

## Microsoft.Passguide.70-487.v2014-09-13.by.DONG.45q

Number: 70-487 Passing Score: 800 Time Limit: 120 min File Version: 42.5



Pass Microsoft 70-487 Exam

**Exam Name: Developing Windows Azure and Web Services** 



#### **General Exam**

#### **QUESTION 1**

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: BC Section: (none) Explanation

#### **Explanation/Reference:**

#### **QUESTION 2**

**DRAG DROP** 

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.



```
"Fabrikam", VendorNumber = 9823,

"Fabrikam", VendorNumber = "9823",

new List<string> { "Apples", "Oranges" }

new List<string> { "Apples, Oranges" }

return new List<string>

return new List<string>

return new List<string>

return new List<string>

return new List<string>
```

Α.

Correct Answer: A Section: (none) Explanation

## **Explanation/Reference:**

```
public object Get()
{
    return new
{
        Name = "Fabrikam", VendorNumber = 9823,

        Items = new List<string> { "Apples", "Oranges" }
};
}
```

#### **QUESTION 3**

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



В. І	$\cap$	ST
D.	7 C J	01

C. DELETE

D. PUT

Correct Answer: D Section: (none) Explanation

## **Explanation/Reference:**

## **QUESTION 4**

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

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?



```
CA. <script>
       $ (function () {
          var $customers = $("#customers");
          S.ajax({
            url: "api/customers",
            dataType: "json",
            success: function (data) {
          1);
        1):
      </script>
CB. <script>
        $ (function () {
          var Scustomers = S("#customers");
          S.xml({
            url: "api/customers",
            dataType: "ajax",
            success: function (data) {
          1):
        1);
      </script>
CC. <script>
        $(function () {
          var $customers = $("#customers");
          $. ison ({
            url: "api/customers",
            dataType: "ajax",
            success: function (data) {
      </script>
```



Α.	Optio	n A
,	Optio	,,,,,

B. Option B

C. Option C

D. Option D

Correct Answer: A Section: (none) Explanation

**Explanation/Reference:** 

**QUESTION 5** DRAG DROP

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.)



	Answer Area		
POST	Action	HTTP method	Relative URI
DELETE	Retrieve a list of all customers		/api/customers
READ UPDATE	Retrieve a customer by id		/api/customers/id
	Retrieve a customer by category		/api/customer/?category=category
	Create a new customer		/api/customers
	Update a customer		/api/customers/id
	Remove a customer		/api/customers/id

A.

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

Put is missing



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 6**

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:**



#### **QUESTION 7**

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 8**

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: D Section: (none)



## **Explanation**

## **Explanation/Reference:**

## **QUESTION 9**

**DRAG DROP** 

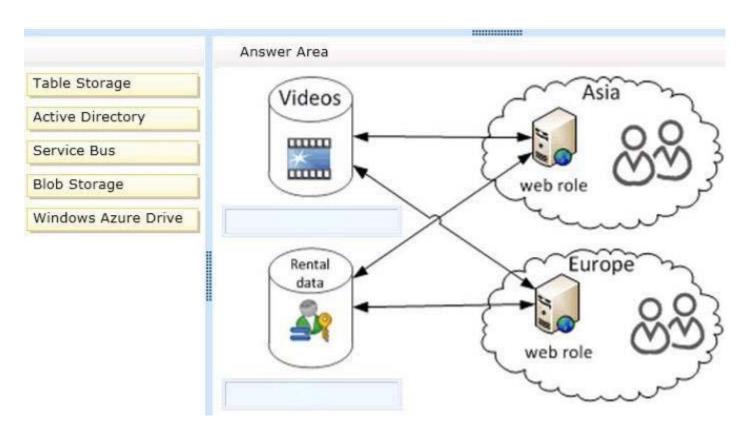
You are developing a Windows Azure based web application that provides users the ability to rent training videos. The application is deployed to hosted services in Asia and Europe.

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 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.)



