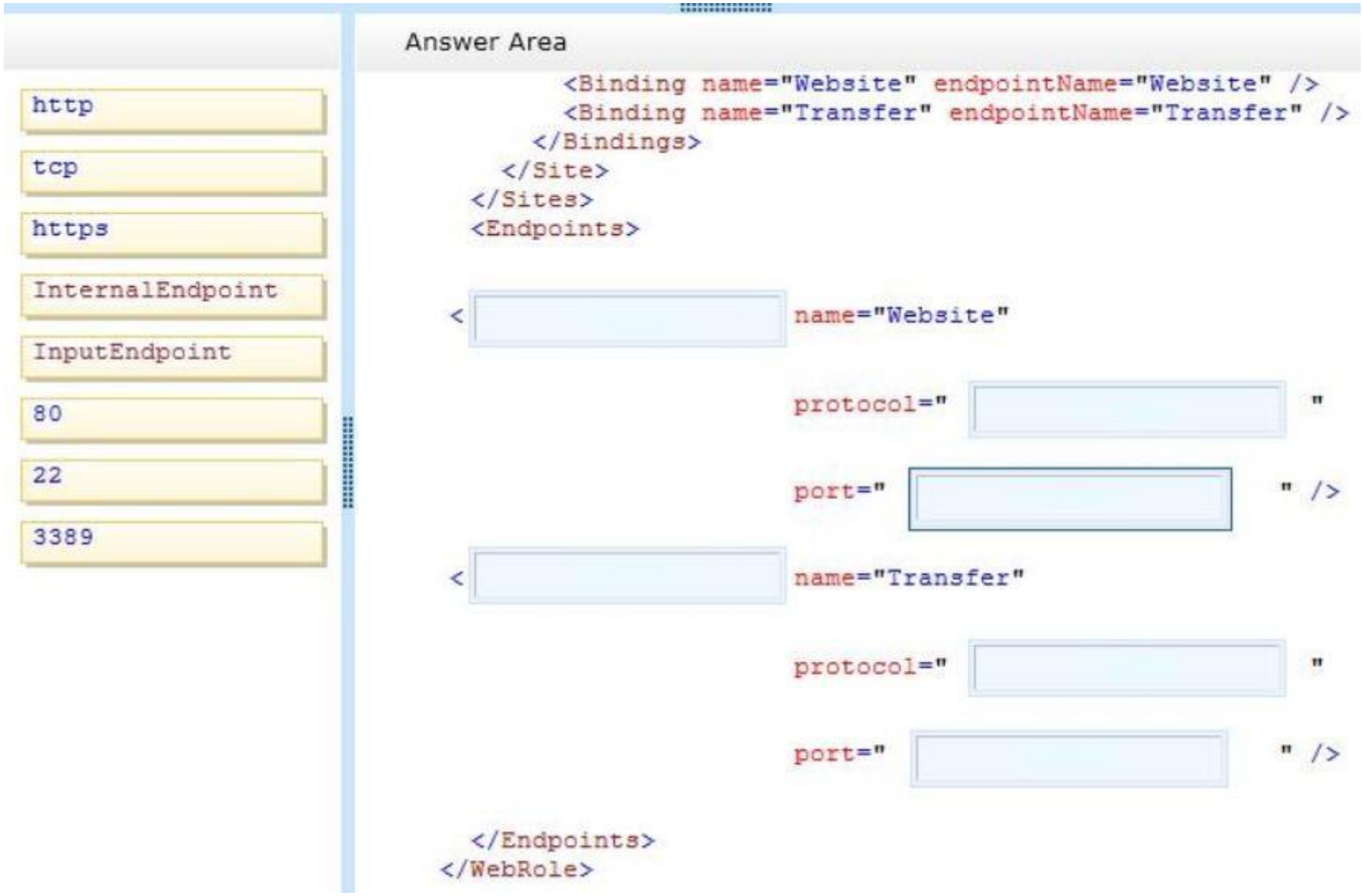
Correct Answer: C
Section: [none]
Explanation

Explanation/Reference:
Explanation: Explanation/Reference:
EntitySqlException: Represents errors that occur when parsing Entity SQL command text. This exception is thrown when syntactic or semantic rules are violated.

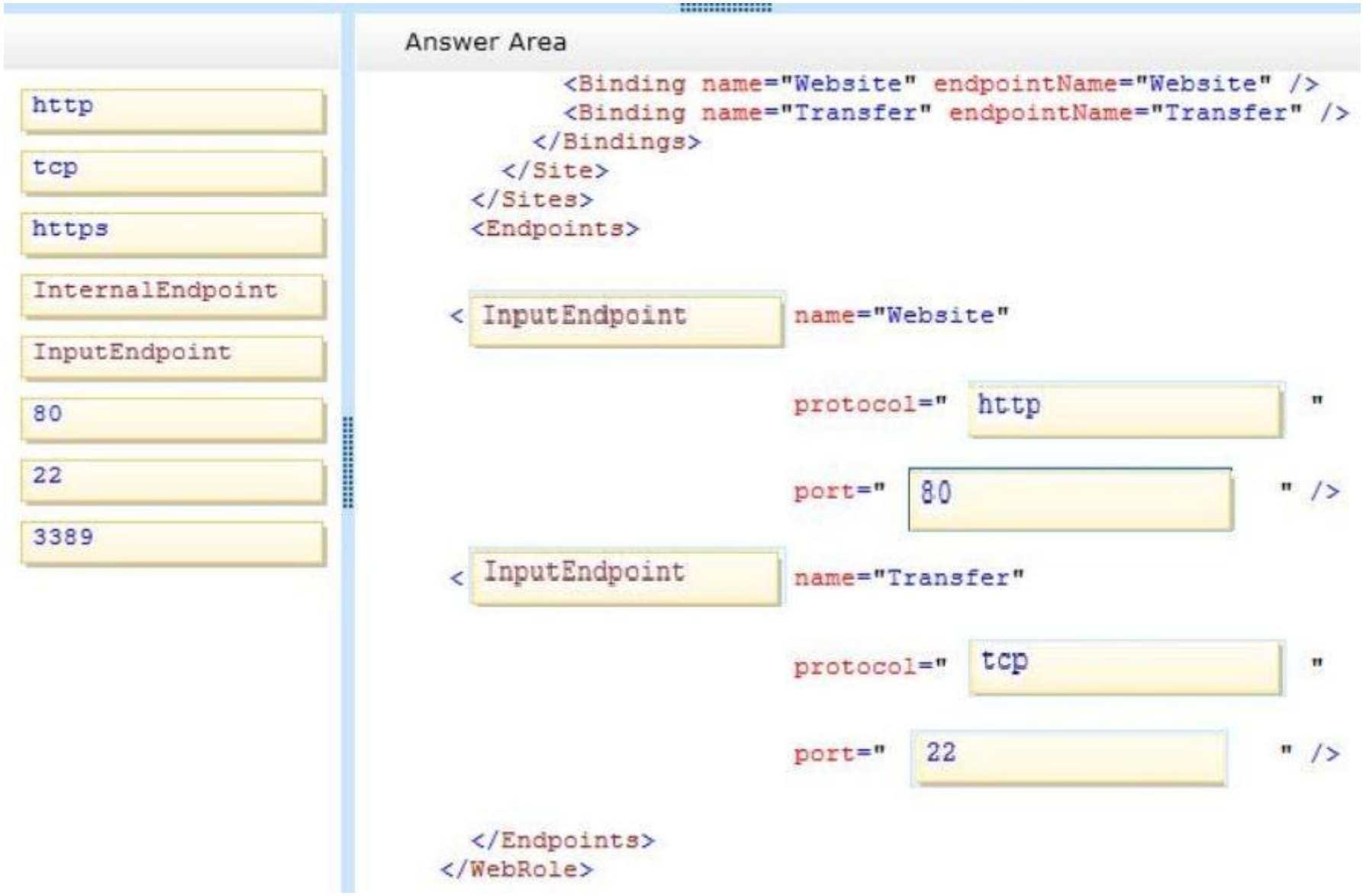
SqlException: The exception that is thrown when SQL Server returns a warning or error. This class cannot be inherited.
EntityCommandExecutionException : Represents errors that occur when the underlying storage provider could not execute the specified command. This exception usually wraps a provider- specific exception.

QUESTION 4
You need to configure the Windows Azure service definition to enable Consolidated Messenger to upload files.
What should you do? (To answer, drag the appropriate configuration items to the correct location or locations. Each configuration item 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.)

Select and Place:



Correct Answer:

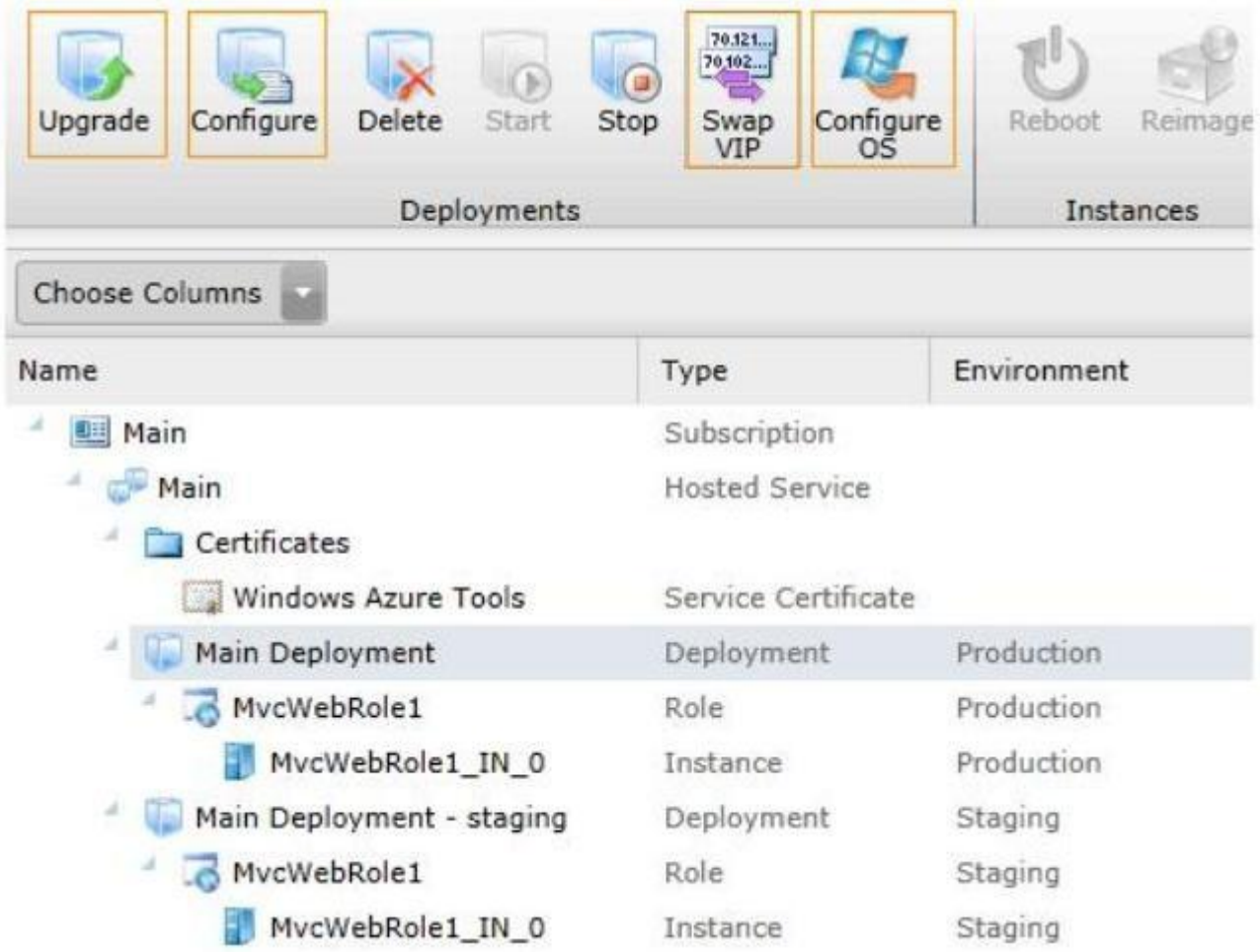


Section: [none]
Explanation

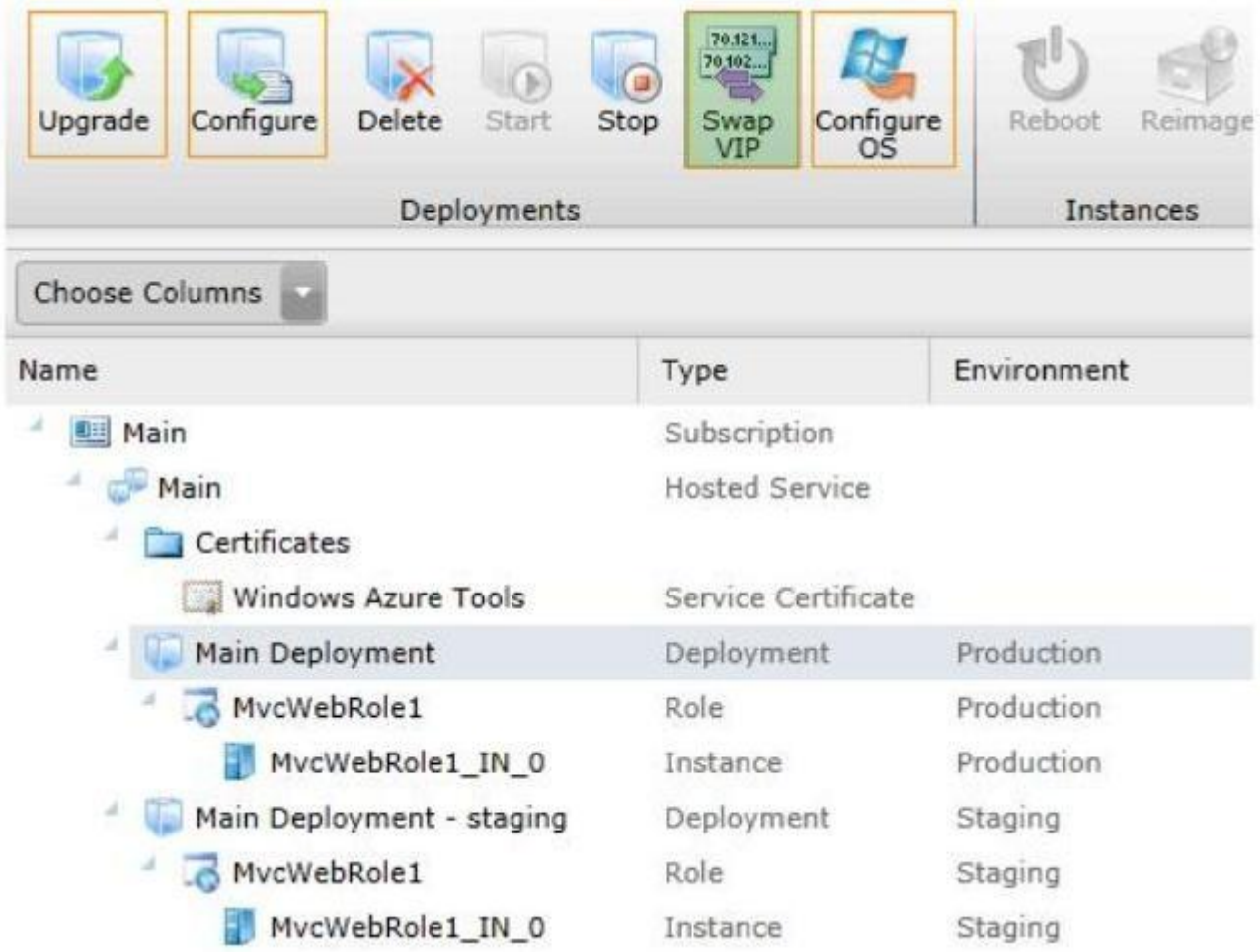
Explanation/Reference:

QUESTION 5
You need to deploy the application to the Windows Azure production environment to meet the business requirements.
What should you do? (To answer, select the appropriate button in the answer area.)

Hot Area:

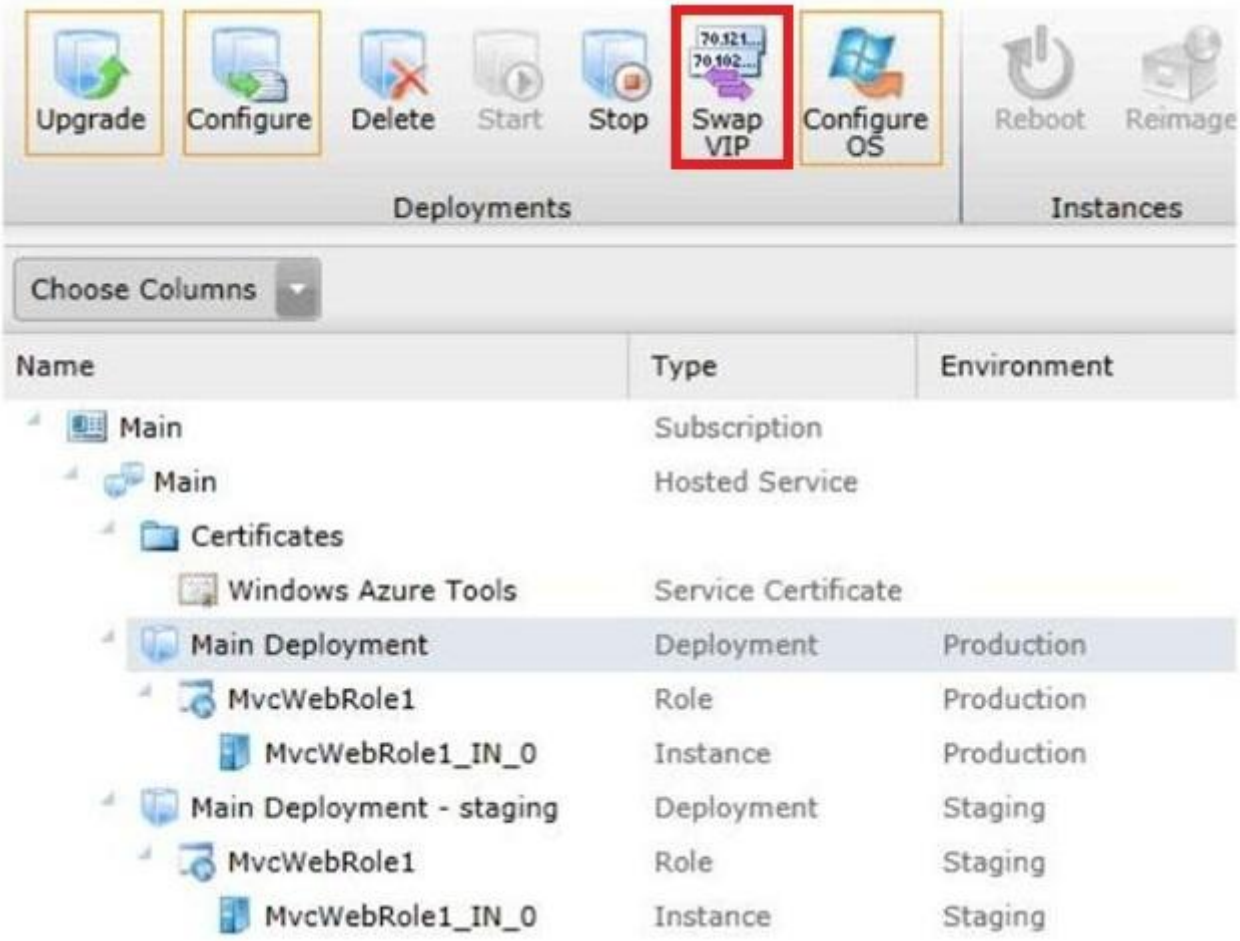


Correct Answer:



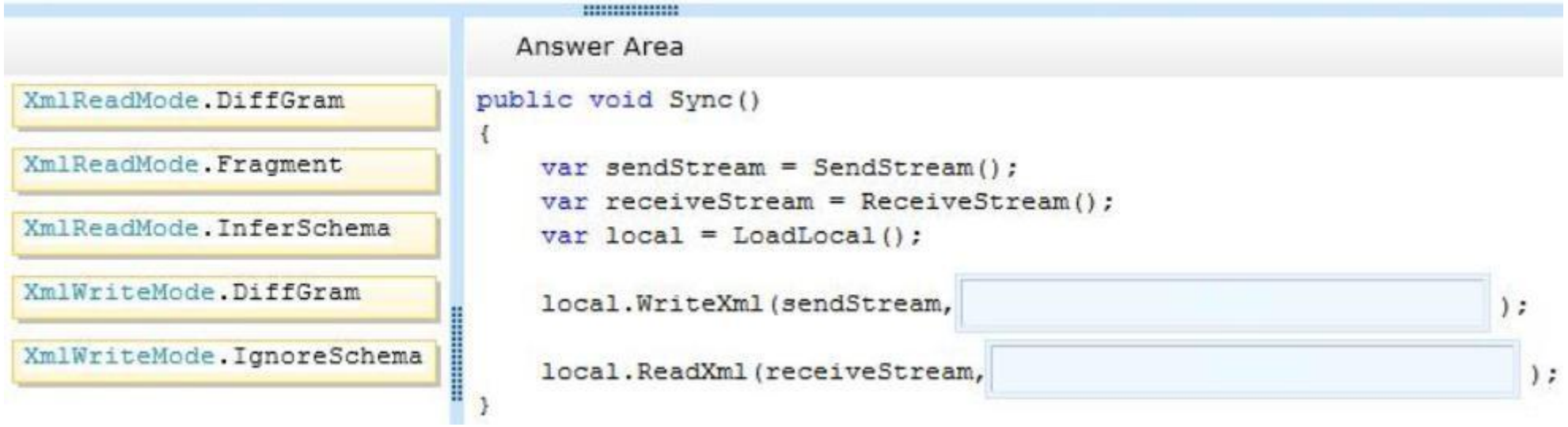
Section: [none]
Explanation

Explanation/Reference:

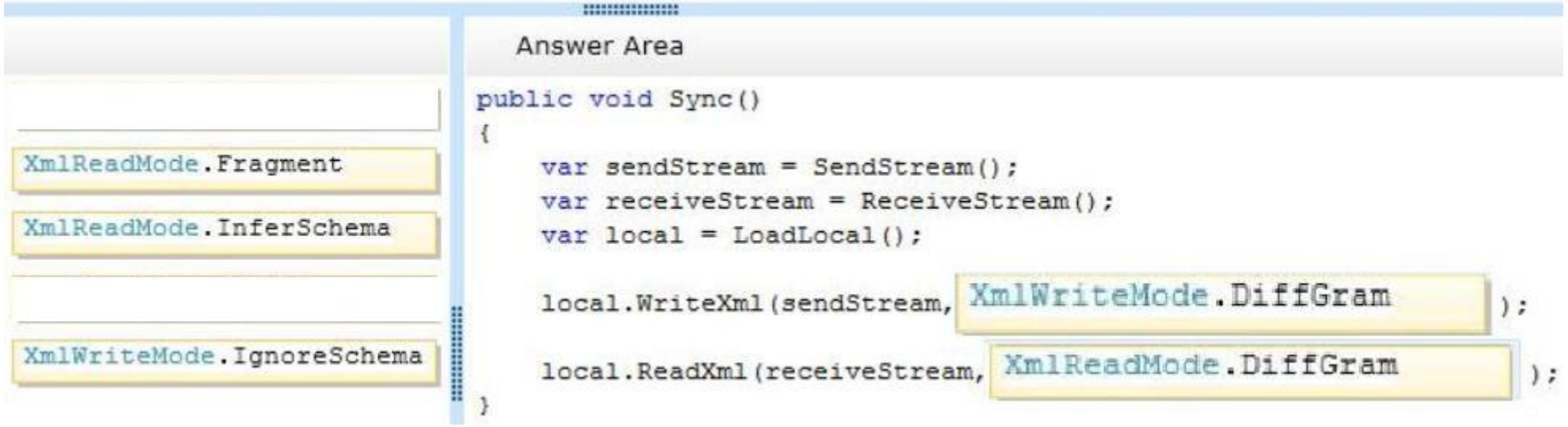


QUESTION 6
Flight information data provided by Margie's Travel is updated both locally and remotely. When the data is synced, all changes need to be merged together without causing any data loss or corruption.
You need to implement the Sync() method in the MargiesTravelSync.es file.
What should you do? (To answer, drag the appropriate code segments to the correct location or 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.)

Select and Place:



Correct Answer:



Section: [none]
Explanation

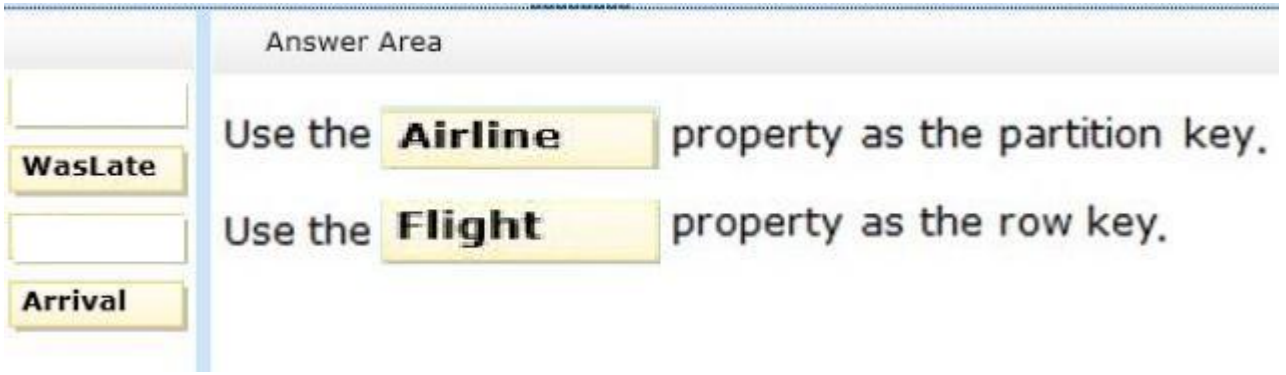
Explanation/Reference:

http://msdn.microsoft.com/en-us/library/ms135424.aspx

QUESTION 7
Historical flight information data will be stored in Windows Azure Table Storage using the FlightInfo class as the table entity.
There are millions of entries in the table. Queries for historical flight information specify a set of airlines to search and whether the query should return only late flights. Results should be ordered by flight name.
You need to specify which properties of the FlightInfo class should be used at the partition and row keys to ensure that query results are returned as quickly as possible.
What should you do? (To answer, drag the appropriate properties to the correct location or locations in the answer area. Each property 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.)

Select and Place:

Correct Answer:



Section: [none]
Explanation

Explanation/Reference:
Airline
Flight

QUESTION 8
The service has been deployed to Windows Azure.
Trey Research has provided version 1.3.0.0 of the assembly to support a change in the serialization format. The service must remain available during the transition to the new serialization format.
You need to ensure that the service is using the new assembly.
Which configuration setting should you add to the web.config? (To answer, drag the appropriate

configuration elements to the correct location or locations in the answer area. Each configuration 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.)

Select and Place:

codeBase version="1.3.0.0" href="Trey.Serialization.dll"

bindingRedirect oldVersion="1.2.5.0" newVersion="1.3.0.0"

bindingRedirect oldVersion="1.2.0.0" newVersion="1.3.0.0"

runtime

location

<

>

```
<assemblyBinding xmlns="urn:schemas-microsoft-com:asm.v1">
  <dependentAssembly>
    <assemblyIdentity name="Trey.Serialization" />

      <

  </dependentAssembly>
</assemblyBinding>
```

</

>

Correct Answer:


codeBase version="1.3.0.0" href="Trey.Serialization.dll"
bindingRedirect oldVersion="1.2.5.0" newVersion="1.3.0.0"
bindingRedirect oldVersion="1.2.0.0" newVersion="1.3.0.0"
runtime
location
< runtime >
<assemblyBinding xmlns="urn:schemas-microsoft-com:asm.v1">
<dependentAssembly>
<assemblyIdentity name="Trey.Serialization" />
< codeBase version="1.3.0.0" href="Trey.Serialization.dll"
</dependentAssembly>
</assemblyBinding>
</ runtime >

Section: [none]
Explanation

Explanation/Reference:

See: http://msdn.microsoft.com/en-us/library/7wd6ex19.aspx

QUESTION 9
You need to parse flight information from Blue Yonder Airlines. The content of the XML file is shown below.

```
<?xml version="1.0" encoding="utf-8"?>
<AirlineFeed>
  <Flight xmlns="urn:CFI" name="AS515">
    <Seats>123</Seats>
    <Arrival>5/2/2011 12:01:13</Arrival>
  </Flight>
  <Flight name="UN24">
    <Seats>123</Seats>
    <Arrival>5/1/2012 10:17:57 PM +02:00</Arrival>
  </Flight>
  <FlightManifest>
    ...
  </FlightManifest>
</AirlineFeed>
```

Some airlines do not specify the timezone of the arrival time. If the timezone is not specified, then it should be interpreted per the business requirements.
You need to implement the LoadFlights() and Parse() methods of the BlueYonderLoader class.
What should you do? (To answer, drag the appropriate code segments to the correct location in the answer area. Each 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.)

Select and Place:

```
var flights = feed.Elements(
 feed.Root.GetPrefixOfNamespace("{urn:CFI}") + "Flight");
```

```
var flights = feed.Descendants().Where(x =>
 x.NodeType != XmlNodeType.XmlDeclaration && (string)x ==
"Flight");
```

```
var flights = feed.Descendants("{urn:CFI}Flight")
 .Concat(feed.Descendants("Flight"));
```

```
fi.Arrival = DateTimeOffset.Parse(arrivalRaw,
 null, System.Globalization.DateTimeStyles.AssumeUniversal);
```

```
fi.Arrival = DateTimeOffset.Parse(arrivalRaw,
 null, System.Globalization.DateTimeStyles.AdjustToUniversal);
```

```
fi.Arrival = XmlConvert.ToDateTimeOffset(arrivalRaw,
 new[] { "Local", "Universal" });
```

```
public IEnumerable<FlightInfo> LoadFlights(XDocument feed)
{
  return flights.Select(x => Parse(x));
}

private FlightInfo Parse(XElement flightElement)
```

Correct Answer:

```
var flights = feed.Elements(
 feed.Root.GetPrefixOfNamespace("{urn:CFI}") + "Flight");
```

```
var flights = feed.Descendants().Where(x =>
 x.NodeType != XmlNodeType.XmlDeclaration && (string)x ==
"Flight");
```

```
fi.Arrival = DateTimeOffset.Parse(arrivalRaw,
 null, System.Globalization.DateTimeStyles.AdjustToUniversal);
```

```
fi.Arrival = XmlConvert.ToDateTimeOffset(arrivalRaw,
 new[] { "Local", "Universal" });
```

```
public IEnumerable<FlightInfo> LoadFlights(XDocument feed)
{
   var flights = feed.Descendants("{urn:CFI}Flight")
    .Concat(feed.Descendants("Flight"));

   return flights.Select(x => Parse(x));
}

private FlightInfo Parse(XElement flightElement)
```

Section: [none]
Explanation

Explanation/Reference:

```
public IEnumerable<FlightInfo> LoadFlights(XDocument feed)
{
   var flights = feed.Descendants("{urn:CFI}Flight")
    .Concat(feed.Descendants("Flight"));

  return flights.Select(x => Parse(x));
}

private FlightInfo Parse(XElement flightElement)
{
  var fi =  new FlightInfo();
  fi.Flight = flightElement.Attribute("name").Value;
  var arrivalRaw = flightElement.Element("Arrival").Value;

   fi.Arrival = DateTimeOffset.Parse(arrivalRaw,
    null, System.Globalization.DateTimeStyles.AssumeUniversal);

  fi.Seats = XmlConvert.ToInt32(flightElement.Element("Seats").Value);
  return fi;
}
```

QUESTION 10
You need to recommend a data access technology to the contractor to retrieve data from the new data source.

Which data access technology should you recommend?

A. LINQ to XML
B. ADO.NET Entity Framework
C. ADO.NET DataSets
D. WCF Data Services

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:

QUESTION 11
Errors occasionally occur when saving data using the FlightInfoContext ADO.NET Entity

Framework context. Updates to the data are being lost when an error occurs.

You need to ensure that data is still saved when an error occurs by retrying the operation. No more than five retries should be performed.

Which code segment should you use as the body of the SaveChanges() method in the FlightInfoContext.es file?

A.

```
for (var i = 0; i < 5; i++)
{
  try
  {
    return base.SaveChanges();
  }
  catch (SqlException ex)
  {
    if (IsTransient(ex.Number))
    {
      continue;
    }
  }
}
return base.SaveChanges();
```

B.

```
var exception = new EntitySqlException();
while (exception.Data != 0 && exception.Data.Count < 5)
{
  try
  {
    return base.SaveChanges();
  }
  catch (EntitySqlException ex)
  {
    if (IsTransient(ex.HResult))
    {
      exception = ex;
    }
  }
}
return base.SaveChanges();
```

C.
```
for (var i = 0; i < 5; i++)
{
  try
  {
    return base.SaveChanges();
  }
  catch (SqlException ex)
  {
    if (IsTransient(ex.Number))
    {
      break;
    }
  }
}
return base.SaveChanges();
```

D.
```
for (var i = 0; i < 5; i++)
{
  try
  {
    return base.SaveChanges();
  }
  catch (SqlException ex)
  {
    if (!IsTransient(ex.Number))
    {
      continue;
    }
  }
}
return base.SaveChanges();
```

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

Correct Answer: A

Section: [none]
Explanation

Explanation/Reference:

QUESTION 12
You are adding a new REST service endpoint to the FlightDataController controller. It returns

flights from the consolidated data sources only for flights that are late.

You need to write a LINQ to Entities query to extract the required data.

Which code segment should you use?

A.
```
var historical = LoadHistorical();
var query = _Context.FlightInfo.AsQueryable()
 .Join(historical, x => x.Flight, y => y.Flight, (x, y) => new { Current = x,
Historical = y })
 .Where(x => x.Historical.WasLate)
 .Select(x => x.Current);
```

B.
```
var historical = LoadHistorical();
var query = _Context.FlightInfo.AsEnumerable()
 .Where(x => historical.All(y => y.WasLate && x.Flight == y.Flight))
 .Select(x => x);
```

C.
```
var historical = LoadHistorical();
var query = _Context.FlightInfo.AsQueryable()
 .Where(x => historical.Select(y => y.Flight).Contains(x.Flight))
 .Where(x => historical.Any(y => y.WasLate))
 .Select(x => x);
```

D.
```
var historical = LoadHistorical();
var query = _Context.FlightInfo.AsEnumerable()
 .Join(historical, x => x.Flight, y => y.Flight, (x, y) => new { Current = x,
Historical = y })
 .Where(x => x.Historical.WasLate)
 .Select(x => x.Current);
```

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

Correct Answer: D

Section: [none]
Explanation

Explanation/Reference:
Explanation: Explanation/Reference:
D is right because you send result as REST so if you use "AsQueryable" the result is deferred to the next enumeration of your result.
D is not optimized but will works.
A will break at runtime.
Credits to Rem

QUESTION 13
Data provided by Consolidated Messenger is cached in the HttpContext.Cache object.

You need to ensure that the cache is correctly updated when new data arrives.

What should you do?

A. Ensure that the EffectivePrivateBytesLimit value is greater than the size of the database file.
B. Change the sliding expiration of the cache item to 12 hours.
C. Use the SqlCacheDependency type configured with a connection string to the database file.
D. Use the CacheDependency type configured to monitor the SFTP target folder.

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:

QUESTION 14
You need to load flight information provided by Consolidated Messenger.

What should you use?

A. Office Open XML
B. COM interop
C. OleDbConnection and OleDbDataReader
D. EntityConnection and EntityDataReader

Correct Answer: C

Section: [none]
Explanation

Explanation/Reference:

QUESTION 15
Historical flight information data will be stored in Windows Azure Table Storage using the FlightInfo class as the table entity.

There are millions of entries in the table. Queries for historical flight information specify a set of airlines to search and whether the query should return only late flights. Results should be ordered by flight name.

You need to specify which properties of the FlightInfo class should be used at the partition and row keys to ensure that query results are returned as quickly as possible.

What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

A. Use the WasLate property as the row key.
B. Use the Airline property as the row key.
C. Use the WasLate property as the partition key
D. Use the Arrival property as the row key.
E. Use the Airline property as the partition key.
F. Use the Flight property as the row key.

Correct Answer: BF
Section: [none]
Explanation

Explanation/Reference:

QUESTION 16
Transformed historical flight information provided by the RemoteDataStream() method must be written to the response stream as a series of XML elements named Flight within a root element named Flights. Each Flight element has a child element named FlightName that contains the flight name that starts with the two-letter airline prefix.

You need to implement the StreamHistoricalFlights() method so that it minimizes the amount of memory allocated.

Which code segment should you use as the body of the StreamHistoricalFlights() method in the HistoricalDataLoader.es file?

A.
```
responseWriter.WriteStartElement("Flights");
var flights = RemoteDataStream()
 .OrderBy(x => GetAirline(x.Element("FlightName")));
var filteredFlights = flights
 .SkipWhile(x => GetAirline(x.Element("FlightName")) != airline);
foreach (var f in filteredFlights)
{
  var flight = ConvertToHistoricalFlight(f);
  flight.WriteTo(responseWriter);
}
responseWriter.WriteEndElement();
```

B.
```
responseWriter.WriteStartElement("Flights");
var flights = RemoteDataStream().Select(x =>
 {
   if (GetAirline(x) == airline)
   {
     return ConvertToHistoricalFlight(x);
   }
   return null;
 });
flights.TakeWhile(x =>
 {
   x.WriteTo(responseWriter);
   return x != null;
 });
responseWriter.WriteEndElement();
```

C.
```
var data = RemoteDataStream().ToDictionary(x =>
 GetAirline(x.Element("FlightName")),
 x => new XStreamingElement("Flights", ConvertToHistoricalFlight(x).Descendants()));
data[airline].WriteTo(responseWriter);
```

D.
```
var flights = new XStreamingElement("Flights",
 from flight in RemoteDataStream()
 where GetAirline(flight.Element("FlightName")) == airline
 select ConvertToHistoricalFlight(flight));
flights.WriteTo(responseWriter);
```

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

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation: http://msdn.microsoft.com/en-us/library/system.xml.linq.xstreamingelement.aspx and http://msdn.microsoft.com/en-us/library/bb551307.aspx

Testlet 1

ASP.NET MVC

Background

You are developing an ASP.NET MVC application in Visual Studio 2012 that will be used to process orders.

Business Requirements

The application contains the following three pages:

- A page that queries an external database for orders that are ready to be processed. The user can then process the order.
- A page to view processed orders.
- A page to view vendor information.

The application consumes three WCF services to retrieve external data.

Technical Requirements

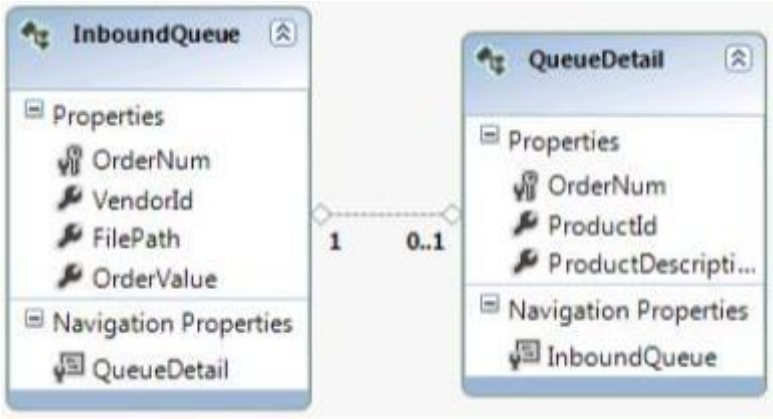
Visual Studio Solution:

The solution contains the following four projects.

- ExternalQueue: A WCF service project used to communicate with the external order database.
- OrderProcessor: An ASP.NET MVC project used for order processing and logging order metadata.
- OrderUpload: A WCF service project used to submit order data to an external data source.
- Shipping: A WCF service project used to acquire shipping information.

ExternalQueue Project:

Entity Framework is used for data access. The entities are defined in the ExternalOrders.edmx file as shown in the following diagram.



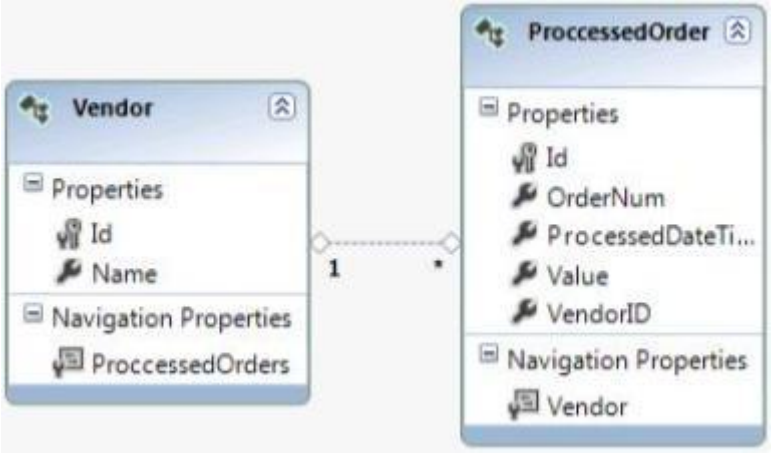
The project contains two services defined in the following files.

- IExternalQueueService.es
- ExternalQueueService.svc.

The ExternalQueue.Helpers namespace contains a definition for a class named OrderNotFound Exception.

OrderProcessor Project:

Entity Framework is used for data access. The entities are defined in the ProcessedOrders.edmx file as shown in the following diagram.



The classes are contained in the OrderProcessor.Entities namespace. The project contains the following two controllers.

- InboundQueueController.es

- ProcessedOrderController.es

WCF service proxies to the ExternalQueue, Shipping and OrderUpload services have been generated by using the command prompt. The ExecuteCommandProcedure() method in the ExternalQueueService.svc file must run asynchronously.
The ProcessedOrderController controller has the following requirements.
The GetVendorPolicy() method must enforce a 10 minute absolute cache expiration policy.
The GetProcessedOrders() method must return a view of the 10 most recently processed orders.

OrderUpload Project:

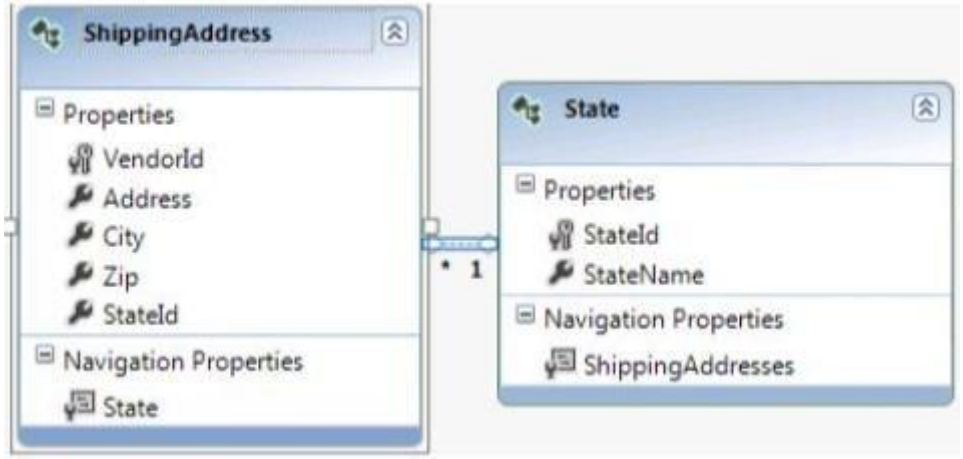
The project contains two services defined in the following files:

- IUploadCallbackService.es
- UploadCallbackService.svc

Data Access is maintained in a file named UploadOrder.es.

