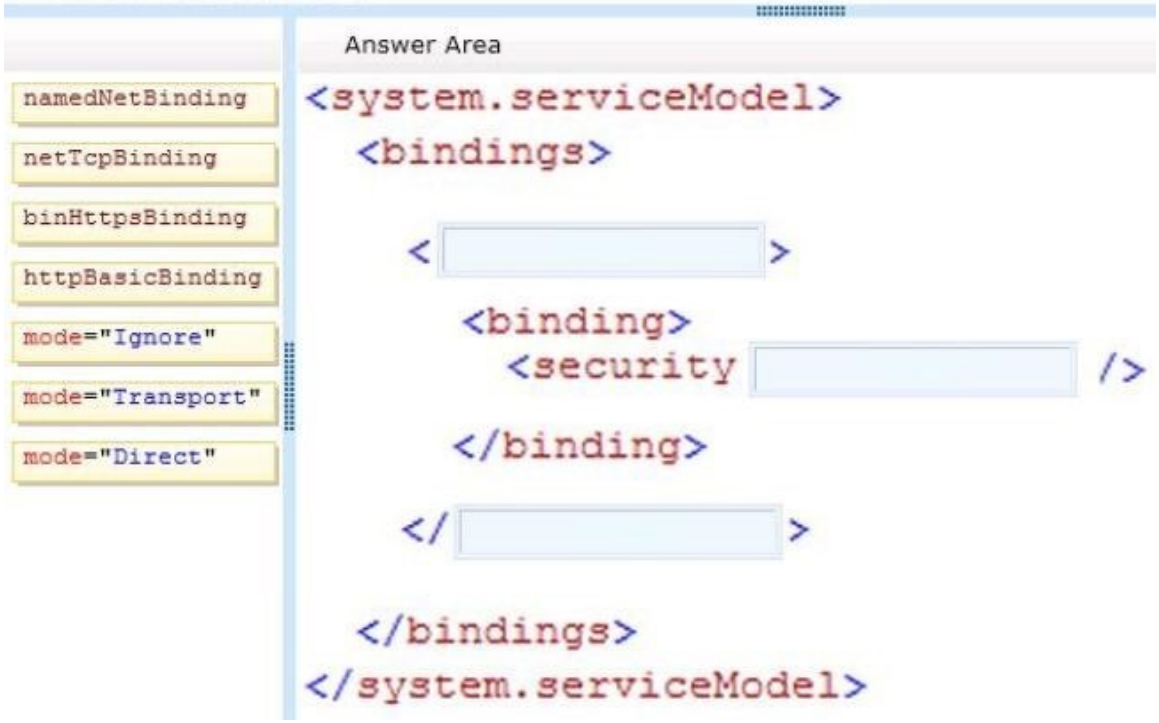
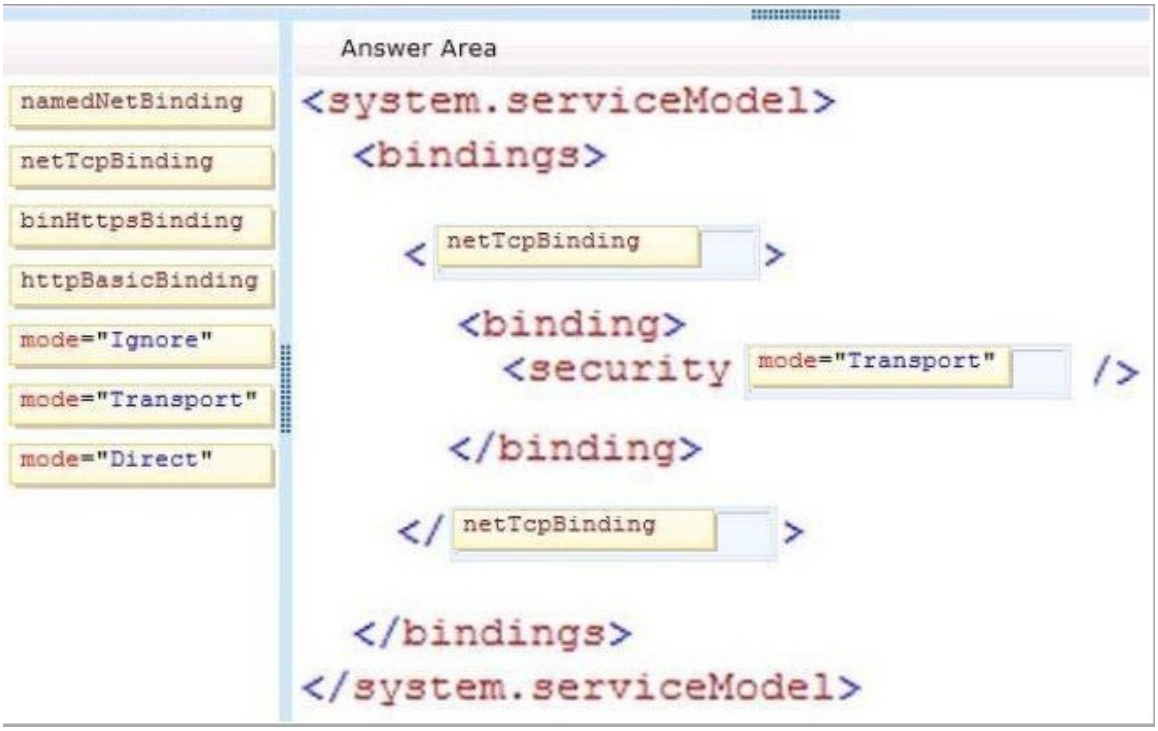
- **Vendor: Microsoft**
- **Exam Code: 70-487**
- **Exam Name: Microsoft Developing Windows Azure and Web Services**
- **Question 21 -- Question 40**

QUESTION 21
Drag and Drop Question
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.)