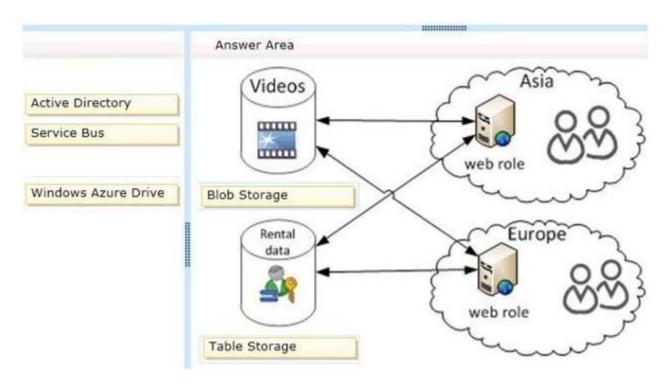


A.

Correct Answer: A Section: (none) Explanation

Explanation/Reference:





#### **QUESTION 10**

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:

- $\cdot$  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

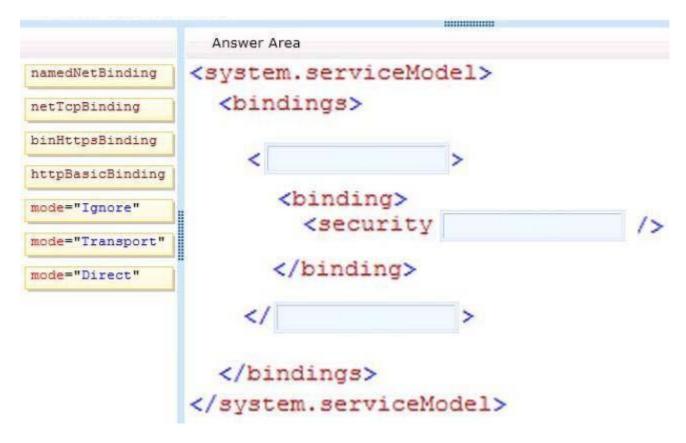


## **Explanation/Reference:**

## **QUESTION 11**

DRAG DROP

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.)



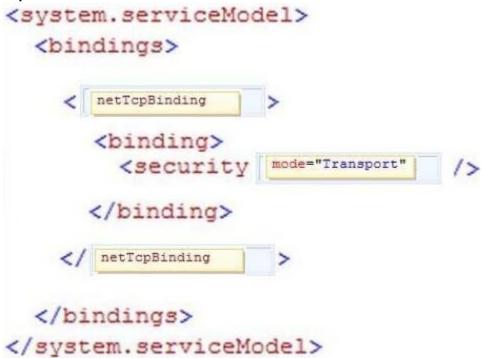
Α.

Correct Answer: A



Section: (none) Explanation

## **Explanation/Reference:**



#### **QUESTION 12**

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 13**

**DRAG DROP** 

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.)





Α.

Correct Answer: A Section: (none) Explanation

## **Explanation/Reference:**



```
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 }
            );
config
                             MaxBufferSize
                                                          1024 * 1024 * 2:
                             MaxReceivedMessageSize
config
config
                           TransferMode =
                                 Streamed
                  TransferMode.
            var server = new HttpSelfHostServer(config);
            server.OpenAsync().Wait();
```

#### QUESTION 14 DRAG DROP

You are developing an ASP.NET Web API action method.

The action method must return the following JSON in the message body.

{"Name": "Fabrikam", "Vendorld":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.)

```
"Fabrikam", VendorNumber = 9823,

"Fabrikam", VendorNumber = "9823",

new List<string> { "Dogs", "Cats" }

new List<string> { "Dogs, Cats" }

Items =

return new List<string>
};

return new
```

A.