Shipping Project:

Entity Framework is used for data access. The entities are defined in the ExternalOrders.edmx file as shown in the following diagram.



The Custom Tool property for ExternalOrders.edmx has been removed.
POCO classes for the Entity Model are located in the ShippingAddress.es file. The POCO entity must be loaded by using lazy loading.
The project contains two services defined in the following files.

- IShippingService.es
- ShippingService.svc.

The IShippingService contract must contain an operation that receives an order number as a parameter. The operation must return a class named ShippingInfo that inherits from a class named State.

Application Structure

ExternalQueue\IExternalQueueService.cs

```
IQ01 using System.Collections.Generic;
IQ02 using System.ServiceModel;
IQ03 using ExternalQueue.Helpers;
IQ04
IQ05 namespace ExternalQueue
IQ06 {
IQ07   [ServiceContract]
IQ08   public interface IExternalQueueService
IQ09   {
IQ10     [OperationContract]
IQ11     List<Entities.InboundQueue> GetExternalOrders();
IQ12
IQ13     [FaultContract(typeof(OrderNotFoundException))]
IQ14     [OperationContract]
IQ15     void DeleteExternalOrder(int orderNum);
IQ16
IQ17     [OperationContract]
IQ18     Entities.InboundQueue GetExternalOrder(int orderNum);
IQ19   }
IQ20 }
```

OrderProcessor\IExternalQueueService.svc

```
EQ01 using System;
EQ02 using System.Collections.Generic;
EQ03 using System.Linq;
EQ04 using System.Data.EntityClient;
EQ05 using System.Data;
EQ06 using ExternalQueue.Entities;
EQ07 using System.Data.Objects;
EQ08 using ExternalQueue.Helpers;
EQ09 using System.ServiceModel;
EQ10 using System.Threading.Tasks;
EQ11
EQ12 namespace ExternalQueue
EQ13 {
EQ14   public class ExternalQueueService : IExternalQueueService
EQ15   {
EQ16     public List<Entities.InboundQueue> GetExternalOrders()
EQ17     {
EQ18       List<InboundQueue> queueItems = new List<InboundQueue>();
EQ19       return queueItems;
EQ20     }
EQ21
EQ22     public void DeleteExternalOrder(int orderNum)
EQ23     {
EQ24       using (var context = new ExternalOrdersEntities())
EQ25       {
EQ26         var orders = context.InboundQueues.Where(i => i.OrderNum ==
orderNum).ToList();
EQ27         if (orders.Count() > 0)
EQ28         {
EQ29           using (EntityCommand cmd = new EntityCommand())
EQ30           {
EQ31             cmd.CommandText = "ExternalOrdersEntities.uspInboundQueueDelete";
EQ32             cmd.CommandType = CommandType.StoredProcedure;
EQ33             EntityParameter param = new EntityParameter();
EQ34             param.Value = orderNum;
EQ35             param.ParameterName = "orderNum";
EQ36             cmd.Parameters.Add(param);
EQ37             ExecuteCommandProcedure(cmd);
EQ38           }
EQ39         }
EQ40         else
EQ41         {
EQ42           OrderNotFoundException ex = new OrderNotFoundException();
```

ExternalQueue\ProcessedOrderController.cs

```
PC01 using System;
PC02 using System.Collections.Generic;
PC03 using System.Linq;
PC04 using System.Runtime.Caching;
PC05 using System.Web.Mvc;
PC06 using OrderProcessor.Entities;
PC07 using OrderProcessor.Helpers;
PC08 using System.Configuration;
PC09
PC10 namespace OrderProcessor.Controllers
PC11 {
PC12   public class ProcessedOrderController : Controller
PC13   {
PC14     public ActionResult GetProcessedOrders()
PC15     {
PC16       using (var context = new ProcessedOrders())
PC17       {
PC18         List<Entities.ProccessedOrder> orders = new List<ProccessedOrder>();
PC19         return View(orders);
PC20       }
PC21     }
PC22
PC23     private ObjectCache cache {get { return MemoryCache.Default; }}
PC24
PC25     public ActionResult GetVendors()
PC26      {
PC27        List<Entities.Vendor> vendors = cache.Get
("vendorKey") as List<Entities.Vendor>;
PC28        if (vendors == null)
PC29        {
PC30          using (var context = new ProcessedOrders())
PC31          {
PC32            vendors = context.Vendors.ToList();
PC33
PC34          }
PC35        }
PC36        return View(vendors);
PC37      }
PC38
PC39      private CacheItemPolicy GetVendorPolicy()
PC40      {
PC41        CacheItemPolicy vendorPolicy = new CacheItemPolicy();
```

OrderProcessor\InboundQueueController.cs

```
IC01 using System;
IC02 using System.Collections.Generic;
IC03 using System.Web.Mvc;
IC04 using OrderProcessor.Entities;
IC05 using ExternalQueue.Entities;
IC06 using System.ServiceModel;
IC07 using System.Collections;
IC08 using ExternalQueue.Helpers;
IC09 using OrderProcessor.Helpers;
IC10 using System.Linq;
IC11
IC12 namespace OrderProcessor.Controllers
IC13 {
IC14   public class InboundQueueController : Controller
IC15   {
IC16     public ActionResult GetQueueItems()
IC17     {
IC18       IEnumerable<InboundQueue> inboundOrders = Enumerable.Empty<InboundQueue>();
IC19       return View(inboundOrders);
IC20     }
IC21
IC22     public ActionResult ProcessOrder(int orderNum)
IC23     {
IC24       ExternalQueueServiceClient qService = new ExternalQueueServiceClient();
IC25       InboundQueue externalOrder = qService.GetExternalOrder(orderNum);
IC26       if (externalOrder != null)
IC27       {
IC28         using (var context = new ProcessedOrders())
IC29         {
IC30           ProccessedOrder order = new ProccessedOrder();
IC31           order.OrderNum = externalOrder.OrderNum;
IC32           order.Value = Convert.ToDouble(externalOrder.OrderValue);
IC33           order.VendorID = Convert.ToInt32(externalOrder.VendorId);
IC34           order.ProcessedDateTime = DateTime.Now;
IC35           context.ProccessedOrders.Add(order);
IC36           context.SaveChanges();
IC37         }
IC38         qService.DeleteExternalOrder(orderNum);
IC39       }
IC40       return RedirectToAction("GetQueueItems");
IC41     }
IC42
```

arn

OrderUpload\IUploadCallbackService.cs

```
IU01 using System.ServiceModel;
IU02
IU03 namespace OrderUpload
IU04 {
IU05   [ServiceContract(CallbackContract = typeof(IUploadCallback))]
IU06   public interface IUploadCallbackService
IU07   {
IU08     [OperationContract]
IU09     void UploadOrder(int orderNum);
IU10   }
IU11
IU12   public interface IUploadCallback
IU13   {
IU14     [OperationContract]
IU15     decimal GetOrderValue(int orderNum);
IU16   }
IU17 }
```

OrderUpload\UploadCallbackService.svc

```
US01 using System.ServiceModel;
US02
US03 namespace OrderUpload
US04 {
US05   public class UploadCallbackService : IUploadCallbackService
US06   {
US07     public void UploadOrder(int orderNum)
US08     {
US09     }
US10   }
US11 }
```

Shipping\IShippingService.cs

```
IS01 using System.Runtime.Serialization;
IS02 using System.ServiceModel;
IS03
IS04 namespace Shipping
IS05 {
IS06   public interface IShippingService
IS07   {
IS08
IS09   }
IS10 }
```

Shipping\ShippingAddress.cs

```
SA01 using System.Collections.Generic;
SA02 using System.Data.Objects;
SA03
SA04 namespace Shipping.POCO
SA05 {
SA06   public class ShippingAddress
SA07   {
SA08     public int VendorId { get; set; }
SA09     public string Address { get; set; }
SA10     public string City { get; set; }
SA11     public int StateId { get; set; }
SA12     public string Zip { get; set; }
SA13     public State State { get; set; }
SA14   }
SA15
SA16   public class State
SA17   {
SA18     public int StateId { get; set; }
SA19     public string StateName { get; set; }
SA20     public List<ShippingAddress> ShippingAddresses { get; set; }
SA21   }
SA22 }
```

QUESTION 1
You need to regenerate the service proxies to include task-based asynchronous method signatures.

Which command should you use?

A. aspnet_regiis.exe /t:code http://localhost:62965/UploadCallbackService.svc
B. svcutil.exe /t:code http://localhost:62965/UploadCallbackService.svc
C. aspnet_compiler.exe /t:code http://localhost:62965/UploadCallbackService.svc
D. aspnet_regiis.exe /t:code http://localhost:62965/UploadService.svc
E. svcutil.exe /t:code http://localhost:62965/UploadService.svc

Correct Answer: B
Section: [none]

Explanation

Explanation/Reference:
Explanation: http://msdn.microsoft.com/en-us/library/aa347733.aspx

QUESTION 2
The DeleteExternalOrder() method in the ExternalQueueService service is not throwing a FaultException exception as defined by the FaultContractAttribute attribute in the IExternatQueueService.cs file.

You need to throw the FaultException exception.

Which code segment can you insert at line EQ45 to achieve this goal? (Each correct answer presents a complete solution. Chose all that apply.)

A.
```
string queryString = @"SELECT q.OrderNum, q.VendorId, q.FilePath, q.OrderValue
    FROM ExternalOrdersEntities.InboundQueues AS q WHERE q.OrderNum = @orderNum";
```

B.
```
string queryString = @"SELECT * FROM ExternalOrdersEntities.InboundQueues
    WHERE OrderNum = @orderNum";
```

C.
```
string queryString = @"SELECT VALUE q FROM ExternalOrdersEntities.InboundQueues AS q
    WHERE q.OrderNum = @orderNum";
```

D.
```
string queryString = @"SELECT VALUE FROM ExternalOrdersEntities.InboundQueues
    WHERE OrderNum = @orderNum";
```

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

Correct Answer: C
Section: [none]
Explanation

Explanation/Reference:

QUESTION 3
The GetVendors() action in the ProcessedOrderController controller is querying the database each time it is run. The GetVendors() action must query the database only if the cache is null.

You need to add code to the action at line PC33 to cache the data.

Which code segment can you use? (Each correct answer presents a complete solution. Choose all that apply.)

A. cache.Set(new CacheItem("vendorKey", vendors), GetVendorPolicy());
B. cache.Add("vendors", vendors, new CacheItemPolicy());
C. cache.Add(new CacheItem("vendorKey", vendors) , GetVendorPolicy());
D. cache.AddOrGetExisting("vendorKey", context, new CacheItemPolicy());

Correct Answer: AC
Section: [none]
Explanation

Explanation/Reference:

QUESTION 4
You need to create the ShippingContext class in the ShippingAddress.es file to meet the requirements.
What should you do? (To answer, drag the appropriate code segments to the correct location or 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.)

Select and Place:

Correct Answer:

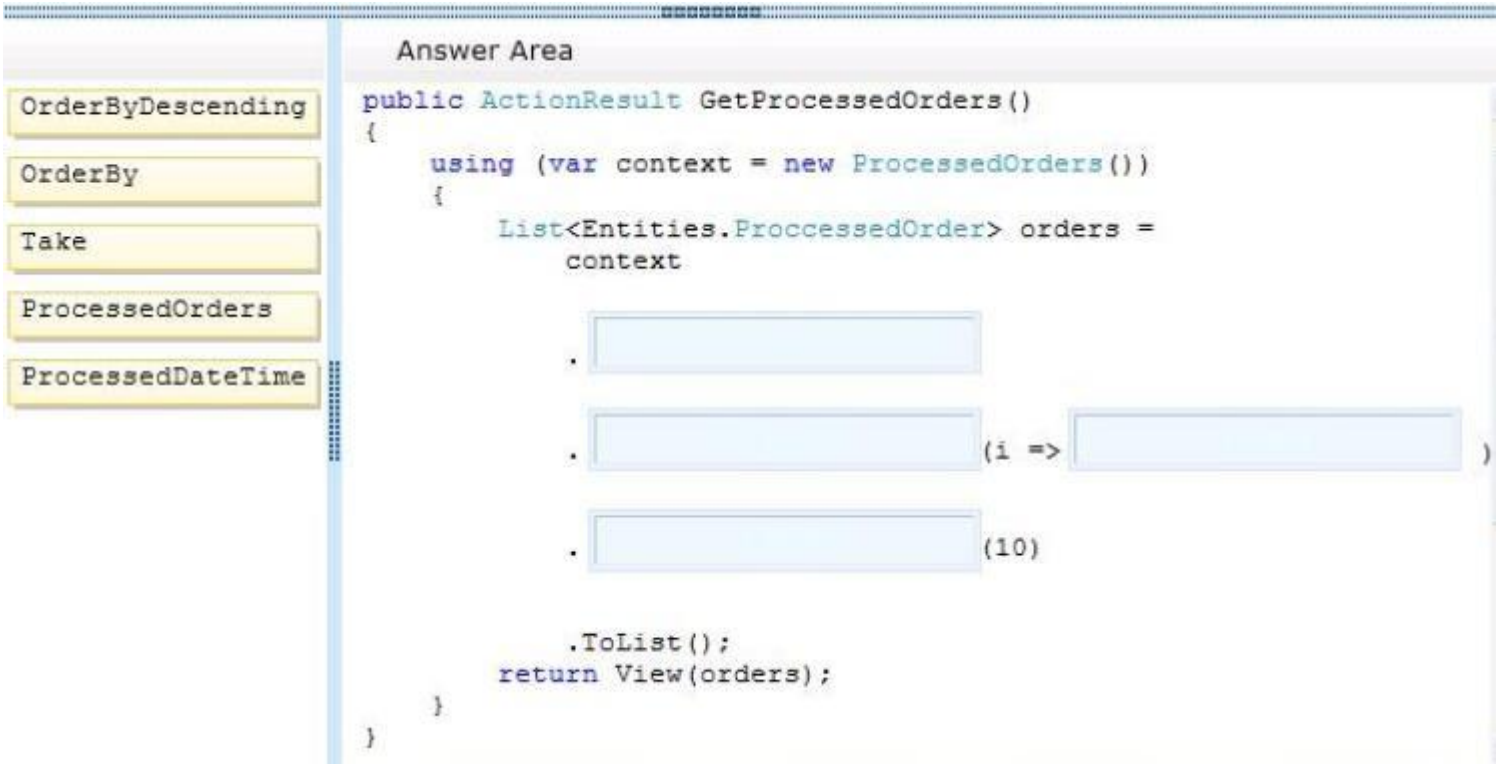
Section: [none]
Explanation

Explanation/Reference:

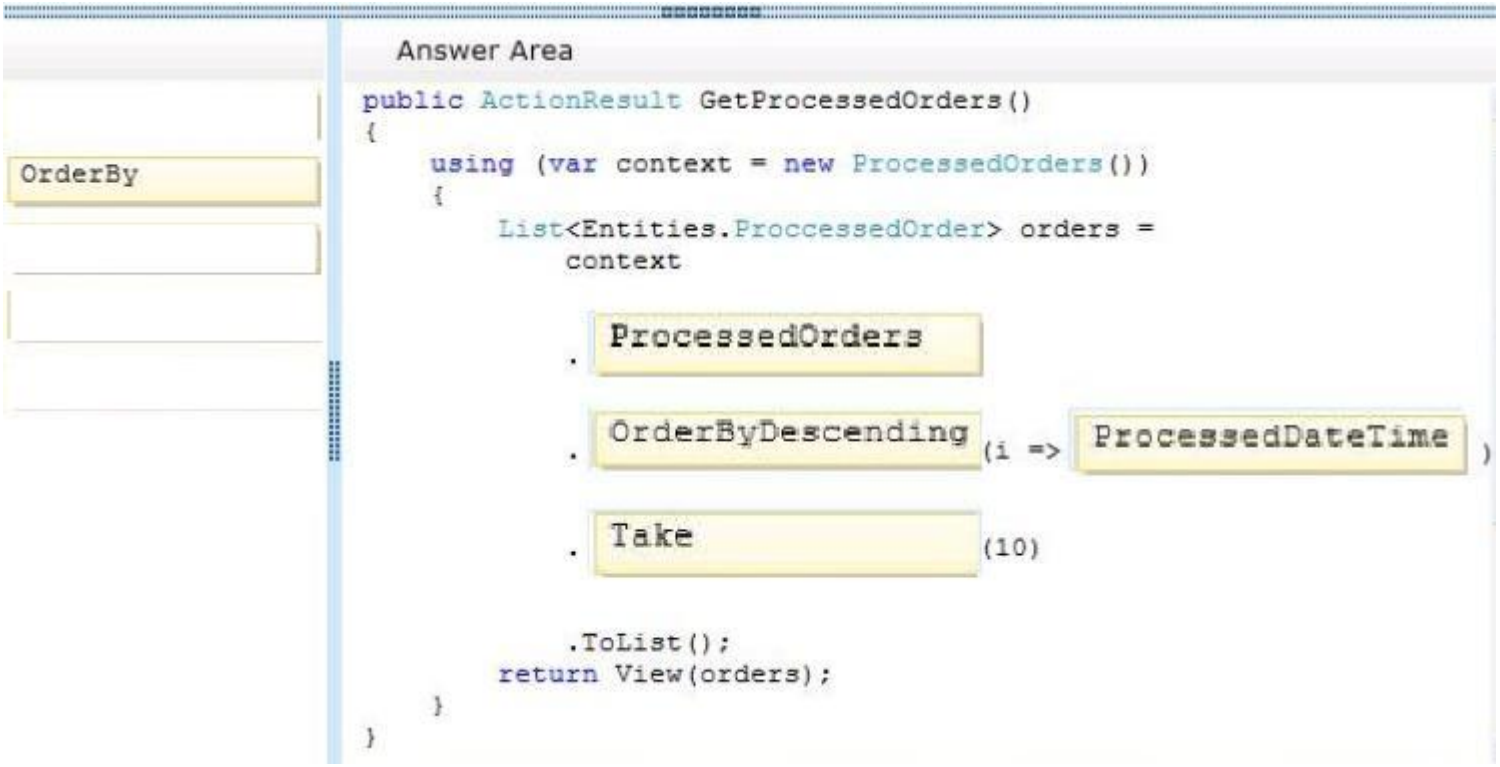
```
public class ShippingContext : ObjectContext
{
  public ShippingContext()
   : base("name=ShippingAddressEntities")
  {
    this.ContextOptions. LazyLoadingEnabled = true;
  }
  public ObjectSet <ShippingAddress> ShippingAddresses
  {
    get { return CreateObjectSet<ShippingAddress>(); }
  }
  public ObjectSet <State> States
  {
    get { return CreateObjectSet<State>(); }
  }
}
```

QUESTION 5
You need to complete the GetProcessedOrders() action in the ProcessedOrderController controller to meet the requirements.
What should you do? (To answer, drag the appropriate code segments to the correct location or 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.)

Select and Place:



Correct Answer:



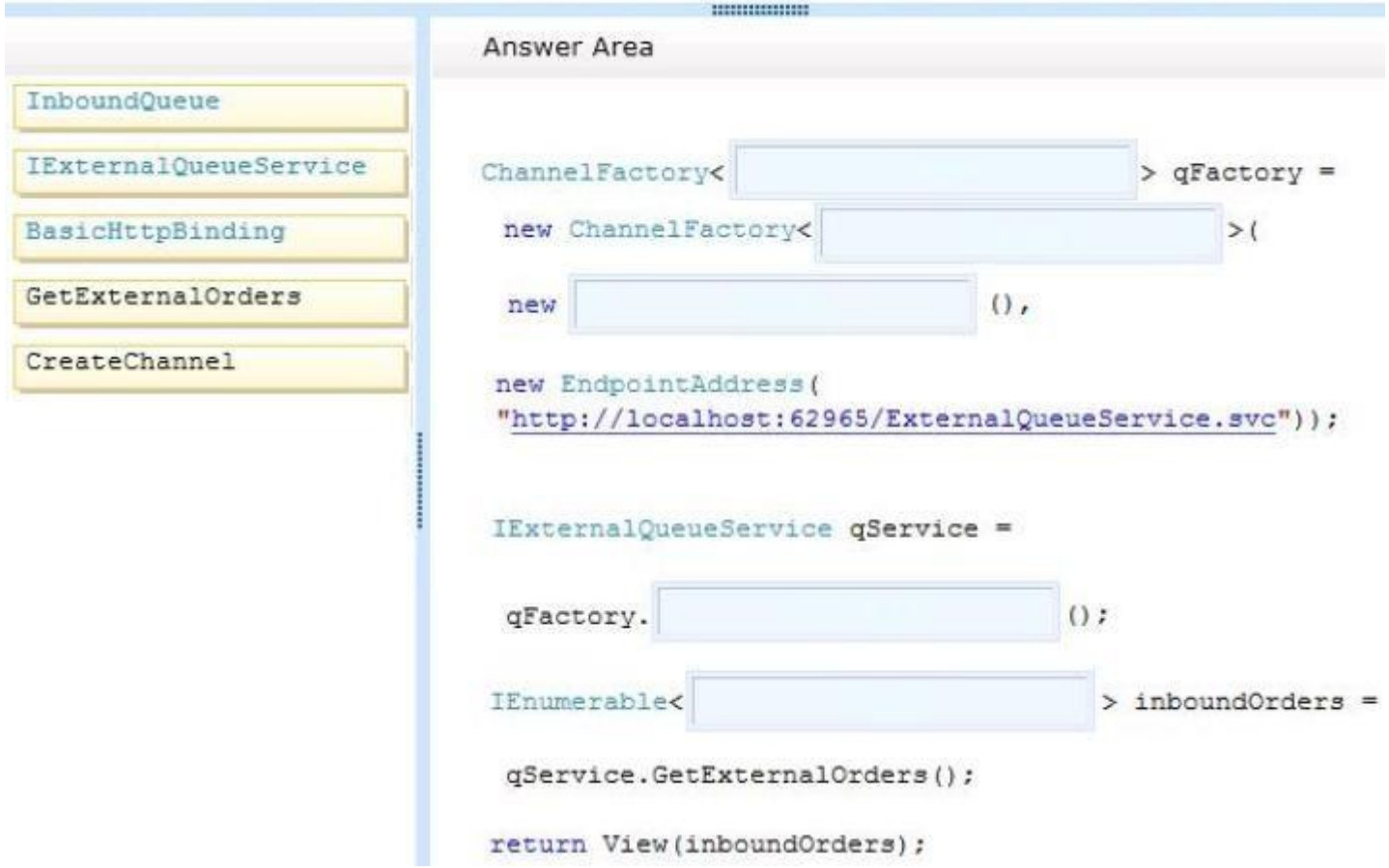
Section: [none]
Explanation

Explanation/Reference:

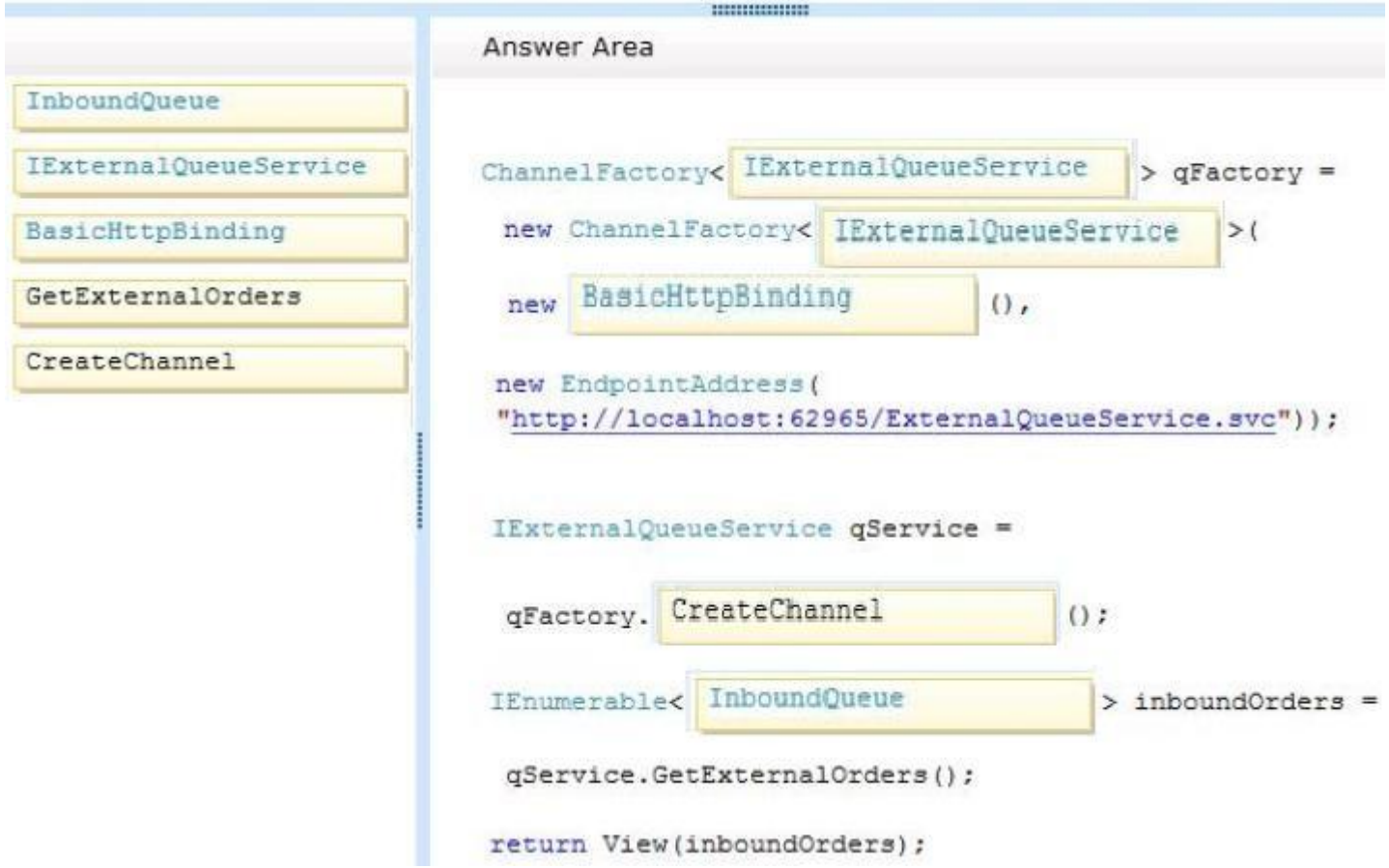
```
public ActionResult GetProcessedOrders()
{
    using (var context = new ProcessedOrders())
    {
        List<Entities.ProccessedOrder> orders =
            context
                .ProcessedOrders
                .OrderByDescending(i => ProcessedDateTime)
                .Take(10)
                .ToList();
        return View(orders);
    }
}
```

QUESTION 6
The GetQueueItems() action in the InboundQueueController controller is not populating the view with data. The action must populate the view with data by calling the GetExternalOrders() method in the ExternalQueueService service using the ChannelFactory class.
You need to modify the action to populate the view with data.
What should you do? (To answer, drag the appropriate code segments to the correct location or 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.)

Select and Place:



Correct Answer:



Section: [none]
Explanation

Explanation/Reference:

QUESTION 7
The GetExternalOrders() method must use members of the EntityClient namespace to query the database for all records in the InboundQueue entity.
You need to modify the GetExternalOrders() method to return the correct data.
What should you do? (To answer, drag the appropriate code segments to the correct location or 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.)

Select and Place:

ExecuteReader

ExecuteScalar

SequentialAccess

KeyInfo

ExternalOrders

ExternalOrdersEntities

Answer Area

```
public List<Entities.InboundQueue> GetExternalOrders()
{
    EntityConnection connection =

        new EntityConnection("name=                    ");

    connection.Open();
    EntityCommand cmd = connection.CreateCommand ();
    cmd.CommandText = @"select q.OrderNum, q.VendorId,
                        q.FilePath, q.OrderValue

                        from                    .InboundQueues as q";

    EntityDataReader rdr =

        cmd.                    (CommandBehavior.                    );

    List<InboundQueue> queueItems = new List<InboundQueue>();
    while (rdr.Read          ())
    {
        InboundQueue queueItem = new InboundQueue();
        queueItem.OrderNum = Convert.ToInt32(rdr["OrderNum"]);
        queueItem.VendorId = Convert.ToInt32(rdr["VendorId"]);
        queueItem.FilePath = rdr["FilePath"].ToString();
        queueItem.OrderValue = Convert.ToDecimal(rdr["OrderValue"]);
        queueItems.Add(queueItem);
    }
    rdr.Close         ();
    connection.Close         ();
    return queueItems;
}
```

Correct Answer:

ExecuteReader

ExecuteScalar

SequentialAccess

KeyInfo

ExternalOrders

ExternalOrdersEntities

Answer Area

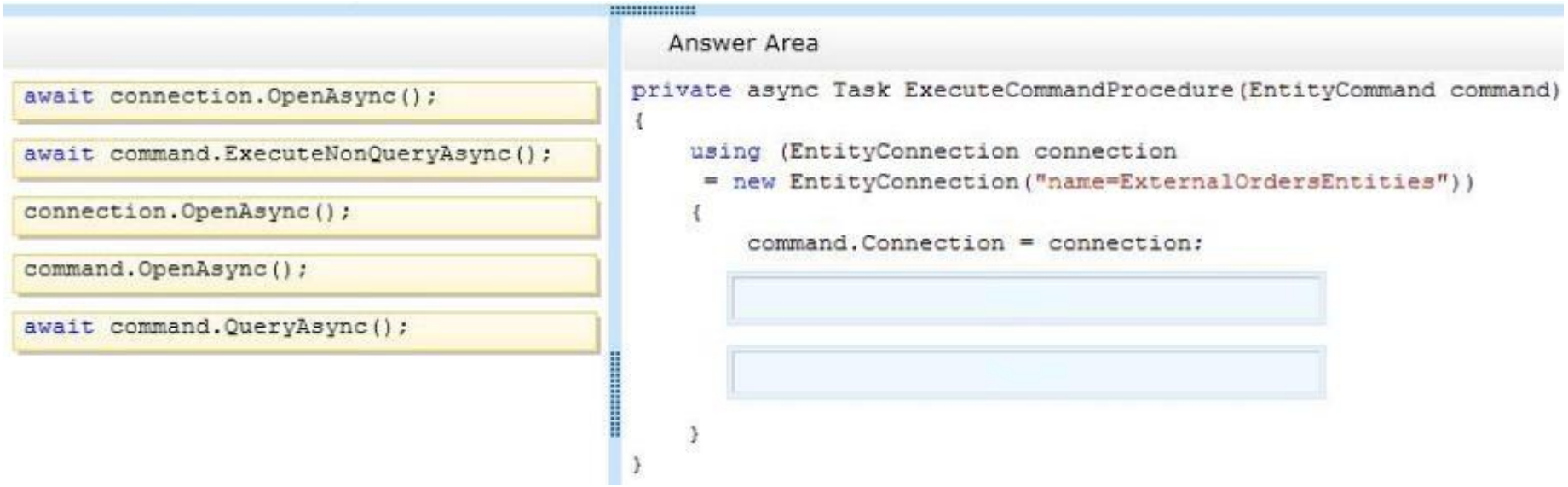
```
public List<Entities.InboundQueue> GetExternalOrders()
{
    EntityConnection connection =

        new EntityConnection("name= ExternalOrdersEntities ");


    connection.Open();
    EntityCommand cmd = connection.CreateCommand ();
    cmd.CommandText = @"select q.OrderNum, q.VendorId,
                        q.FilePath, q.OrderValue

                        from ExternalOrdersEntities .InboundQueues as q";


    EntityDataReader rdr =

        cmd. ExecuteReader (CommandBehavior. SequentialAccess );


    List<InboundQueue> queueItems = new List<InboundQueue>();
    while (rdr.Read           ())
    {
        InboundQueue queueItem = new InboundQueue();
        queueItem.OrderNum = Convert.ToInt32(rdr["OrderNum"]);
        queueItem.VendorId = Convert.ToInt32(rdr["VendorId"]);
        queueItem.FilePath = rdr["FilePath"].ToString();
        queueItem.OrderValue = Convert.ToDecimal(rdr["OrderValue"]);
        queueItems.Add(queueItem);
    }
    rdr.Close         ();
    connection.Close          ();
    return queueItems;
}
```

Section: [none]
Explanation

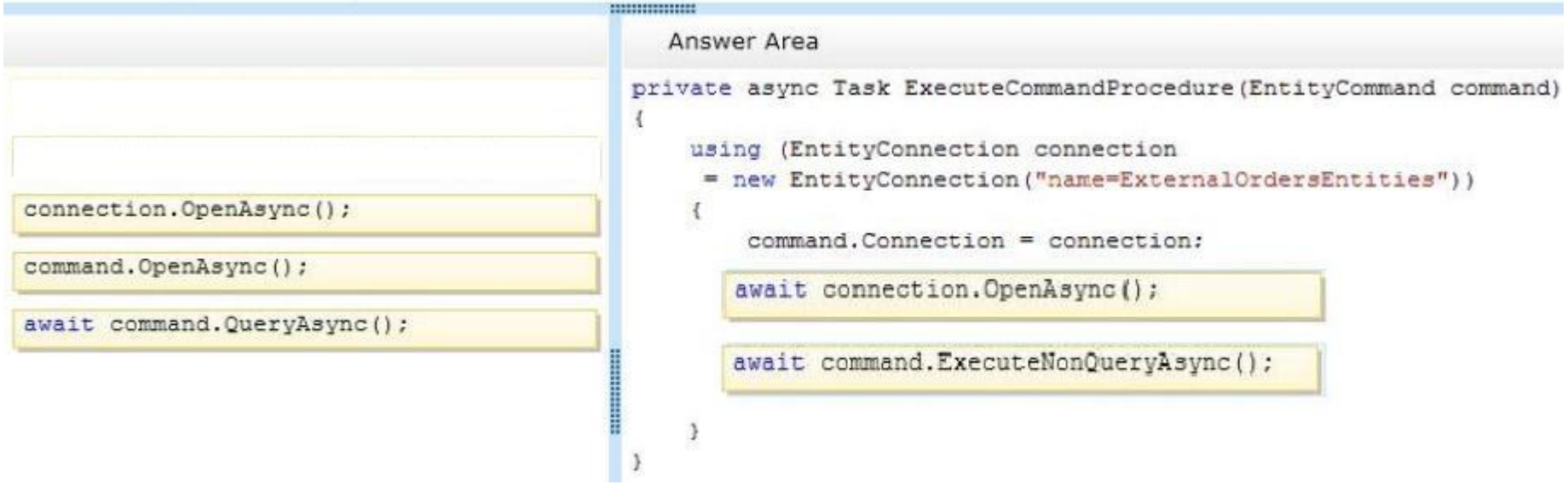
Explanation/Reference:

QUESTION 8
You need to modify the ExecuteCommandProcedure() method to meet the technical requirements.
Which code segment should you use?

Select and Place:



Correct Answer:



Section: [none]

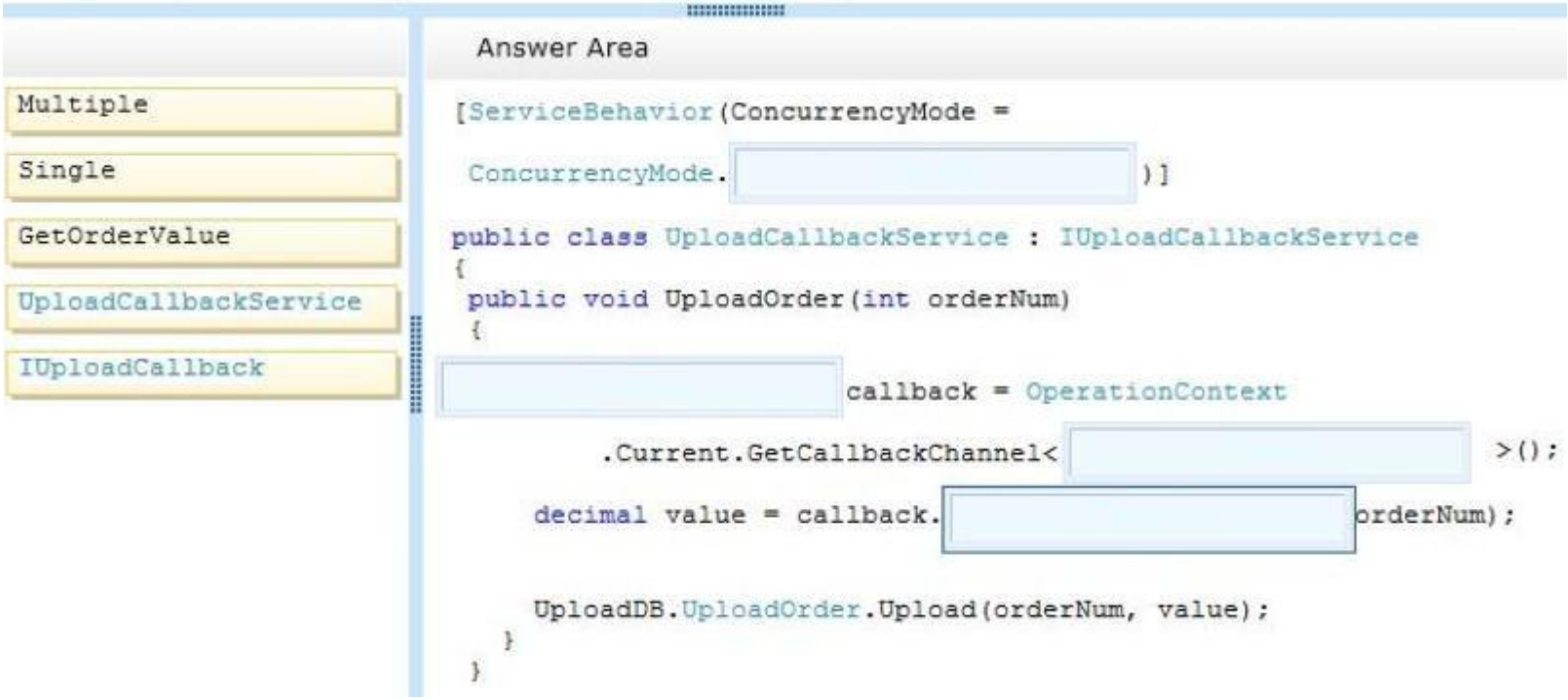
Explanation

Explanation/Reference:

```
private async Task ExecuteCommandProcedure(EntityCommand command)
{
    using (EntityConnection connection
     = new EntityConnection("name=ExternalOrdersEntities"))
    {
        command.Connection = connection;
        await connection.OpenAsync();
        await command.ExecuteNonQueryAsync();
    }
}
```

QUESTION 9
The UploadOrder() method in the UploadCallbackService service is not implementing the callback behavior defined in the IUploadCallBackService interface.
You need to modify the class to implement the required callback behavior.
What should you do? (To answer, drag the appropriate code segments to the correct location or locations in the answer area. Each code segments 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.)

Select and Place:



Correct Answer:

Section: [none]
Explanation

Explanation/Reference:

```
[ServiceBehavior(ConcurrencyMode =
 ConcurrencyMode.Single )]
public class UploadCallbackService : IUploadCallbackService
{
 public void UploadOrder(int orderNum)
 {
 IUploadCallback callback = OperationContext
          .Current.GetCallbackChannel< IUploadCallback >();
     decimal value = callback.GetOrderValue orderNum);

     UploadDB.UploadOrder.Upload(orderNum, value);
   }
 }
```

QUESTION 10
The GetExternalOrder() method in the ExternalQueueService service is throwing a runtime error. The method must query the database for a record that matches the orderNum parameter passed to the method.

You need to modify the queryString string to retrieve the record.

With which code segment should you replace line EQ64?

A.
```
string queryString = @"SELECT VALUE q FROM ExternalOrdersEntities.InboundQueues AS q
  WHERE q.OrderNum = @orderNum";
```

B.
```
string queryString = @"SELECT VALUE * FROM ExternalOrdersEntities.InboundQueues
  WHERE OrderNum = @orderNum";
```

C.
```
string queryString = @"SELECT q.OrderNum, q.VendorId, q.FilePath, q.OrderValue
  FROM ExternalOrdersEntities AS q WHERE q.OrderNum = @orderNum";
```

D.
```
string queryString = @"SELECT q FROM ExternalOrdersEntities.InboundQueues
  WHERE q.OrderNum = @orderNum";
```

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

Correct Answer: C
Section: [none]
Explanation

Explanation/Reference:
Corrected.

QUESTION 11
You need to modify the ExecuteCommandProcedure() method to meet the technical requirements.

Which code segment should you use?

A.
```
private async Task ExecuteCommandProcedure(EntityCommand command)
{
  using (EntityConnection connection = new EntityConnection
("name=ExternalOrdersEntities"))
  {
    command.Connection = connection;
    await connection.OpenAsync();
    await command.ExecuteNonQueryAsync();
  }
}
```

B.
```
private void ExecuteCommandProcedure(EntityCommand command)
{
  using (EntityConnection connection = new EntityConnection
("name=ExternalOrdersEntities"))
  {
    command.Connection = connection;
    command.ExecuteNonQueryAsync();
  }
}
```

C.
```
private void ExecuteCommandProcedure(EntityCommand command)
{
  using (EntityConnection connection = new EntityConnection
("name=ExternalOrdersEntities"))
  {
    command.Connection = connection;
    connection.OpenAsync();
    command.ExecuteNonQueryAsync();
  }
}
```

D.
```
private async Task ExecuteCommandProcedure(EntityCommand command)
{
  using (EntityConnection connection = new EntityConnection
("name=ExternalOrdersEntities"))
  {
    command.Connection = connection;
    connection.OpenAsync();
    command.ExecuteNonQueryAsync();
  }
}
```

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

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:

QUESTION 12
The DeleteExternalOrder() method in the ExternalQueueService service is not throwing a FaultException exception as defined by the FaultContractAttribute attribute in the IExternalQueueService.cs file.

You need to throw the FaultException exception.

Which code segments can you insert at line EQ45 to achieve this goal? (Each correct answer presents a complete solution. Chose all that apply)

A.
```
throw new FaultException<OrderNotFoundException>(ex.ExceptionMessage);
```

B.
```
throw new FaultException<OrderNotFoundException>(ex, new
 FaultReason("Order not found."));
```

C.
```
throw new FaultException<OrderNotFoundException>(ex);
```

D.
```
throw new FaultException
 (new OrderNotFoundException(new Exception(ex.ExceptionMessage)), "Order not
found.");
```

A. Option A
B. Option B

C. Option C
D. Option D

Correct Answer: BC
Section: [none]
Explanation

Explanation/Reference:

QUESTION 13
The GetExternalOrder() method in the ExternalQueueService service is throwing a runtime error. The method must query the database for a record that matches the orderNum parameter passed to the method.

You need to modify the queryString string to retrieve the record.

With which code segment should you replace line EQ64?

A.
```
string queryString = @"SELECT q.OrderNum, q.VendorId, q.FilePath, q.OrderValue
    FROM ExternalOrdersEntities.InboundQueues AS q WHERE q.OrderNum = @orderNum";
```

B.
```
string queryString = @"SELECT * FROM ExternalOrdersEntities.InboundQueues
    WHERE OrderNum = @orderNum";
```

C.
```
string queryString = @"SELECT VALUE q FROM ExternalOrdersEntities.InboundQueues AS q
    WHERE q.OrderNum = @orderNum";
```

D.
```
string queryString = @"SELECT VALUE FROM ExternalOrdersEntities.InboundQueues
    WHERE OrderNum = @orderNum";
```

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

D. Option D

Correct Answer: C
Section: [none]
Explanation

Explanation/Reference:

QUESTION 14
The QueueDetail entity type must inherit from the InboundQueue entity type in the ExternalQueue service project using table-per-type inheritance.