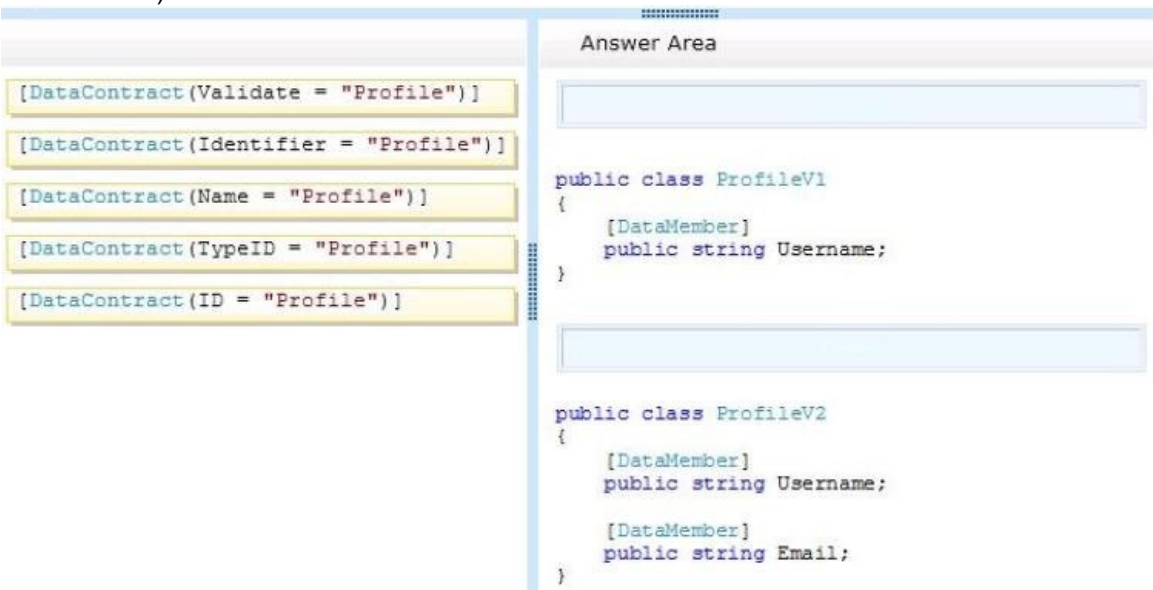
Answer:



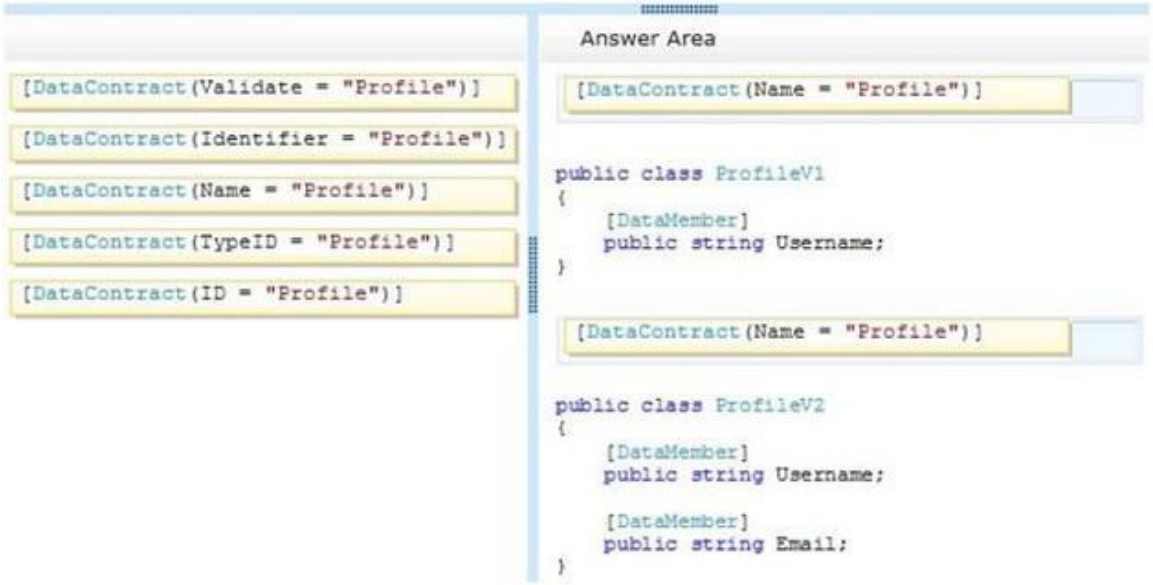
QUESTION 22

Drag and Drop Question

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.)



Answer:

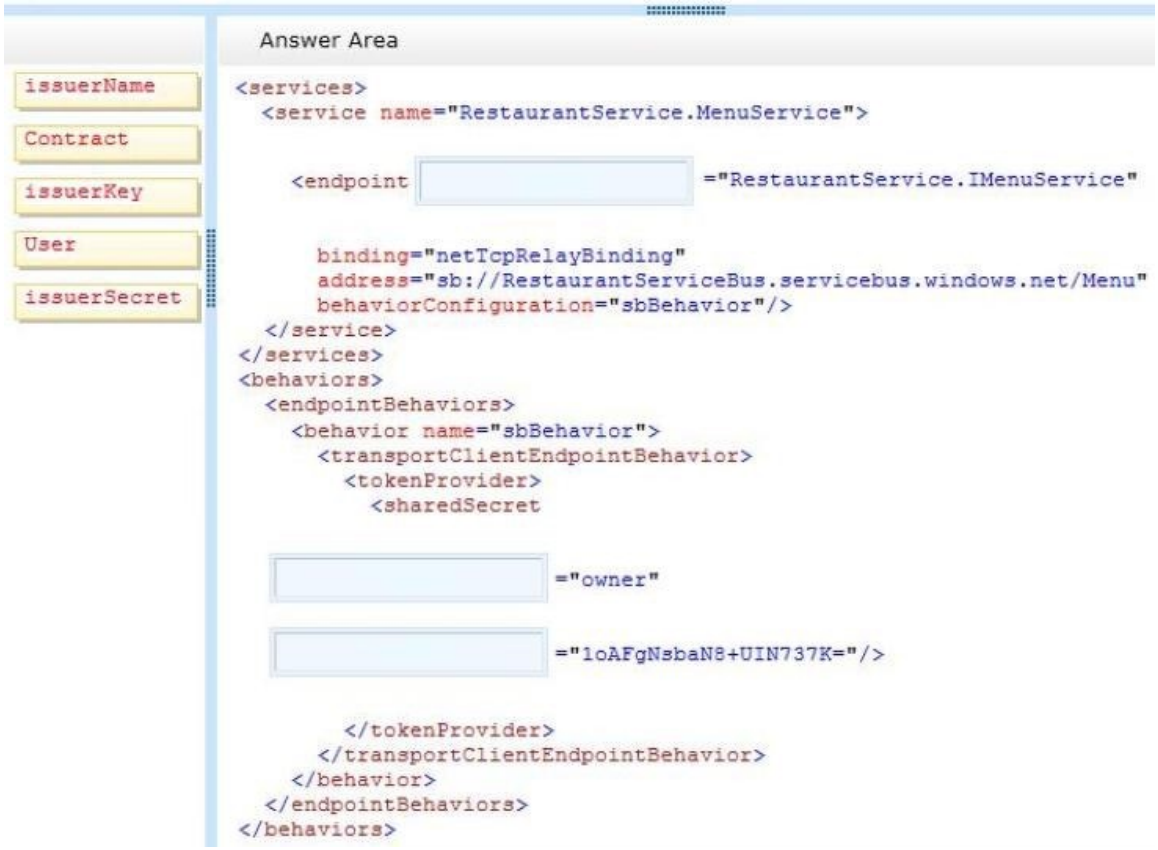


QUESTION 23
You are developing a WCF service. A new service instance must be created for each client request. You need to choose an instancing mode. Which instancing mode should you use?

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

Answer: C

QUESTION 24
Drag and Drop Question
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.)


issuerName
Contract
issuerKey
User
issuerSecret
Answer Area
<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>

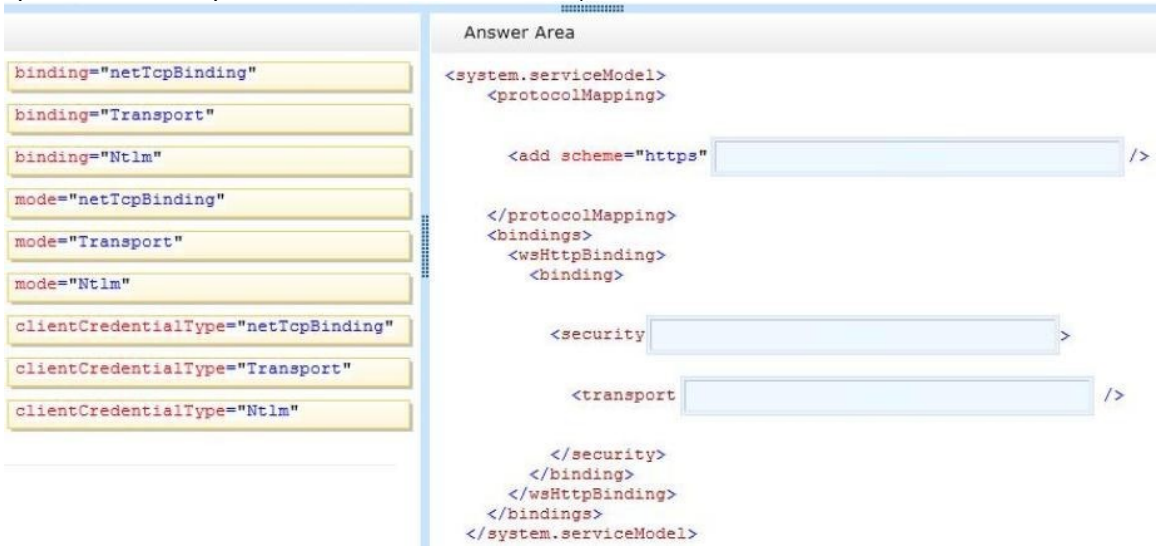
Answer:

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

    <endpoint Contract ="RestaurantService.IMenuService"

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

    issuerName ="owner"

    issuerSecret ="1oAFgNsbaN8+UIN737K="/>

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

QUESTION 25

Drag and Drop Question

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.)



Answer:

```
<system.serviceModel>
    <protocolMapping>

      <add scheme="https" binding="netTcpBinding" />

    </protocolMapping>
    <bindings>
      <wsHttpBinding>
        <binding>

          <security mode="Transport">

            <transport clientCredentialType="Ntlm" />

          </security>
        </binding>
      </wsHttpBinding>
    </bindings>
  </system.serviceModel>
```

QUESTION 26

Drag and Drop Question

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.)

config

server

MaxBufferSize

MaxReceivedMessageSize

MaxConcurrentRequests

Streamed

Buffered

Answer Area

```
class Program
{
  private static string _baseAddress = "http://localhost:8080/";

  static void Main(string[] args)
  {
    var config = new HttpSelfHostConfiguration(_baseAddress);
    config.Routes.MapHttpRoute(
        name: "DefaultApi",
        routeTemplate: "api/{controller}/{id}",
        defaults: new { id = RouteParameter.Optional }
    );

[          ].[          ] = 1024 * 1024 * 2;

[          ].[          ] = 1024 * 1024;

[          ].TransferMode =

          TransferMode.[          ];

    var server = new HttpSelfHostServer(config);
    server.OpenAsync().Wait();
  }
}
```

Answer:

```
class Program
{
  private static string _baseAddress = "http://localhost:8080/";

  static void Main(string[] args)
  {
    var config = new HttpSelfHostConfiguration(_baseAddress);
    config.Routes.MapHttpRoute(
        name: "DefaultApi",
        routeTemplate: "api/{controller}/{id}",
        defaults: new { id = RouteParameter.Optional }
    );

Buffered . MaxBufferSize = 1024 * 1024 * 2;

Streamed . MaxConcurrentRequests = 1024 * 1024;

config .TransferMode =

        TransferMode. server ;

    var server = new HttpSelfHostServer(config);
    server.OpenAsync().Wait();
  }
}
```