Correct Answer: A Section: (none) Explanation

## **Explanation/Reference:**

```
public object Get()
{
    return new

{
    Name = "Fabrikam", VendorNumber = 9823,

    Items = new List<string> { "Dogs", "Cats" }
};
}
```

#### **QUESTION 15**



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

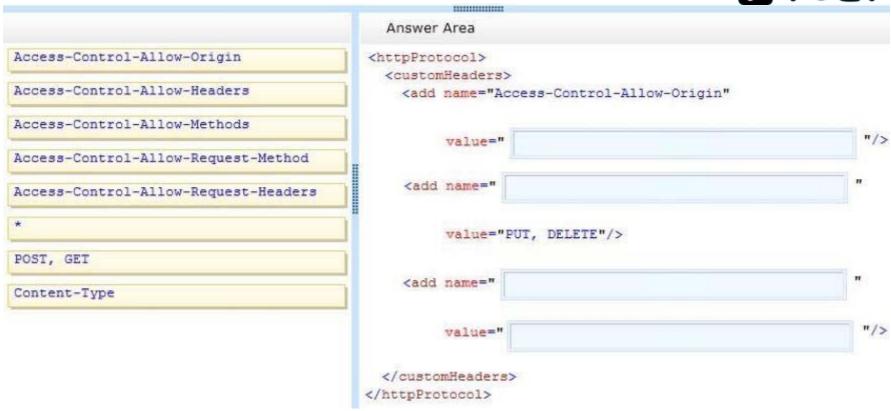
**Explanation/Reference:** 

## **QUESTION 16**

DRAG DROP

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.)





Α.

Correct Answer: A Section: (none) Explanation

**Explanation/Reference:** 





#### **QUESTION 17**

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?



```
C A. public ActionResult Index()
        IQueryable<Order> orders = db.Orders;
        orders = orders.Include("Customer");
        return View(orders.ToList());
C B. public ActionResult Index()
        IQueryable<Order> orders = db.Orders.Include("Order.Customer");
        return View(orders.ToList());
CC. public ActionResult Index()
        IQueryable<Order> orders = db.Orders;
        orders.Select(o => o.Customer).Load();
        return View(orders.ToList());
C 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 18**

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: D Section: (none) Explanation

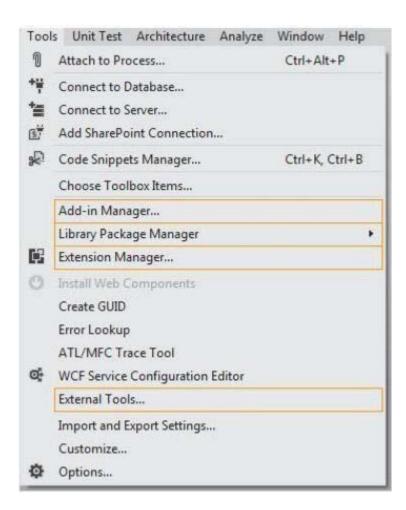
**Explanation/Reference:** 

## **QUESTION 19**

**HOTSPOT** 

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.)



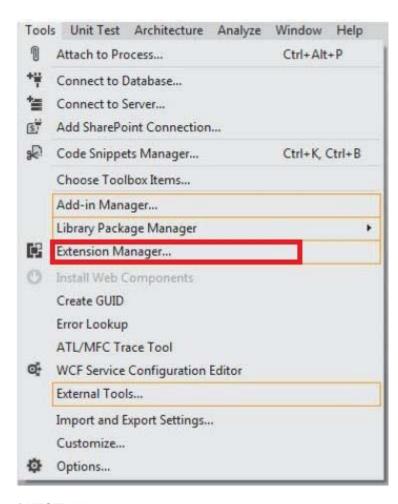


- A. Add-In Manager...
- B. Library Package Manager
- C. Extension Manager...
- D. External Tools...

Correct Answer: C Section: (none) Explanation

## Explanation/Reference:





#### **QUESTION 20**

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:** 

# **VCEPlus**

#### Case 1

#### **QUESTION 1**

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");
}
```