You need to modify the entities in the designer.

What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

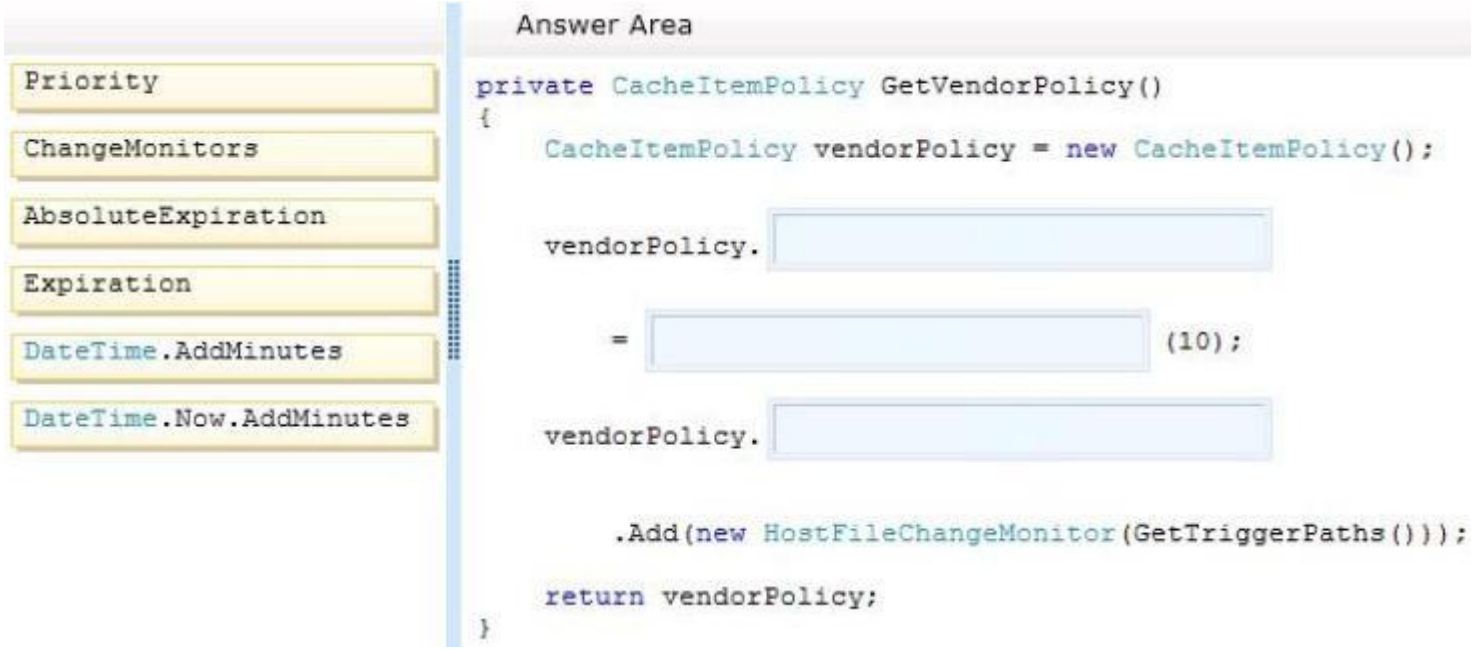
A. Remove the OrderNum property in InboundQueue.
B. Remove the OrderNum property in QueueDetail.
C. Set the QueueDetail BaseType to InboundQueue.
D. Remove the association between the entities.
E. Right-click the entities and validate the table mapping.
F. Set the InboundQueue BaseType to QueueDetail.

Correct Answer: BCDE
Section: [none]
Explanation

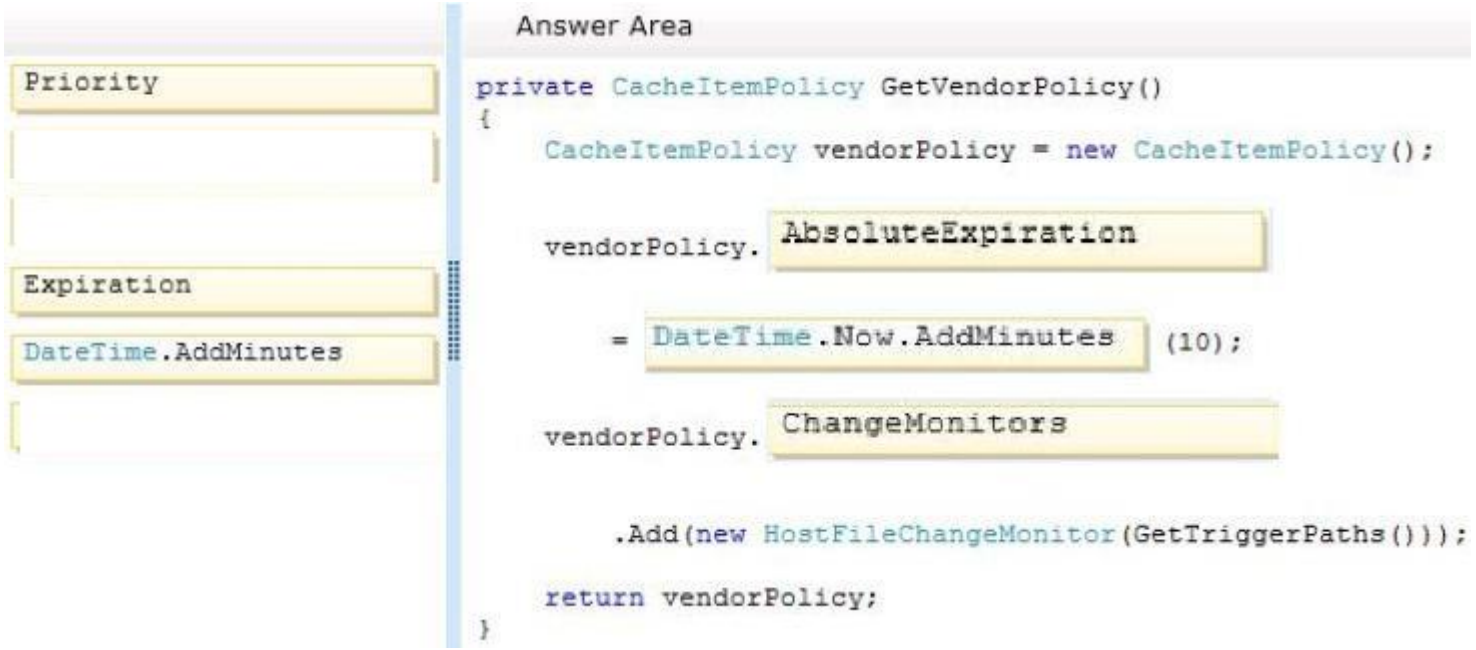
Explanation/Reference:
Explanation: http://www.robbagby.com/entity-framework/entity-framework-modeling-table-per- type-inheritance/

QUESTION 15
The GetVendorPolicy() private method in the ProcessedOrderController controller is returning a CacheItemPolicy object with default values. The returned policy must expire if the external file located at C:\Triggers\VendorTrigger.txt has been modified or the timeout outlined in the technical requirements is reached.
You need to return the policy.
How should you build the method? (To answer, drag the appropriate code segments to the correct location or 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.)

Select and Place:



Correct Answer:



Section: [none]
Explanation

Explanation/Reference:

http://msdn.microsoft.com/en-us/library/system.runtime.caching.cacheitempolicy.aspx

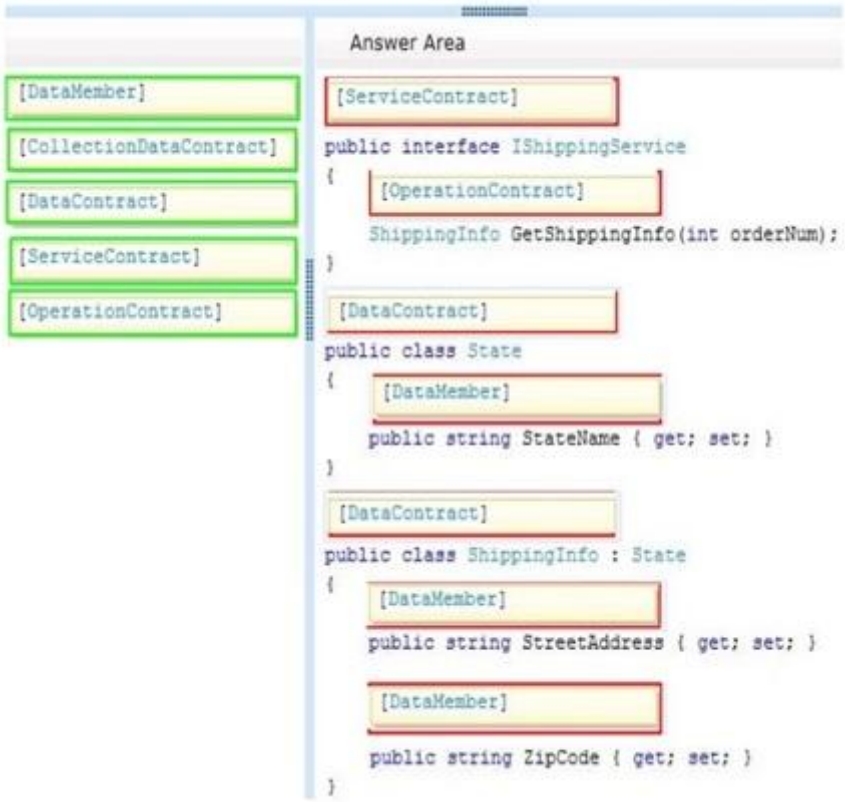
QUESTION 16
You add a class named ShippingInfo.
You need to modify the IShippingService interface and the ShippingInfo class to meet the technical requirements.
What should you do? (To answer, drag the appropriate code segments to the correct location or locations in the answer area. Each code segment 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.)

Select and Place:

Correct Answer:

Section: [none]
Explanation

Explanation/Reference:



http://msdn.microsoft.com/en-us/library/system.servicemodel.servicecontractattribute.aspx

Testlet 1

Online Bookstore

Background

You are developing an online bookstore web application that will be used by your company's customers.

Technical Requirements

General requirements:

- The web store application must be an ASP.NET MVC application written in Visual Studio.
- The application must connect to a Microsoft SQL database.
- The GetTop100Books() method is mission critical and must return data as quickly as possible. It should take advantage of fast, forward-only, read-only methods of reading data.
- The ImportBooks() method must keep a copy of the data that can be accessed while new books are being imported without blocking reads.
- The Create MonthlyTotalsReport() method must lock the data and prevent others from updating or inserting new rows until complete.
- The college textbook area of the web application must get data from a daily updated CSV file.
- The children's book area of the web application must get data directly from a local database. It must use a connection string. It must also support access to the stored procedures on the database. Further, it is required to have strongly typed objects. Finally, it will require access to databases from multiple vendors and needs to support more than one-to-one mapping of database tables.
- The cookbook functionality is contained within a client-side application that must connect to the server using HTTP and requires access to the data using JavaScript.
- The BookApiController class must have a method that is able to perform ad-hoc queries using OData.

The RESTful API of the bookstore must expose the following endpoints.

Action: Get a list of all books
HTTP method: GET
Relative URI: /books

Action: Get a book by id
HTTP method: GET
Relative URI: /books/id

Action: Create a new book
HTTP method: POST
Relative URI: /books

Action: Update a book
HTTP method: PUT
Relative URI: /books/id

Action: Delete a book
HTTP method: DELETE
Relative URI: /books/id

Application Structure

```
public class Book
{
  public int Id { get; set; }
  public string Name { get; set; }
  public string Title { get; set; }
  public decimal Price { get; set; }
  public DateTime PublishDate { get; set; }
  public int Sales { get; set; }
  public static void SaveFeaturedBooks(IEnumerable<Book> books, string file)
  {
    ...
  }
}

public class BookApiController : ApiController
{
  private readonly IBookRepository bookRepository;
  public BookApiController(IBookRepository bookRepository)
  {
    this.bookRepository = bookRepository;
  }
  public List<Book> Get(int id)
  {
    var book = bookRepository.Find(id);
    if (book == null)
    {
      throw new HttpResponseException(HttpStatusCode.NotFound);
    }
    return new List<Book> { book };
  }
  public HttpResponseMessage Post(Book value)
  {
    if (ModelState.IsValid)
    {
      bookRepository.InsertOrUpdate(value);
      bookRepository.Save();
      var response = new HttpResponseMessage(HttpStatusCode.Created);
      string uri = Url.Route(null, new { id = value.Id });
      response.Headers.Location = new Uri(Request.RequestUri, uri);
      return response;
    }
    throw new HttpResponseException(HttpStatusCode.BadRequest);
  }
  public HttpResponseMessage Put(int id, Book value)
  {
```

```
{
  if (ModelState.IsValid)
  {
    bookRepository.InsertOrUpdate(value);
    bookRepository.Save();
    return new HttpResponseMessage(HttpStatusCode.NoContent);
  }
  throw new HttpResponseException(HttpStatusCode.BadRequest);
}
public void Delete(int id)
{
  var book = bookRepository.Find(id);
  if (book == null)
  {
    throw new HttpResponseException(HttpStatusCode.NotFound);
  }
  bookRepository.Delete(id);
  }
}

...

private static void ImportBooks()
{
  using (SqlConnection connection = new SqlConnection(_connectionString))
  {
    connection.Open();
    SqlCommand command = connection.CreateCommand();
    SqlTransaction transaction = connection.BeginTransaction();
    command.Connection = connection;
    command.Transaction = transaction;
    try
    {
      command.CommandText = _commandText;
      command.ExecuteNonQuery();
      transaction.Commit();
    }
    catch (Exception ex)
    {
      transaction.Rollback();
    }
  }
}
```

```
private static void CreateMonthlyTotalsReports()
{
  using (SqlConnection connection = new SqlConnection(_connectionString))
  {
    connection.Open();
    SqlCommand command = connection.CreateCommand();
    SqlTransaction transaction = connection.BeginTransaction();
    command.Connection = connection;
    command.Transaction = transaction;
    try
    {
      command.CommandText = _reportCommandText;
      command.ExecuteNonQuery();
      transaction.Commit();
    }
    catch (Exception ex)
    {
      transaction.Rollback();
    }
  }
}
```

```xml
<?xml version="1.0"?>
<aw:PurchaseOrder
    aw:PurchaseOrderNumber="99503"
    aw:OrderDate="1999-10-20"
    xmlns:aw="http://www.adventure-works.com">
  <aw:Address aw:Type="Shipping">
    <aw:Name>Ellen Adams</aw:Name>
    <aw:Street>123 Maple Street</aw:Street>
    <aw:City>Mill Valley</aw:City>
    <aw:State>CA</aw:State>
    <aw:Zip>10999</aw:Zip>
    <aw:Country>USA</aw:Country>
  </aw:Address>
  <aw:Address aw:Type="Billing">
    <aw:Name>Tai Yee</aw:Name>
    <aw:Street>8 Oak Avenue</aw:Street>
    <aw:City>Old Town</aw:City>
    <aw:State>PA</aw:State>
    <aw:Zip>95819</aw:Zip>
    <aw:Country>USA</aw:Country>
  </aw:Address>
  <aw:DeliveryNotes>Please leave packages in shed by driveway.</aw:DeliveryNotes>
  <aw:Items>
    <aw:Item aw:PartNumber="872-AA">
      <aw:ProductName>Lawnmower</aw:ProductName>
      <aw:Quantity>1</aw:Quantity>
      <aw:USPrice>148.95</aw:USPrice>
      <aw:Comment>Confirm this is electric</aw:Comment>
    </aw:Item>
    <aw:Item aw:PartNumber="926-AA">
      <aw:ProductName>Baby Monitor</aw:ProductName>
      <aw:Quantity>2</aw:Quantity>
      <aw:USPrice>39.98</aw:USPrice>
      <aw:ShipDate>1999-05-21</aw:ShipDate>
    </aw:Item>
  </aw:Items>
</aw:PurchaseOrder>
```

FeaturedBooks.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<featured>
  <book>
    <id>1</id>
    <title>Science</title>
  </book>
  <book>
    <id>1</id>
    <title>Math</title>
  </book>
  <book>
    <id>1</id>
    <title>History</title>
  </book>
</featured>
```

QUESTION 1
You need to choose the appropriate data access strategy for the college textbook area of the web application.

Which data access technology should you implement?

A. ADO.NET
B. Entity Data Model (EDM)
C. WCF Data Services
D. LINQ to SQL

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:
Explanation: * Scenario: The college textbook area of the web application must get data from a daily updated CSV file.
* ADO.NET reads the CSV file in a very similar way as table in database.

QUESTION 2
You need to configure the server to self-host the bookstore's Web API application.

Which code segment should you use?

A.
```
var config = new HttpSelfHostConfiguration(_baseAddress);
config.Filters.Add(
 name: "DefaultApi",
 routeTemplate: "api/{controller}/{id}",
 defaults: new { id = RouteParameter.Optional }
);
var server = new HttpSelfHostServer(config);
server.Wait().OpenAsync();
```

B.
```
var config = new HttpSelfHostConfiguration(_baseAddress);
config.Routes.MapHttpRoute(
 name: "DefaultApi",
 routeTemplate: "{controller}s/{id}",
 defaults: new { id = RouteParameter.Optional }
);
var server = new HttpSelfHostServer(config);
server.OpenAsync().Wait();
```

C.
```
var config = new HttpSelfHostConfiguration(_baseAddress);
config.Routes.MapHttpRoute(
 name: "DefaultApi",
 routeTemplate: "api/{controller}s/{id}",
 defaults: new { id = RouteParameter.Optional }
);
var server = new HttpSelfHostServer(config);
server.OpenAsync().Wait();
```

D.
```
var config = new HttpSelfHostConfiguration(_baseAddress);
config.Routes.MapHttpRoute(
 name: "DefaultApi",
 routeTemplate: "{controller}/{id}",
 defaults: new { id = RouteParameter.Optional }
);
var server = new HttpSelfHostServer(config);
server.Wait().OpenAsync();
```

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

Correct Answer: C
Section: [none]
Explanation

Explanation/Reference:
Explanation: MapHttpRoute Method
Maps the specified route template.
Use the option with "api/...

QUESTION 3
You need to return the list of the top 100 books for the GetTopBooks() method.

Which type should you use to retrieve the data?

A. SqlDataReader
B. DataSet
C. DataTable
D. Data View

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:
Still accurate.

QUESTION 4
You need to choose the appropriate data access technology for the cookbook area of the web application.

Which data access technology should you choose?

A. WCF Data Services
B. LINQ to SQL
C. Entity Framework
D. ADO.NET

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:
Explanation: * Scenario: The cookbook functionality is contained within a client-side application that must connect to the server using HTTP and requires access to the data using JavaScript.

* WCF Data Services (formerly known as "ADO.NET Data Services") is a component of the .NET Framework that enables you to create services that use the Open Data Protocol (OData) to expose and consume data over the Web or intranet by using the semantics of representational state transfer (REST). OData exposes data as resources that are addressable by URIs. Data is accessed and changed by using standard HTTP verbs of GET, PUT, POST, and DELETE

* WCF Data Services uses the OData protocol for addressing and updating resources. In this way, you can access these services from any client that supports OData. OData enables you to request and write data to resources by using well-known transfer formats: Atom, a set of standards for exchanging and updating data as XML, and JavaScript Object Notation (JSON), a text-based data exchange format used extensively in AJAX application.

QUESTION 5
You need to update the ImportBooks() method to use database transactions.

Which code segment should you use?

A. SqlConnection.BeginTransaction(IsolationLevel.RepeatableRead);
B. SqlConnection.BeginTransaction(IsolationLeve.ReadUnconvnited);
C. SqlConneetion.BeginTransaction(IsolationLevel.Serializable);
D. SqlConnection.BeginTransaction(IsolationLevel.Snapshot);

Correct Answer: B
Section: [none]
Explanation

Explanation/Reference:
Explanation: * scenario: The ImportBooks() method must keep a copy of the data that can be accessed while new books are being imported without blocking reads.
* ReadUncommitted
A dirty read is possible, meaning that no shared locks are issued and no exclusive locks are honored.

QUESTION 6
You need to implement the Get() method in the bookstore Web API application to be able to find books by using an ad hoc query.

Which method should you use?

A.
```
public Book Get(int id)
{
  var book = bookRepository.Find(id);
  if (book == null)
  {
    throw new HttpResponseException(HttpStatusCode.NotFound);
  }
  return new List<Book> { book };
}
```

B.
```
public List<Book> Get(int id)
{
  var book = bookRepository.Find(id);
  if (book == null)
  {
    throw new HttpResponseException(HttpStatusCode.NotFound);
  }
  return new List<Book> { book };
}
```

C.
```
public IEnumerable<Book> Get()
{
  return bookRepository.All;
}
```

D.
```
public IQueryable<Book> Get()
{
  return bookRepository.All;
}
```

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

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:

QUESTION 7
You need to create an OData query expression to return the ten books with the largest number of sales.

A.
```
/books?$orderby=sales desc&$count=10
```

B.
```
/search?$orderby=sales asc&$count=10
```

C.
```
/books?$orderby=sales desc&$top=10
```

D.
```
/search?$orderby=sales asc&$top=10
```

Which query expression should you use?

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

Correct Answer: C
Section: [none]
Explanation

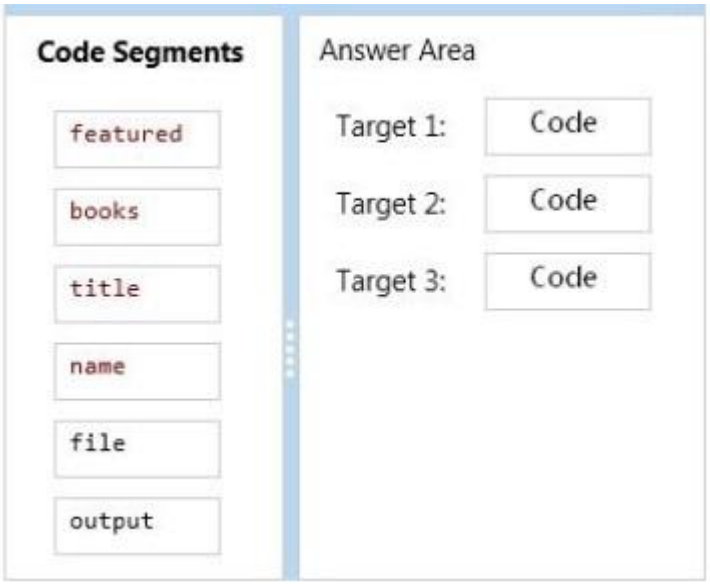
Explanation/Reference:
Explanation:
Order by desc(ending) to get the posts with the largest number of sales at the top. Specify to display the top 10 posts.

QUESTION 8
An XML file must be produced by the SaveFeaturedBooks() method of the Book class. The schema of the resulting XML file must be identical to the FeaturedBooks.xml file.
You need to write the code to produce the file.
You have the following code:

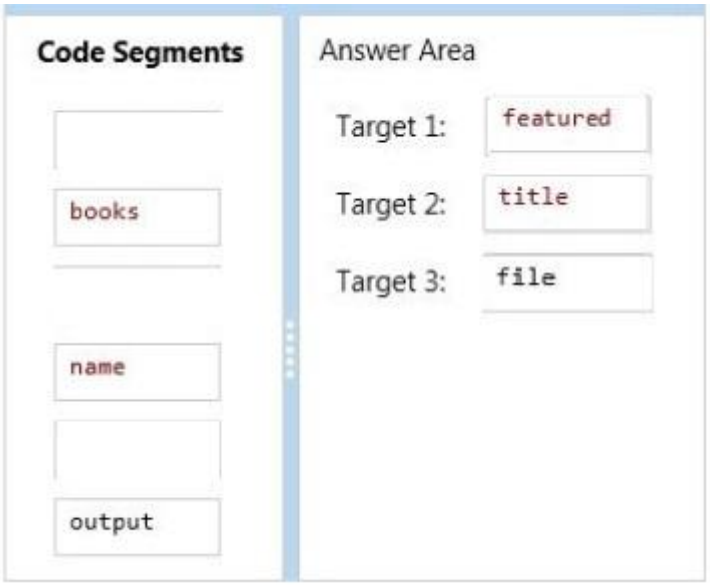
```
XDocument document = new XDocument ();
XElement root = new XElement ("Target 1");
foreach  (var book in books)
{
     XElement bookElement = new XElement ("book");
     bookElement.Add(new XElement ("id", book.Id) );
     bookElement.Add(new XElement ("Target 2", book.Title));
     root.Add (bookElement);
}
document.Add (root);
document.Save (Target 3);
```

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)

Select and Place:

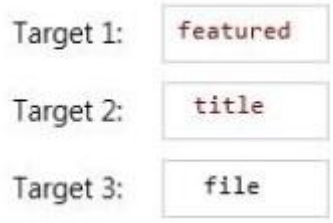


Correct Answer:



Section: [none]
Explanation

Explanation/Reference:

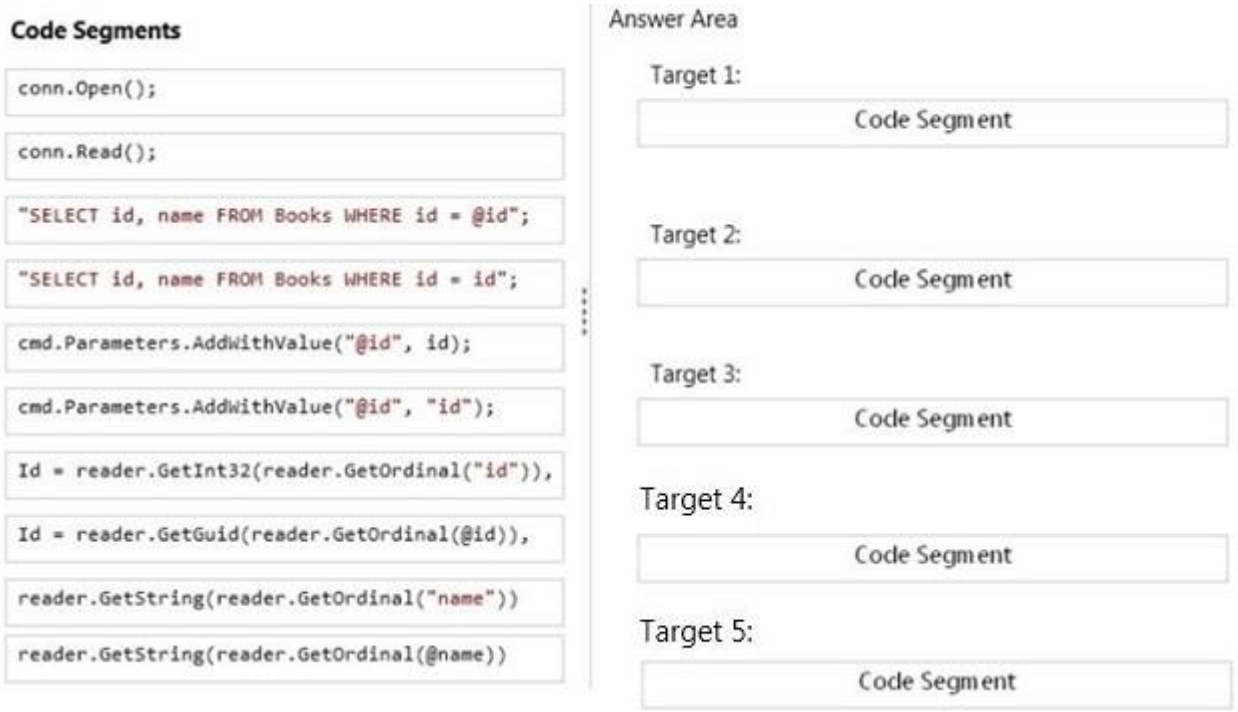


QUESTION 9
You need to update the GetBook() method to retrieve book data by using ADO.NET.
You have the following code:

```
public Book GetBook(int id)
 {
   using (var conn = new SqlConnection(_connectionString))
   using (var cmd = conn.CreateCommand())
{ Target 1
cmd.CommandText = Target 2
Target 3
using (var reader = cmd.ExecuteReader ())
{
     if (!reader.Read())
     {
       return null;
     }
     return new Book
     { Target 4
     Name = Target 5
    };
   }
  }
}
```

Which code segments should you include in Target 1, Target 2, Target 3, Target 4 and Target 5 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.)

Select and Place:



Correct Answer:

Section: [none]
Explanation

Explanation/Reference:

Target 1:

```
conn.Open();
```

Target 2:

```
"SELECT id, name FROM Books WHERE id = id";
```

Target 3:

```
cmd.Parameters.AddWithValue("@id", id);
```

Target 4:

```
Id = reader.GetGuid(reader.GetOrdinal(@id)),
```

Target 5:

```
reader.GetString(reader.GetOrdinal(@name))
```

QUESTION 10
You need to choose the appropriate data access technology for the children's book area of the web application.

Which data access technology should you choose?

A. Web Service
B. LINQ to SQL
C. ADO.NET Entity Framework
D. WCF Data Services

Correct Answer: C
Section: [none]
Explanation

Explanation/Reference:

QUESTION 11
You need to update the CreateMonthlyTotalsReports() method to use database transactions.

Which code segment should you use?

A. SqlConnection.BeginTransaction(IsolationLevel.ReadCommitted);
B. SqlConnection.BeginTransaction(IsolationLevel.ReadUnconwited);
C. SqlConnection.BeginTransaction(IsolationLevel.Chaos);
D. SqlConnection.BeginTransaction(IsolationLevel.Serializable);

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation: * Scenario: The Create MonthlyTotalsReport() method must lock the data and prevent others from updating or inserting new rows until complete.
* Serializable:
A range lock is placed on the DataSet, preventing other users from updating or inserting rows into the dataset until the transaction is complete.

QUESTION 12
The PurchaseOrders.xml file contains all of the purchase orders for the day.

You need to query the XML file for all of the shipping addresses.

Which code segment should you use?

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

Correct Answer: B
Section: [none]
Explanation

Explanation/Reference:

QUESTION 13
You are preparing to write the data access code for the children's book area of the web site.

You need to review the requirements and identify the appropriate data access technology.

What should you do?

A. Use ADO.NET Entity Framework.
B. Use a Web Service.
C. Use the WCF Data Services.
D. Use LINQ to SQL.

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:

QUESTION 14
The PurchaseOrders.xml file contains all of the purchase orders for the day.

You need to query the XML file for all of the billing addresses.

Which code segment should you use?

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

Correct Answer: D
Section: [none]
Explanation

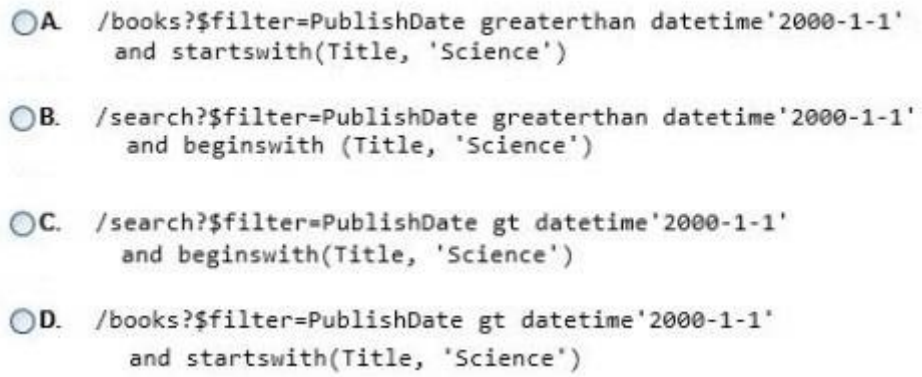
Explanation/Reference:

QUESTION 15
You need to create an OData filter expression that returns books that match the following characteristics:

- Published after 1/1/2000

- Have "Science" as the first word

Which filter statement should you use?



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

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation: * gt
Greater than
Example:
filter= Entry_No gt 610
Query on GLEntry service. Returns entry numbers 611 and higher.
* startswith
filter=startswith(Name, 'S')
Query on Customer service. Returns all customers names beginning with "S".

Testlet 1

Mix Questions

QUESTION 1
You are developing an ASP.NET MVC application.

Applications can be deployed to remote servers only by administrators who have elevated privileges. The administrators do not have access to Visual Studio 2012.

You need to select a deployment tool to deploy the application to remote servers for testing.

Which tool should you use?

A. Copy Web Site Tool
B. One-Click Publish
C. Publish Web Site Tool
D. Web Deployment Package

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:

QUESTION 2
You are preparing to develop a set of libraries for a company.

The libraries must be shared across the company.

You need to create a remote NuGet feed that exposes the libraries.

What should you do? (Each answer presents part of the solution. Choose all that apply.)

A. Install the NuGet.Feed Package.
B. Install the NuGet.Server Package.
C. Configure the Packages folder located in the system.webserver section of the web application's Web.config.
D. Create a new Empty Web Site in Visual Studio 2012.
E. Configure the Packages folder located in the appSettings section of the web application's Web.config.

F. Add packages to the Packages folder.
G. Create a new Empty Web Application in Visual Studio 2012.

Correct Answer: BEFG
Section: [none]
Explanation

Explanation/Reference:
Explanation: Explanation/Reference:

QUESTION 3
You develop an ASP.NET MVC application that is secured by using SSL. You are ready to deploy the application to production.

The deployment package must include the installation of the SSL certificate.

You need to configure the deployment package to meet the requirement.

What should you do?

A. Create a web publish pipeline target file with a custom web deploy target.
B. In the Package/Publish settings of the project, select the All Files in this project option.
C. Extend the CopyAllFilesToSingleFolder target in the project file.
D. In the Build Events settings of the project, configure a pre-build event to include the SSL certificate.

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:

QUESTION 4
You are developing a library to support multiple ASP.NET MVC web applications on a shared server. The library provides implementations of security algorithms.

If a problem with any of the security algorithms is discovered, a new version of the library must be created and deployed. Application downtime during the update

must be minimized.

You need to ensure that the new version of the library will be used by all applications as soon as possible.

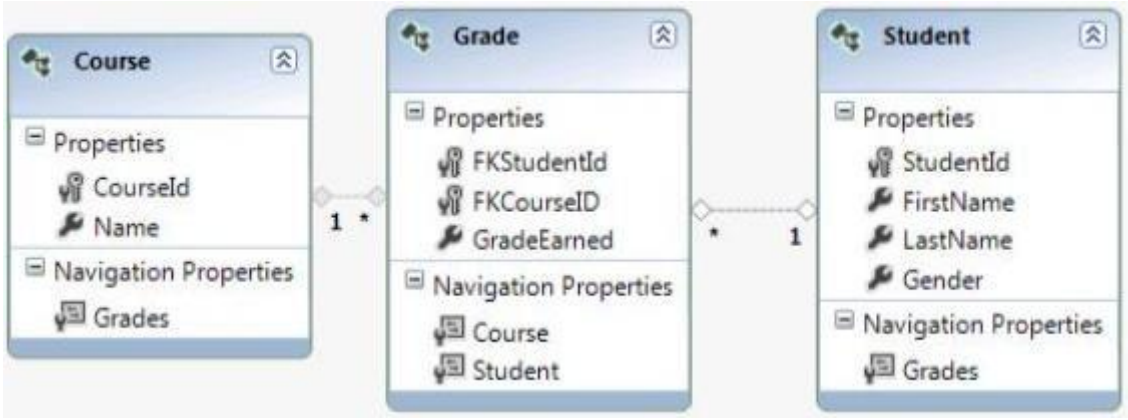
What should you do?

A. Build the web applications and include the security assembly as an embedded resource. When an update is needed, copy the new assembly to the bin directory for the application.
B. Sign all assemblies in each application with the same key used to sign the security assembly.
When an update is needed, create a new key pair and re-sign all assemblies.
C. Build the security assembly as a netmodule in a shared location.
Use the assembly linker to merge the netmodule into the assemblies for the application.
When an update is needed, update the netmodule in the shared location.
D. Install the security assembly in the Global Assembly Cache (GAC).
When an update is needed, update the assembly in the GAC.

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Still valid.

QUESTION 5
You are developing an application in Visual Studio 2012 to display student information. The application contains the following Entity Framework model.



The application contains a WCF data service named DirectoryService.svc.

You need to create a query expression to display all of the grades for students whose first name is "John"

How should you build the expression?

A. http://localhost:54946/DirectoryService.svc/Students?$filter=FirstName eq 'John' &$expand=Grades
B. http://localhost:54946/DirectoryService.svc/Students?$filter=FirstName eq 'John'/Grades
C. http://localhost:54946/DirectoryService.svc/Students?$filter=FirstName = 'John' &$expand=Grades
D. http://localhost:54946/DirectoryService.svc/Grades/Students?$filter=FirstName eq 'John'

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:

QUESTION 6
You are developing an ASP.NET MVC application that reads and writes data from a SQL Server database.

You need to prevent the application from reading data that is locked by other transactions. You also need to prevent exclusive range locks.

Which isolation level should you use?

A. ReadCommitted
B. Serializable
C. Repeatable
D. ReadUncommitted

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:

QUESTION 7
You are developing a WCF service that compares several data sources. The service takes a long time to complete.

The service must meet the following requirements:

- The client must be able to continue processing while the service is running.
- The service must initiate communication with the client application when processing is complete.

You need to choose a message pattern to meet the requirements.

Which message pattern should you choose?

A. One Way
B. Streaming
C. Duplex
D. Request/Reply

Correct Answer: C
Section: [none]
Explanation

Explanation/Reference:

QUESTION 8
You are developing a WCF service.

A new service instance must be created for each client session.

You need to choose an instancing mode.

Which instance mode should you use?

A. PerCall
B. Single
C. Multiple
D. PerSession
E. PerRequest

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:

QUESTION 9
You are developing a WCF service.

A new service instance must be created for each client request.

You need to choose an instancing mode.

Which instancing mode should you use?

A. Single
B. PerRequest
C. PerCall
D. Multiple
E. PerSession

Correct Answer: C
Section: [none]
Explanation

Explanation/Reference:

QUESTION 10
You are designing an ASP.NET Web API application.

You need to select an HTTP verb to allow blog administrators to remove a comment.

Which HTTP verb should you use?

A. PUT
B. DELETE
C. POST
D. GET

Correct Answer: B
Section: [none]

Explanation

Explanation/Reference:

QUESTION 11
You are developing an ASP.NET MVC application. The application is an order processing system that uses the ADO.NET Entity Framework against a SQL Server database. It has a controller that loads a page that displays all orders along with customer information. Lazy loading has been disabled.

The Order class is shown below.

```
public partial class Order
{
  ...
  public string CustomerID { get; set; }
  ...
  public virtual Customer Customer { get; set; }
}
```

You need to return the orders and customer information in a single round trip to the database.

Which code segment should you use?

A.
```
public ActionResult Index()
{
  IQueryable<Order> orders = db.Orders;
  orders = orders.Include("Customer");
  return View(orders.ToList());
}
```

B.
```
public ActionResult Index()
{
  IQueryable<Order> orders = db.Orders.Include("Order.Customer");
  return View(orders.ToList());
}
```

C.
```
public ActionResult Index()
{
  IQueryable<Order> orders = db.Orders;
  orders.Select(o => o.Customer).Load();
  return View(orders.ToList());
}
```

D.
```
public ActionResult Index()
{
  IQueryable<Order> orders = db.Orders;
  return View(orders.ToList());
}
```

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

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:

QUESTION 12
You are developing an ASP.NET MVC application that reads and writes data from a SQL Server database.

You need to maintain data integrity in all situations that use transactions.

A. ReadUncommitted
B. Repeatable
C. Serializable
D. ReadCommitted

Correct Answer: C
Section: [none]
Explanation

Explanation/Reference:

QUESTION 13
You are developing an order processing application that uses the ADO.NET Entity Framework against a SQL Server database. Lazy loading has been disabled. The application displays orders and their associated order details. Order details are filtered based on the category of the product in each order.

The Order class is shown below.

```
public partial class Order
{
  ...
  public int OrderID { get; set; }
  ...
  public virtual ICollection<OrderDetail> OrderDetails { get; set; }
  ...
}
```

The OrderDetail class is shown below.

```
public partial class OrderDetail
{
  [Key, Column(Order = 1)]
  public int OrderID { get; set; }
  [Key, Column(Order = 2)]
  public int ProductID { get; set; }
  ...
  public virtual Order Order { get; set; }
  public virtual Product Product { get; set; }
}
```

The Product class is shown below.

```
public partial class Product
{
  ...
  public int ProductID { get; set; }
  public string ProductName { get; set; }
  ...
  public Nullable<int> CategoryID { get; set; }
  ...
  public virtual Category Category { get; set; }
  ...
}
```

The Category class is shown below.

The **Category** class is shown below.