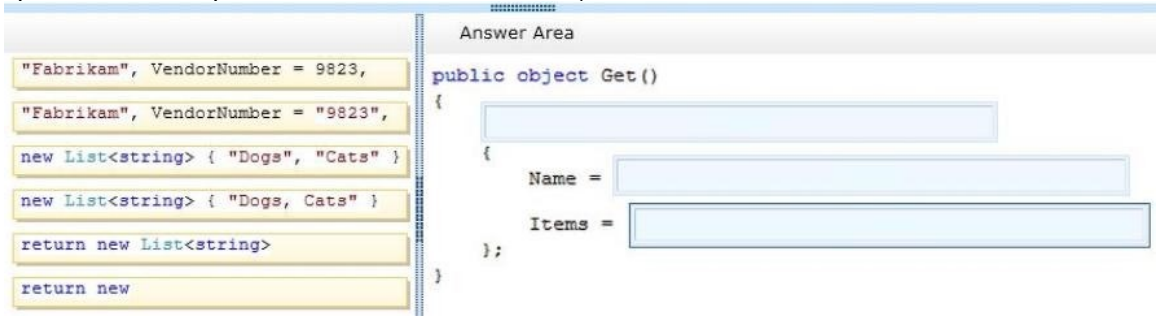
QUESTION 27

Drag and Drop Question

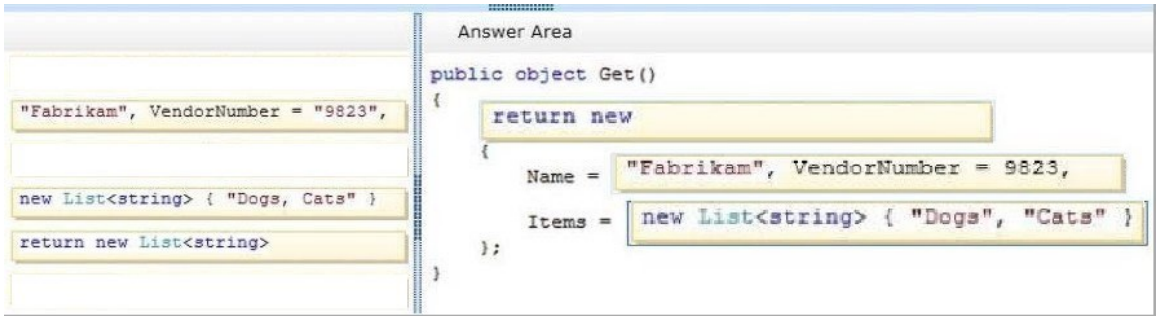
You are developing an ASP.NET Web API action method. The action method must return the following JSON in the message body.

```
{"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.)



Answer:

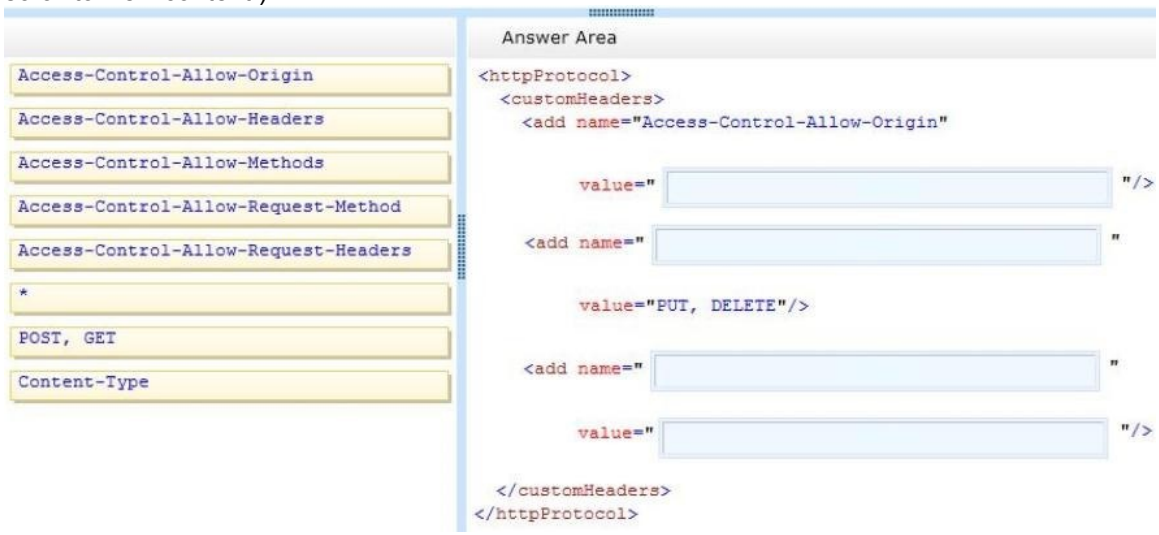


QUESTION 28
You are designing an ASP.NET Web API application. You need to select an HTTP verb to allow blog administrators to remove a comment. Which HTTP verb should you use?

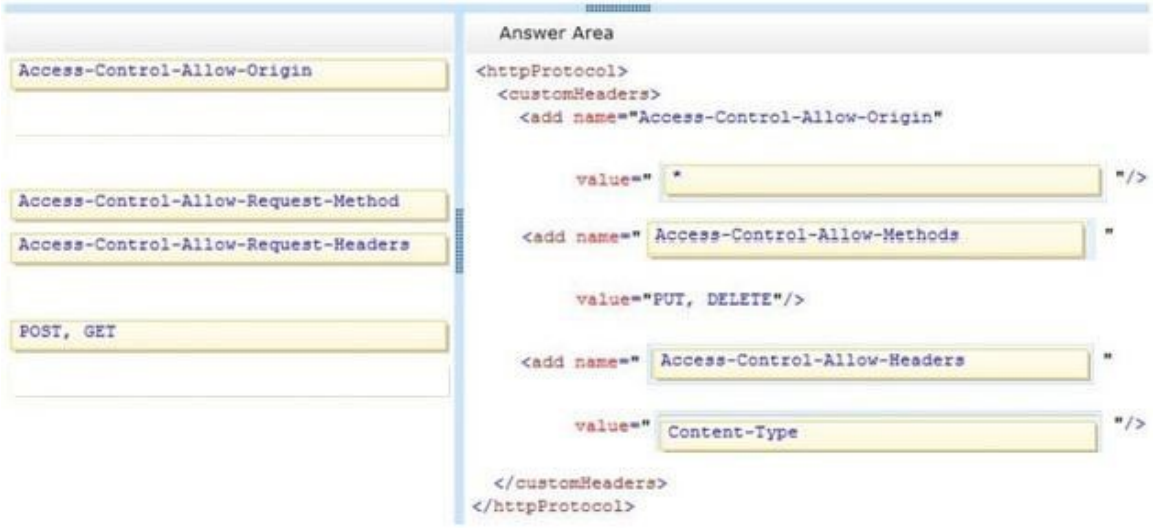
A. PUT
B. DELETE
C. POST
D. GET

Answer: B

QUESTION 29
Drag and Drop Question
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.)



Answer:



QUESTION 30

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

Answer: A

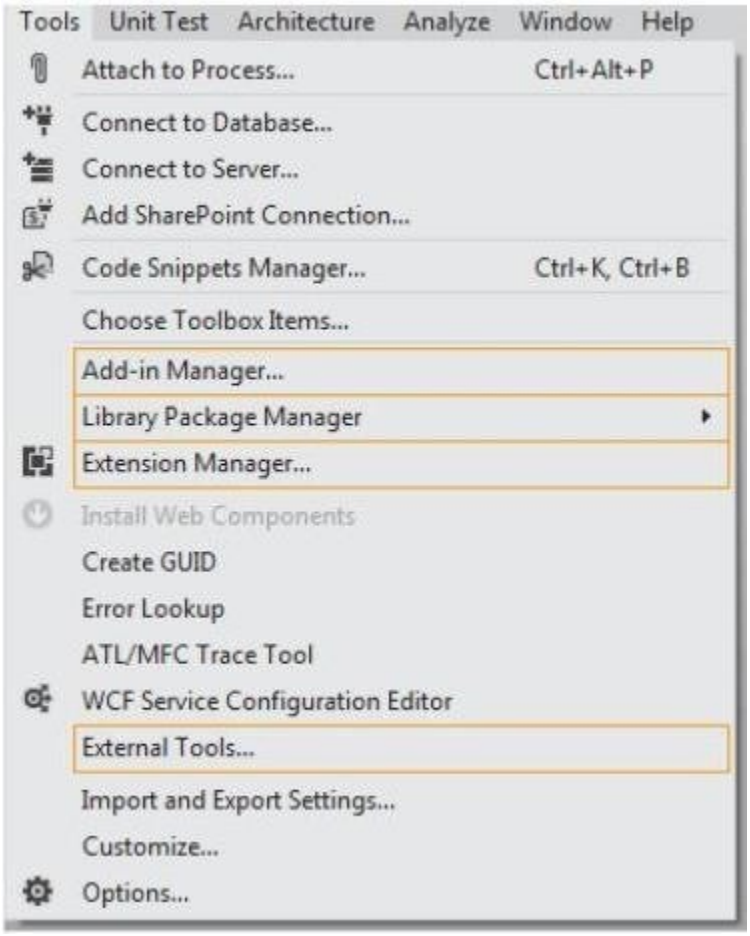
QUESTION 31
You are developing an ASP.NET MVC application that reads and writes data from a SQL Server database. You need to maintain data integrity in all situations that use transactions.

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

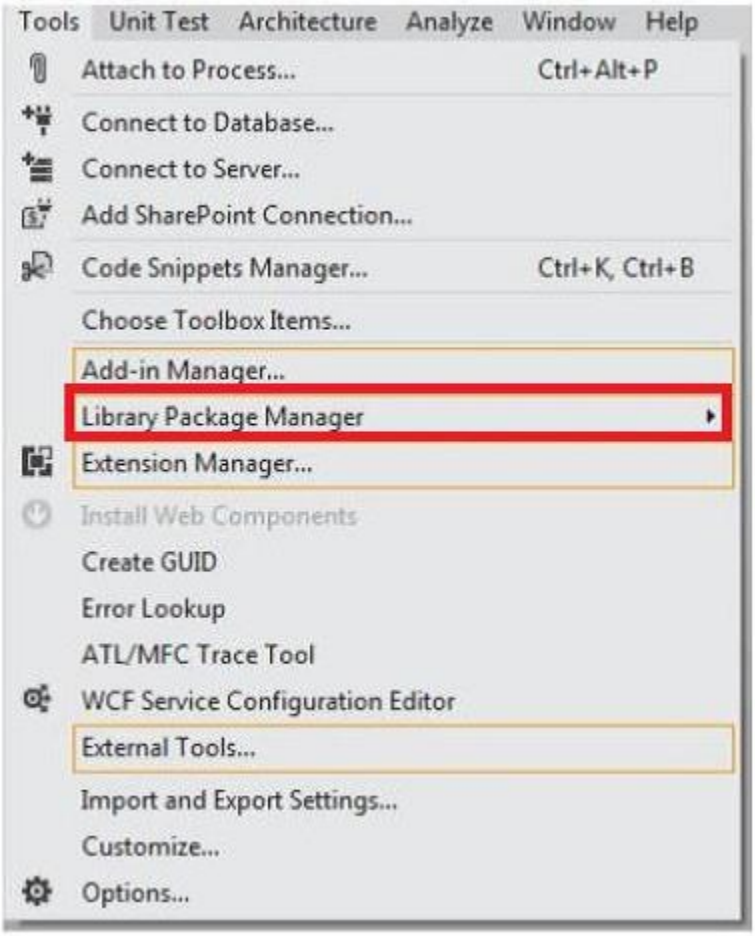
Answer: C
Explanation:
SQL Server Isolation Levels
(http://msdn.microsoft.com/en-us/library/ms189122(v=sql.105).aspx)
(http://msdn.microsoft.com/en-us/library/ms173763.aspx)

QUESTION 32
Hotspot Question

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.)



Answer:



QUESTION 33
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

Answer: B

Case Study: 1
Scenario 1
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();
  }
}
```