## 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();
```



A.

Correct Answer: A Section: (none) Explanation

**Explanation/Reference:** 

## **QUESTION 2**DRAG DROP

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.)



	50 1111111	*******		
	Answer Area			
http	<pre></pre>			
tcp				
https	<endpoints></endpoints>			
InternalEndpoint	<	name="Website"		
InputEndpoint				
80		protocol="	п	
22		port="	" />	
3389				
	<	name="Transfer"		
		protocol="		
		port="	" />	

A.

Correct Answer: A



Section: (none) Explanation

## **Explanation/Reference:**

"InputEndpoint", "http", "80"
"InputEndpoint", "tcp", "22"

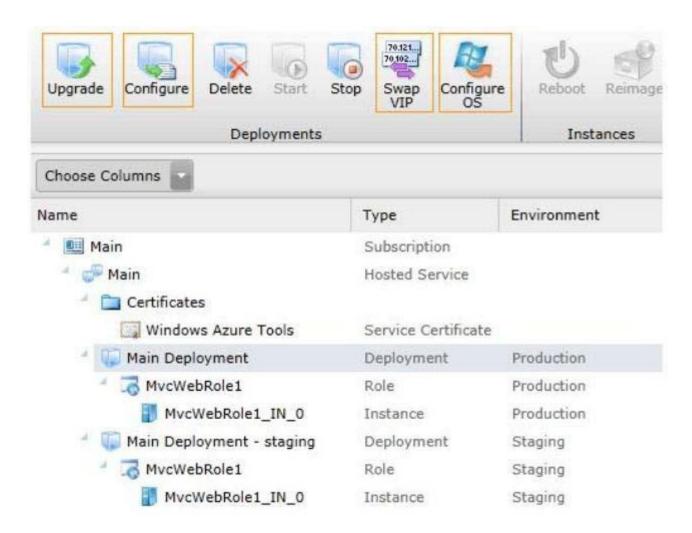
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## **QUESTION 3**

HOTSPOT

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.)



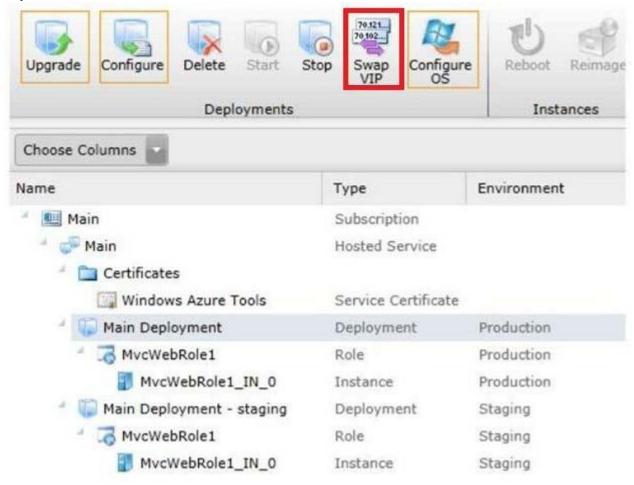


- A. Upgrade
- B. Configure
- C. Swap VIP
- D. Configure OS

Correct Answer: C Section: (none) Explanation



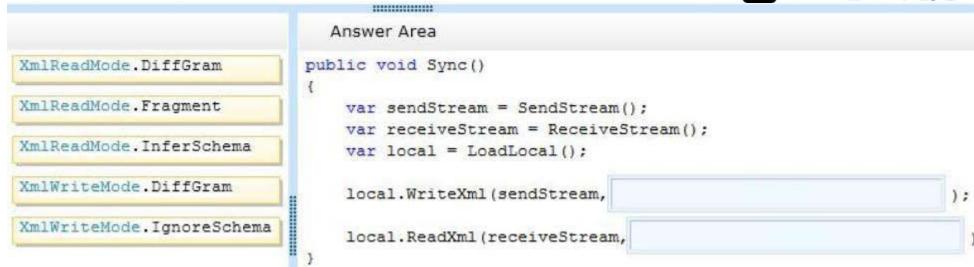
#### **Explanation/Reference:**



## **QUESTION 4** DRAG DROP

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.)





Α.

Correct Answer: A Section: (none) Explanation

#### **Explanation/Reference:**

XmlWriteMode.DiffGram and XmlReadMode.DiffGram

## **QUESTION 5**

DRAG DROP

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.)