```
public partial class Category
{
  ...
  public int CategoryID { get; set; }
  public string CategoryName { get; set; }
  ...
  public virtual ICollection<Product> Products { get; set; }
}
```

You need to return orders with their filtered list of order details included in a single round trip to the database.

Which code segment should you use?

A.
```
var orders = db.Orders.SelectMany(o => o.OrderDetails.
 Where(od => od.Product.Category.CategoryName == categoryName)).
 Select(od => new { order = od.Order, detail = od }).
 Select(r => r.order);
```

B.
```
var orders = db.Orders.SelectMany(o => o.OrderDetails.
 Where(od => od.Product.Category.CategoryName == categoryName)).
 Select(od => new { order = od.Order, detail = od }).ToList().
 Select(r => r.order);
```

C.
```
var orderDetails = db.Orders.SelectMany(o => o.OrderDetails.
 Where(od => od.Product.Category.CategoryName == categoryName)).ToList();
List<int> orderIDs = orderDetails.Select(od => od.OrderID).ToList();
var orders = db.Orders.Where(o => orderIDs.Contains(o.OrderID));
```

D.
```
var orderDetails = db.Orders.SelectMany(o => o.OrderDetails.
 Where(od => od.Product.Category.CategoryName == categoryName));
List<int> orderIDs = orderDetails.Select(od => od.OrderID).ToList();
var orders = db.Orders.Where(o => orderIDs.Contains(o.OrderID));
```

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

Correct Answer: B
Section: [none]
Explanation

Explanation/Reference:

QUESTION 14
You are developing a .NET application that uses the HttpClient type to call an ASP.NET Web API application. The API call returns a list of customers in JSON format and logs the results.

The URI for the API call is in a variable named address.

You need to make the API call without blocking.

Which code segment should you use?

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

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:
Explanation: Example:

```
// Create an HttpClient instance
11: HttpClient client = new HttpClient();
12:
13: // Send a request asynchronously continue when complete
14: client.GetAsync(_address).ContinueWith(
15: (requestTask) =>
16: {
17: // Get HTTP response from completed task.
18: HttpResponseMessage response = requestTask.Result;
19:
20: // Check that response was successful or throw exception
21: response.EnsureSuccessStatusCode();
22:
23: // Read response asynchronously as JsonValue and write out top facts for each country
24: response.Content.ReadAsAsync<JsonArray>().ContinueWith(
25: (readTask) =>
```

QUESTION 15
You are developing an ASP.NET MVC application. The application has a page that updates an image stored in a database. Members of the EntityClient namespace are used to access an ADO.NET Entity Framework data model. Images and associated metadata are stored in a single database table.

You need to run a single query that updates an image and associated metadata in the database while returning only the number of affected rows.

Which method of the EntityCommand type should you use?

A. ExecuteNonQuery()
B. ExecutcScalar()
C. ExecuteDbDataReader()
D. ExecuteReader()

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:

QUESTION 16
You are developing a new ASP.NET MVC application that does not have an existing database.

The requirements for the application are not complete, and the SQL data model will likely change.

You need to choose an approach to visually manage a data model.

Which approach should you use?

A. Physical First
B. Database First
C. Code First
D. Model First

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:
Explanation: With the model first workflow, you can design a model in a designer.

QUESTION 17
You are designing an ASP.NET Web API application.

You need to select an HTTP verb to allow blog administrators to modify the text of a comment.

Which HTTP verb should you use?

A. GET
B. DELETE
C. POST
D. PUT

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:

QUESTION 18
You are preparing to develop a set of libraries that uses large data sets.

The libraries must be shared across an organization and distributed to several servers.

You need to create a remote NuGet feed that exposes the libraries for developer use.

What should you do? (Each answer presents part of the solution. Choose all that apply.)

A. Add packages to the Packages folder.
B. Create a new Empty Web Application in Visual Studio.
C. Configure the Packages folder located in the appSettings section of the web application's Web.config.
D. Install the NuGet.DataFeed Package.
E. Install the NuGet.Server Package.
F. Create a new Empty Web Site in Visual Studio.

Correct Answer: ABCE
Section: [none]
Explanation

Explanation/Reference:
Explanation: Creating Remote Feeds
You can host a remote (or internal) feed on a server that runs IIS. Step 1 (B): Create a new Empty Web Application in Visual Studio Step 2 (E): Install the NuGet.Server Package
Step 3 (C): Configure the Packages folder

Step 4 (A): Add Packages to the Packages folder
Step 5: Deploy and run your brand new Package Feed!

Reference: Hosting Your Own NuGet Feeds

QUESTION 19
You are developing a WCF service.

You need to create a duplex contract.

What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

A. Apply the MessageContractAttribute attribute to every public method signature included in the appropriate contract.
B. Create an interface for the client-side duplex contract.
C. Create an interface for the server-side duplex contract.
D. Apply the MessageContractAttribute attribute to the appropriate interface.
E. Apply the ServiceContractAttribute attribute to the appropriate interface. Then, apply the OperationContractAttribute attribute to every public method signature included in that contract.
F. Set the CallbackContract property to the appropriate interface.

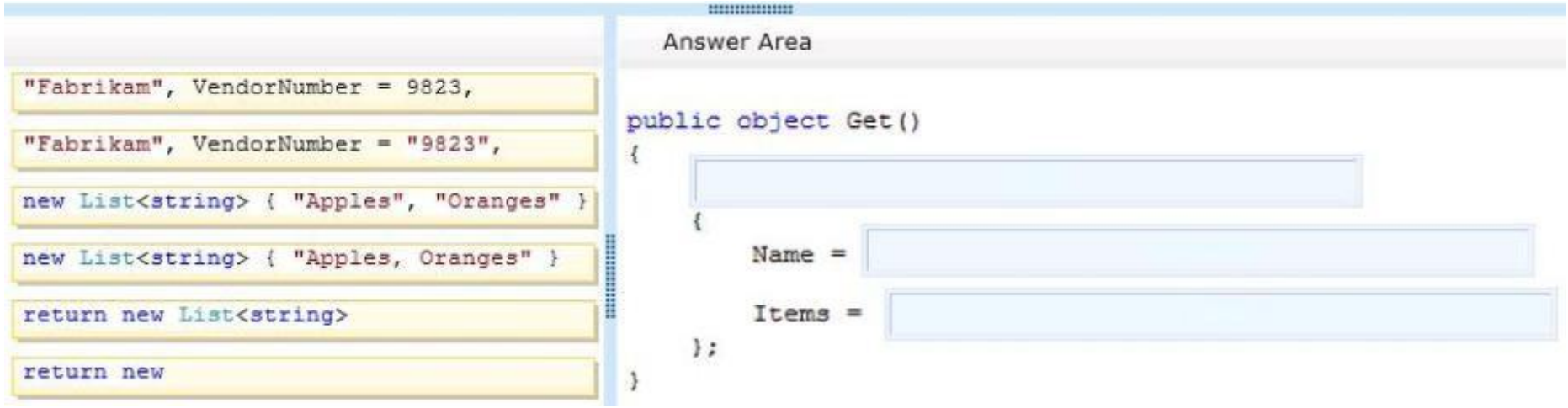
Correct Answer: CEF
Section: [none]
Explanation

Explanation/Reference:
Explanation: To create a duplex contract

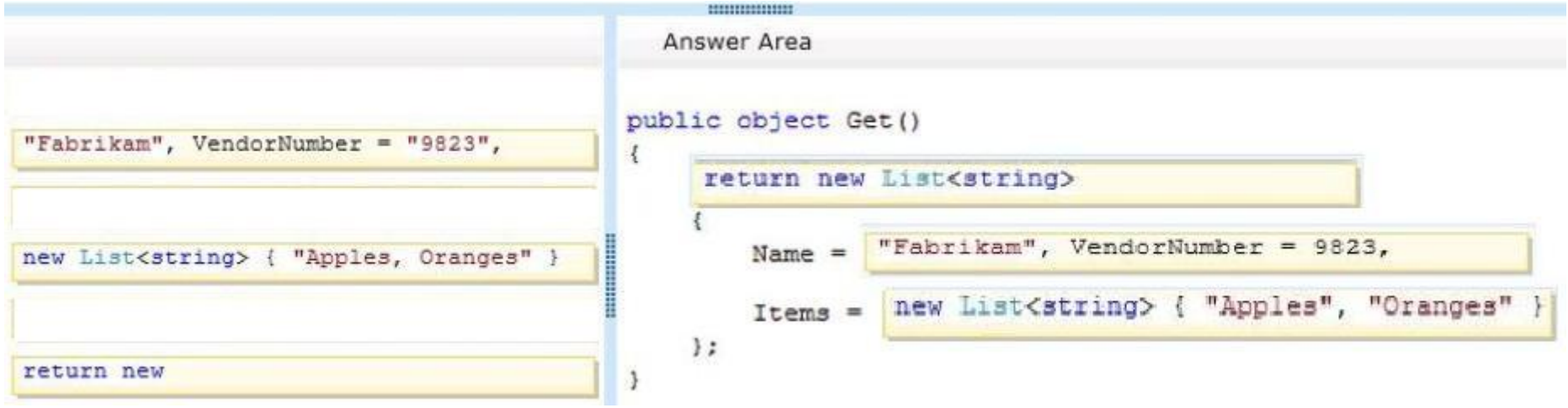
Reference: How to: Create a Duplex Contract

QUESTION 20
You are developing an ASP.NET Web API action method.
The action method must return the following JSON in the message body.
{" Name ":" Fabrikam", "Vendor Id": 9823, "Items": ["Apples", "Oranges"] }
You need to return an anonymous object that is serialized to JSON.
What should you do? (To answer, drag the appropriate code segments to the correct location or 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.

Select and Place:



Correct Answer:



Section: [none]
Explanation

Explanation/Reference:
Box 1: return new List<string>
Box 2: "Fabrikam", VendorNumber=9823,

Box 3: new list<string>{"Apples", "oranges"}

QUESTION 21
You are developing an ASP.NET Web API application that will be consumed by a web browser via a composite application that is served from another web domain.
You need to configure the Web API.
What should you do? (To answer, drag the appropriate XML elements to the correct location or locations in the answer area. Each XML 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.)

Select and Place:

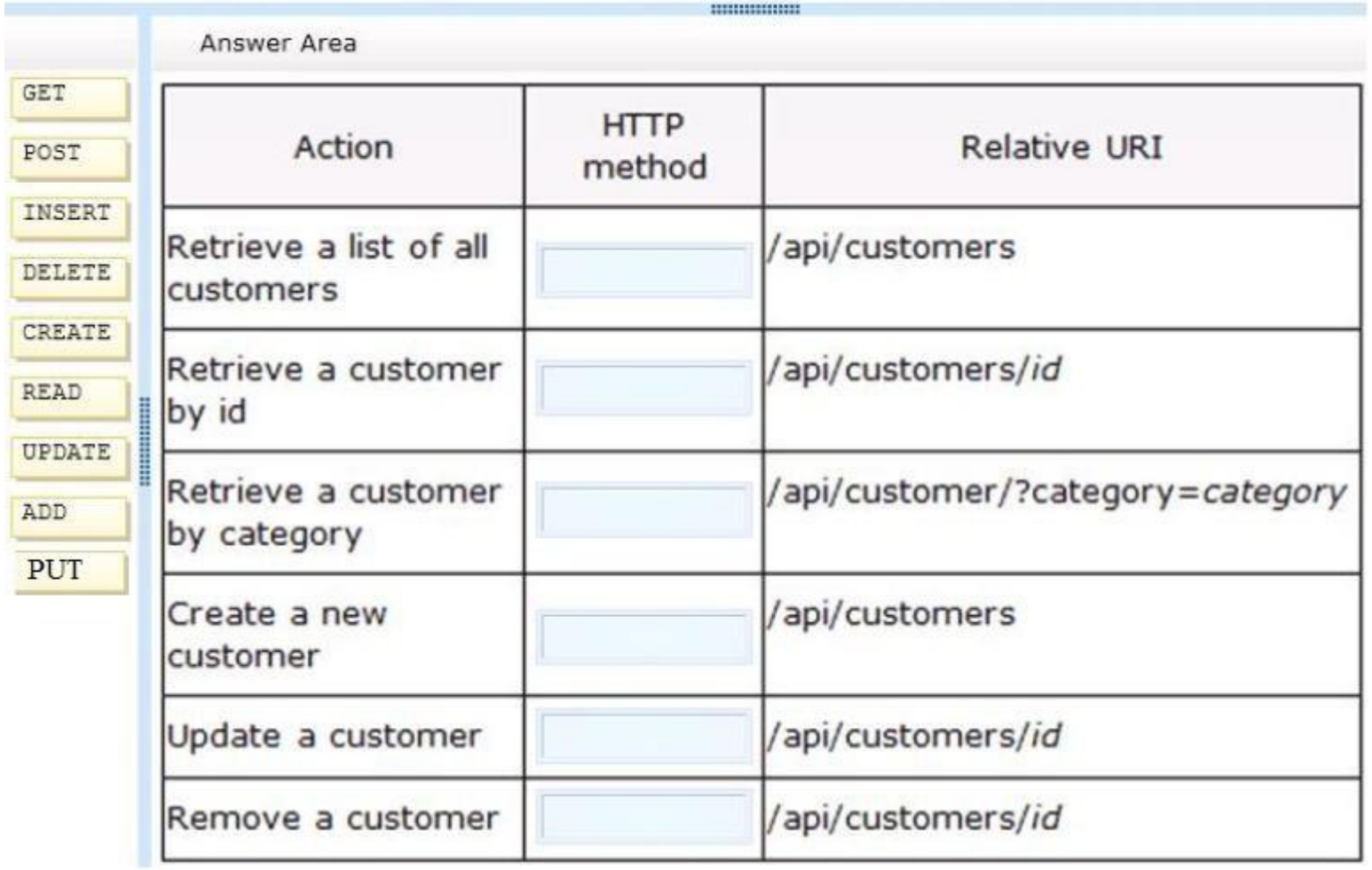
Correct Answer:

Section: [none]
Explanation

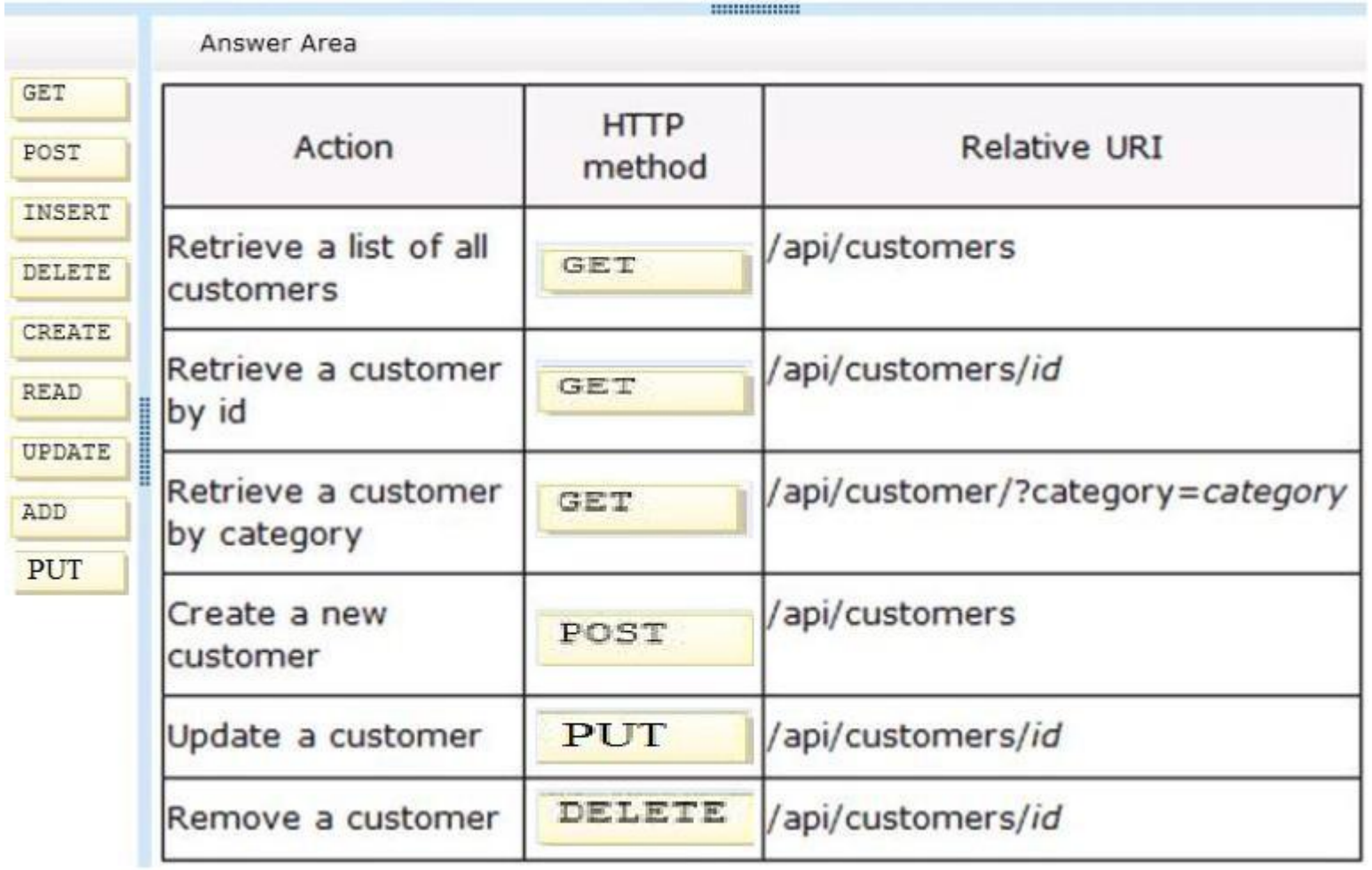
Explanation/Reference:

QUESTION 22
You are developing an ASP.NET MVC Web API application.
The method names of the Web API must match naming guidelines for RESTful services.
You need to create methods to support standard insert, select, update, and delete operations in an HTTP service.
What should you do? (To answer, drag the appropriate HTTP methods to the correct row in the table in the answer area. Each HTTP method 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.)

Select and Place:



Correct Answer:



Section: [none]
Explanation

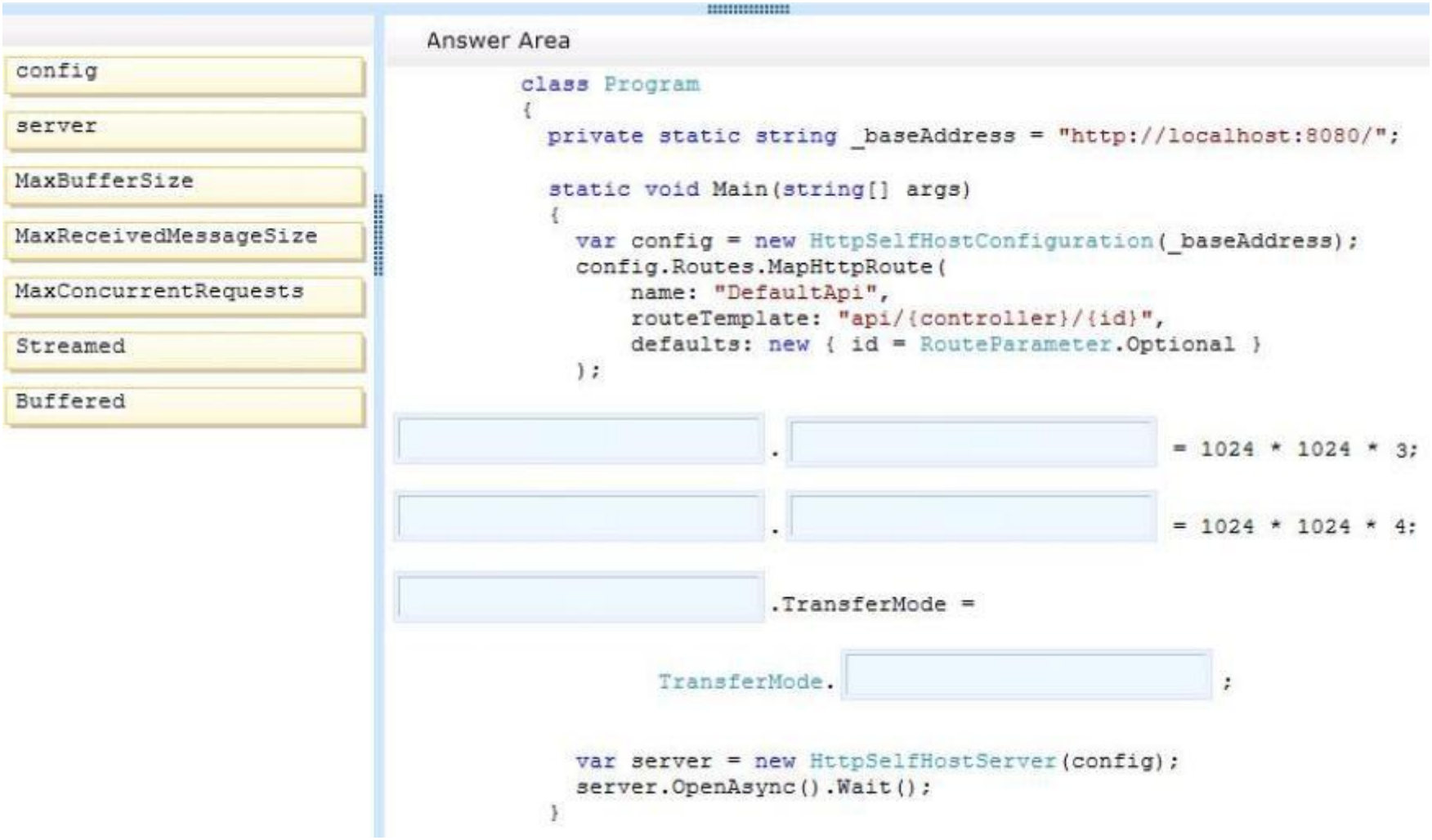
Explanation/Reference:

Action	HTTP method	Relative URI
Retrieve a list of all customers	GET	/api/customers
Retrieve a customer by id	GET	/api/customers/*id*
Retrieve a customer by category	GET	/api/customer/?category=*category*
Create a new customer	POST	/api/customers
Update a customer	PUT	/api/customers/*id*
Remove a customer	DELETE	/api/customers/*id*

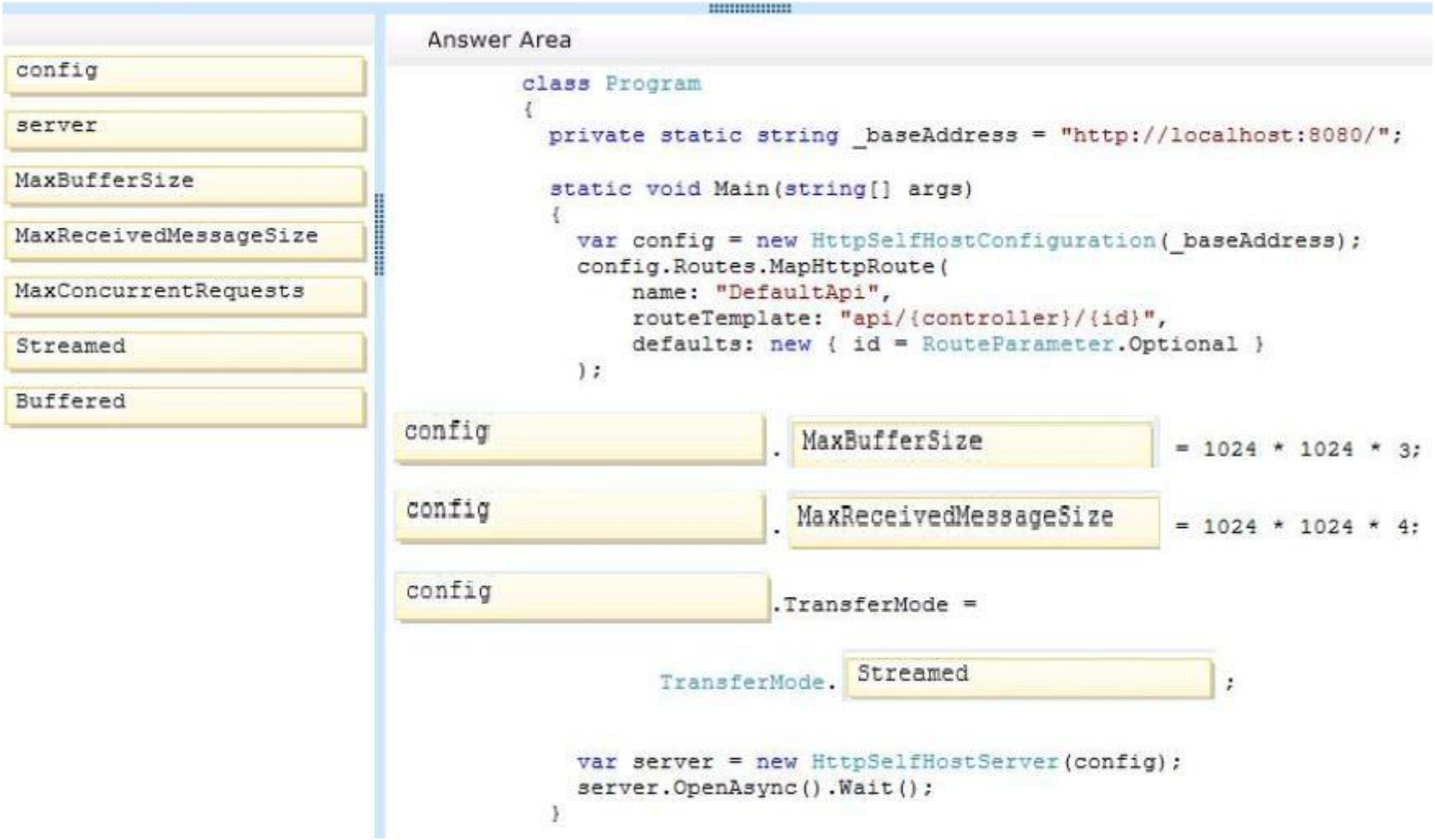
QUESTION 23
You are developing an ASP.NET MVC Web API image management application.
The application must meet the following requirements:
- It must send or receive image data without the use of a buffer.
- It must allow up to 4 MB of image data to be received.
- It must allow up to 3 MB of image data to be sent.

You need to complete the code to meet the requirements.
What should you do? (To answer, drag the appropriate code segments to the correct location or 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.)

Select and Place:

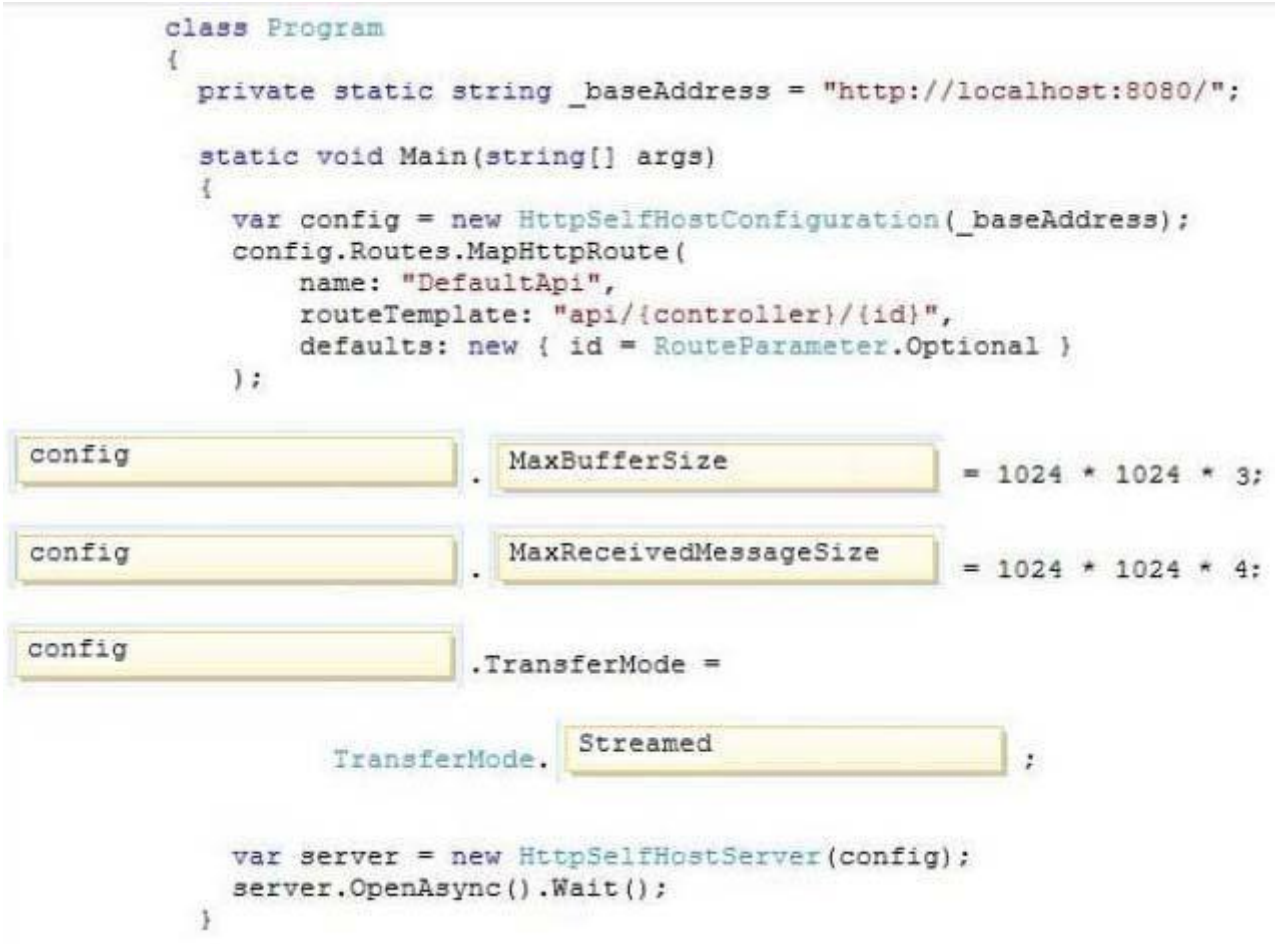


Correct Answer:



Section: [none]
Explanation

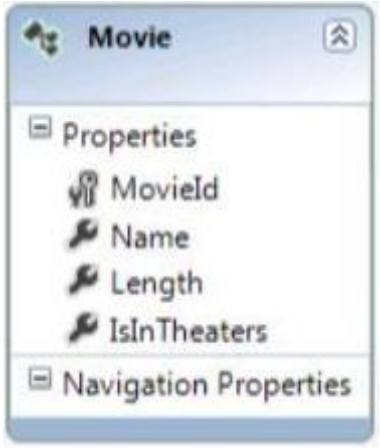
Explanation/Reference:



QUESTION 24
You are developing a WCF Data Services service in Visual Studio 2012 to display movie information from a SQL Server database that changes every 24 hours. The service is defined in the following class.

```
public class MovieService : DataService<MovieEntities>
{
  public static void InitializeService(DataServiceConfiguration config)
  {
    config.SetEntitySetAccessRule("Movies", EntitySetRights.AllRead);
    config.DataServiceBehavior.MaxProtocolVersion = DataServiceProtocolVersion.V2;
  }
}
```

The application contains the following Entity Framework model.



The service must only return data for movies that are currently in theaters.
You need to add a method to the MovieService class to filter the data.

How should you build the method? (To answer, drag the appropriate code segments to the correct location or 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.)

Select and Place:

Correct Answer:

Section: [none]
Explanation

Explanation/Reference:

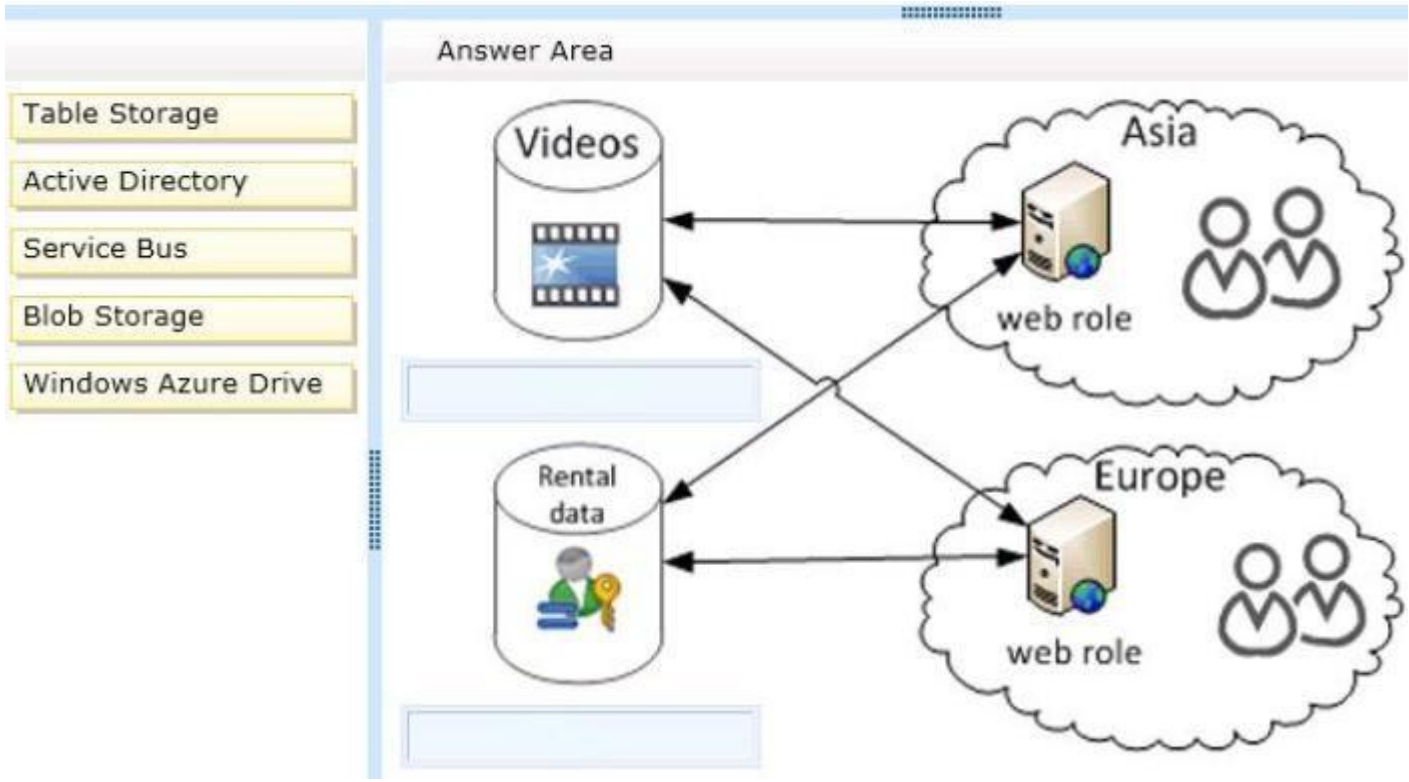
```
public class MovieService : DataService<MovieEntities>
{
  public static void InitializeService(DataServiceConfiguration config)
  {
    config.SetEntitySetAccessRule("Movies", EntitySetRights.AllRead);
    config.DataServiceBehavior.MaxProtocolVersion =
     DataServiceProtocolVersion.V2;
  }