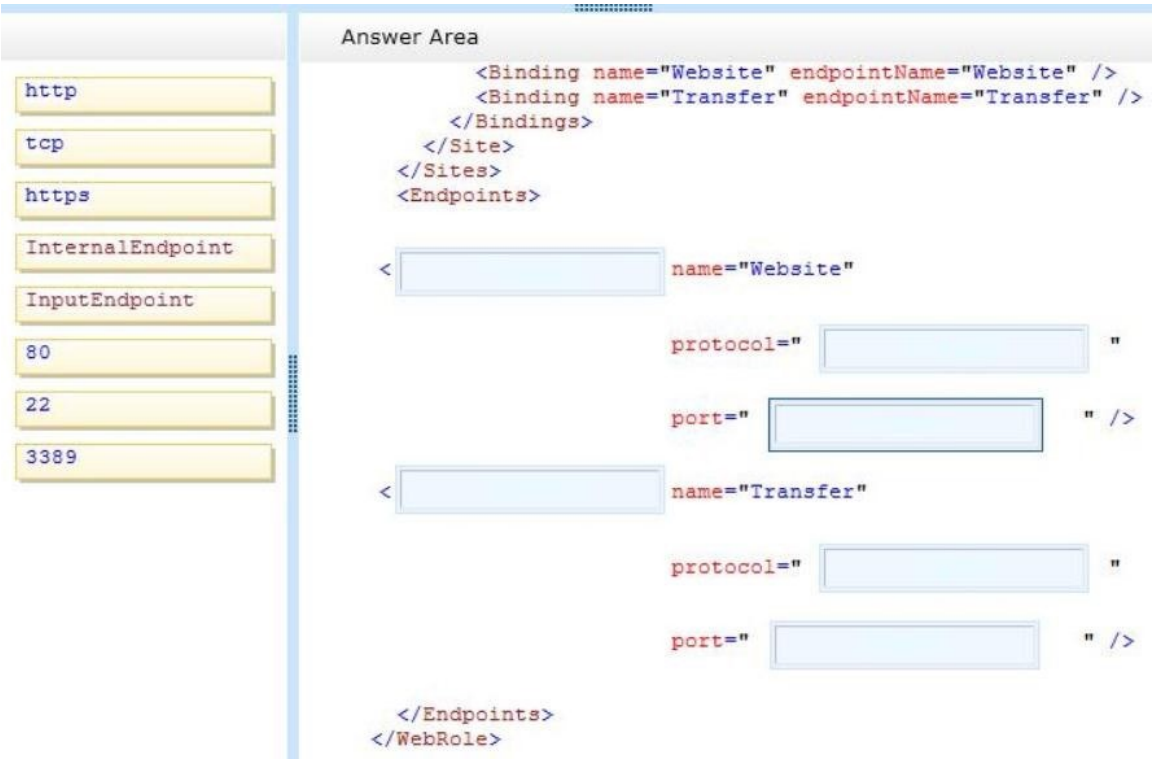
MargiesTravelSync.cs

```
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");
  }
}
```