```
.....
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>
```

Α.



Correct Answer: A Section: (none) Explanation

## **Explanation/Reference:**



#### **QUESTION 6**

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?



```
C A. var historical = LoadHistorical();
      var query = Context.FlightInfo.AsQueryable()
       .Join(historical, x => x.Flight, y => y.Flight, (x, y) => new { Current = x,
      Historical = v ))
       .Where (x => x.Historical.WasLate)
       .Select(x => x.Current);
CB. var historical = LoadHistorical();
      var query = Context.FlightInfo.AsEnumerable()
       .Where (x => historical.All(v => v.WasLate && x.Flight == v.Flight))
       .Select(x => x):
C.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);
C 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)
```

# **VCEPlus**

#### **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.

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#### **QUESTION 7**

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 8**

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 9**



You are adding a new REST service endpoint to the FlightDataController controller that returns the total number of seats for each airline. You need write a LINQ to Entities query to extract the required data.

Which code segment should you use?

```
C 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,
      1:
C 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),
       1:
C 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)),
       1:
C 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),
       1:
```



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

Correct Answer: D Section: (none) Explanation

### **Explanation/Reference:**

#### **QUESTION 10**

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 11**

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: CF Section: (none) Explanation

**Explanation/Reference:** 

#### **QUESTION 12**

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.cs file?



```
C 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();
CB responseWriter.WriteStartElement("Flights");
      var flights = RemoteDataStream().Select(x =>
         if (GetAirline(x) == airline)
           return ConvertToHistoricalFlight(x);
         return null:
       1):
      flights.TakeWhile(x =>
         x.WriteTo(responseWriter);
         return x != null;
       1):
      responseWriter.WriteEndElement();
C.C. var data = RemoteDataStream().ToDictionary(x =>
       GetAirline(x.Element("FlightName")),
       x => new XStreamingElement("Flights", ConvertToHistoricalFlight(x).Descendants()));
      data[airline].WriteTo(responseWriter);
C 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: A Section: (none) Explanation

**Explanation/Reference:** 

#### **QUESTION 13**

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.cs file?



```
C A var result = FlightInfo.SqlQuery("UPDATE WITH RETRY", FlightInfo, "IsTransient", 5);
      if (result.Count() > 5)
        result.AsNoTracking();
        return -1;
      return 0;
CB. try
        return base. SaveChanges();
      catch (EntityCommandExecutionException ex)
        if (ex.Data.Keys.Cast<int>().Any(x => IsTransient(x)))
          return 5 & SaveChanges();
        return -1;
CC. for (var i = 0; i < 5; i++)
        try
          return base. SaveChanges();
        catch (SqlException ex)
          if (IsTransient(ex.Number))
            continue;
      return base. SaveChanges();
C D. var exception = new EntitySqlException();
      while (exception. HResult != 0 && exception. Data. Count < 5)
        try
          return base. SaveChanges();
```

catch (EntitySqlException ex)



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

Correct Answer: C Section: (none) 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.



#### Case 2

### **QUESTION 1**

Case Study: 2

Scenario 2

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:

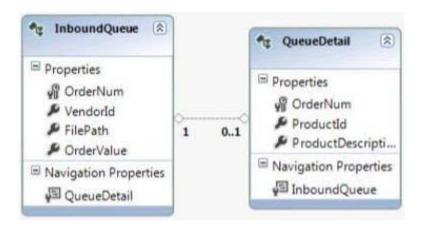
The solution contains the following four projects.

- 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.





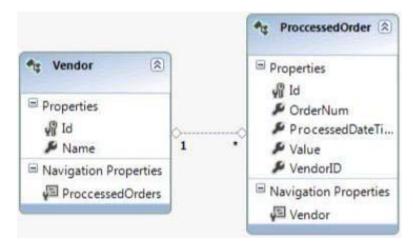
The project contains two services defined in the following files.