  [ QueryInterceptor ( "Movies" )]
  public Expression <Func<Movie, bool>> ApplyTheaterFilter()
  {
    return movie => movie.IsInTheaters == true;
  }
}
```

QUESTION 25
You are developing a Windows Azure based web application that provides users the ability to rent training videos. The application is deployed to hosted services in Asia and Europe.
The web application must meet the following requirements:
- Video files are large and must be able to be streamed.
- Streaming videos requires low latency network connections.
- Rental data contains structured information about the user and the video.
- Rental permissions are checked every five seconds during video playback.

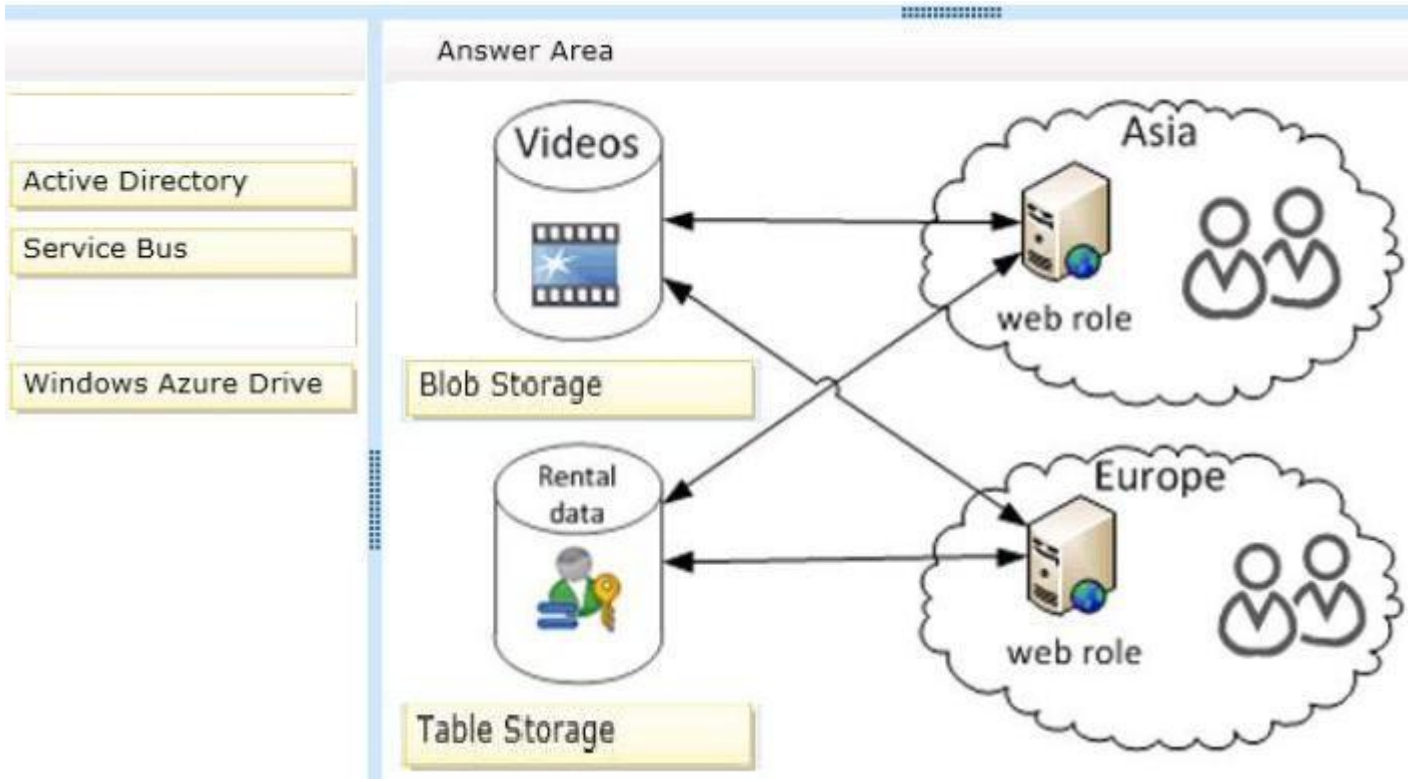
You need to recommend a storage architecture for the application.
What should you do? (To answer, drag the appropriate technologies to the correct location or locations in the answer area. Each technology may be used once, more than once, or not at all.

You may need to drag the split bar between panes or scroll to view content.)

Select and Place:

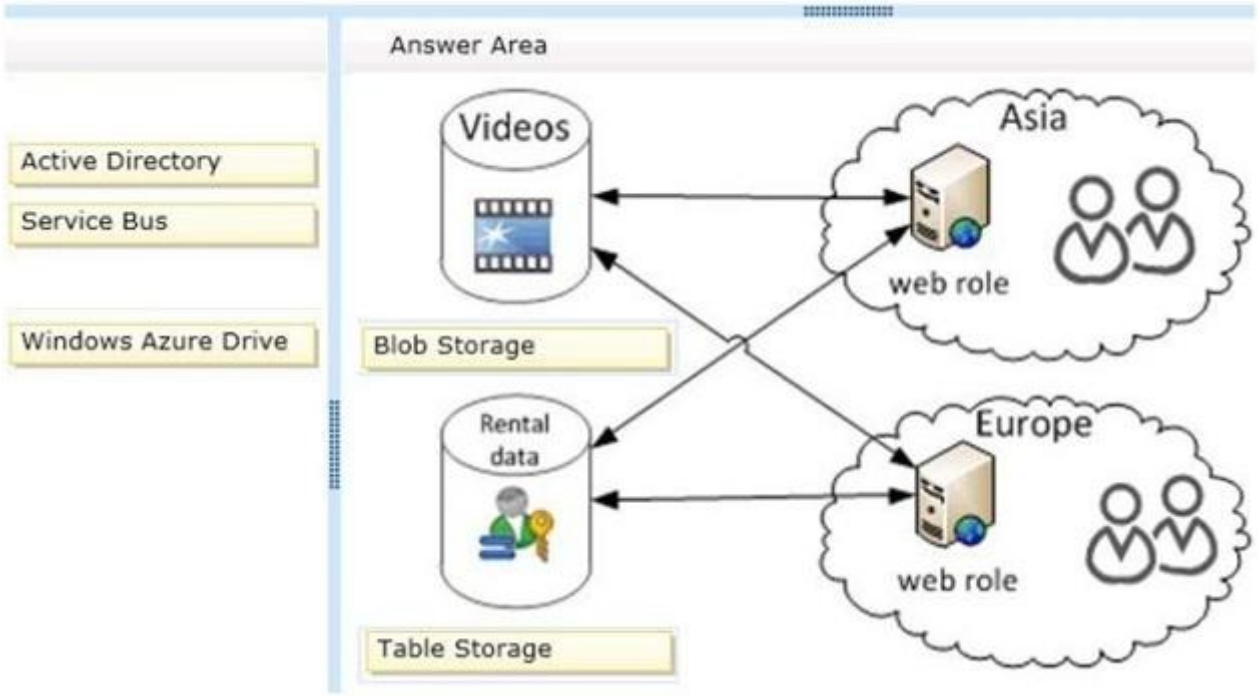


Correct Answer:



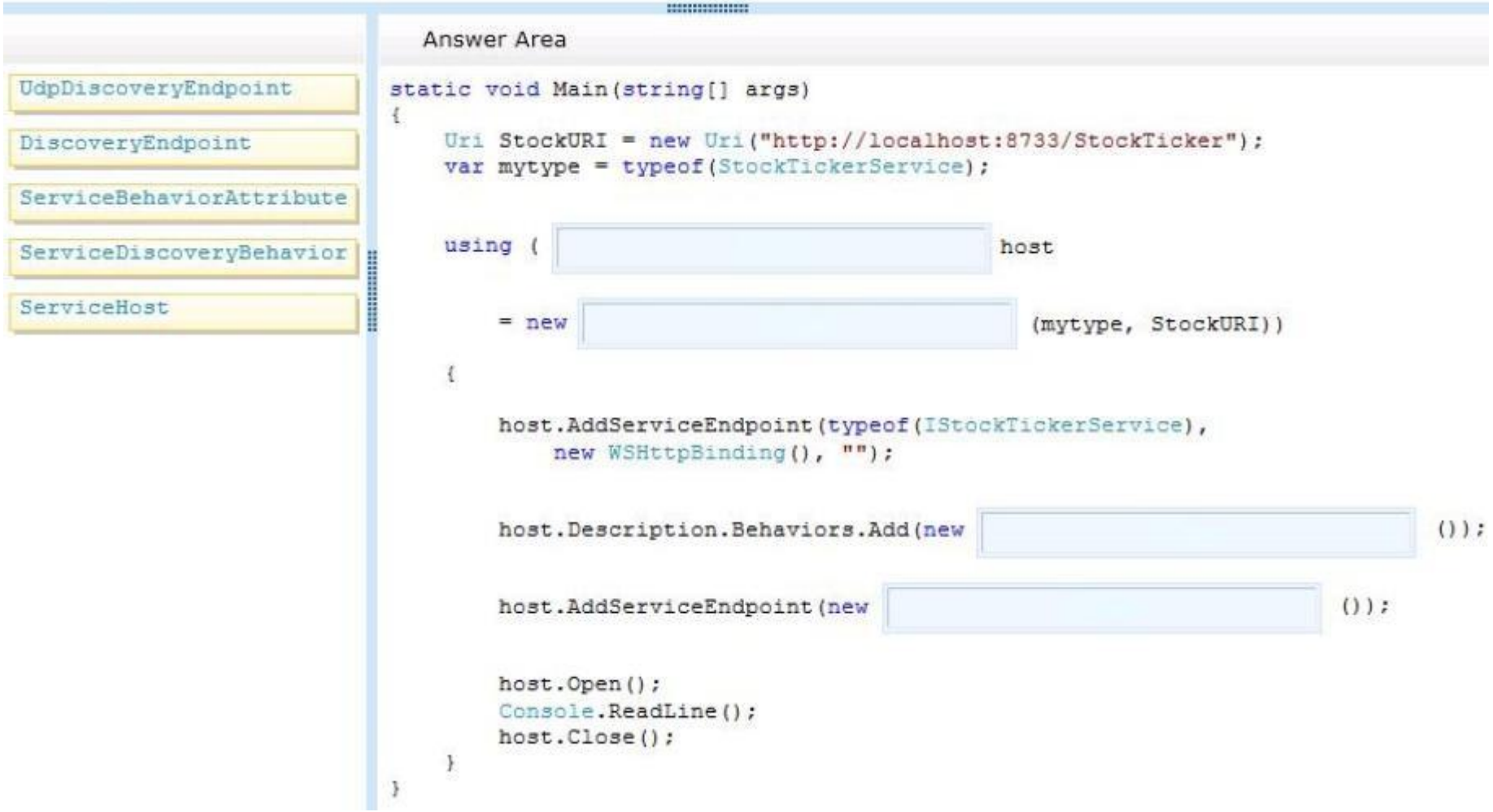
Section: [none]
Explanation

Explanation/Reference:

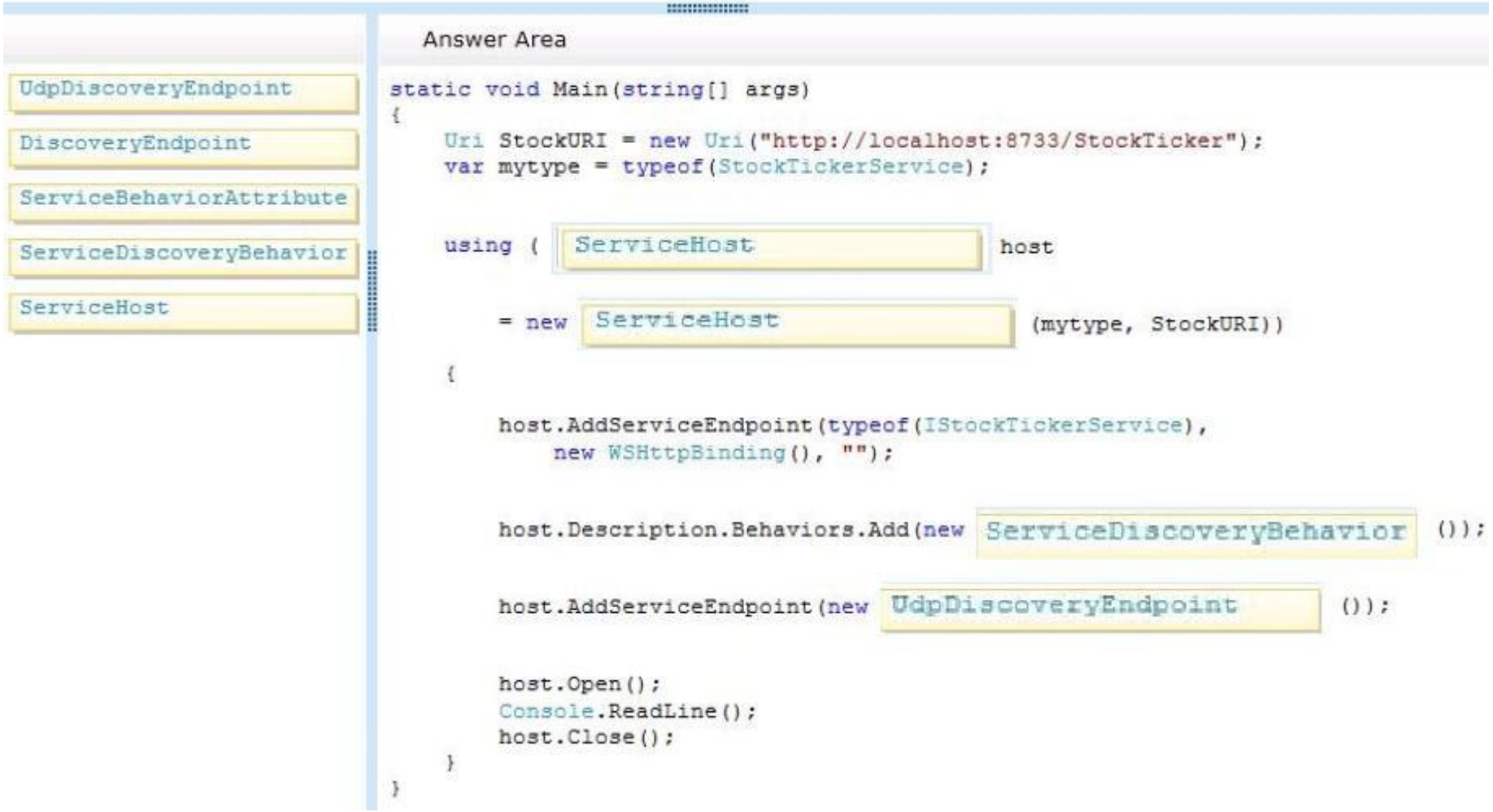


QUESTION 26
You are developing a self-hosted WCF service that returns stock market information.
The service must be discoverable by any client application.
You need to build the service host.
How should you build the host? (To answer, drag the appropriate code segments to the correct location or locations 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.)

Select and Place:



Correct Answer:



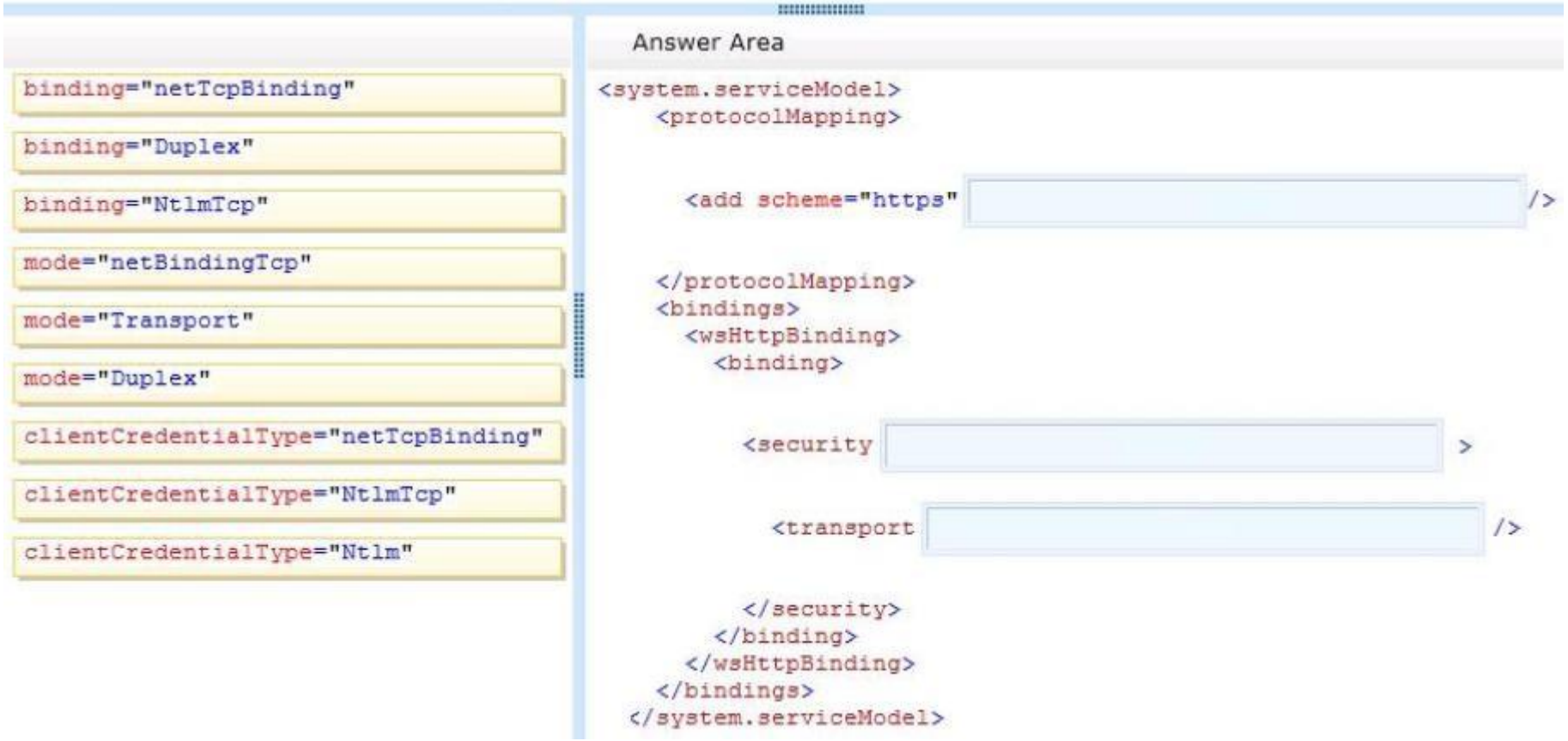
Section: [none]
Explanation

Explanation/Reference:

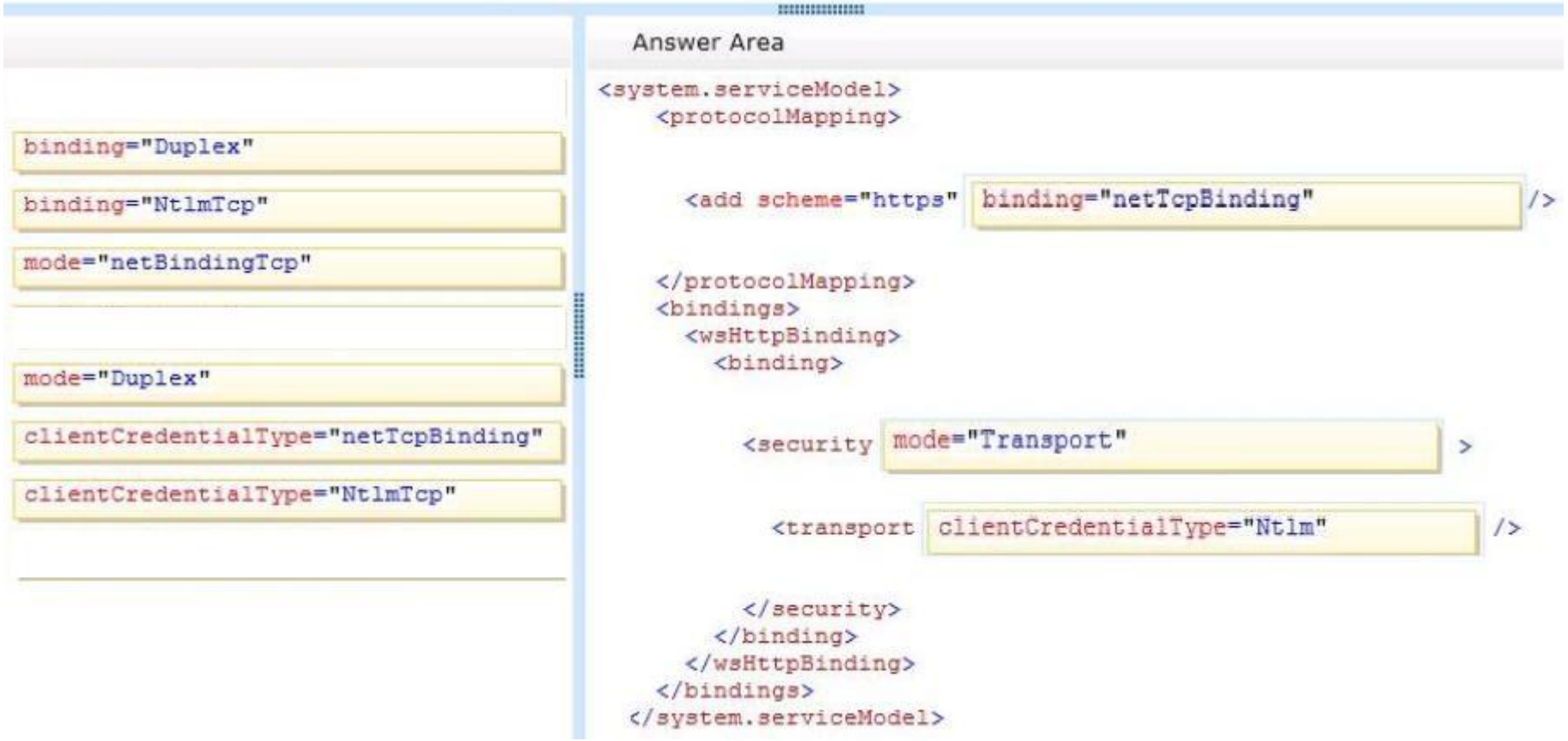
```
static void Main(string[] args)
{
    Uri StockURI = new Uri("http://localhost:8733/StockTicker");
    var mytype = typeof(StockTickerService);

    using ( ServiceHost                          host

        = new ServiceHost                        (mytype, StockURI))
    {
        host.AddServiceEndpoint(typeof(IStockTickerService),
            new WSHttpBinding(), "");

        host.Description.Behaviors.Add(new ServiceDiscoveryBehavior ());

        host.AddServiceEndpoint(new UdpDiscoveryEndpoint ());

        host.Open();
        Console.ReadLine();
        host.Close();
    }
}
```

QUESTION 27
You are developing a WCF service.
You need to implement transport security by using NTLM authentication and NetTcpBindings.
Which configuration values should you use? (To answer, drag the appropriate configuration values to the correct location or locations in the answer area. Each configuration value 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.)

Select and Place:

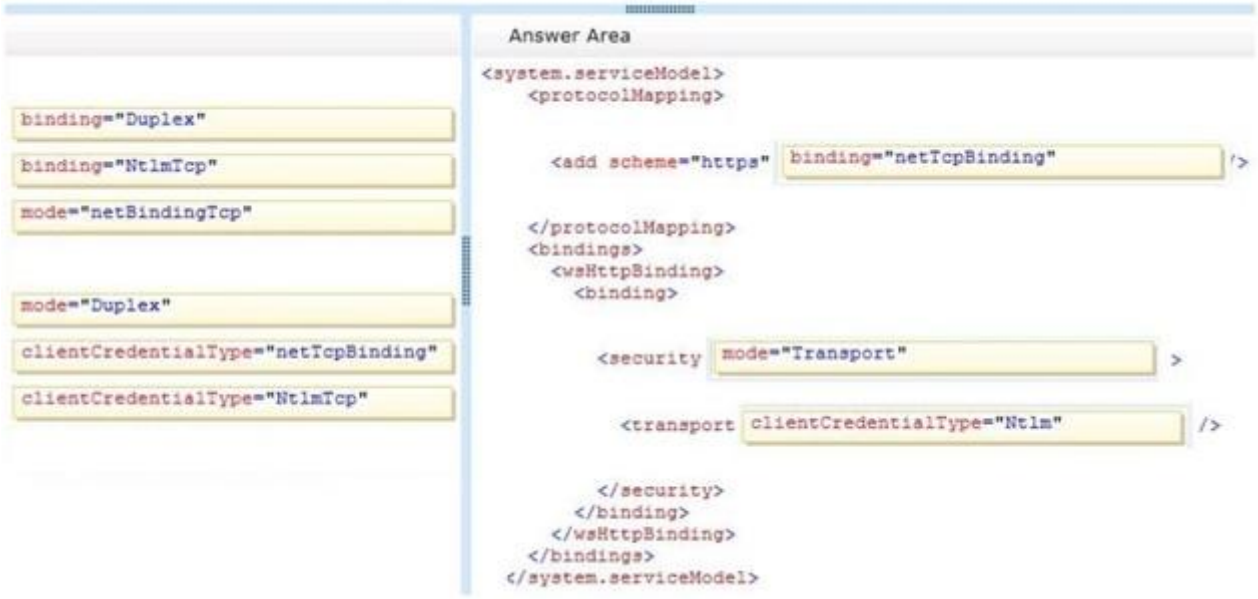


Correct Answer:



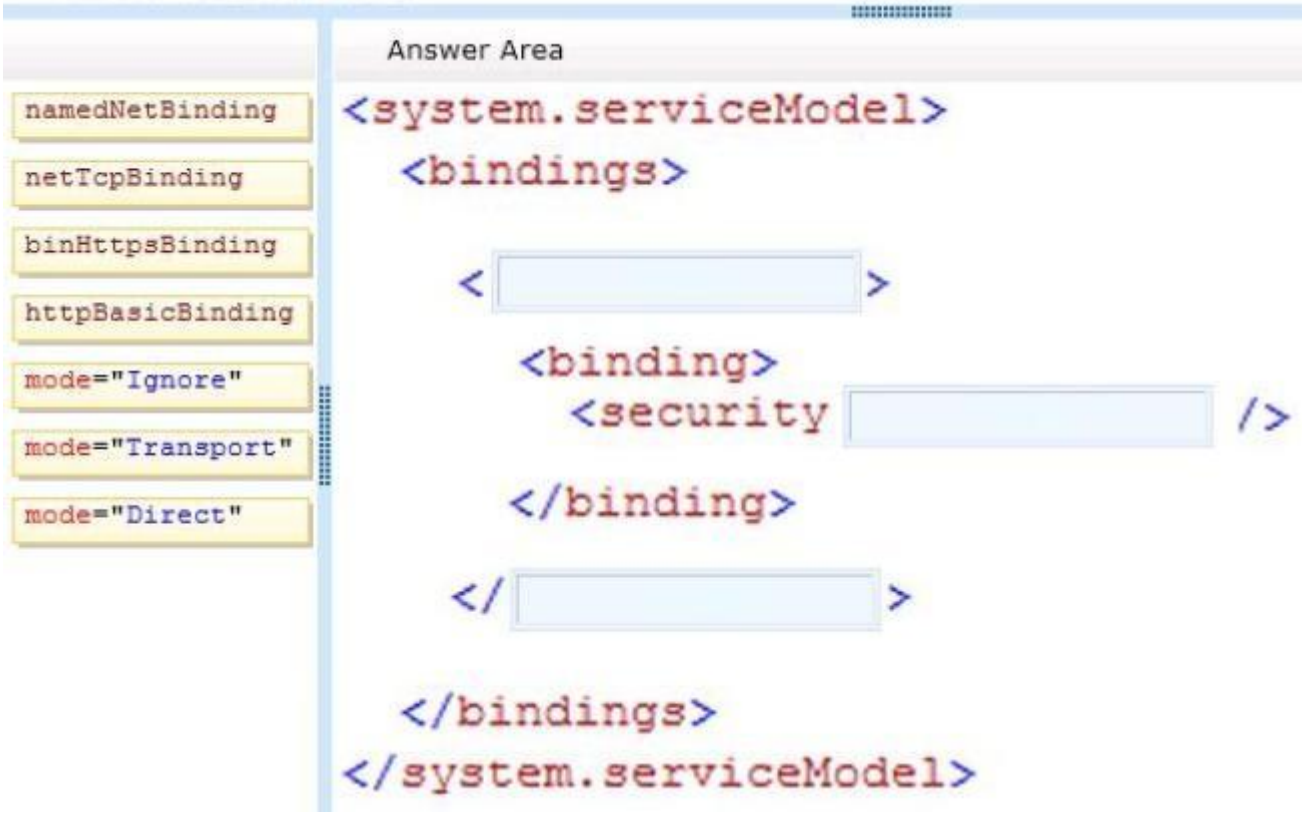
Section: [none]
Explanation

Explanation/Reference:

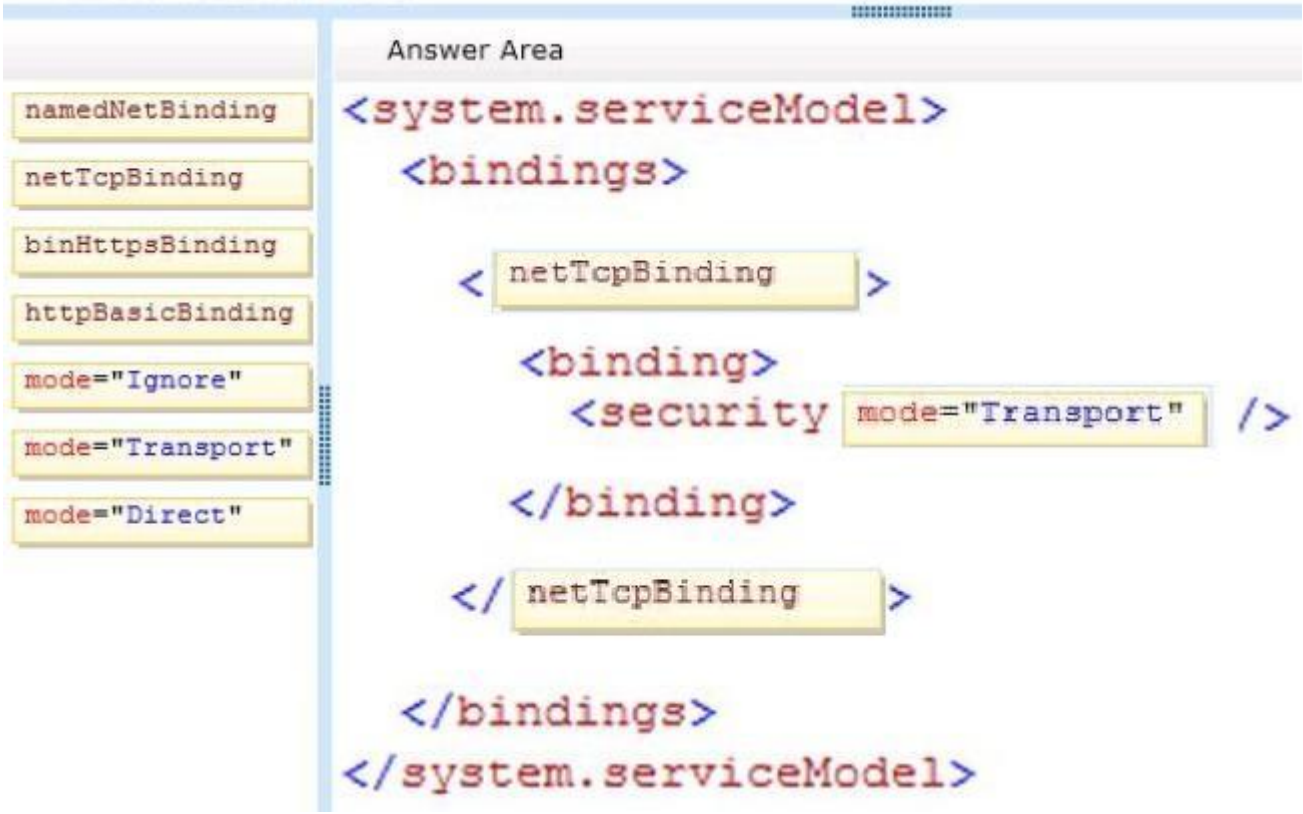


QUESTION 28
You are developing a WCF service. The service will stream messages to clients on the internal network.
You must use Windows Authentication, and all messages must be binary encoded.
You need to configure the service.
What should you do? (To answer, drag the appropriate elements to the correct location or locations in the answer area. Each 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.)

Select and Place:

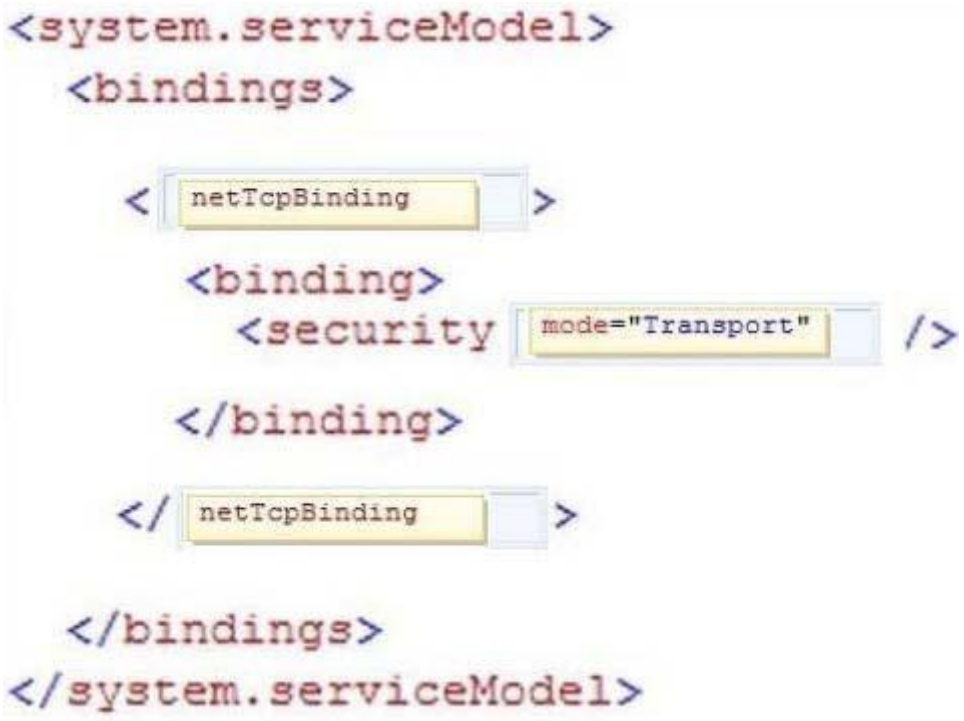


Correct Answer:



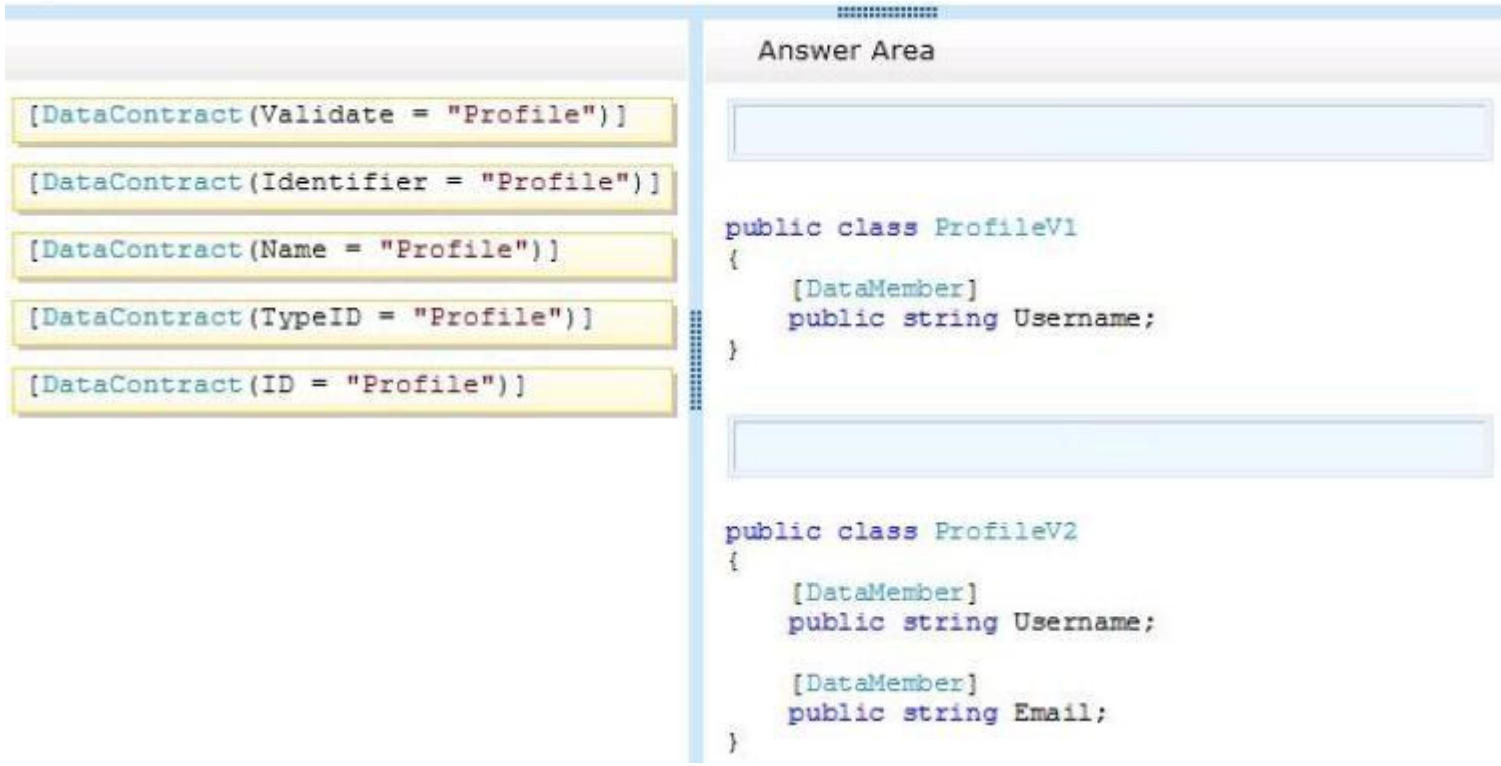
Section: [none]
Explanation

Explanation/Reference:

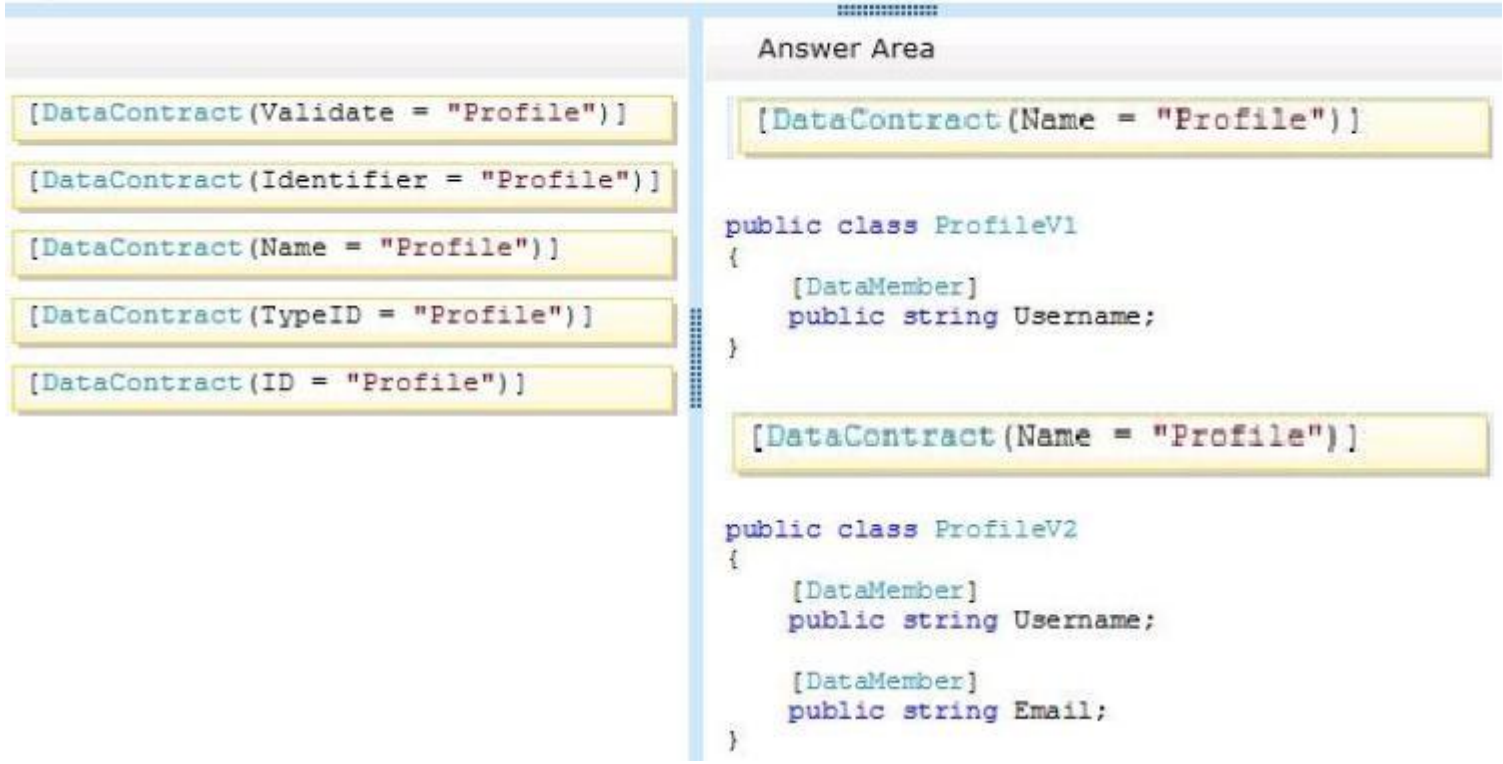


QUESTION 29
You are developing a WCF service.
The WCF service requires implementations of the new data contracts to validate against the old schema.
You need to develop a new data contract without breaking current functionality.
What should you do? (To answer, drag the appropriate code segments to the correct location or 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.)

Select and Place:

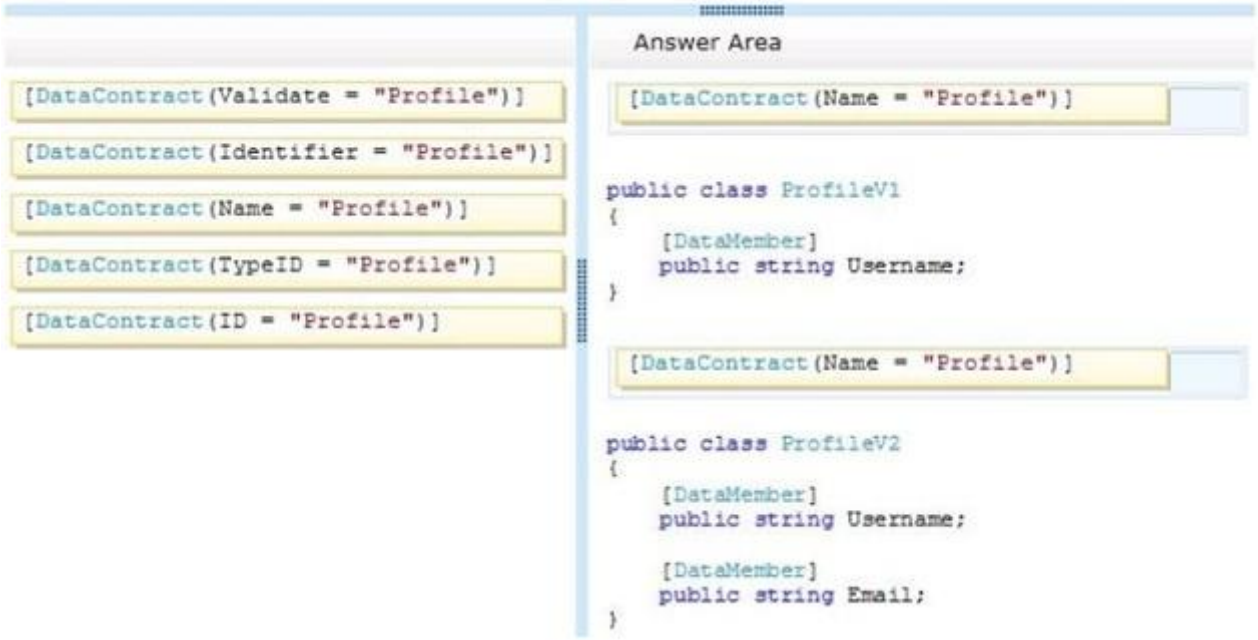


Correct Answer:



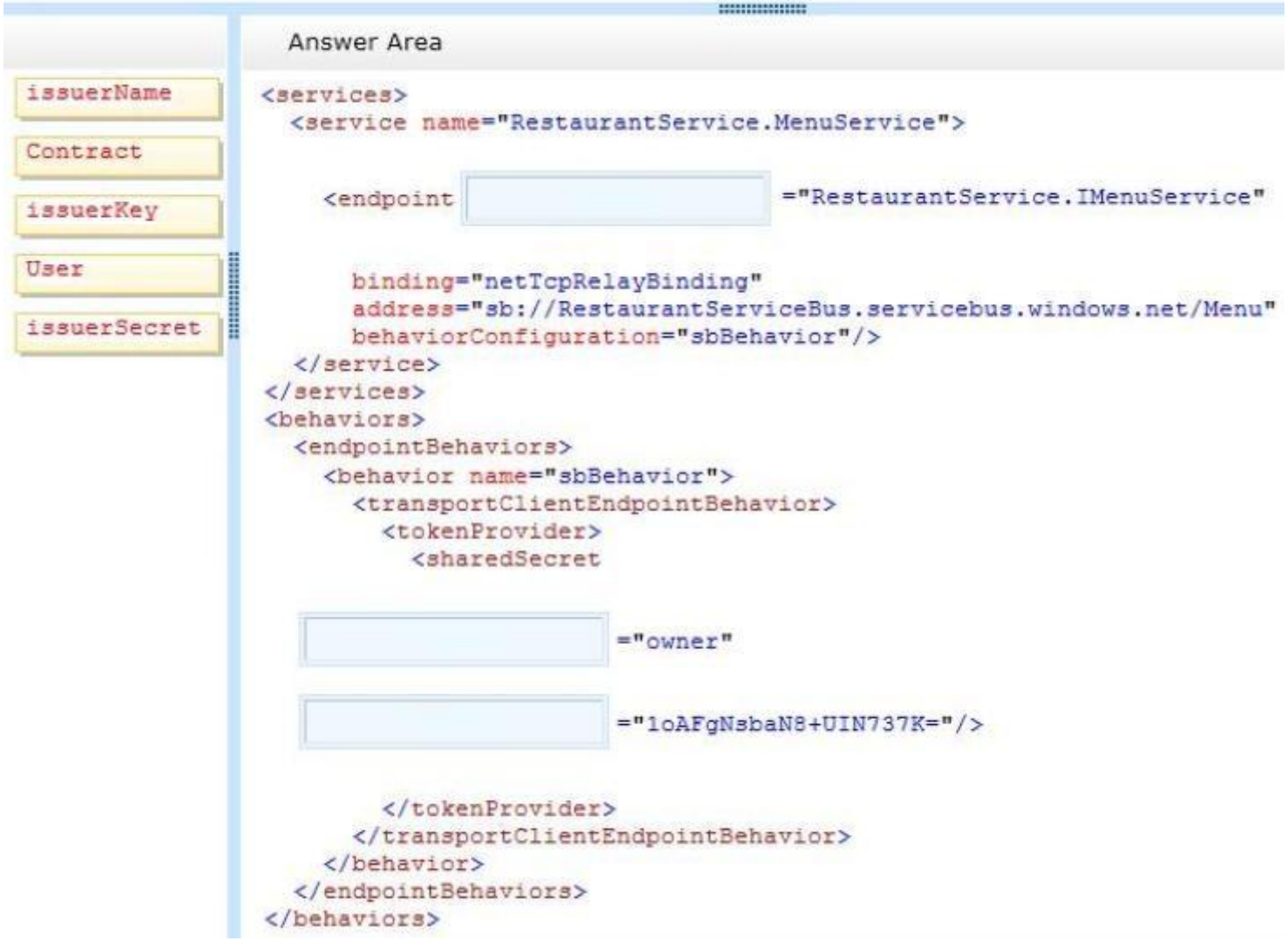
Section: [none]
Explanation

Explanation/Reference:

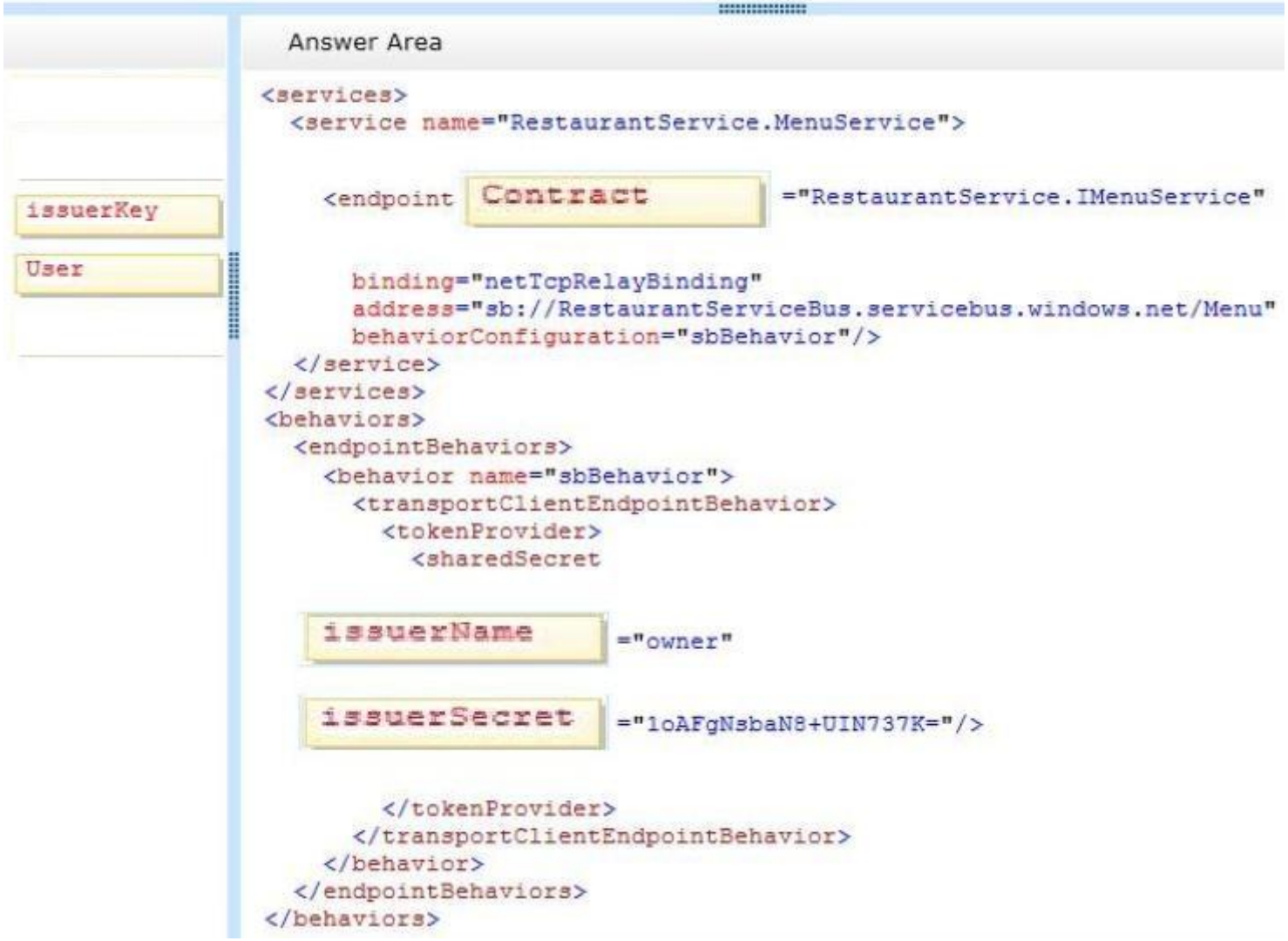


QUESTION 30
You are creating a WCF service.
The service endpoints must be exposed to the Windows Azure Service Bus. The service bus has a namespace named RestaurantSB. The key provider is "owner".
You need to modify the web.config file to expose the endpoints.
How should you modify the file? (To answer, drag the appropriate attributes to the correct location or 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.)

Select and Place:



Correct Answer:



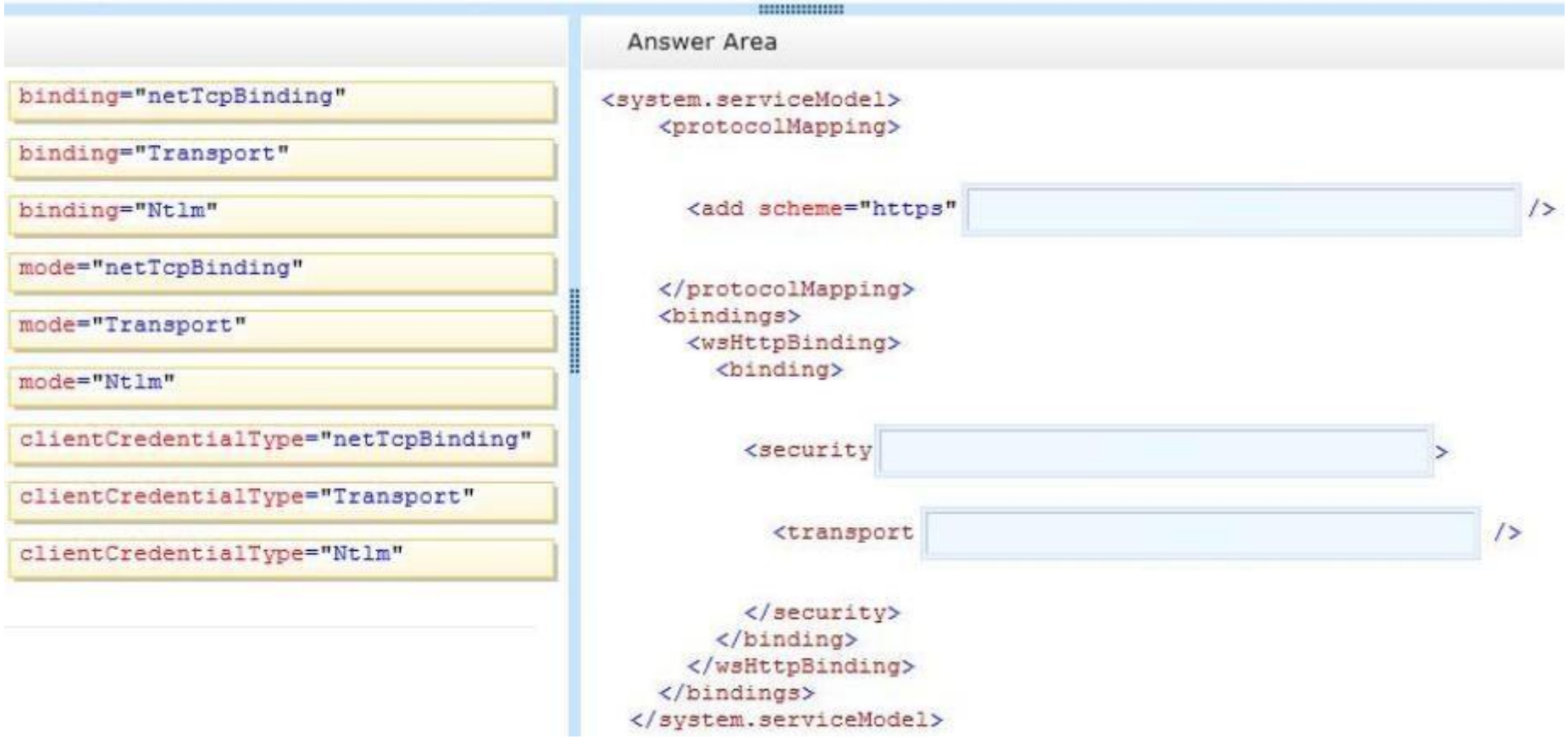
Section: [none]
Explanation

Explanation/Reference:

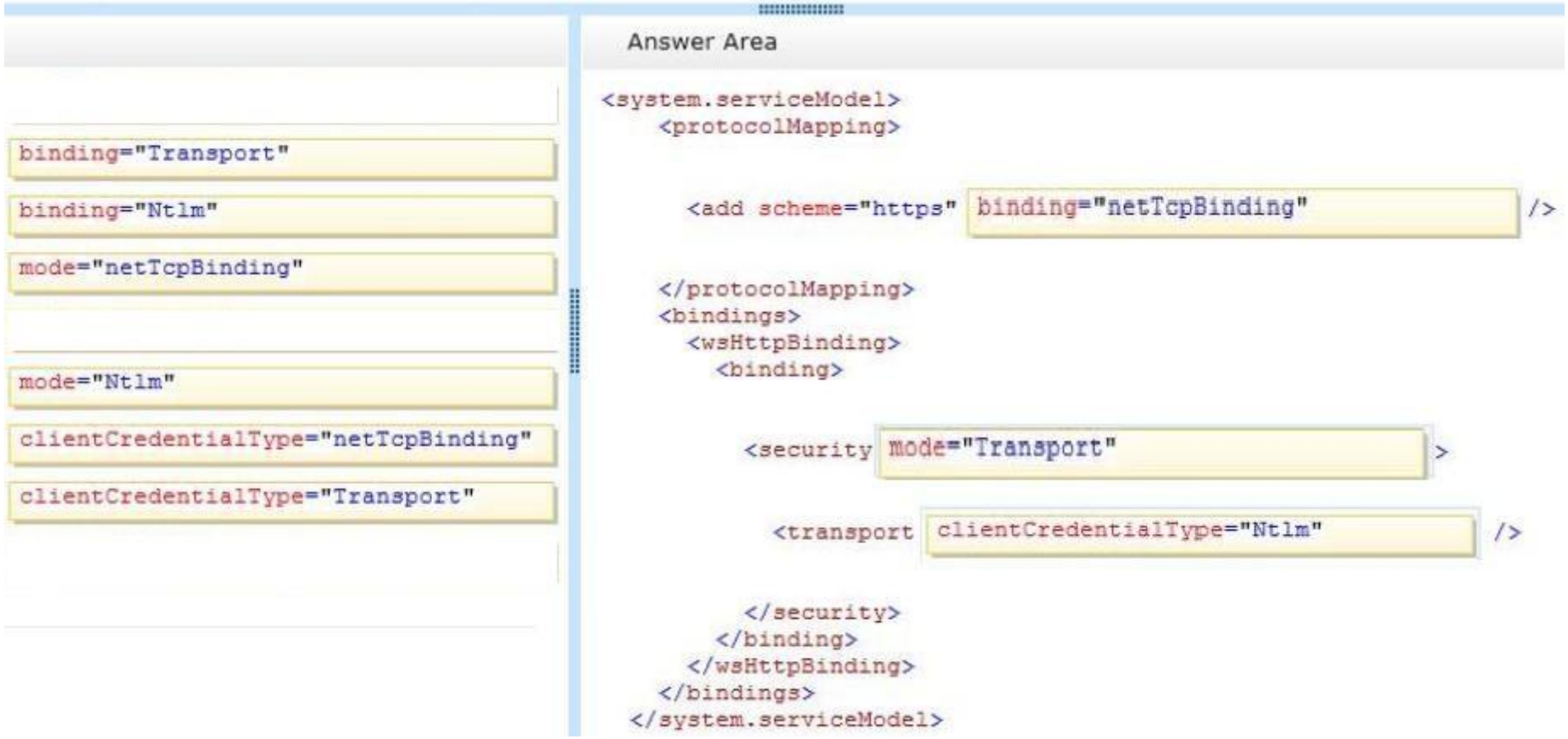