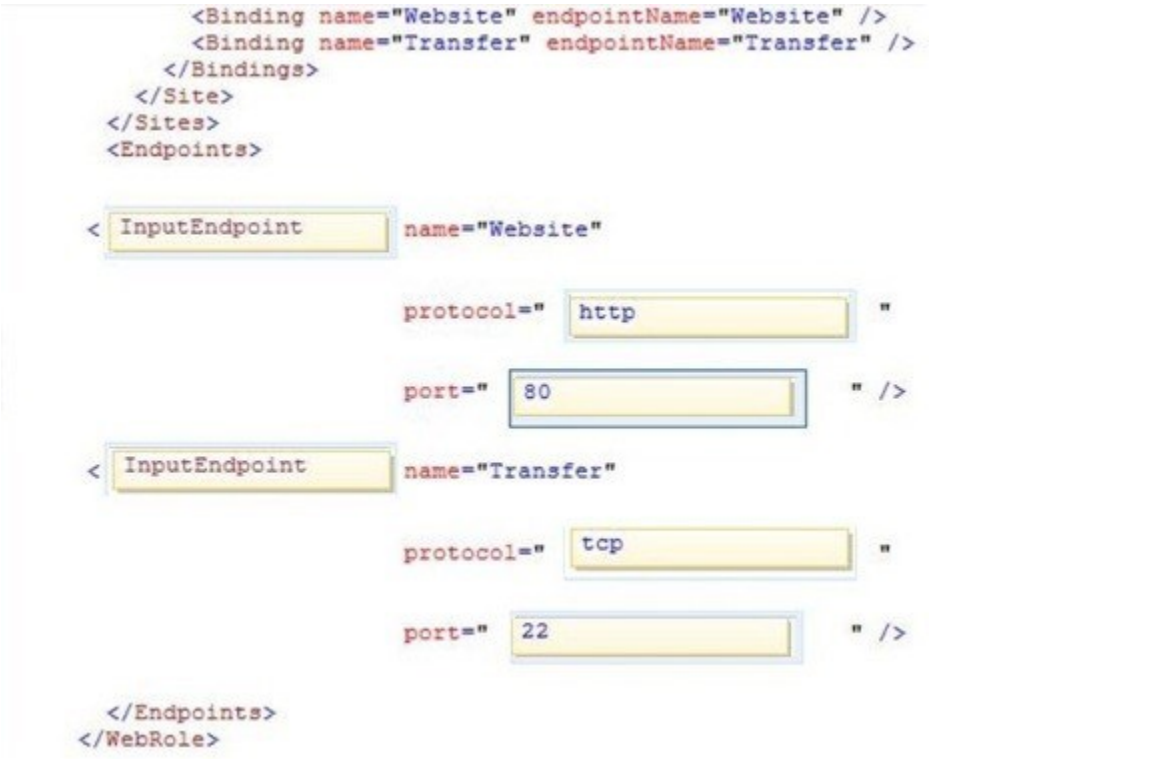
QUESTION 34

Drag and Drop Question

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.)



Answer:

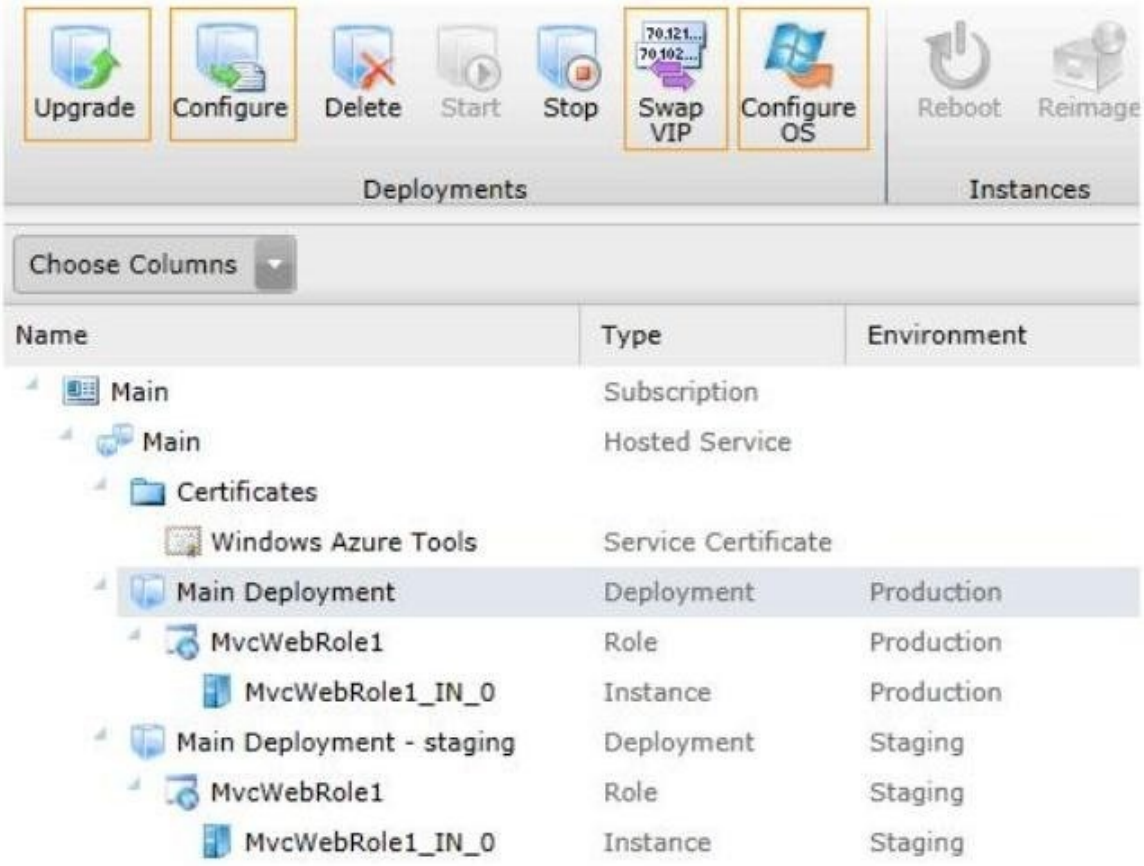


QUESTION 35

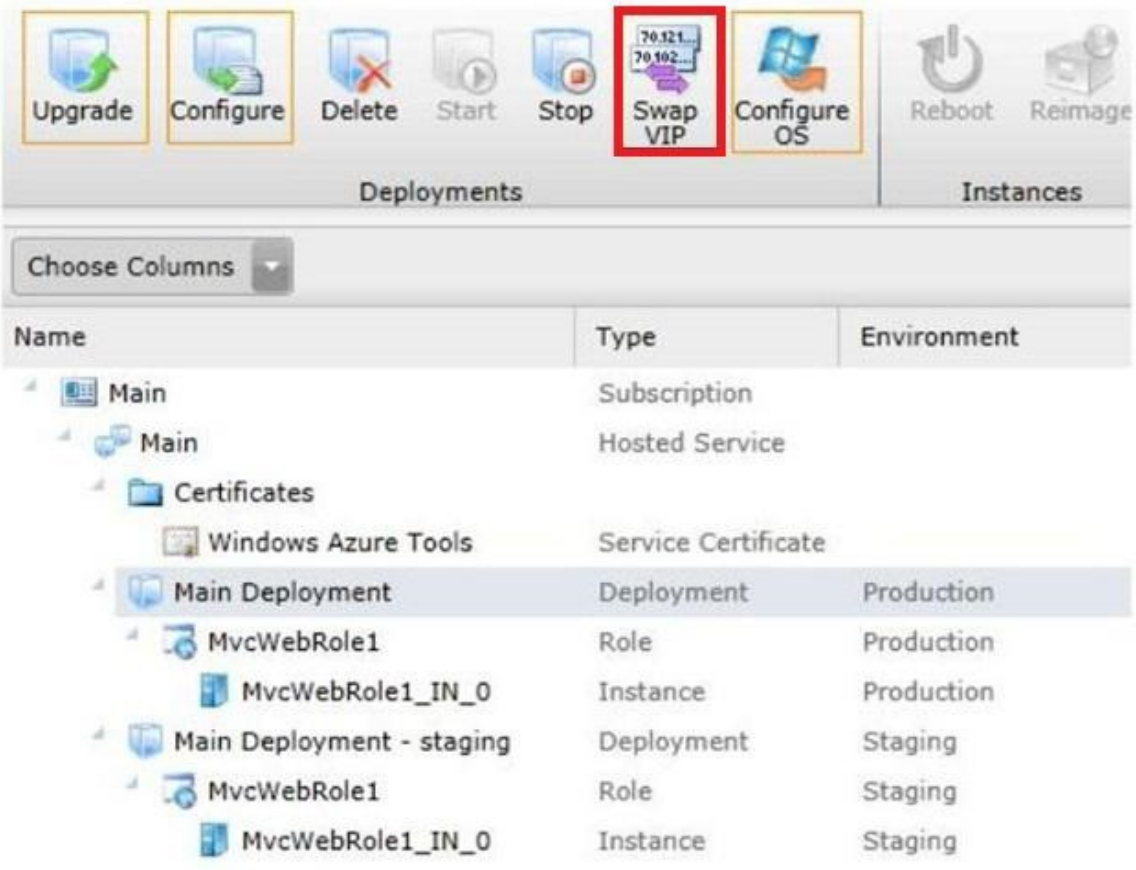
Hotspot Question

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.)



Answer:

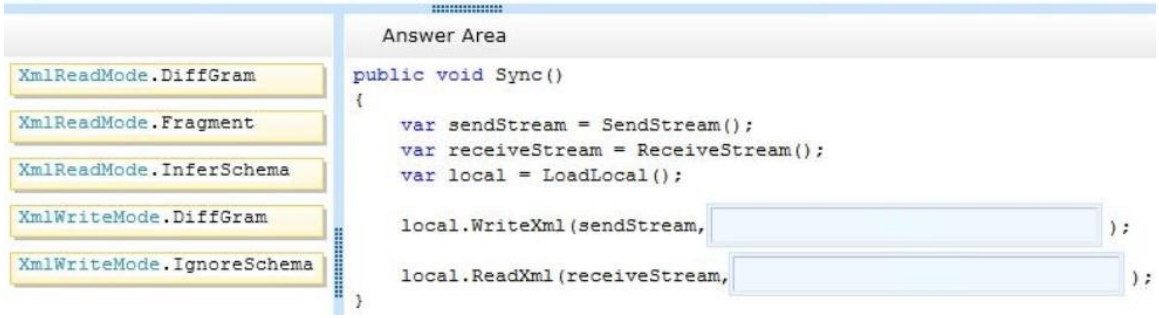


QUESTION 36
You need to recommend a data access technology to the contractor to retrieve data from the new data source. Which data access technology should you recommend?