- IExternalQueueService.cs
- · 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.cs
- ProcessedOrderController.cs

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.cs
- · 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.cs file. The POCO entity must be loaded by using lazy loading. The project contains two services defined in the following files.

- · IShippingService.cs
- · 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 {
      [ServiceContract]
IQ07
      public interface IExternalQueueService
1008
1009
IQ10
       [OperationContract]
       List<Entities.InboundQueue> GetExternalOrders();
IQ11
I012
IQ13
       [FaultContract(typeof(OrderNotFoundException))]
IO14
       [OperationContract]
       void DeleteExternalOrder(int orderNum);
IQ15
IQ16
IQ17
       [OperationContract]
        Entities.InboundQueue GetExternalOrder(int orderNum);
IO18
IQ19
IQ20 }
```



#### OrderProcessor\IExternalQueueService.svc

EQ46

```
EQ01 using System;
EQ02 using System.Collections.Generic;
EQ03 using System.Ling;
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;
E011
EQ12 namespace ExternalQueue
E013 (
E014
       public class External Queue Service : IExternal Queue Service
EQ15
E016
         public List<Entities.InboundQueue> GetExternalOrders()
E017
EQ18
           List<InboundQueue> queueItems = new List<InboundQueue>();
E019
           return queueItems;
EQ20
E021
EQ22
         public void DeleteExternalOrder(int orderNum)
E023
EQ24
           using (var context = new ExternalOrdersEntities())
E025
EQ26
             var orders = context.InboundQueues.Where(i => i.OrderNum ==
orderNum) . ToList():
E027
             if (orders.Count() > 0)
EQ28
               using (EntityCommand cmd = new EntityCommand())
E029
E030
                 cmd.CommandText = "ExternalOrdersEntities.uspInboundQueueDelete";
EQ31
EQ32
                 cmd.CommandType = CommandType.StoredProcedure;
EQ33
                 EntityParameter param = new EntityParameter();
EQ34
                 param. Value = orderNum;
E035
                 param.ParameterName = "orderNum":
EQ36
                 cmd. Parameters. Add (param) ;
E037
                 ExecuteCommandProcedure(cmd);
EQ38
EQ39
EQ40
             else
EQ41
EQ42
               OrderNotFoundException ex = new OrderNotFoundException();
               ex.OrderNum = orderNum;
E043
EQ44
               ex.ExceptionMessage = "Order not found...Cannot delete";
EQ45
```



## ExternalQueue\ProcessedOrderController.cs

```
PC01 using System;
PC02 using System.Collections.Generic;
PC03 using System.Ling;
PC04 using System.Runtime.Caching;
PC05 using System.Web.Myc;
PC06 using OrderProcessor.Entities;
PCO7 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>();
             return View(orders);
PC19
PC20
PC21
         1
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>;
            if (vendors == null)
PC28
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();
PC42
```



```
OrderProcessor\InboundQueueController.cs
ICO1 using System;
ICO2 using System.Collections.Generic;
ICO3 using System.Web.Mvc;
ICO4 using OrderProcessor.Entities;
ICO5 using ExternalQueue.Entities:
ICO6 using System.ServiceModel;
ICO7 using System.Collections;
ICO8 using ExternalQueue.Helpers;
ICO9 using OrderProcessor.Helpers;
IC10 using System.Ling;
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 = gService.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
             gService.DeleteExternalOrder(orderNum);
IC39
IC40
           return RedirectToAction("GetQueueItems");
IC41
IC42
IC43
         public ActionResult ViewShippingInfo(int orderNum)
IC44
```

ShippingServiceClient shipService = new ShippingServiceClient();

IC45



## OrderUpload\IUploadCallbackService.cs

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



## OrderUpload\UploadCallbackService.svc