```
<services>
  <service name="RestaurantService.MenuService">

    <endpoint                    ="RestaurantService.IMenuService"

      binding="netTcpRelayBinding"
      address="sb://RestaurantServiceBus.servicebus.windows.net/Menu"
      behaviorConfiguration="sbBehavior"/>
  </service>
</services>
<behaviors>
  <endpointBehaviors>
    <behavior name="sbBehavior">
      <transportClientEndpointBehavior>
        <tokenProvider>
          <sharedSecret

                         ="owner"

                         ="1oAFgNsbaN8+UIN737K="/>

        </tokenProvider>
      </transportClientEndpointBehavior>
    </behavior>
  </endpointBehaviors>
</behaviors>
```

QUESTION 31
You are developing a WCF service.
You need to implement transport security by using NTLM authentication and NetTcpBindings.
Which configuration values should you use? (To answer, drag the appropriate configuration values to the correct location or locations in the answer area. Each configuration value 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.)

Select and Place:



Correct Answer:



Section: [none]
Explanation

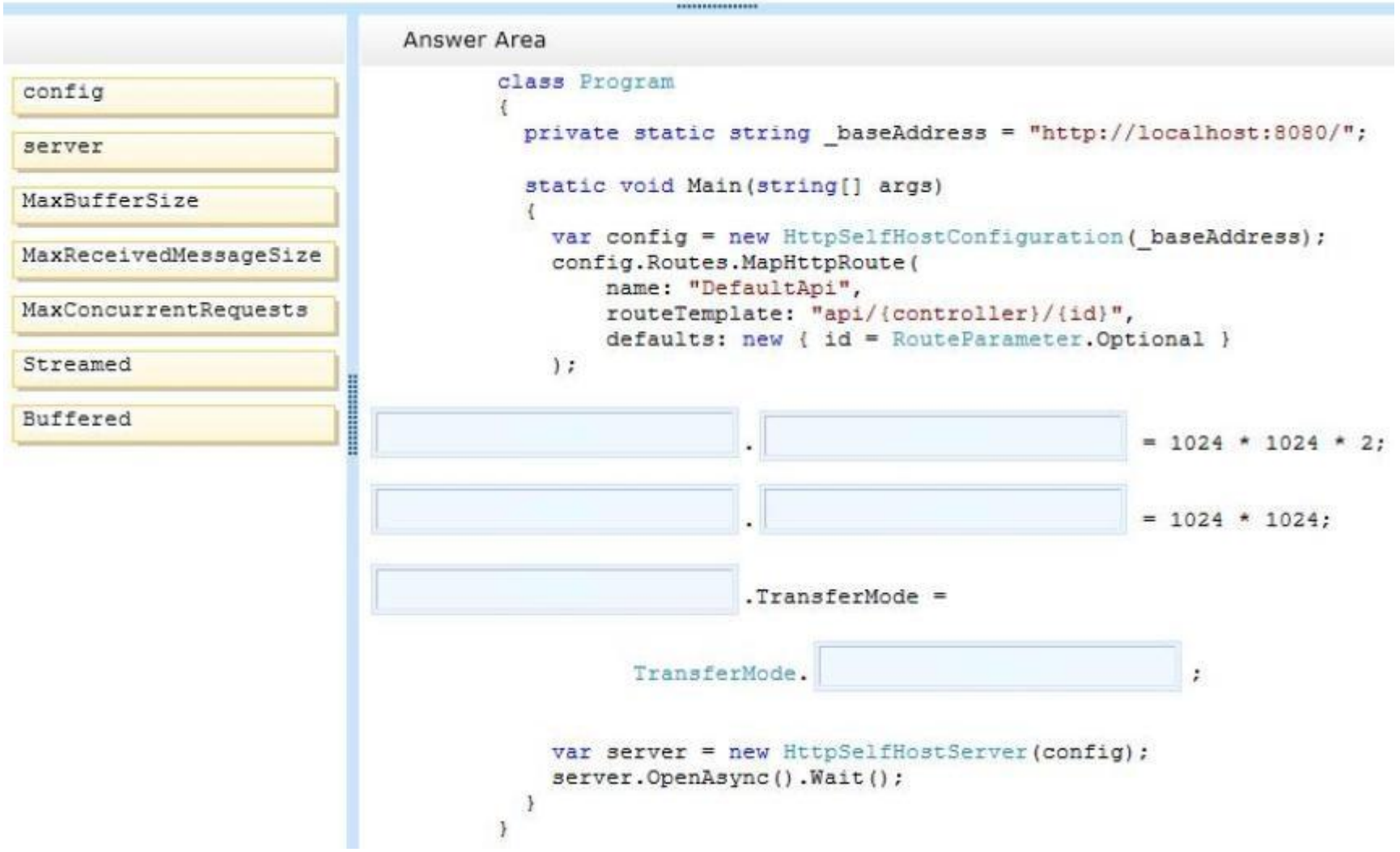
Explanation/Reference:

QUESTION 32
You are developing an ASP.NET MVC Web API application.
The application must meet the following requirements:

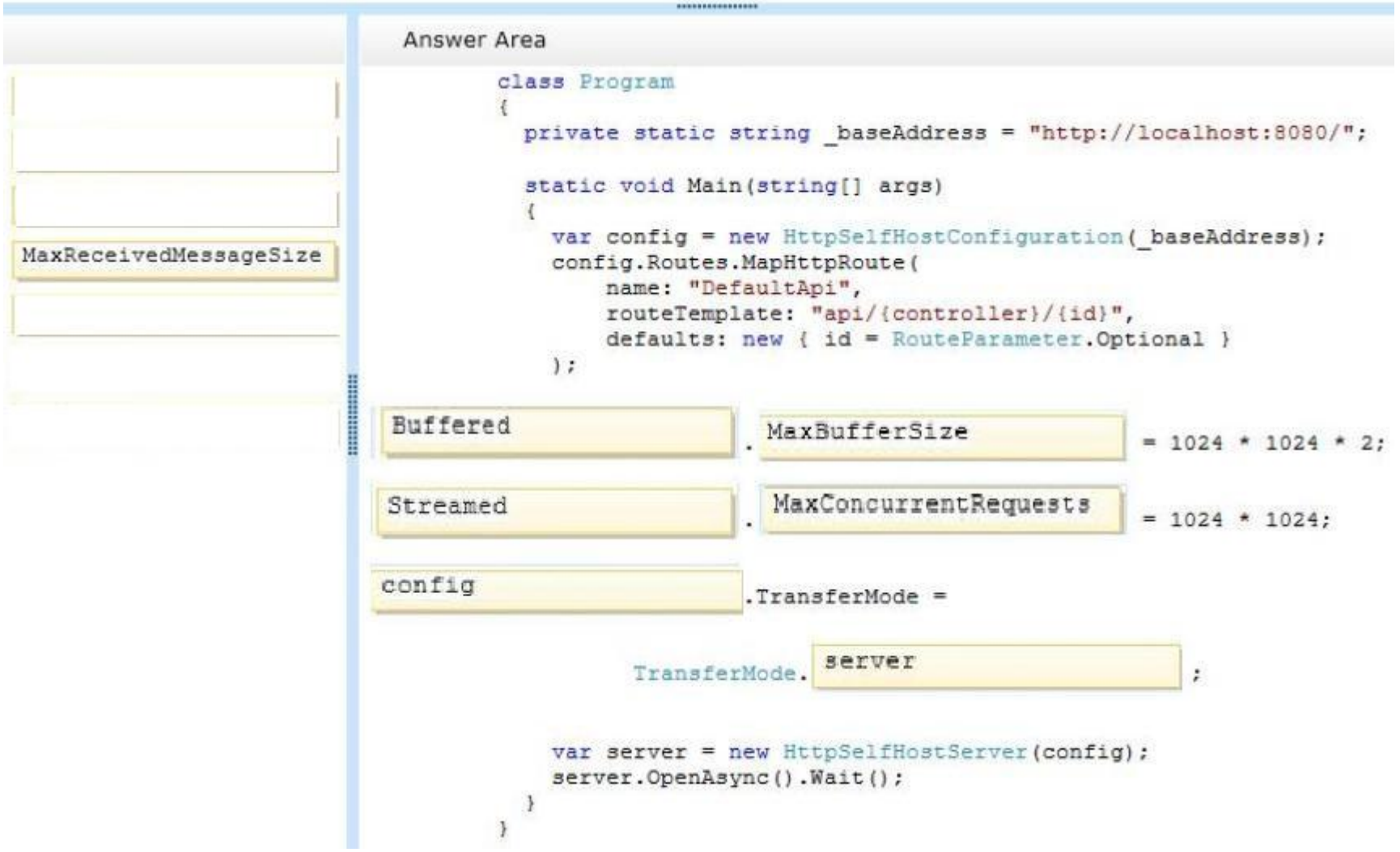
- It must send or receive data without the use of a buffer.
- It must allow up to 1 MB of data to be received.
- It must allow up to 2 MB of data to be sent.

You need to complete the code to meet the requirements.
What should you do? (To answer, drag the appropriate code segments to the correct location or 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.)

Select and Place:



Correct Answer:

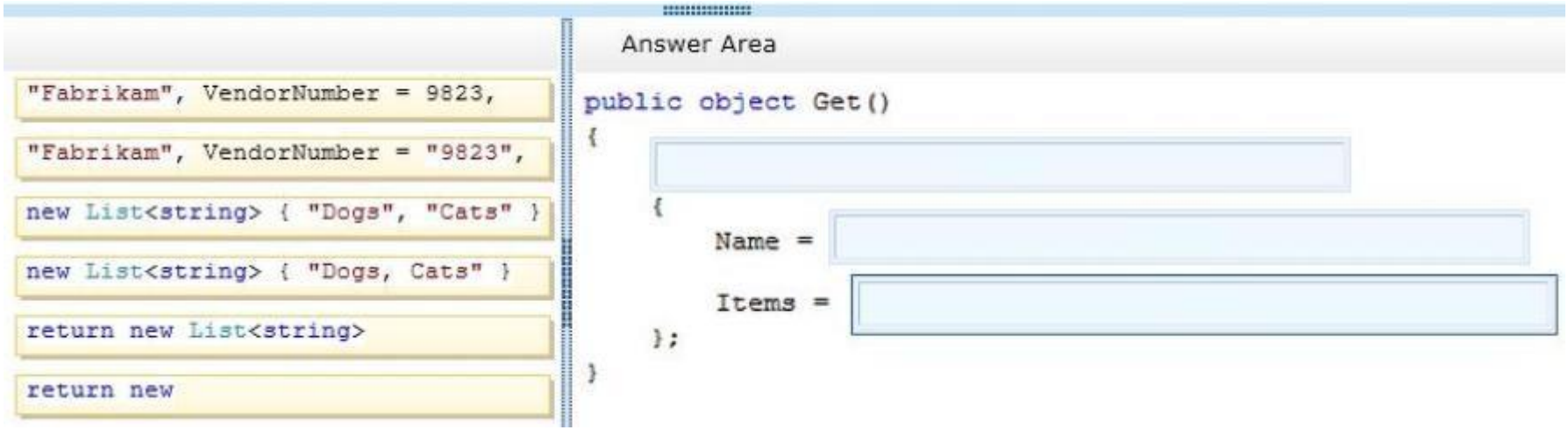


Section: [none]
Explanation

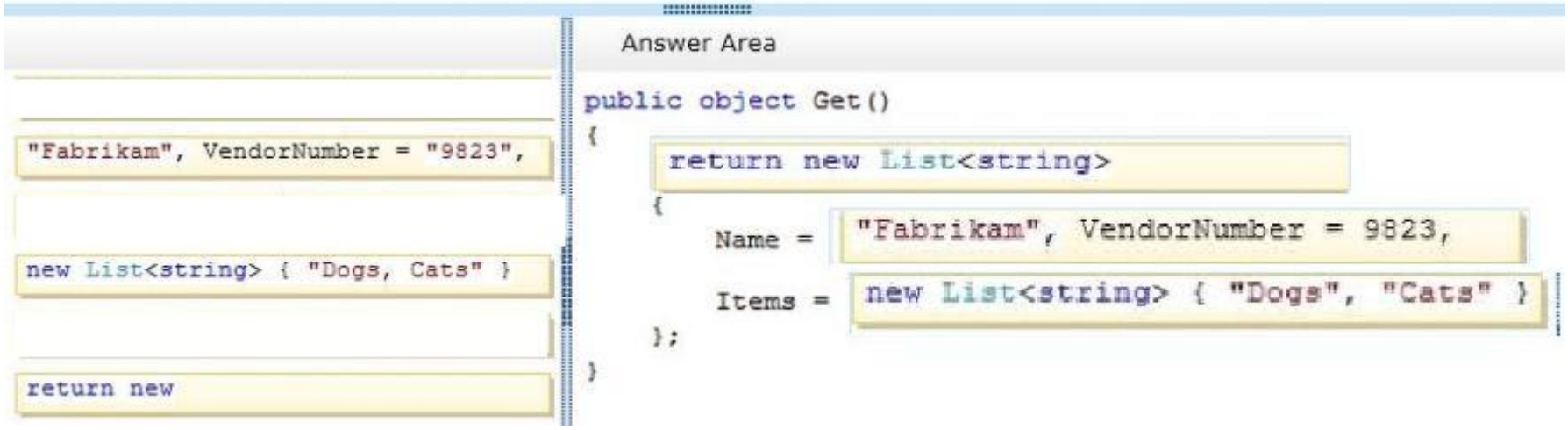
Explanation/Reference:

QUESTION 33
You are developing an ASP.NET Web API action method.
The action method must return the following JSON in the message body.
{"Name": "Fabrikam", "VendorId" :9823, Items": ["Dogs", "Cats") >
You need to return an anonymous object that is serialized to JSON.
What should you do? (To answer, drag the appropriate code segments to the correct location or 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.)

Select and Place:



Correct Answer:



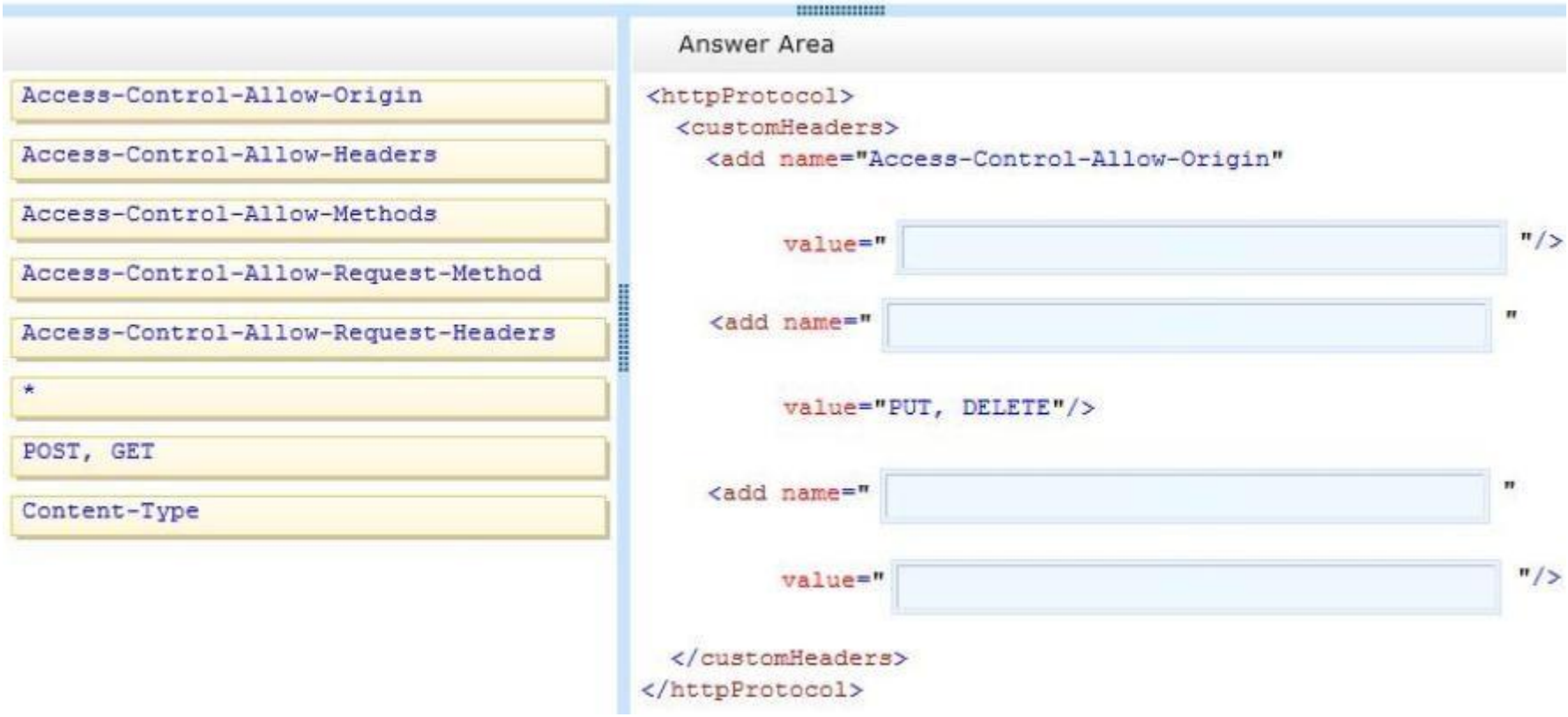
Section: [none]
Explanation

Explanation/Reference:
Box 1: return new List<string>
Box 2: "Fabrikam", VendorNumber=9823,

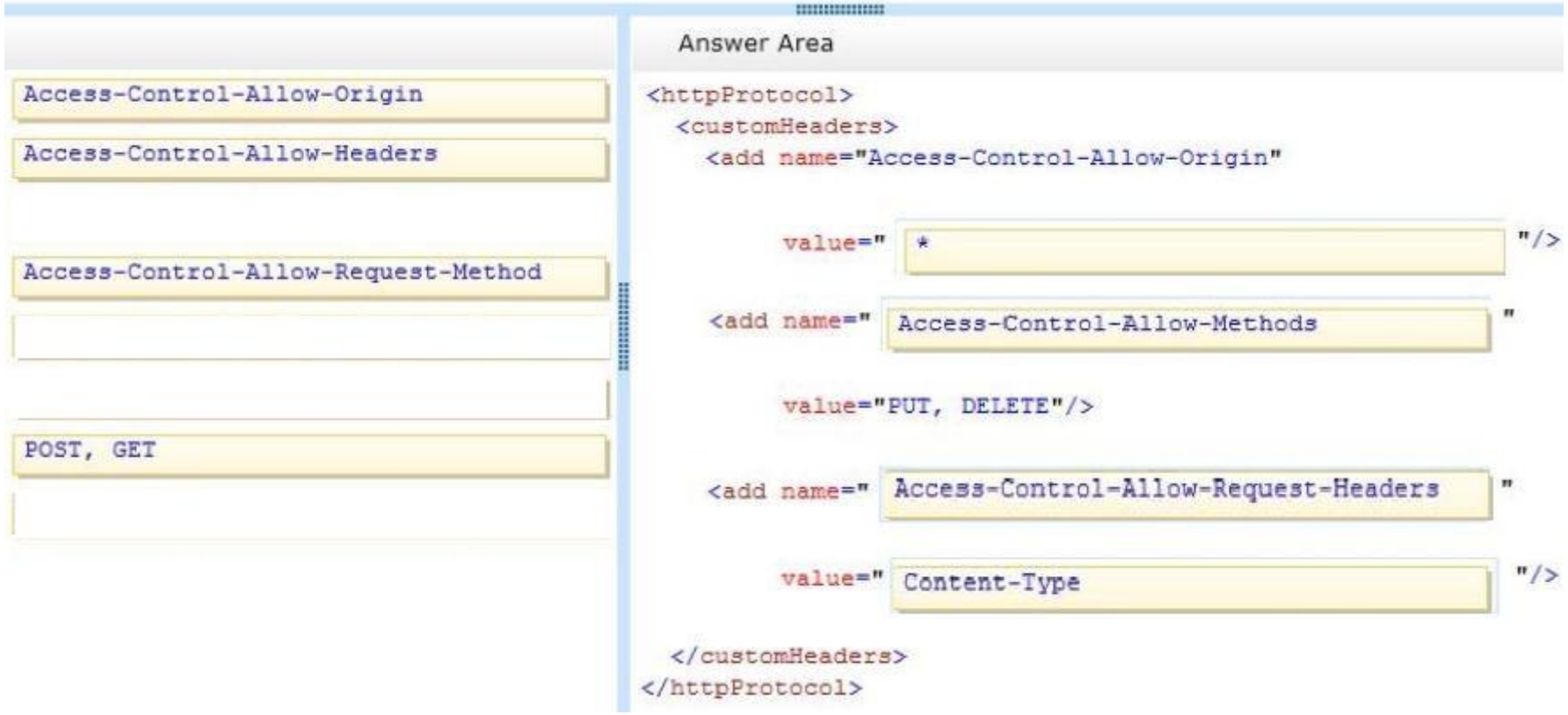
Box 3: new list<string>{"Dogs", "Cats"}

QUESTION 34
You are developing an ASP.NET Web API application for currency conversion that will be consumed by a web browser by using a composite application that is served from another web domain.
You need to configure the Web API.
What should you do? (To answer, drag the appropriate XML elements to the correct location or locations in the answer area. Each XML 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.)

Select and Place:

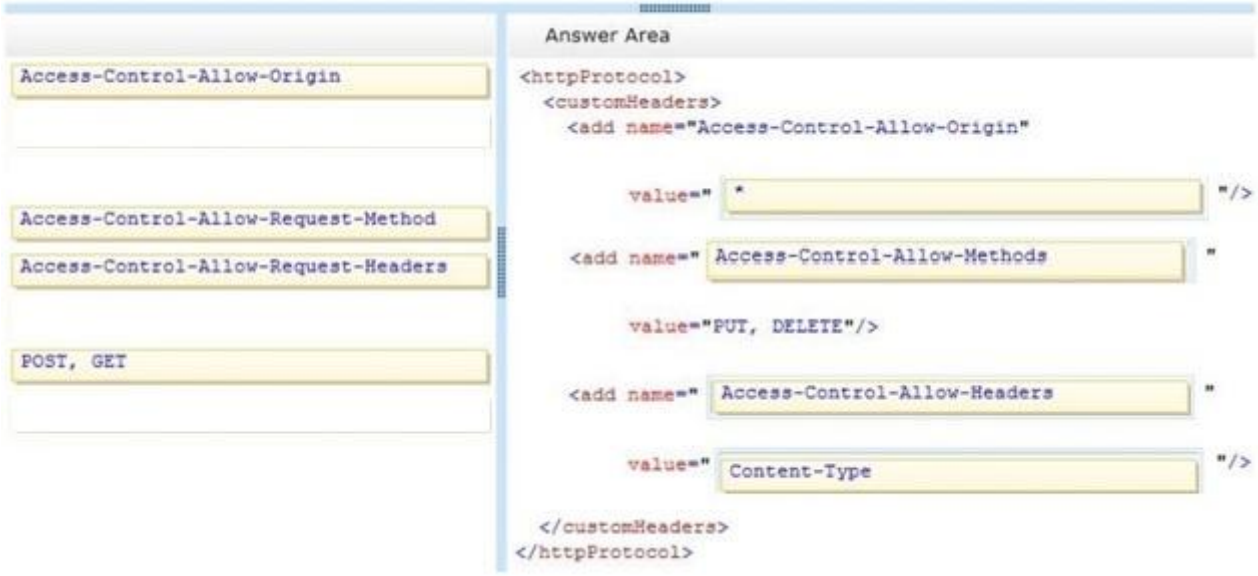


Correct Answer:



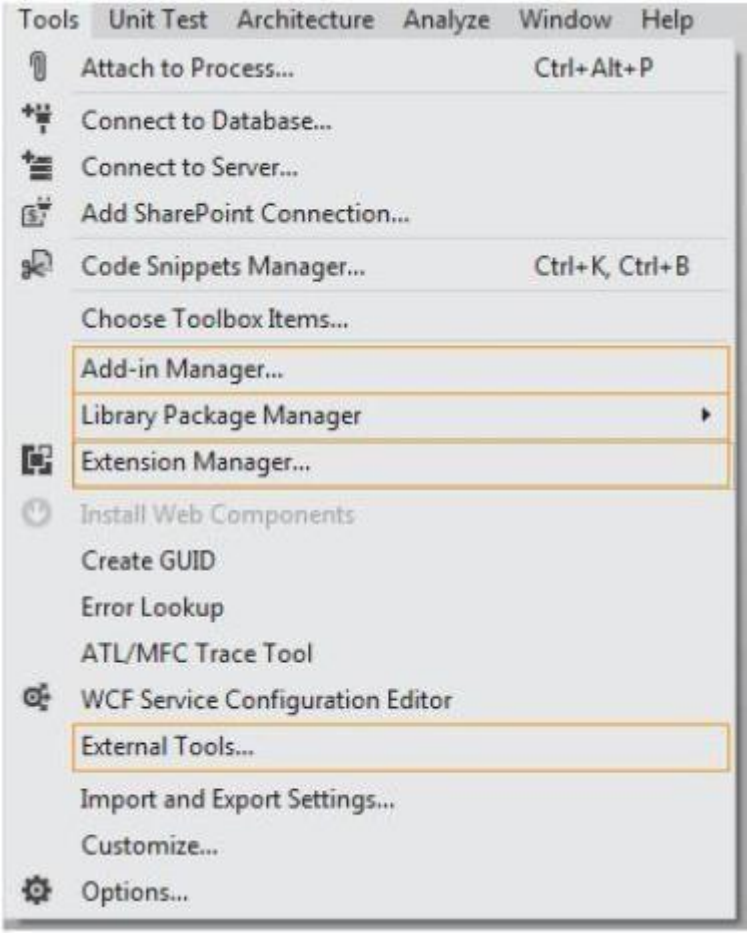
Section: [none]
Explanation

Explanation/Reference:

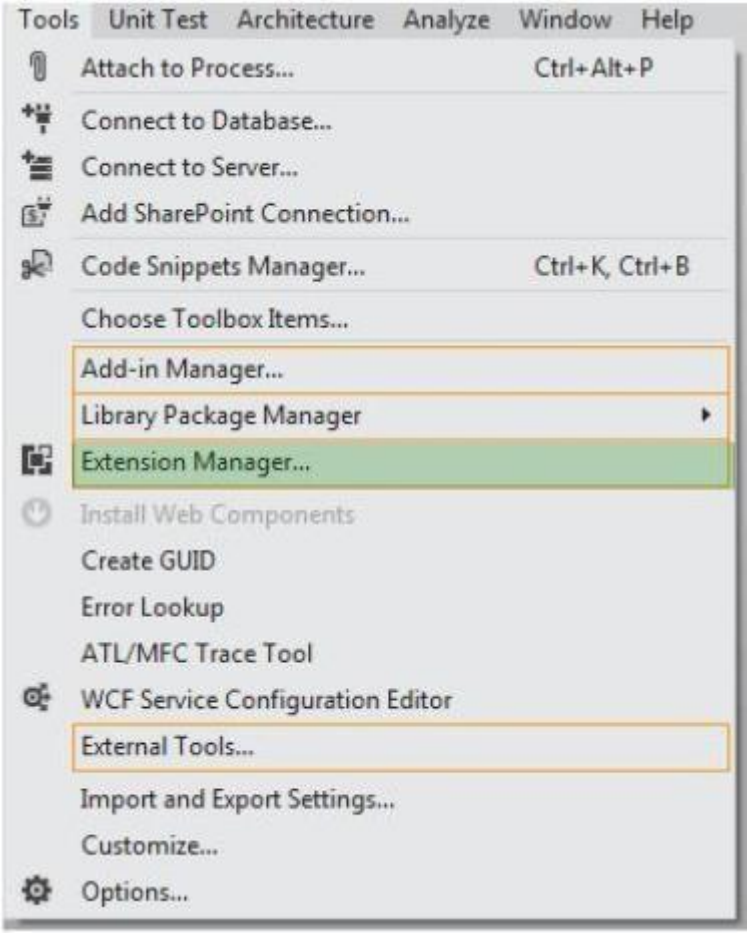


QUESTION 35
You are supporting an application that uses the ADO.NET Entity Framework to query and access data.
The latest version of Entity Framework contains bug fixes that will improve performance.
You need to update Entity Framework.
Which Visual Studio 2012 menu item should you choose? (To answer, select the appropriate menu item in the answer area.)

Hot Area:

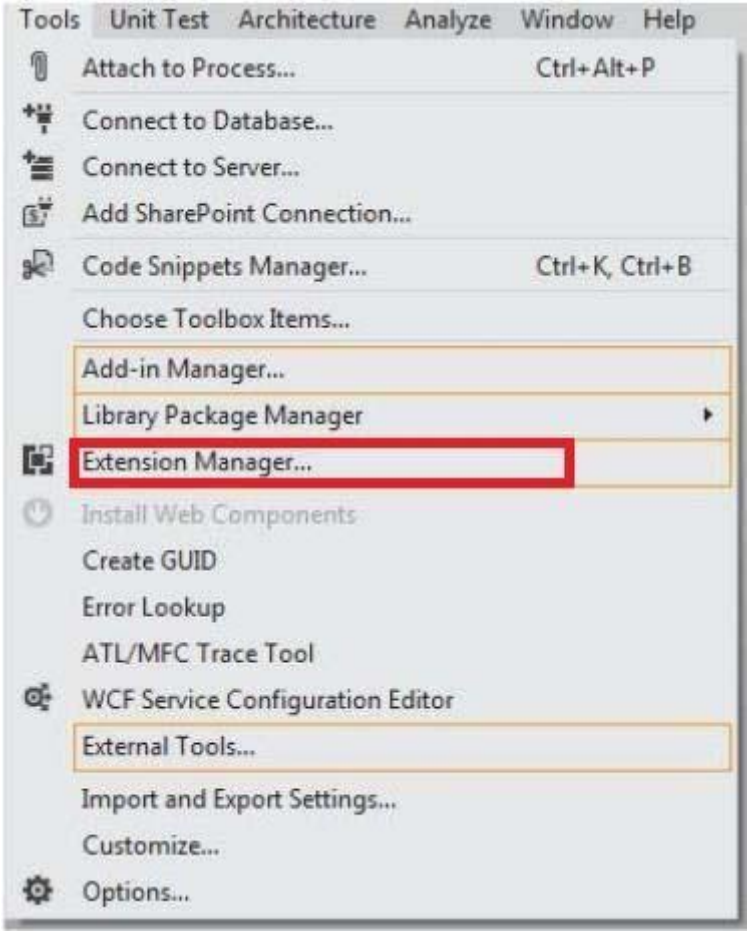


Correct Answer:



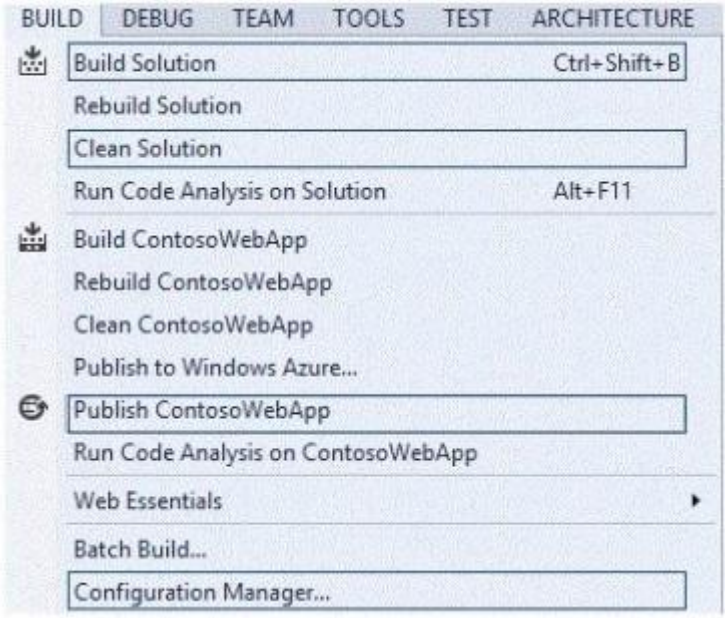
Section: [none]
Explanation

Explanation/Reference:

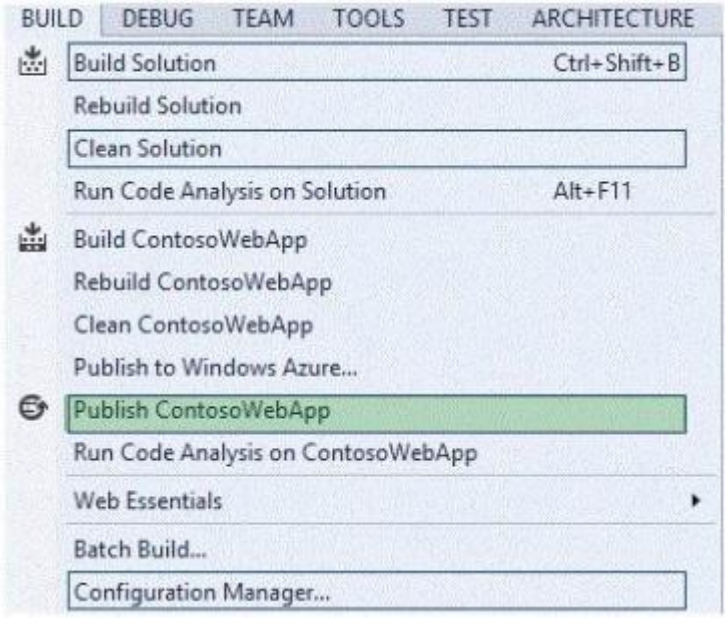


QUESTION 36
You are developing an ASP.NET MVC application named ContosoWebApp. You are ready to deploy the application to your production web server.
You need to import the publishing profile.
Which menu item should you use? (To answer, select the appropriate menu item in the answer area).

Hot Area:

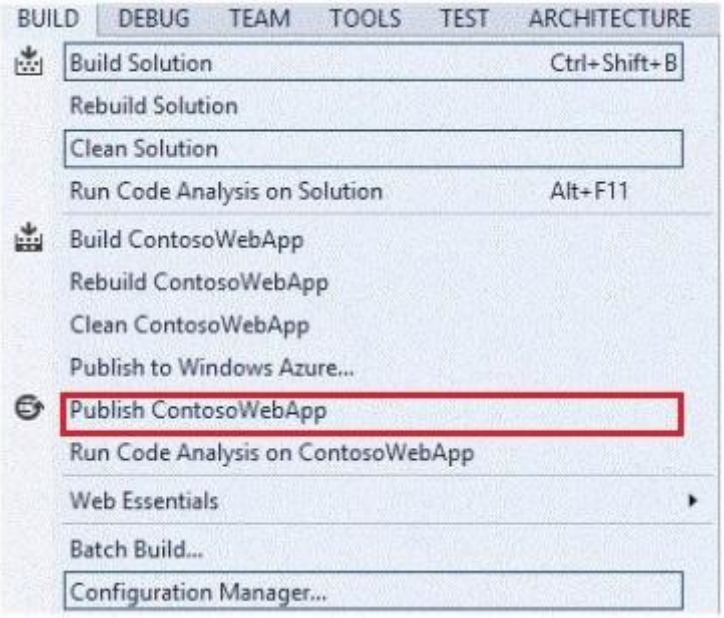


Correct Answer:



Section: [none]
Explanation

Explanation/Reference:

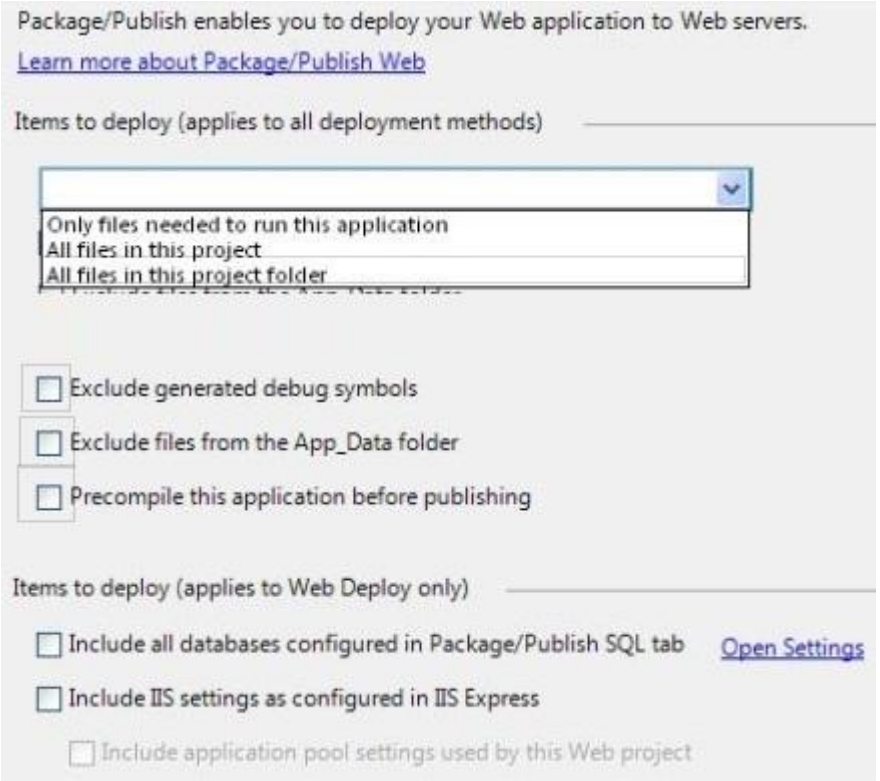


QUESTION 37
You are developing an ASP.NET MVC application. It is ready for deployment to the production web server.
A local SQL Express .MDF file was used by the application during development
The deployment has the following requirements:

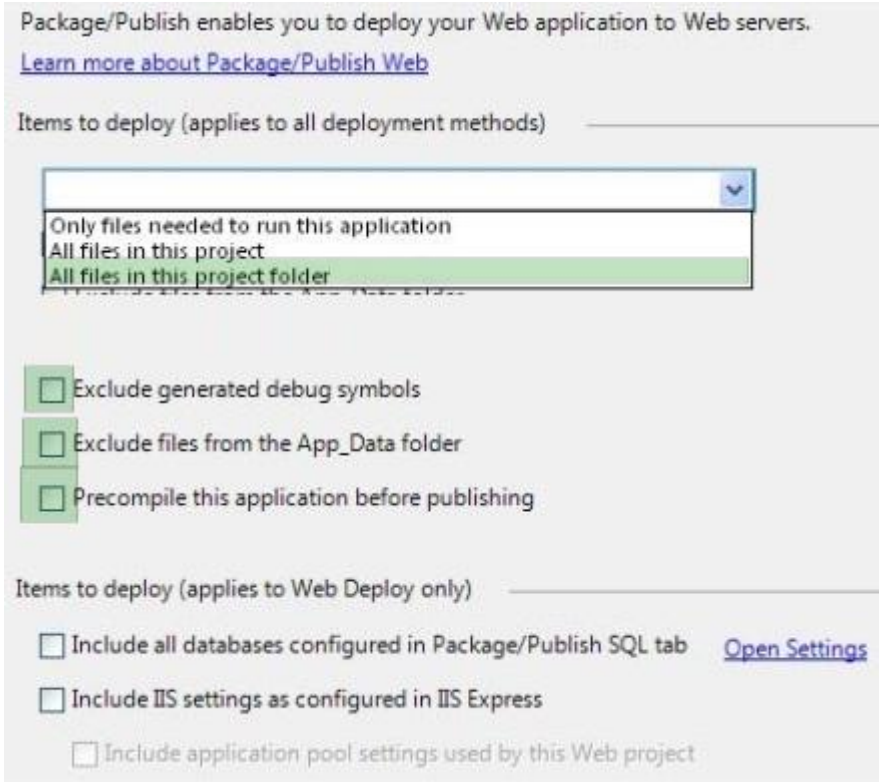
- The deployment must merge the assemblies on the local machine with those on the host.
- The deployment must publish the local database to the remote Microsoft SQL server.

You need to configure the web package settings for deployment.
Which settings should you use? (To answer, select the appropriate setting or settings in the answer area.)

Hot Area:

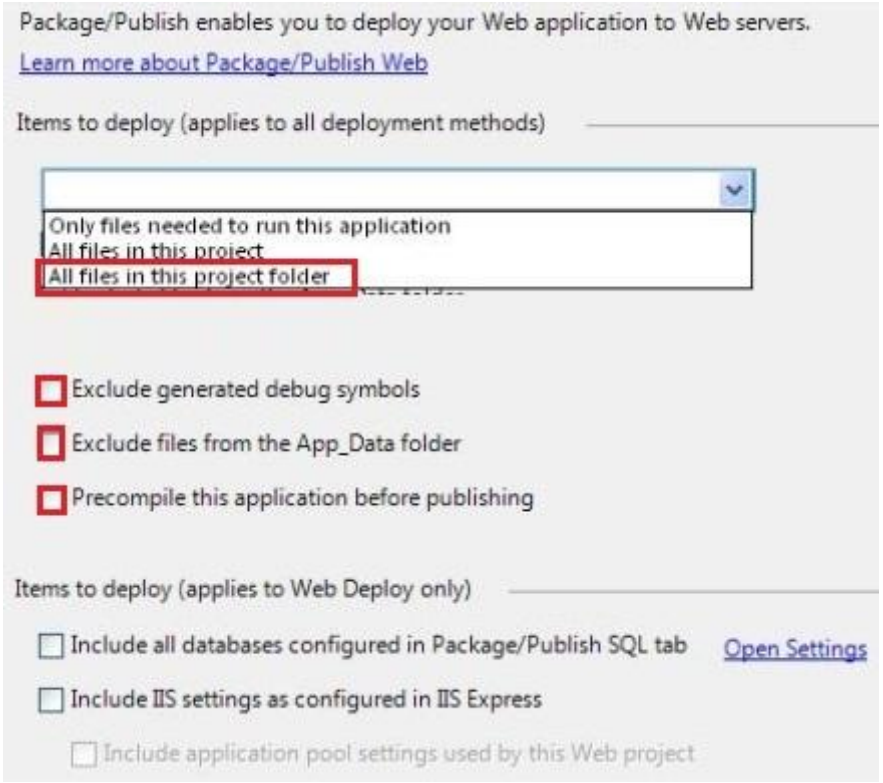


Correct Answer:



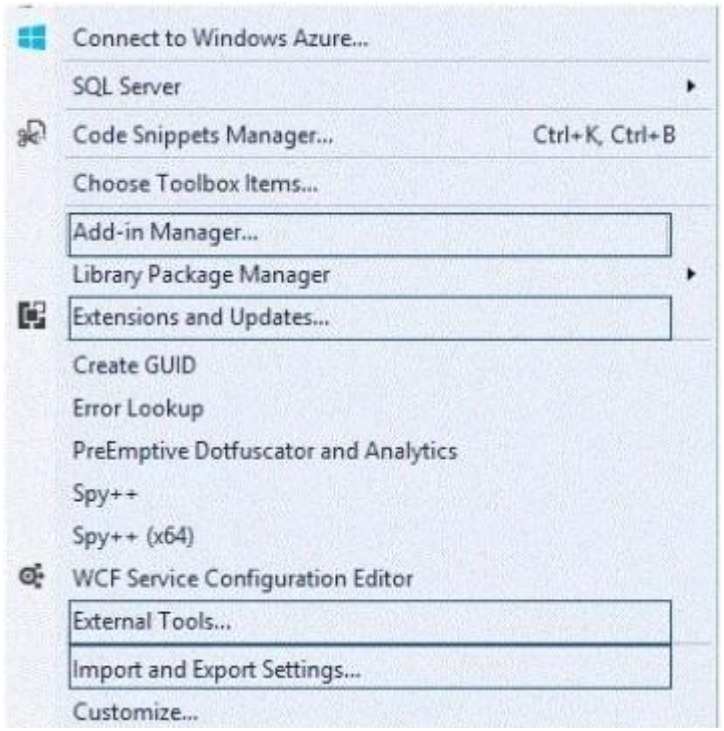
Section: [none]
Explanation

Explanation/Reference:

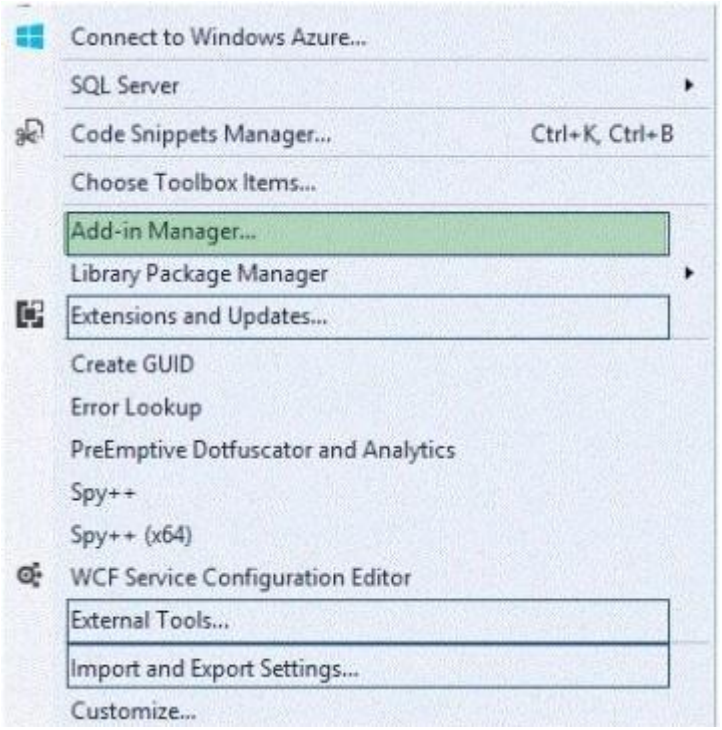


QUESTION 38
You are supporting an application that uses the ADO.NET Entity Framework to query and access data.
The latest version of a tool will add new templates and wizards that will enhance developer productivity.
You need to update the tool.
Which Visual Studio 2012 menu item should you choose? (To answer, select the appropriate menu item in the answer area.)

Hot Area:

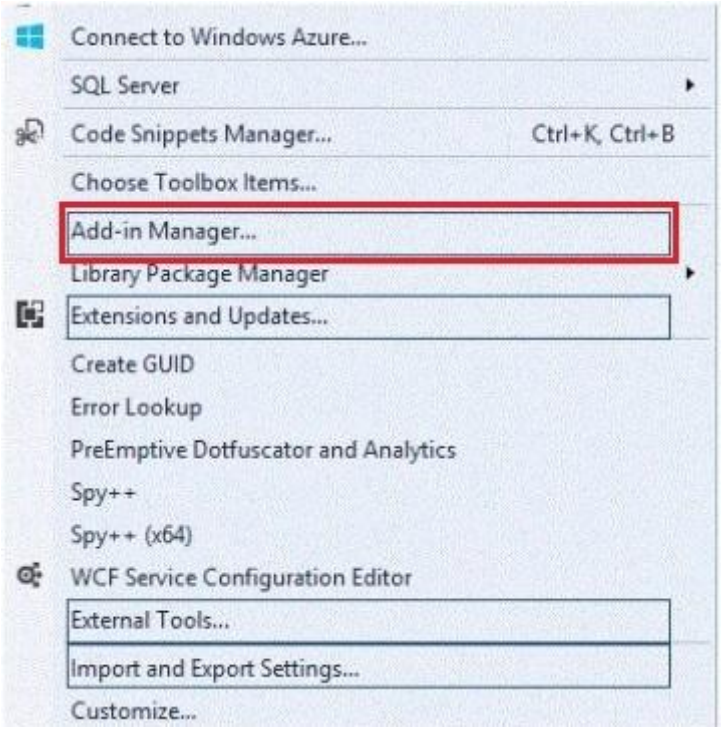


Correct Answer:



Section: [none]
Explanation

Explanation/Reference:



QUESTION 39
You are developing a WCF service application.
The application must meet the following requirements:

- Operations must have 30 second timeouts.
- The service must have a transaction scope.
- Transactions must flow from the client to the server.

You need to write a transactional service contract and implementation class to meet the requirements.
You have the following code:

```
Target 1
interface ITransactionalService
{
  [OperationContract]
  Target 2
  Guid Foo (string x1, int x2);
}
Target 3
public class TransactionService: ITransactionService
{
  Target 4
  public Guid Foo (string x1, int x2}
  {
  throw new NotImplementedException ();
  }
}
```

Which code segments should you include in Target 1, Target 2, Target 3 and Target 4 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.)

Select and Place:

Code Segments

```
[TransactionFlow(TransactionFlowOption.Allowed)]
```

```
[TransactionFlow(TransactionFlowOption.Mandatory)]
```

```
[OperationBehavior(TransactionScopeRequired = true)]
```

```
[OperationBehavior(TransactionScope.Required)]
```

```
[ServiceBehavior(TransactionTimeout = "00:00:30")]
```

```
[ServiceBehavior(TransactionTimeout = 30)]
```

```
[ServiceContract]
```

Answer Area

Target 1:

Code Segment

Target 2:

Code Segment

Target 3:

Code Segment

Target 4:

Code Segment

Correct Answer:

Section: [none]
Explanation

Explanation/Reference:

Target 1:

```
[ServiceContract]
```

Target 2:

```
[TransactionFlow(TransactionFlowOption.Mandatory)]
```

Target 3:

```
[ServiceBehavior(TransactionTimeout = "00:00:30")]
```

Target 4:

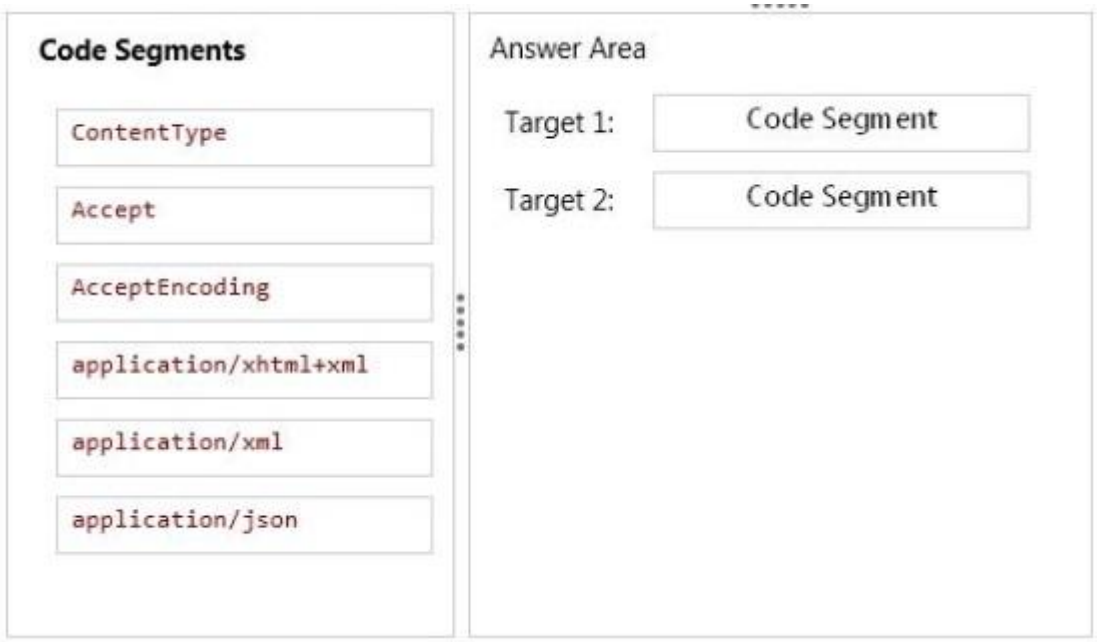
```
[OperationBehavior(TransactionScopeRequired = true)]
```

QUESTION 40
You are developing a .NET application that uses the HttpClient type to access an ASP.NET Web API application.
You need to add a header to specify that data is returned as JSON. You have the following code:

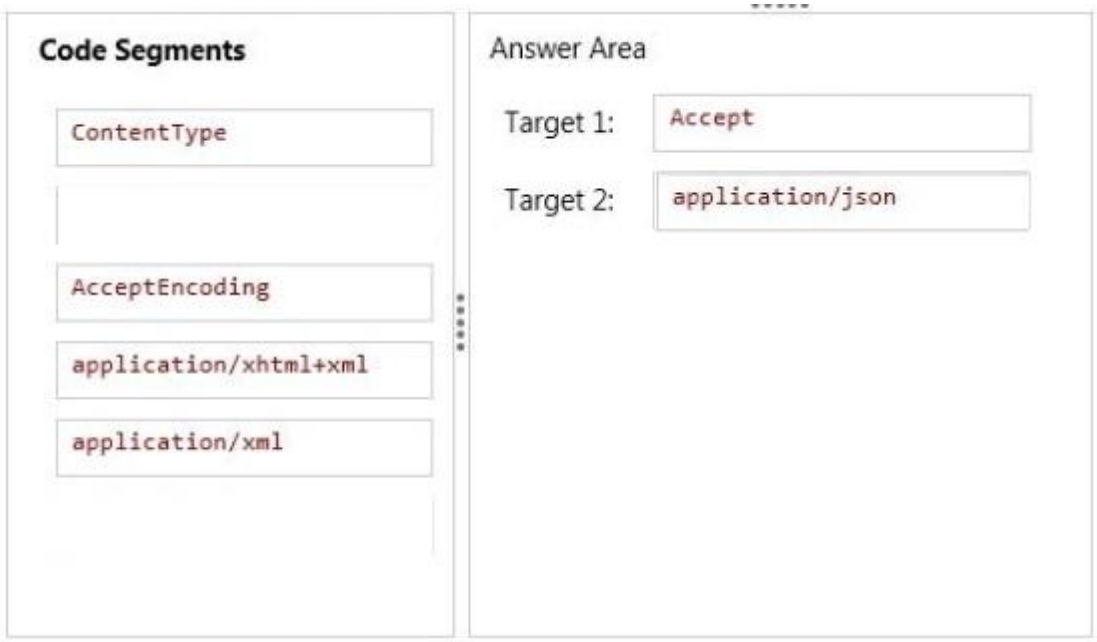
```
HttpClient client = new HttpClient () ;
Client.DefaultRequestHeaders.
    Add("Target 1", "Target 2");
```

Which code segments should you include in Target 1 and Target 2 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)

Select and Place:



Correct Answer:



Section: [none]
Explanation

Explanation/Reference:

QUESTION 41
You are updating an existing multitenant ASP.NET MVC application for medical clinics. The application aggressively uses output caching to improve performance by caching content for 36 hours. The application uses a query string parameter named "clinicID" that contains the clinic that the user is currently viewing.
Users report that they are occasionally seeing data for the wrong clinic. Users also report that sensitive data is stored in the browser cache folder on their computers.

You need to configure web.config to resolve the reported problems.
You have the following markup:

```
<caching>
  <outputCacheSettings>
    <outputCacheProfiles>
      <clear />
      <add name="primaryCache"
        Target 1
        Target 2
        Target 3 >/
    </outputCacheProfiles>
  </outputCacheSettings>
</caching>
```

Which markup segments should you include in Target 1, Target 2 and Target 3 to complete the markup? (To answer, select the correct markup segment from each drop-down list in the answer area.)

Hot Area:

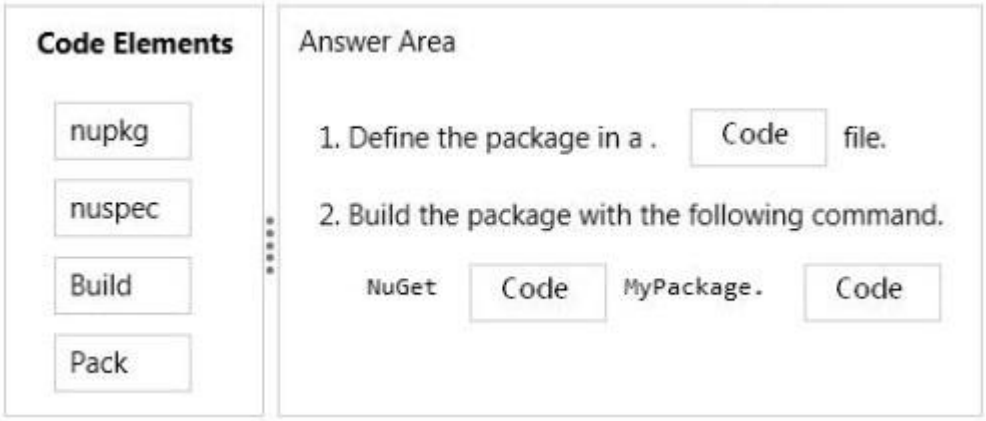
Correct Answer:

Section: [none]
Explanation

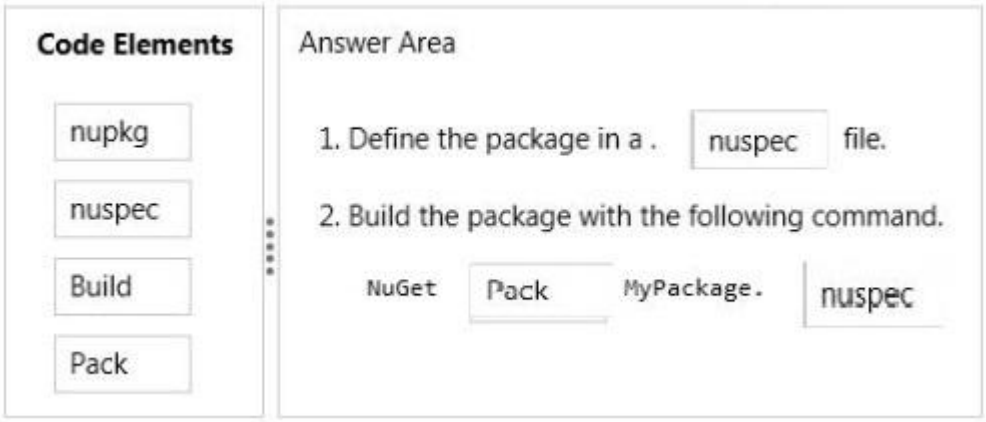
Explanation/Reference:

QUESTION 42
You have a UI element library.
You need to build a NuGet package to integrate the library into your projects.
What should you do? (To answer, drag the appropriate code elements to the correct location or locations 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.)

Select and Place:



Correct Answer:



Section: [none]
Explanation

Explanation/Reference:

1. Define the package in a . nuspec file.

2. Build the package with the following command.

NuGet Pack MyPackage. nuspec

Reference: Creating and Publishing a Package
http://docs.nuget.org/create/creating-and-publishing-a-package

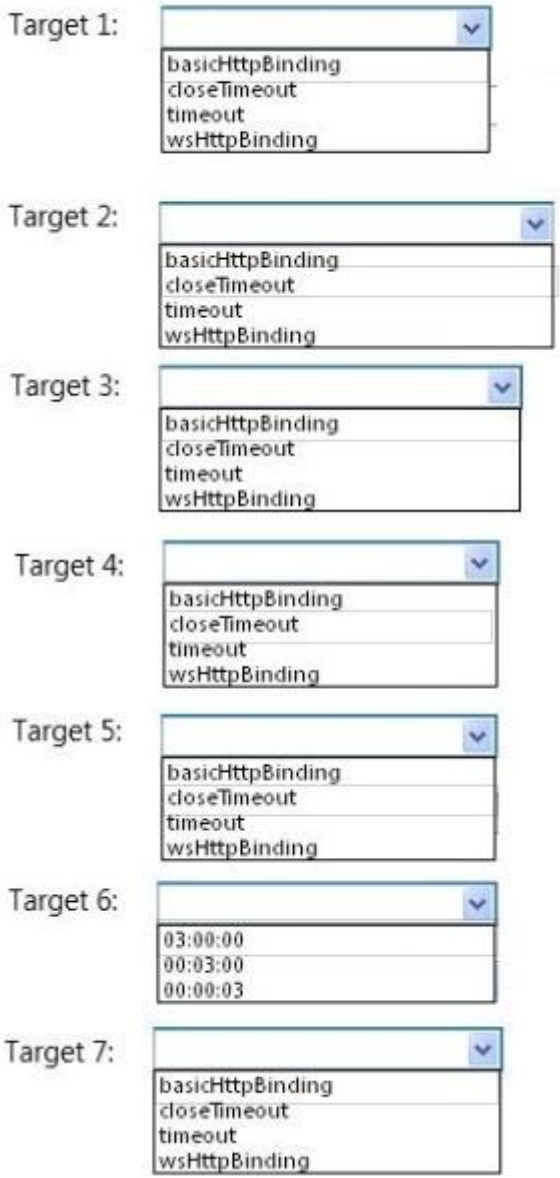
QUESTION 43
You are developing a WCF service.
The service must be interoperable with ASP.NET web service clients. In addition, it must have a time-out of three hours.
You need to configure the service to meet the requirements.
You have the following markup:

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
  <system.serviceModel>
    <services>
      <service name="MyNamespace.Orderservice">
        <endpoint address=""
                  contract="MyNamespace.IOrderservice"
                  binding="Target 1"
                  bindingConfiguration="Target 2">
        </endpoint>
      </service>
    </services>
  <bindings>
    <Target 3>
      <binding name="Target 4"
       Target 5="Target 6"/>
    </Target 7>
  </bindings>
  </system.serviceModel>
</configuration>
```

Which markup segments should you include in Target 1, Target 2, Target 3, Target 4, Target 5, Target 6 and Target 7 to complete the markup? (To answer, select the appropriate markup segment from each drop-down list in the answer area.)

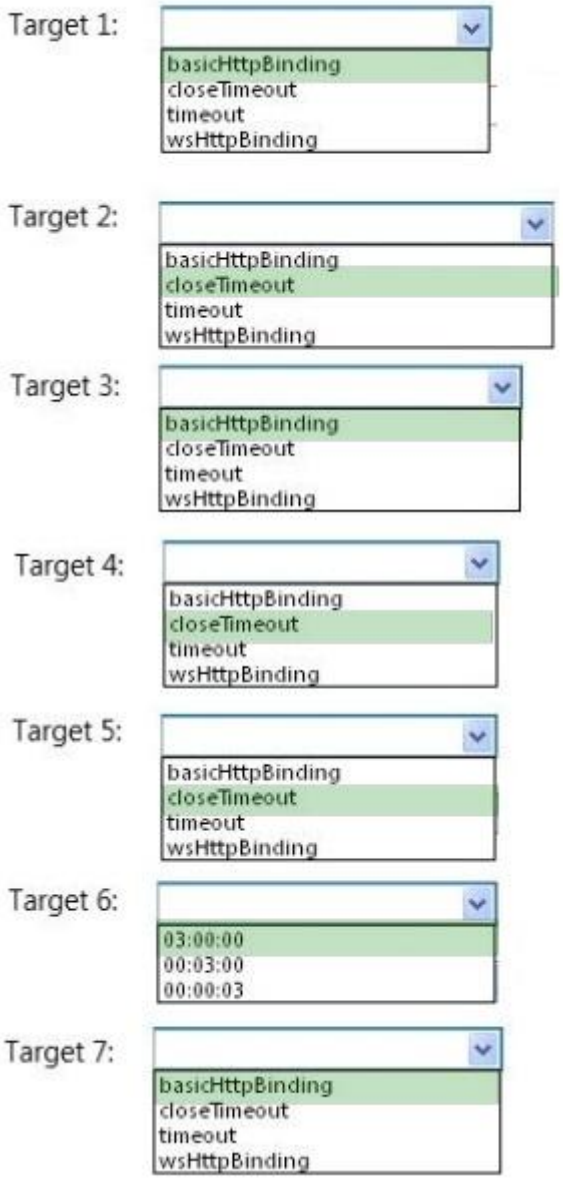
Hot Area:

Answer Area



Correct Answer:

Answer Area



Section: [none]
Explanation

Explanation/Reference:

Answer Area

Target 1:

- basicHttpBinding
- closeTimeout
- timeout
- wsHttpBinding

Target 2:

- basicHttpBinding
- closeTimeout
- timeout
- wsHttpBinding

Target 3:

- basicHttpBinding
- closeTimeout
- timeout
- wsHttpBinding

Target 4:

- basicHttpBinding
- closeTimeout
- timeout
- wsHttpBinding

Target 5:

- basicHttpBinding
- closeTimeout
- timeout
- wsHttpBinding

Target 6:

- 03:00:00
- 00:03:00
- 00:00:03

Target 7:

- basicHttpBinding
- closeTimeout
- timeout
- wsHttpBinding

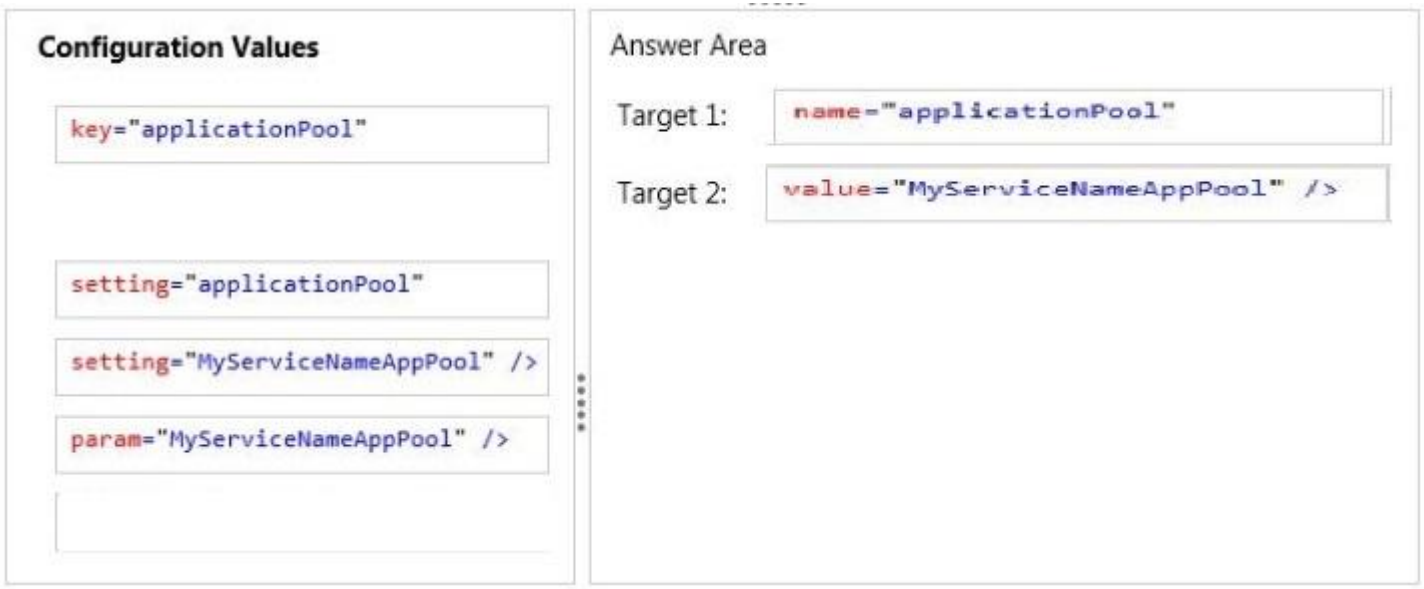
QUESTION 44
You are configuring a web application for deployment.
You need to create a SetParameters.xml file to configure the IIS application pool.
You have the following markup:

```
<?xml version="1.0" encoding="UTF-8"?>
<parameters>
  <setParameter
      Target 1
      Target 2
</parameters>
```

Which configuration values should you include in Target 1 and Target 2 to complete the markup?
(To answer, drag the appropriate configuration values to the correct targets in the answer area.
Each configuration value 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.)

Select and Place:

Correct Answer:



Section: [none]
Explanation

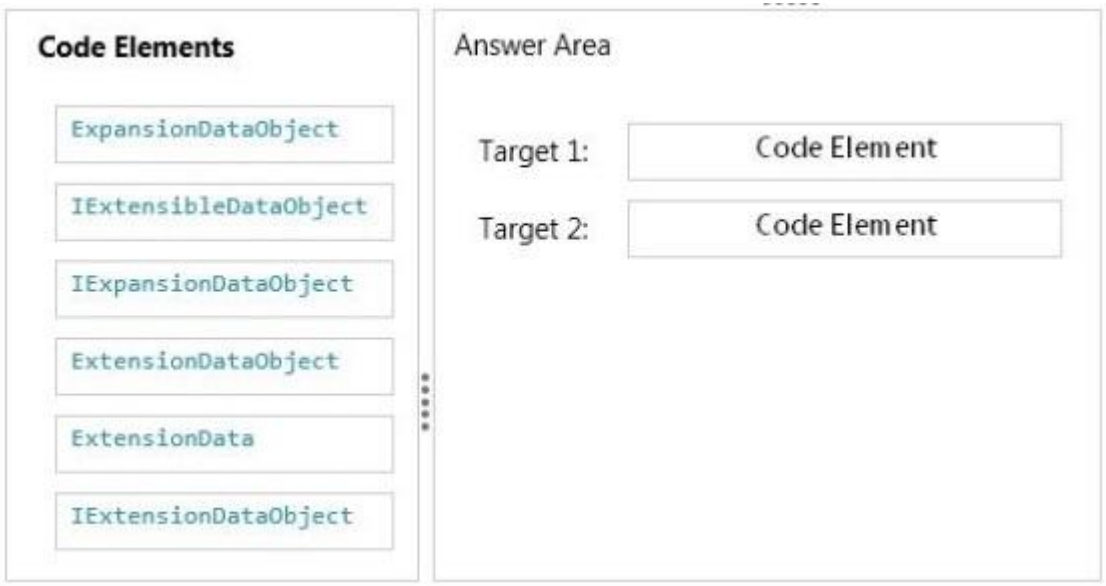
Explanation/Reference:

QUESTION 45
You are supporting a WCF data contract that returns a price calculation that can be expanded to add new data members.
Clients using the old version of the data contract must be supported.
You need to define the data contract so that the data serializer can put unknown data members into a property bag.
You have the following code:

```
[DataContract]
public class PriceCalculationResponse : Target 1
{
  public Target 2 ExtensionData { get; set;}
  [DataMember]
  public int Flag { get; set; }
  [DataMember]
  public double Price { get; set; }
  [DataMember]
  public string Currency { get; set; }
}
```

Which code segments should you include in Target 1 and Target 2 to complete the data contract? (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.)

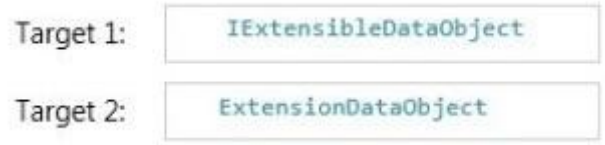
Select and Place:



Correct Answer:

Section: [none]
Explanation

Explanation/Reference:



QUESTION 46
You are developing a RESTful application by using ASP.NET MVC. The application is a pet management system and implements the following method in a controller for retrieving pet data.

```
public Pet Get(int id)
{
  return new PetRepository().GetPetById(id);
}
```

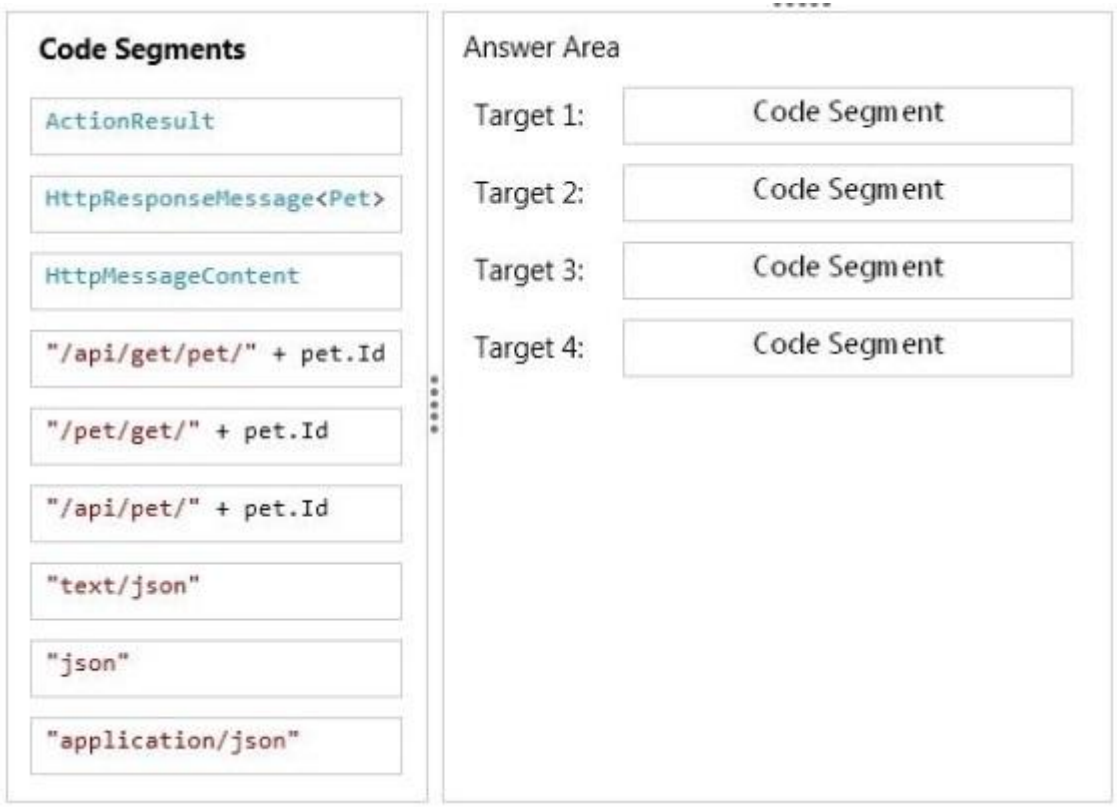
The method must only accept JSON data using the standard MIME type.
You need to implement a controller that saves pet data and return a properly formatted HTTP/1.1

protocol response.
You have the following code:

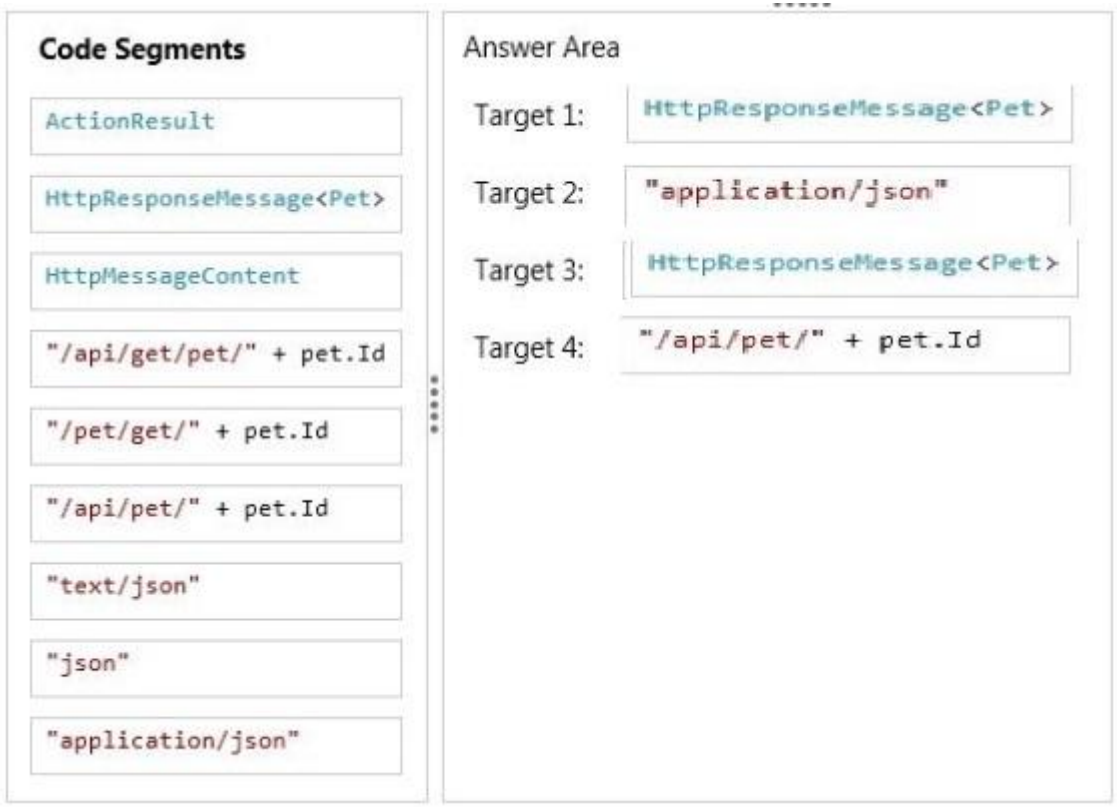
```
public Target 1 Post ()
{
     if (Request.Content.Headers.ContentType.MediaType !=

      Target 2)
      {
         throw new HttpResponseException(JsonMessage);
      }
      Pet pet = new Pet ();
      var response = new Target 3  (pet,
       HttpStatusCode.Created);
      var relativePath = Target 4 ;
      response.Headers.Location = new Uri (Request.RequestUri,
        relativePath);
      return response;
 }
```

Which code segments should you include in Target 1, Target 2, Target 3 and Target 4 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.)

Select and Place:



Correct Answer:



Section: [none]
Explanation

Explanation/Reference:

Target 1:	`HttpResponseMessage<Pet>`
Target 2:	`"application/json"`
Target 3:	`HttpResponseMessage<Pet>`
Target 4:	`"/api/pet/" + pet.Id`

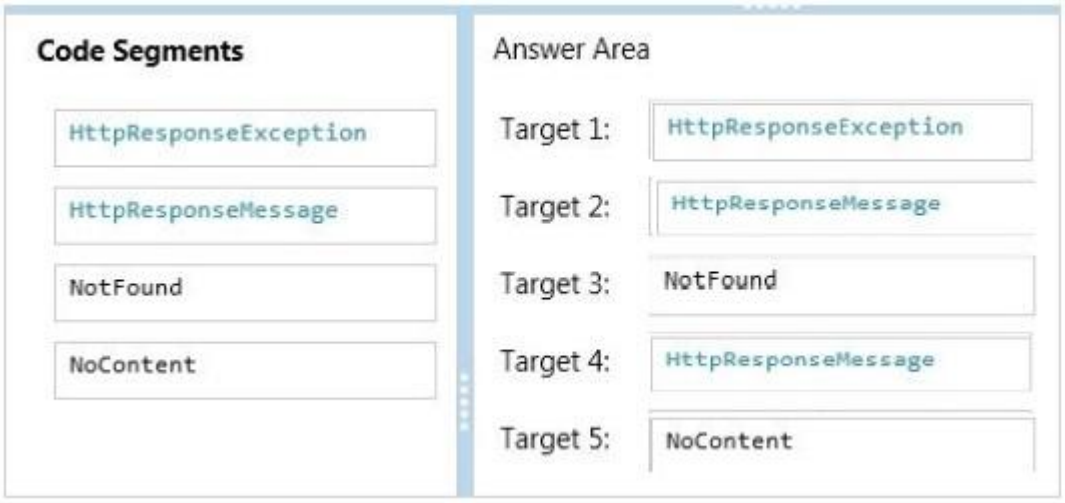
QUESTION 47
You are developing an ASP.NET MVC Web API application.
The methods of the Web API must return details about the result of the operation.
You need to create methods to update and delete products.
You have the following code:

```
public void PutProduct (int id, Product contact)
{
  contact.Id = id;
  if (!repository.Update(contact))
  {
    throw new  Target 1 (
      new Target 2 (
      HttpStatusCode. Target 3 ));
  }
}
public HttpResponseMessage DeleteProduct (int id)
{
  repository.Remove (id);
  return new Target 4  (
     HttpStatusCode. Target 5  );
```

Which code segments should you include in Target 1, Target 2, Target 3, Target 4 and Target 5 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.)

Select and Place:

Correct Answer:



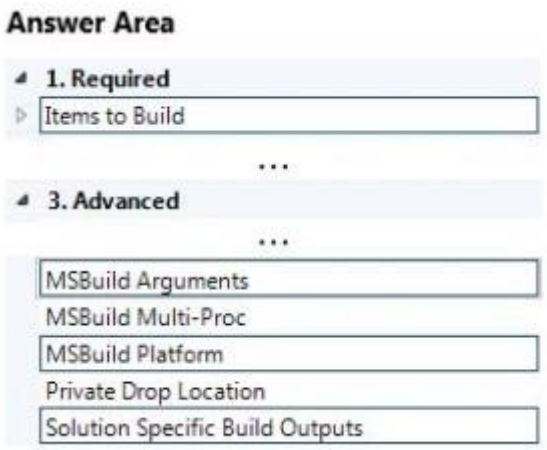
Section: [none]
Explanation

Explanation/Reference:

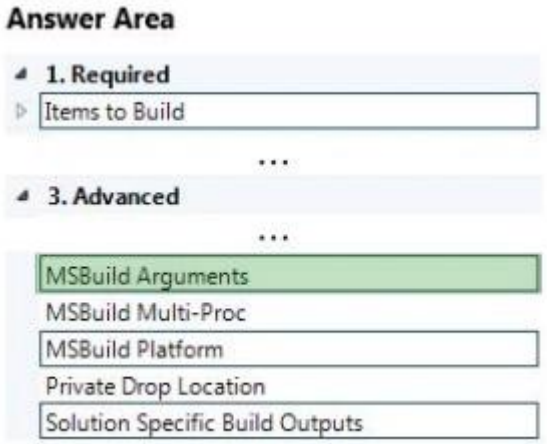
QUESTION 48
You are developing an application.
The application must be deployed from Team Foundation Server after a successful build is completed. The Process tab of the Build Definition screen is shown in the exhibit. (Click the Exhibit button.)