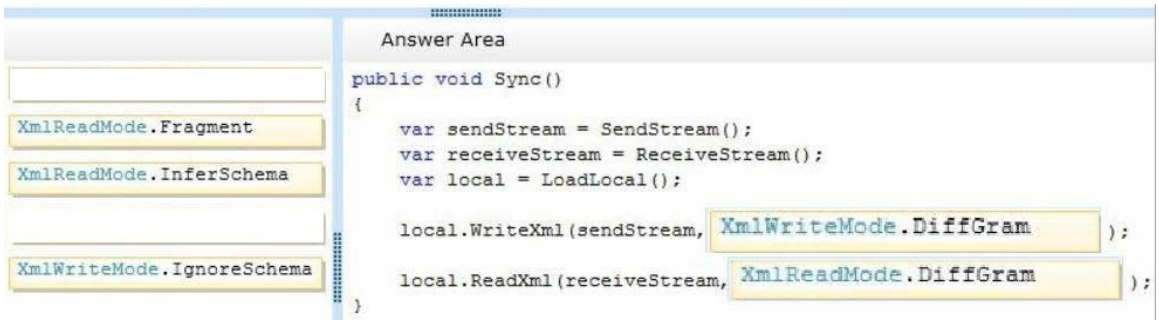
A. LINQ to XML
B. ADO.NET Entity Framework
C. ADO.NET DataSets
D. WCF Data Services

Answer: D

QUESTION 37
Drag and Drop Question
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.)



Answer:

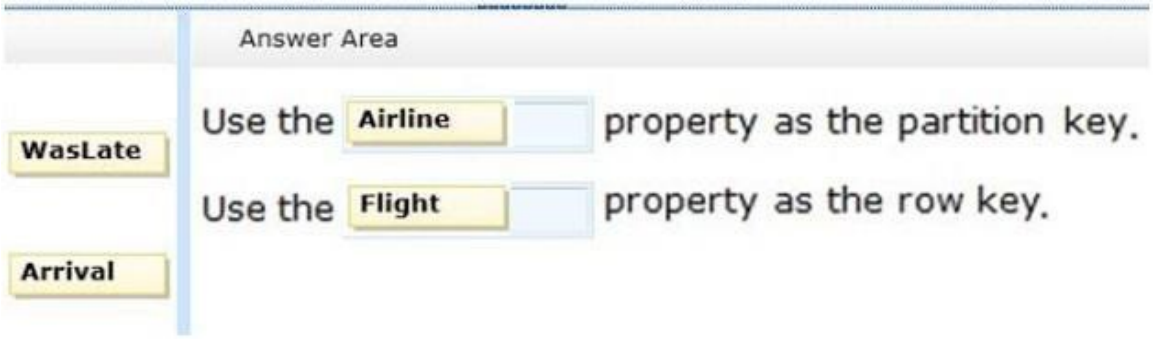


QUESTION 38

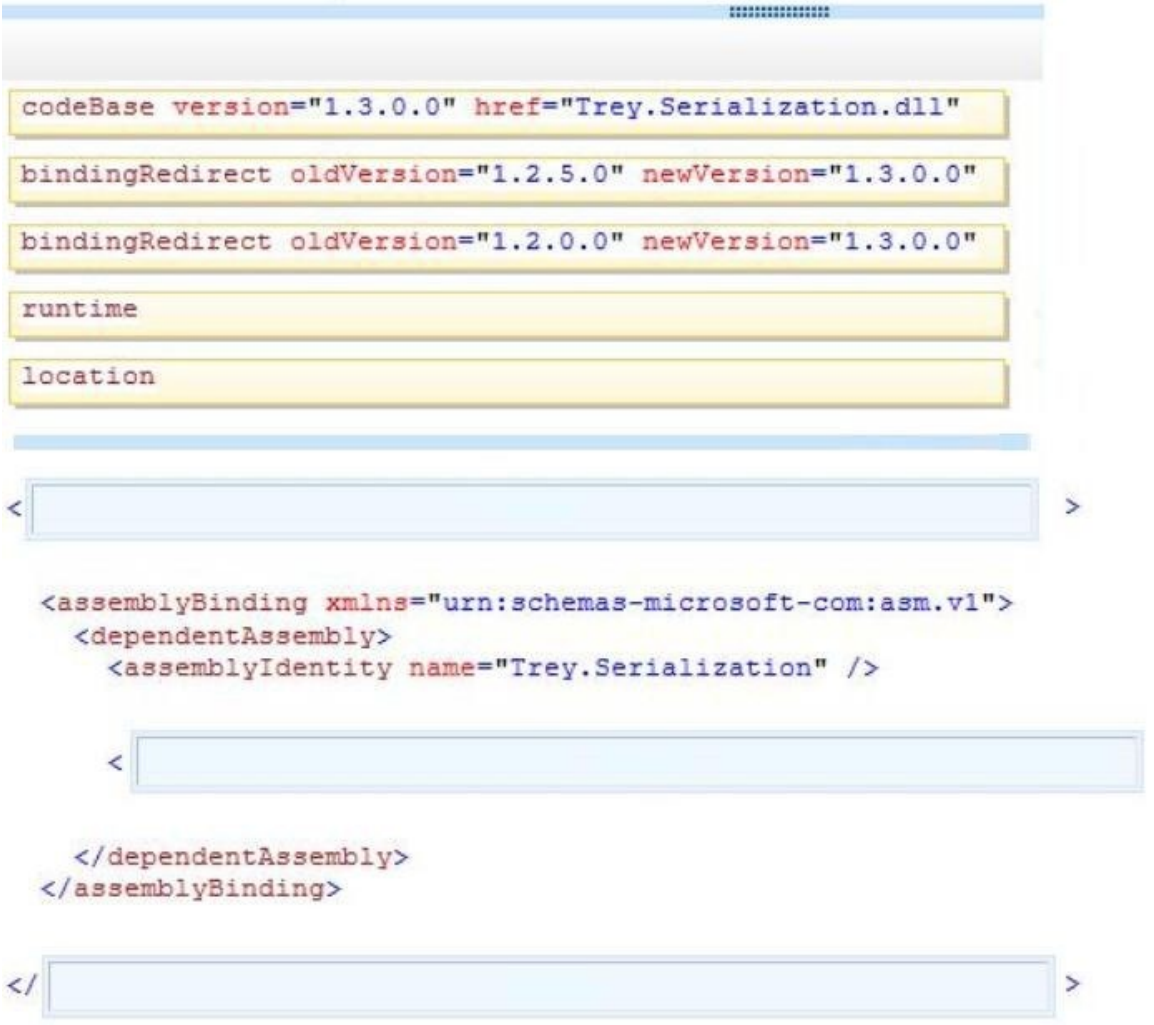
Drag and Drop Question

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.)

Answer:



QUESTION 39
Drag and Drop Question
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.)



Answer:

QUESTION 40

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

Answer: A