```
US01 using System.ServiceModel;
US02
US03 namespace OrderUpload
US04 {
      public class UploadCallbackService : IUploadCallbackService
US05
US06
US07
       public void UploadOrder(int orderNum)
US08
US09
US10
US11 }
Shipping\IShippingService.cs
ISO1 using System.Runtime.Serialization;
ISO2 using System.ServiceModel;
IS03
IS04 namespace Shipping
IS05 {
      public interface IShippingService
IS06
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
SAO8
       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; }
        public List<ShippingAddress> ShippingAddresses { get; set; }
SA20
SA21
SA22 }
```

Α.

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

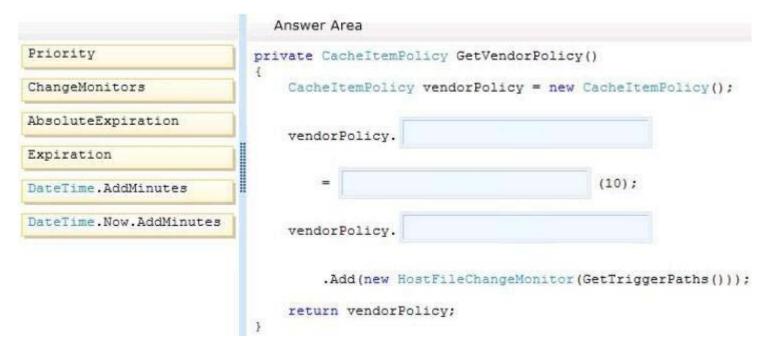
## **QUESTION 2**DRAG DROP

The GetVendorPolicy() private method in the ProcessedOrderController controller is returning a CacheltemPolicy 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.)



Α.

Correct Answer: A Section: (none) Explanation

**Explanation/Reference:** 



```
private CacheItemPolicy GetVendorPolicy()
{
    CacheItemPolicy vendorPolicy = new CacheItemPolicy();

    vendorPolicy. AbsoluteExpiration

    = DateTime.Now.AddMinutes (10);

    vendorPolicy. ChangeMonitors

    .Add(new HostFileChangeMonitor(GetTriggerPaths()));
    return vendorPolicy;
}
```

#### **QUESTION 3**

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?

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

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

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

C 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: A Section: (none) Explanation

## **Explanation/Reference:**

## QUESTION 4

**DRAG DROP** 

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.)







A.

Correct Answer: A Section: (none) Explanation

**Explanation/Reference:** 

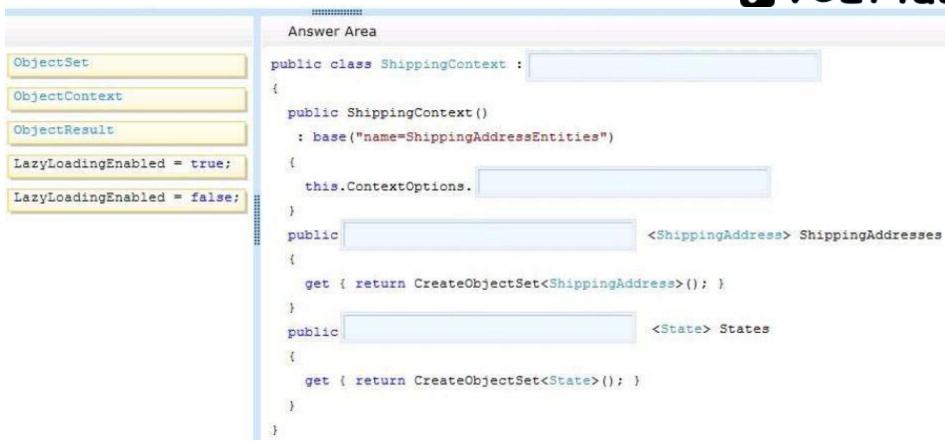


```
[ServiceContract]
public interface IShippingService
     [OperationContract]
    ShippingInfo GetShippingInfo(int orderNum);
 [DataContract]
public class State
     [DataMember]
    public string StateName { get; set; }
 [DataContract]
public class ShippingInfo : State
     [DataMember]
    public string StreetAddress { get; set; }
     [DataMember]
    public string ZipCode { get; set; }
```

## **QUESTION 5**DRAG DROP

You need to create the ShippingContext class in the ShippingAddress.cs 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.)





A.

Correct Answer: A Section: (none) Explanation

**Explanation/Reference:** 



### **QUESTION 6**

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