You need to configure the automated deployment.
In which section should you define the parameters for the automated deployment? (To answer, select the appropriate section in the answer area.)

Hot Area:



Correct Answer:



Section: [none]
Explanation

Explanation/Reference:

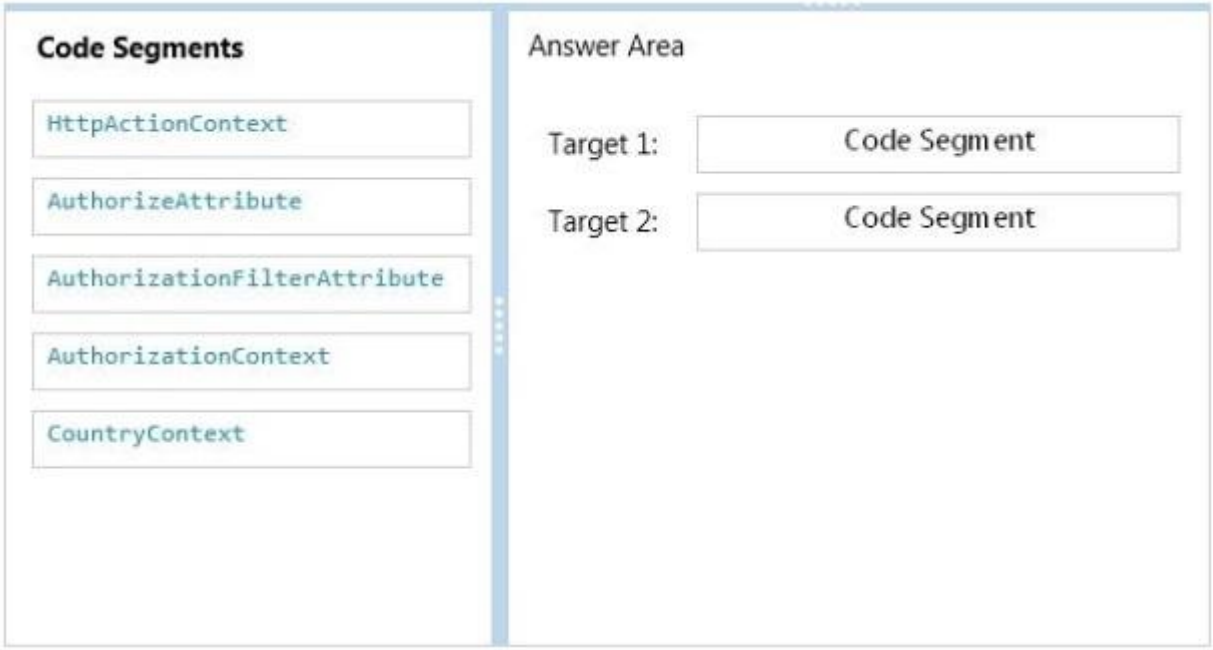
Answer Area

QUESTION 49
You are developing an ASP.NET Web API for a home inventory management system.
You need to limit access to users with IP addresses based only in the United States.
You have the following code:

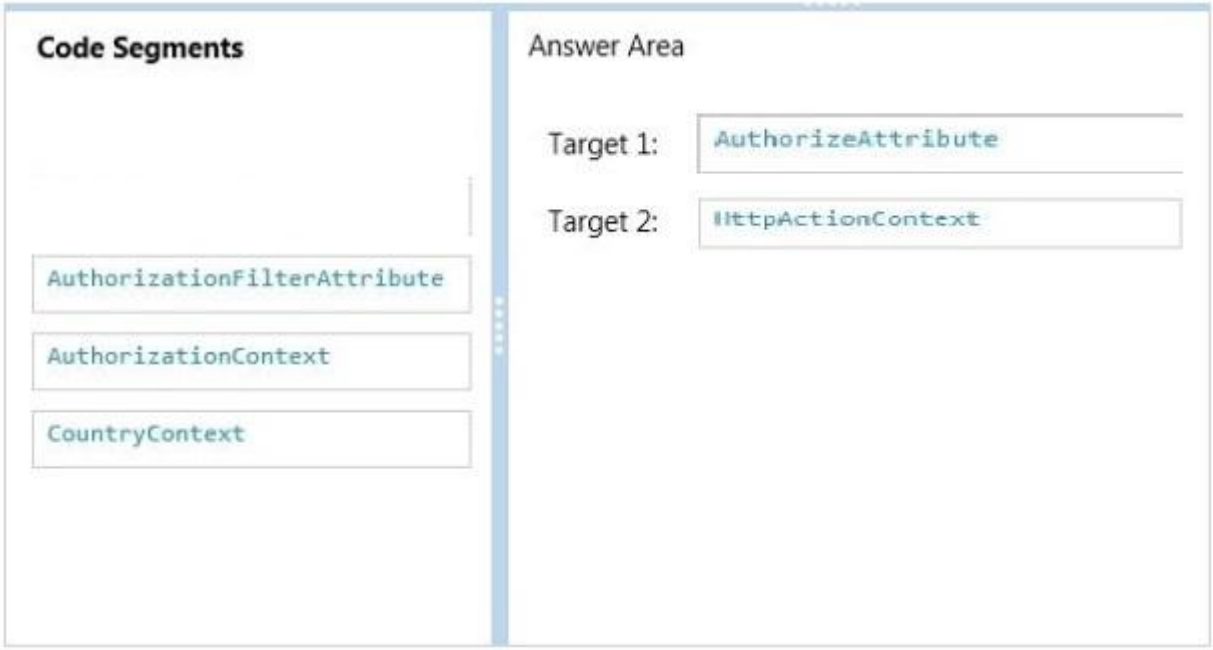
```
public class HomeInventoryAuthorization: Target 1
}
    public override void OnAuthorization (Target 2  context)
    {
       var isUSIP = IP.IsUSIPAddress (context);
    }
}
```

Which code segments should you include in Target 1 and Target 2 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.)

Select and Place:

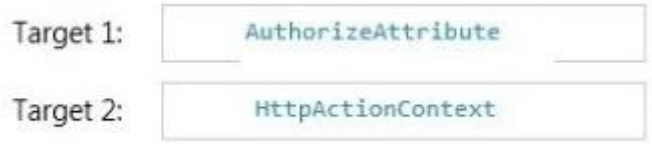


Correct Answer:



Section: [none]
Explanation

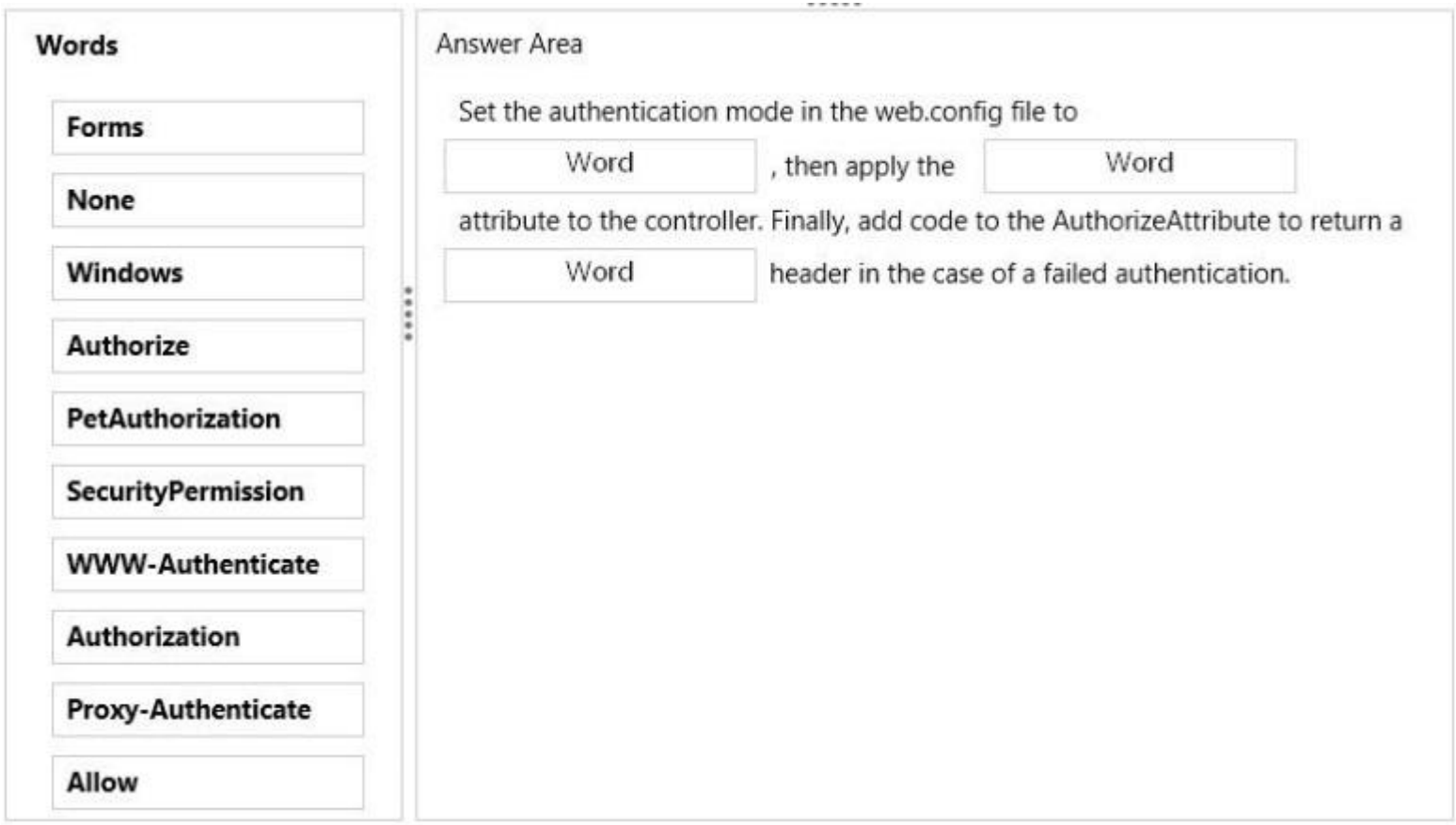
Explanation/Reference:



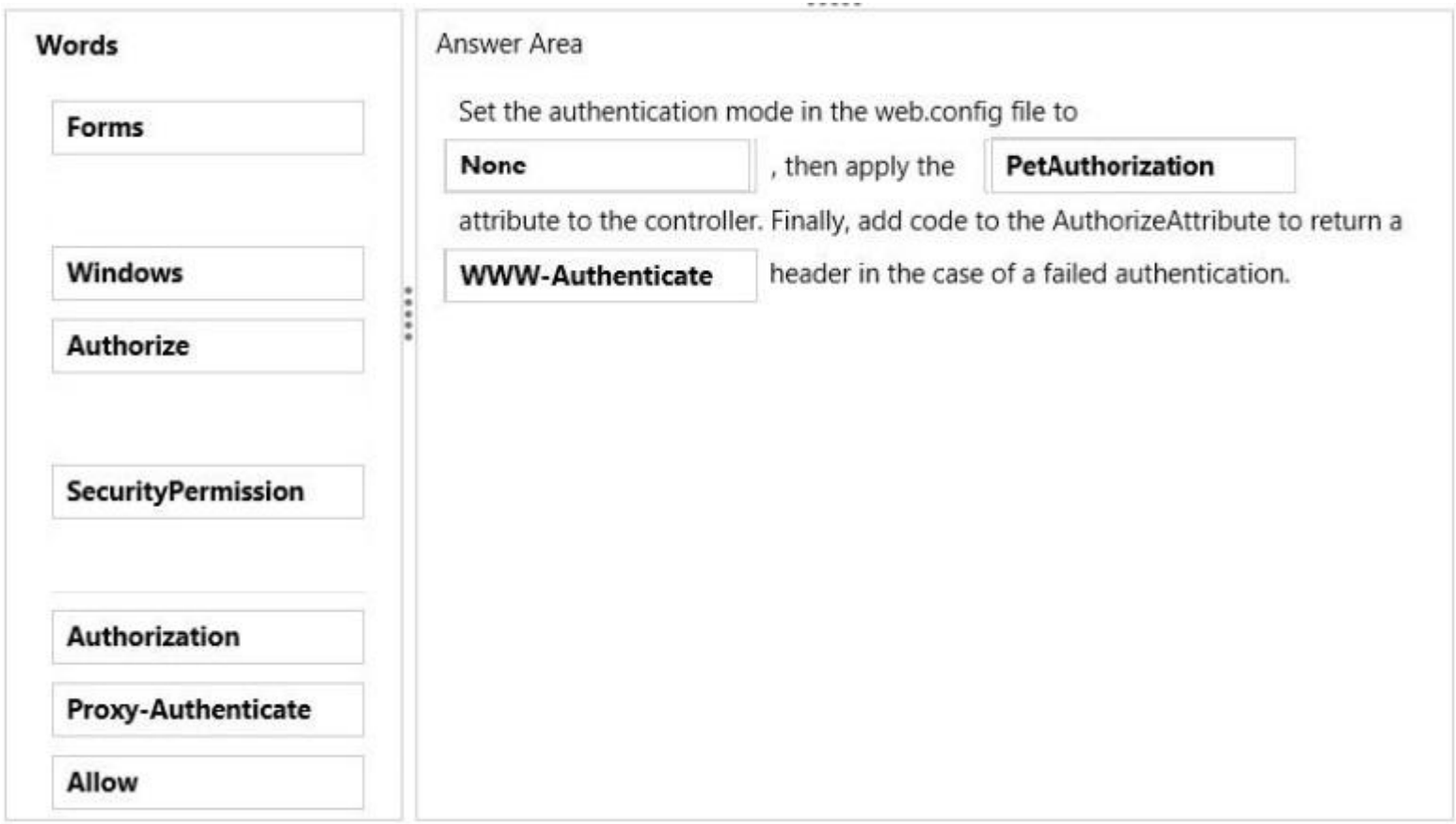
QUESTION 50
You are developing an Internet-based ASP.NET Web API application that manages pet data.
You install an SSL certificate on the web server to encrypt calls to the API. You create a class named PetAuthorization, which inherits from a type named AuthorizeAttribute, and implements the OnAuthorization() method.
You need to implement basic authentication for the API.
What should you do? (To answer, drag the appropriate words to the correct targets in the answer area. Words 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)

Select and Place:



Correct Answer:



Section: [none]
Explanation

Explanation/Reference:

Set the authentication mode in the web.config file to

None , then apply the **PetAuthorization**

attribute to the controller. Finally, add code to the AuthorizeAttribute to return a

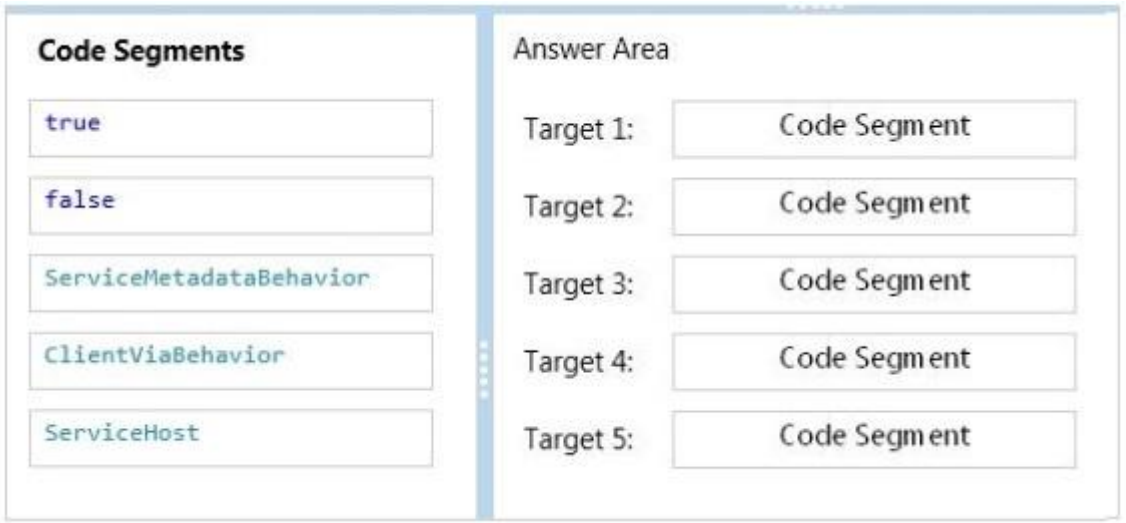
WWW-Authenticate header in the case of a failed authentication.

QUESTION 51
You are developing a self-hosted WCF service to display data about books. The solution contains a service named BookService that implements the IBookService interface.
You need to expose the metadata in the service host programmatically.
You have the following code:

```
static void Main(string[] args)
{
  Target 1 host = new Target 2 (
    typeof(BookService), new Uri(ServiceUrl));
  host.AddServiceEndpoint(
      typeof(IBookService), new WSHttpBinding(), "");
    Target 3 behavior =
      new Target 4 ();
    behavior.HttpGetEnabled = Target 5 ;
    host.Description.Behaviors.Add(behavior);
    host.Open();
    ...
    host.Close();
}
```

Which code segments should you include in Target 1, Target 2, Target 3, Target 4 and Target 5 to build the service host? (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.)

Select and Place:



Correct Answer:

Section: [none]
Explanation

Explanation/Reference:

QUESTION 52
You are building an ADO.NET Entity Framework application.

You need to validate the conceptual schema definition language (CSDL), store schema definition language (SSDL), and mapping specification language (MSL) files.

Which Entity Data Model tool can you use? (Each correct answer presents a complete solution.
Choose all that apply.)

A. EDM Generator (EdmGen.exe)
B. ADO.NET Entity Data Model Designer
C. Entity Data Model Wizard
D. Update Model Wizard

Correct Answer: AB
Section: [none]
Explanation

Explanation/Reference:

QUESTION 53
You are designing an ASP.NET Web API application.

You need to select an HTTP verb to allow blog administrators to moderate a comment.

Which HTTP verb should you use?

A. GET
B. POST
C. DELETE
D. PUT

Correct Answer: D
Section: [none]
Explanation

Explanation/Reference:

QUESTION 54
You are developing an ASP.NET MVC web application that contains the following HTML.

<table id= "customer" ></table>

You also have an ASP.NET Web API application that contains a call for retrieving customers.

You must send and retrieve the data in the most compact format possible.

You need to update the HTML for the customers table to contain data from the Web API application.

Which script segment should you use?

A.
```
<script>
  $(function () {
    var $customers = $("#customers");
    $.ajax({
      url: "api/customers",
      dataType: "json",
      success: function (data) {
        ...
      }
    });
  });
</script>
```

B.
```
<script>
  $(function () {
    var $customers = $("#customers");
    $.xml({
      url: "api/customers",
      dataType: "ajax",
      success: function (data) {
        ...
      }
    });
  });
</script>
```

C.
```
<script>
  $(function () {
    var $customers = $("#customers");
    $.json({
      url: "api/customers",
      dataType: "ajax",
      success: function (data) {
        ...
      }
    });
  });
</script>
```

D.
```
<script>
  $(function () {
    var $customers = $("#customers");
```

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

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:

QUESTION 55
You are planning to migrate websites from IIS 6 to IIS 7.5.

You do not have access to SSH or a VPN.

You need to select a deployment tool to securely migrate the websites.

Which tool should you use?

A. RoboCopy
B. Web Deploy
C. Microsoft command-line FTP
D. xCopy

Correct Answer: B
Section: [none]
Explanation

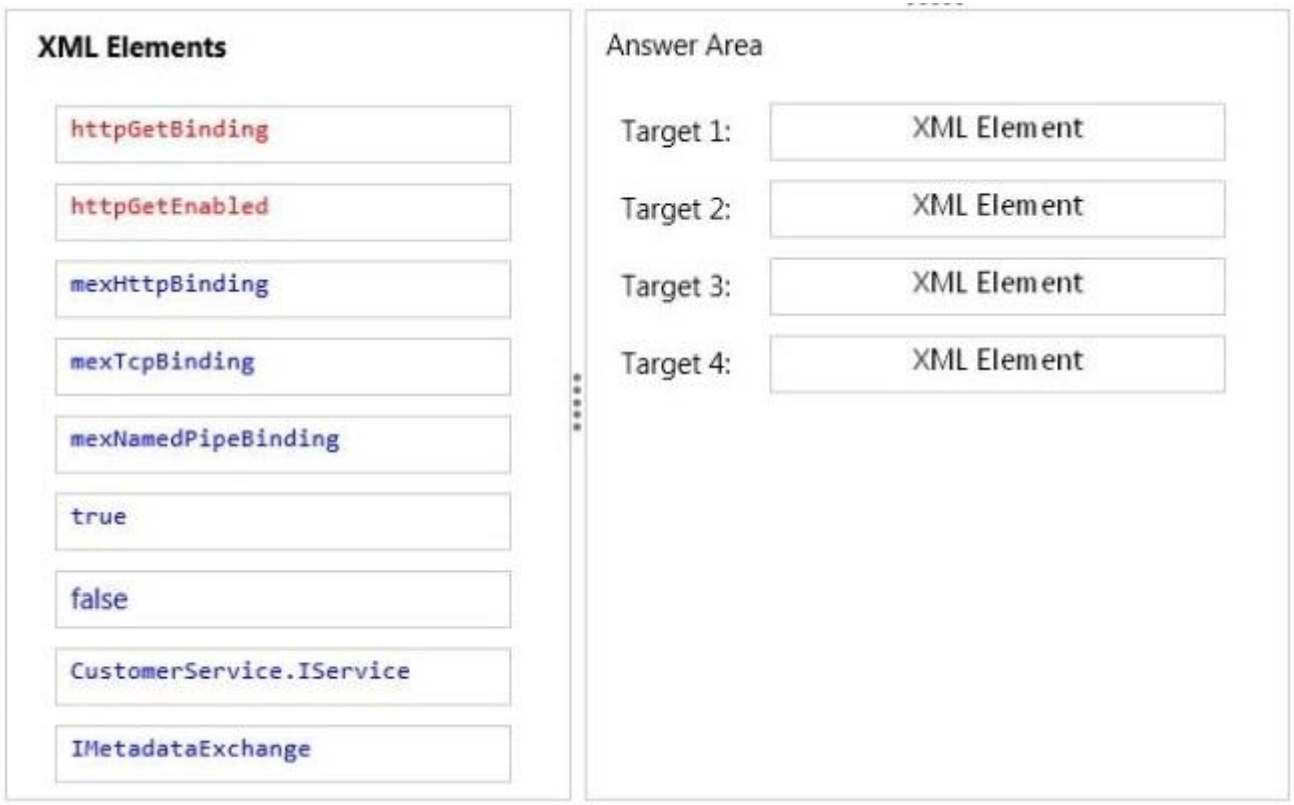
Explanation/Reference:

QUESTION 56
You are developing a WCF service.
You need to configure the web.config file to ensure that metadata is exposed only via the MEX protocol.
You have the following markup:

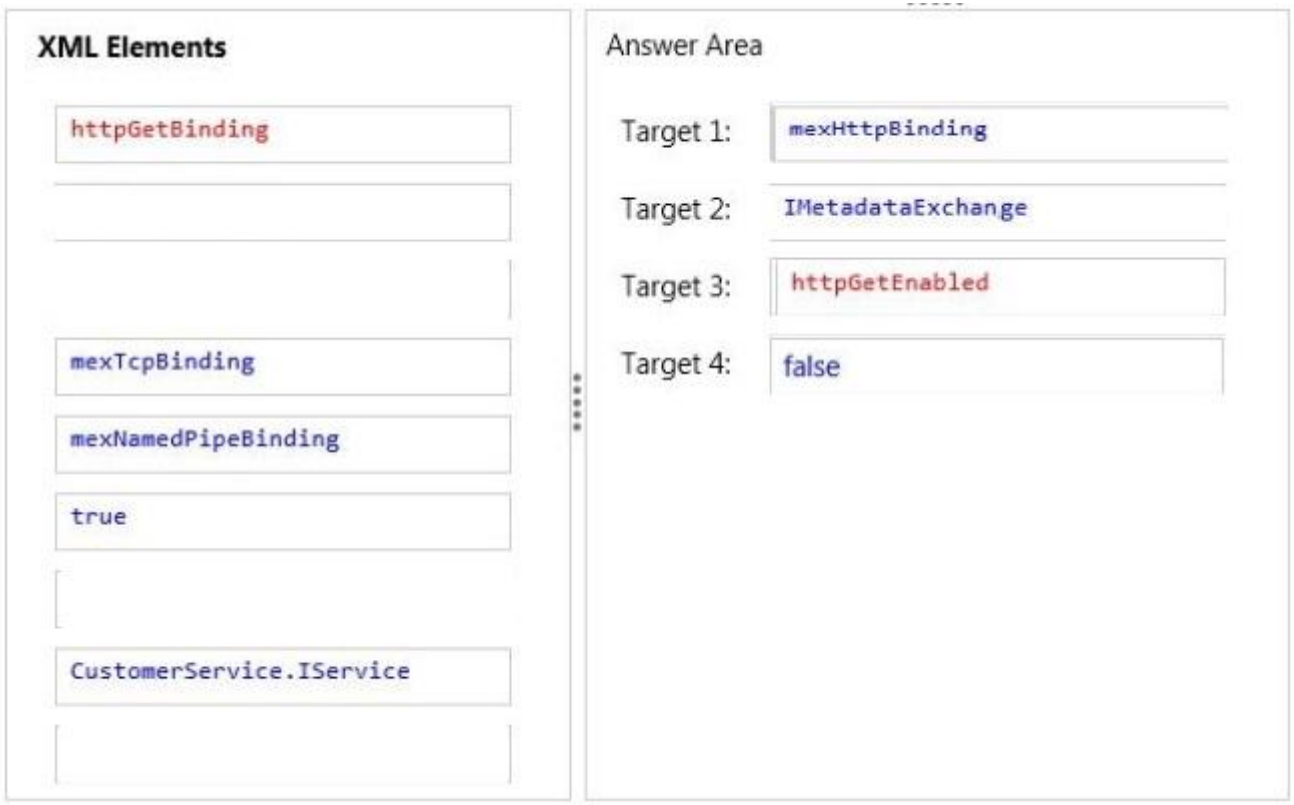
```
<services>
  <service behaviorConfiguration="behavior"
           name="CustomerService.Service">
    <endpoint binding="basicHttpBinding"
              contract="CustomerService.IService" />
    <endpoint address="mex" binding="Target 1"
              contract="Target 2" />
  </service>
</services>
<behaviors>
  <serviceBehaviors>
    <behavior name="behavior">
      <serviceMetadata
      Target 3="Target 4" />
    </behavior>
  </serviceBehaviors>
</behaviors>
```

Which XML elements should you include in Target 1, Target 2, Target 3 and Target 4 to complete the markup? (To answer, drag the appropriate XML elements to the correct targets in the answer area. Each XML 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.)

Select and Place:



Correct Answer:



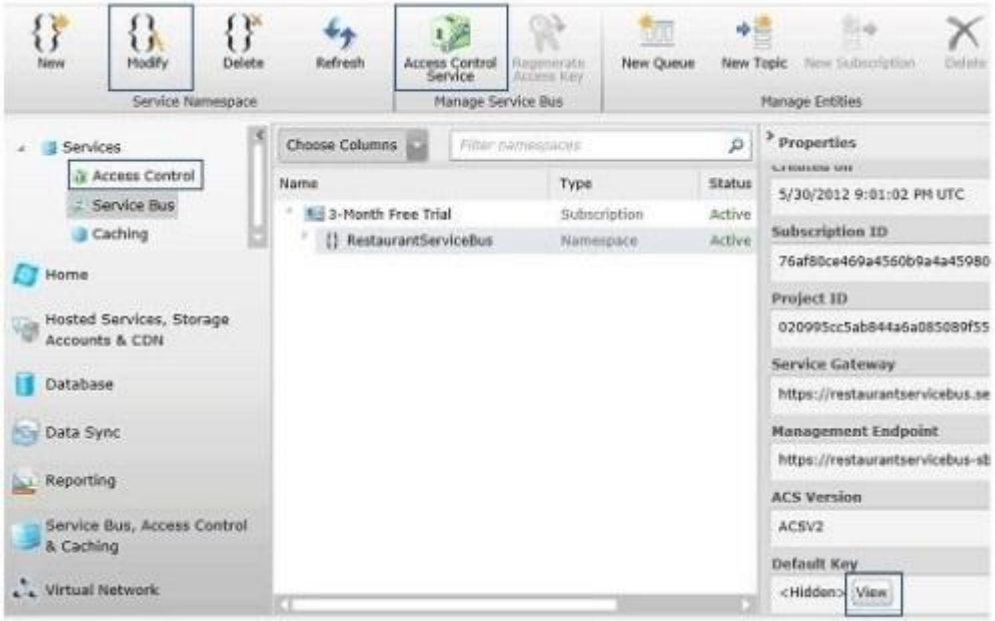
Section: [none]
Explanation

Explanation/Reference:

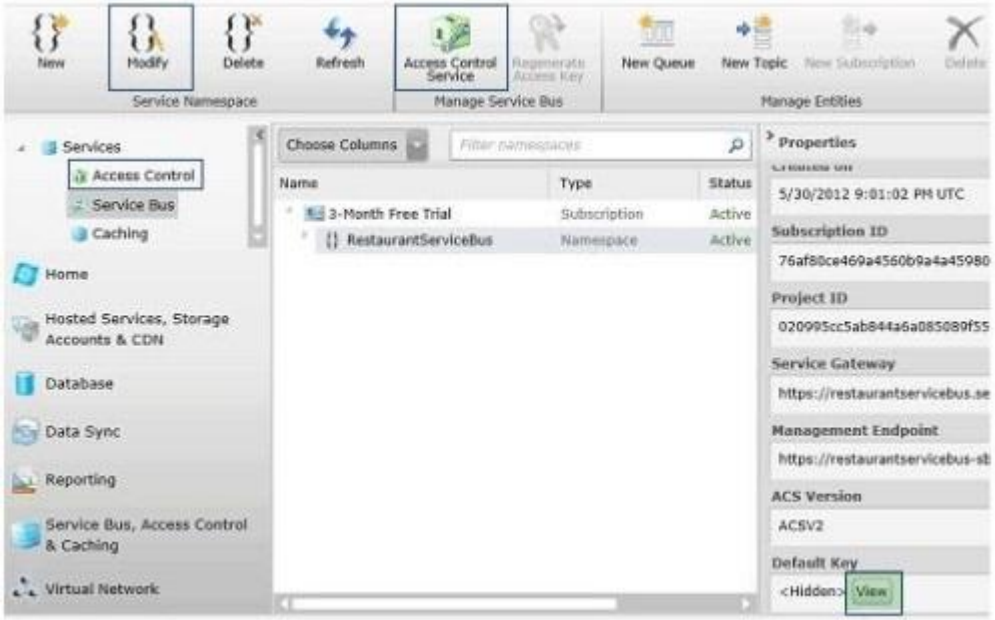
Target 1:	mexHttpBinding
Target 2:	IMetadataExchange
Target 3:	httpGetEnabled
Target 4:	false

QUESTION 57
You are developing a WCF service in Visual Studio 2013 that integrates with the Microsoft Azure service bus relay.
The Azure service bus namespace is named RestaurantServiceBus
You need to obtain the issuer name and secret.
What should you do? (To answer, select the appropriate option in the answer area.)

Hot Area:



Correct Answer:



Section: [none]
Explanation

Explanation/Reference:

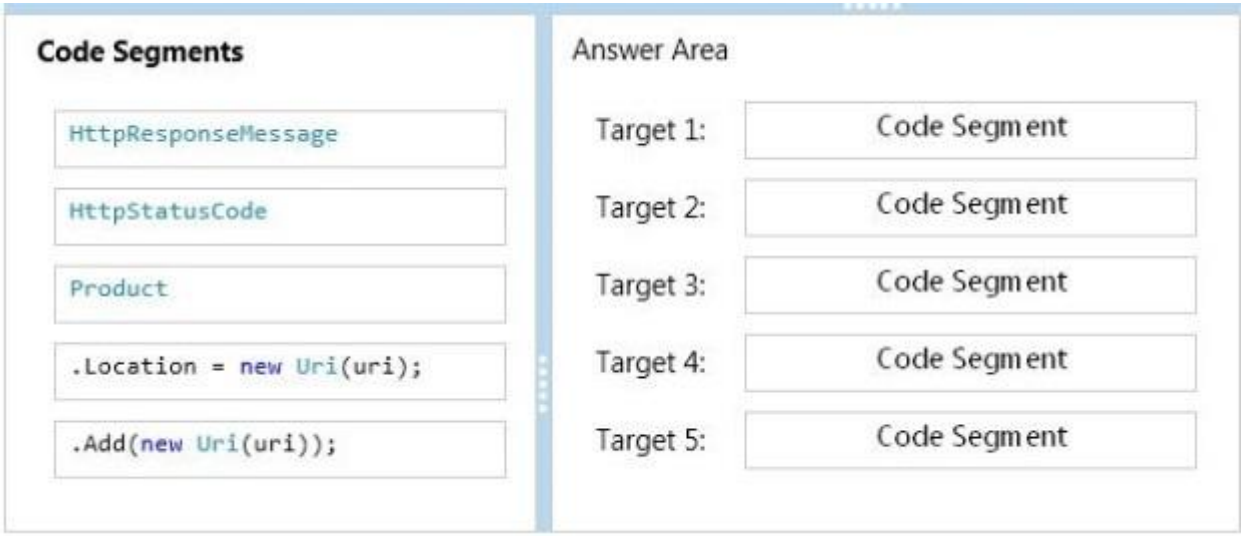
QUESTION 58
You are developing an ASP.NET MVC Web API application.
The methods of the Web API must return details about the result of the operation. You need to create a method to add products.
You have the following code:

```
public Target 1 PostProduct (Target 2 item)
{
  item = repository.Add(item);
  var response = new  Target 3 <Product>(
    item, Target 4  .Created);
  string uri = Url.Route("DefaultApi", new { id = item.Id});
  response.Headers Target 5
  return response;
}
```

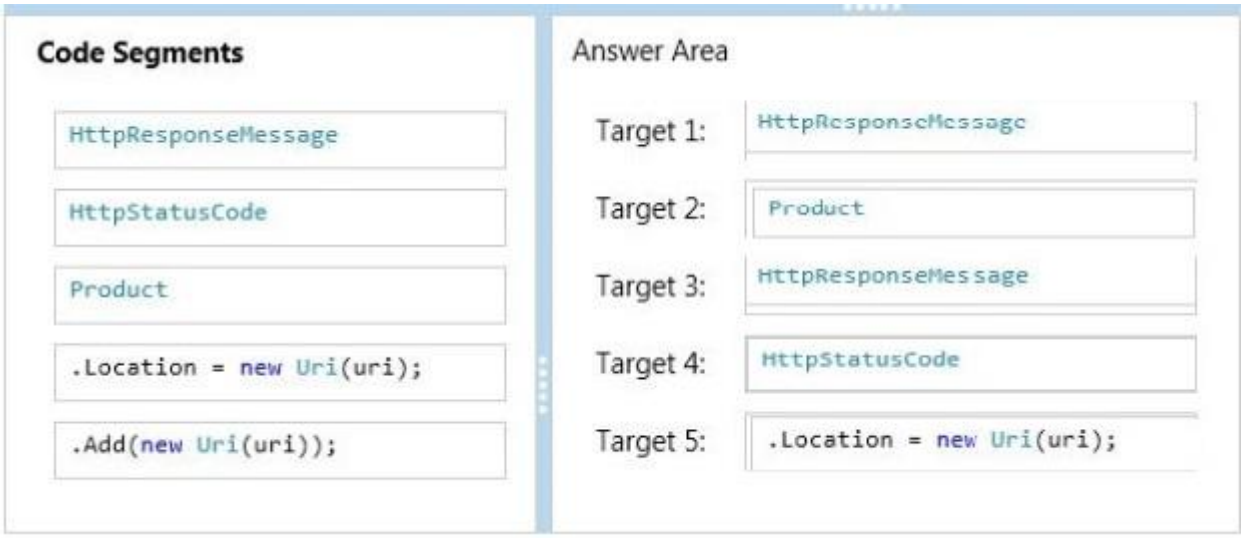
Which code segments should you include in Target 1, Target 2, Target 3, Target 4 and Target 5 to

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.)

Select and Place:



Correct Answer:



Section: [none]
Explanation

Explanation/Reference:

QUESTION 59
You are developing an ASP.NET MVC application that reads and writes data from a SQL Server database.

You need to maintain data integrity including retrieving identical sets across reads in all situations that use transactions.

Which isolation level should you use?

A. Repeatable
B. Serializable
C. ReadUncommitted
D. ReadCommitted

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:
Explanation: REPEATABLE READ
Specifies that statements cannot read data that has been modified but not yet committed by other transactions and that no other transactions can modify data that has been read by the current transaction until the current transaction completes.

QUESTION 60
You are developing an ASP.NET MVC application. The application is an order processing system that uses the ADO.NET Entity Framework against a SQL Server database. It has a controller that loads a page that displays customers. Customers are filtered on Country and, if provided, on CompanyName.

You have an Entity Framework context named db.

The Customer class is shown below.

```
public partial class Customer
{
  ...
  public string CustomerID { get; set; }
  public string CompanyName { get; set; }
  public string ContactName { get; set; }
  public string Country { get; set; }
  ...
}
```

You need to execute a single deferred query to return the filtered list of customers.

Which code segment should you use?

A.

```
public ActionResult Index(string country, string CompanyName)
{
  IEnumerable<Customer> customers;
  IQueryable<Customer> query = db.Customers.Where(c => c.Country == country);
  if (!string.IsNullOrEmpty(CompanyName))
  {
    customers = query.Where(c => c.CompanyName.ToLower().StartsWith(CompanyName.ToLower()));
  }
  return View(customers);
}
```

B.

```
public ActionResult Index(string country, string CompanyName)
{
  IEnumerable<Customer> customers;
  IEnumerable<Customer> query = db.Customers.Where(c => c.Country == country);
  if (!string.IsNullOrEmpty(CompanyName))
  {
    customers = query.Where(c => c.CompanyName.ToLower().StartsWith(CompanyName.ToLower()));
  }
  return View(customers);
}
```

C.

```
public ActionResult Index(string country, string CompanyName)
{
  IEnumerable<Customer> customers;
  IQueryable<Customer> query = db.Customers.Where(c => c.Country == country);
  query.Load();
  if (!string.IsNullOrEmpty(CompanyName))
  {
    customers = query.Where(c => c.CompanyName.ToLower().StartsWith(CompanyName.ToLower()));
  }
  return View(customers);
}
```

D.

```
public ActionResult Index(string country, string CompanyName)
{
  IEnumerable<Customer> customers;
  IQueryable<Customer> query = db.Customers;
  query.Load();
  query = query.Where(c => c.Country == country);
  if (!string.IsNullOrEmpty(CompanyName))
  {
    customers = query.Where(c => c.CompanyName.ToLower().StartsWith(CompanyName.ToLower()));
  }
  return View(customers);
}
```

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

Correct Answer: C
Section: [none]
Explanation

Explanation/Reference:

QUESTION 61
You are developing an ASP.NET MVC application. The application is a loan processing system that uses the ADO.NET Entity Framework against a SQL Server database. It has a controller that loads a page that displays all loans along with rate information. Lazy loading has been disabled.

The Loan class is shown below.

```
public partial class Loan
{
  ...
  public string RateID { get; set; }
  ...
  public virtual Rate Rate { get; set; }
}
```

You need to return the loans and rate information in a single round trip to the database.

Which code segment should you use?

A.
```
public ActionResult Index()
{
  IQueryable<Loan> loans = db.Loans;
  return View(loans.ToList());
}
```

B.
```
public ActionResult Index()
{
  IQueryable<Loan> loans = db.Loans;
  loans = loans.Include("Rate");
  return View(loans.ToList());
}
```

C.
```
public ActionResult Index()
{
  IQueryable<Loan> loans = db.Loans.Include("Loan.Rate");
  return View(loans.ToList());
}
```

D.
```
public ActionResult Index()
{
  IQueryable<Loan> loans = db.Loans;
  loans.Select(o => o.Rate).Load();
  return View(loans.ToList());
}
```

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

Correct Answer: B
Section: [none]
Explanation

Explanation/Reference:
Right option is 'B'.

QUESTION 62

You are developing a library management application that uses the ADO.NET Entity Framework against a SQL Server database. The application has a method that returns check outs filtered by date.

The Book class is shown below.

```
public partial class Book
{
  ...
  public Nullable<System.DateTime> CheckoutDate { get; set; }
  ...
}
```

You must filter the data on the SQL server before it is returned to the application server.

You need to return books checked out more recently than the entered date.

Which code segment should you use?

A.
```
IQueryable<Book> books = db.Books;
books = books.Where(b => b.CheckoutDate >= date);
```

B.
```
IEnumerable<Book> books = db.Books.ToList().AsQueryable();
books = books.Where(b => b.CheckoutDate >= date);
```

C.
```
IQueryable<Book> books = db.Books.ToList().AsQueryable();
books = books.Where(b => b.CheckoutDate >= date);
```

D.
```
IEnumerable<Book> books = db.Books;
books = books.Where(b => b.CheckoutDate >= date);
```

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

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:
Explanation:
The difference is that IQueryable<T> is the interface that allows LINQ-to-SQL (LINQ.-to-anything really) to work. So if you further refine your query on an IQueryable<T>, that query will be executed in the database, if possible.

For the IEnumerable<T> case, it will be LINQ-to-object, meaning that all objects matching the original query will have to be loaded into memory from the database.

QUESTION 63
You are developing an ASP.NET MVC application.

Deployment administrators do not have access to Visual Studio 2102, but will have the elevated permissions required to deploy the application to the servers.

You need to select a deployment tool for use by the deployment administrators.

Which tool should you use?

A. Publish Web Site Tool
B. Web Deployment Package
C. One-Click Publish
D. Deployment Package Editor

Correct Answer: B
Section: [none]
Explanation

Explanation/Reference:

QUESTION 64
You are developing a Microsoft Azure web application. The application will be deployed to 10 web role instances. A minimum of 8 running instances is needed to meet scaling requirements.

You need to configure the application so that upgrades are performed as quickly as possible, but do not violate scaling requirements.

How many upgrade domains should you use?

A. 1
B. 2
C. 5
D. 10

Correct Answer: C
Section: [none]
Explanation

Explanation/Reference:

QUESTION 65
You are developing an ASP.NET MVC application that displays a report. The report includes large images that are stored in a database. Members of the EntityClient namespace are used to access the database through the ADO.NET Entity Framework data model.

You need to prevent memory exceptions while generating a report using the EntityDataRcader type.

Which CommandBehavior type should you use?

A. FastForwardReadOnly
B. SequentialAccess
C. SingleResult
D. SingleRow

Correct Answer: B
Section: [none]
Explanation

Explanation/Reference:
Explanation: SequentialAccess
Provides a way for the DataReader to handle rows that contain columns with large binary values. Rather than loading the entire row, SequentialAccess enables the DataReader to load data as a stream.

QUESTION 66
You are developing an ASP.NET MVC application. The application has a page that searches for and displays an image stored in a database. Members of the EntityClient namespace are used to access an ADO.NET Entity Framework data model. Images and associated metadata are stored in a database table.

You need to run a query that returns only the image while minimizing the amount of data that is transmitted.

Which method of the EntityCommand type should you use?

A. ExecuteScalar
B. ExecuteDbDataReader

C. ExecuteReader
D. ExecuteNonQuery

Correct Answer: A
Section: [none]
Explanation

Explanation/Reference:
Explanation: ExecuteScalar
Executes the command, and returns the first column of the first row in the result set. Additional columns or rows are ignored.