```
C A. private async Task ExecuteCommandProcedure(EntityCommand command)
        using (EntityConnection connection = new EntityConnection
      ("name=ExternalOrdersEntities"))
          command.Connection = connection;
          await connection.OpenAsync();
          await command. ExecuteNonQueryAsync();
C 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();
C 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 7**

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)

- 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:**

http://msdn.microsoft.com/en-us/library/ms586019.aspx

## **QUESTION 8**

DRAG DROP

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.)



Answer Area ExecuteReader public List<Entities.InboundQueue> GetExternalOrders() EntityConnection connection = ExecuteScalar SequentialAccess new EntityConnection("name= m): KevInfo connection.Open(); ExternalOrders EntityCommand cmd = connection.CreateCommand (); cmd.CommandText = @"select g.OrderNum, g.VendorId, ExternalOrdersEntities g. FilePath, g. OrderValue .InboundQueues as q"; from EntityDataReader rdr = cmd. (CommandBehavior. List<InboundQueue> queueItems = new List<InboundQueue>(); while (rdr.Read ()) InboundQueue gueueItem = 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;



A.

**Correct Answer:** A Section: (none) Explanation

**Explanation/Reference:**The second answer should also be ""ExternalOrdersEntities



```
public List<Entities.InboundQueue> GetExternalOrders()
    EntityConnection connection =
                                     ExternalOrdersEntities
        new EntityConnection("name=
    connection.Open();
    EntityCommand cmd = connection.CreateCommand ();
    cmd.CommandText = @"select g.OrderNum, g.VendorId,
                        g.FilePath, g.OrderValue
                               ExternalOrders
                                                            .InboundOueues as g":
    EntityDataReader rdr =
                                                              SequentialAccess
              ExecuteReader
                                            CommandBehavior
    List<InboundQueue> queueItems = new List<InboundQueue>();
    while (rdr.Read
                              ())
        InboundQueue gueueItem = 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;
```

#### **QUESTION 9**

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

Correct Answer: C Section: (none) Explanation

#### **Explanation/Reference:**

#### **QUESTION 10**

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 Cacheltem("vendorKey", vendors), GetVendorPolicy());
- B. cache.Add("vendors", vendors, new CacheltemPolicy());



- C. cache.Add(new Cacheltem("vendorKey", vendors), GetVendorPolicy());
- D. cache.AddOrGetExisting("vendorKey", context, new CacheltemPolicy());

Correct Answer: AC Section: (none) Explanation

## **Explanation/Reference:**

#### **QUESTION 11**

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:**

## **QUESTION 12**

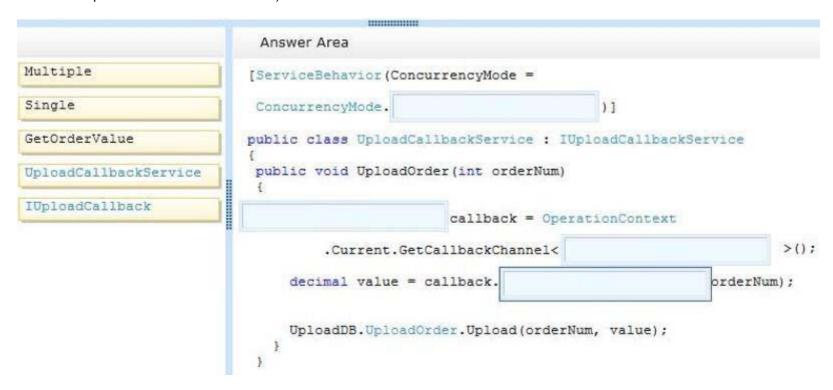
DRAG DROP

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.)



Α.

Correct Answer: A Section: (none) Explanation

**Explanation/Reference:** 

