

# Microsoft

## Exam 70-516

**TS: Accessing Data with Microsoft .NET Framework 4**

Version: 48.0

**[ Total Questions: 401 ]**

**Topic 3, VB Questions****Question No : 1 - (Topic 3)**

You are developing a Microsoft .NET Framework 4 application.

You need to collect performance data to the event log after the application is deployed to the production environment.

Which two components should you include in the project? (Each correct answer presents part of the solution. Choose two.)

- A. A trace listener
- B. A debug listener
- C. Debug.Asset() statements
- D. Debug.WriteLine() statements
- E. Trace.WriteLine() statements

**Answer: B,C**

**Explanation:** Tracing is a way for you to monitor the execution of your application while it is running.

Example:

For example, suppose you set up two listeners: a TextWriterTraceListener and an EventLogTraceListener. Each listener receives the same message. The TextWriterTraceListener would direct its output to a stream, and the EventLogTraceListener would direct its output to an event log.

The following example shows how to send output to the Listeners collection.

C#VB

```
// Use this example when debugging.
```

```
System.Diagnostics.Debug.WriteLine("Error in Widget 42");
```

```
// Use this example when tracing.
```

```
System.Diagnostics.Trace.WriteLine("Error in Widget 42");
```

**Question No : 2 - (Topic 3)**

You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an

application. The application uses the ADO.NET Entity Framework to model entities.

You need to create a database from your model.

What should you do?

- A. Run the edmggen.exe tool in FullGeneration mode.
- B. Run the edmggen.exe tool in FromSSDLGeneration mode.
- C. Use the Update Model Wizard in Visual Studio.
- D. Use the Generate Database Wizard in Visual Studio. Run the resulting script against a Microsoft SQL Server database.

**Answer: D**

**Explanation:**

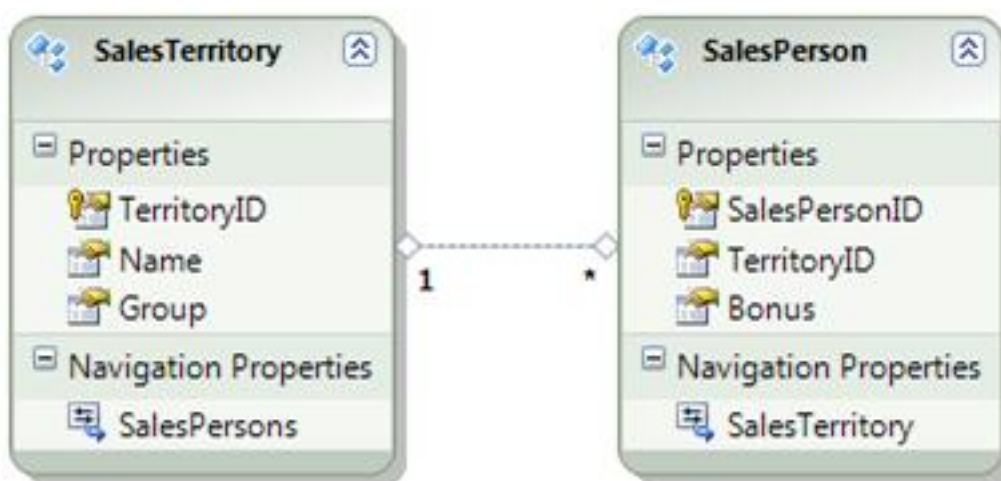
To update the database, right-click the Entity Framework designer surface and choose Generate Database From Model.

The Generate Database Wizard produces a SQL script file that you can edit and execute.

### Topic 5, Mixed Questions

#### Question No : 3 - (Topic 5)

You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to develop an application that uses the Entity Framework. The application has an entity model that includes SalesTerritory and SalesPerson entities as shown in the following diagram.



You need to calculate the total bonus for all sales people in each sales territory.

Which code segment should you use?

**A.** from person in model.SalesPersons  
group person by person.SalesTerritory  
into territoriesByPerson

select new

{

SalesTerritory = territoriesByPerson.Key,

TotalBonus = territoriesByPerson.Sum(person => person.Bonus)

};

**B.** from territory in model.SalesTerritories  
group territory by territory.SalesPersons  
into personByterritories

select new

{

SalesTerritory = personByterritories.Key,

TotalBonus = personByterritories.Key.Sum(person => person.Bonus)

};

**C.** model.SalesPersons

.GroupBy(person => person.SalesTerritory)

.SelectMany(group => group.Key.SalesPersons)

.Sum(person => person.Bonus);

**D.** model.SalesTerritories

.GroupBy(territory => territory.SalesPersons)

.SelectMany(group => group.Key)

.Sum(person => person.Bonus);

**Answer: A**

## Topic 1, C# Questions

### Question No : 4 - (Topic 1)

You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an application. The application connects to a Microsoft SQL Server database. The application uses DataContexts to query the database.

The application meets the following requirements:

Stores customer data offline.

Allows users to update customer records while they are disconnected from the server.

Enables offline changes to be submitted back to the SQL Server by using the DataContext object.

You need to ensure that the application can detect all conflicts that occur between the offline customer information submitted to the SQL Server and the server version.

You also need to ensure that you can roll back local changes.

What should you do?

- A.** Add a try/catch statement around calls to the SubmitChanges method of the DataContext object and catch ChangeConflictExceptions.
- B.** Add a try/catch statement around calls to the SubmitChanges method of the DataContext object and catch SqlExceptions.
- C.** Override the Update operation of the DataContext object. Call the ExecuteDynamicUpdate method to generate the update SQL.
- D.** Call the SubmitChanges method of the DataContext object. Pass System.Data.Linq.ConflictMode.ContinueOnConflict to the method.

**Answer: D**

**Explanation:**

FailOnFirstConflict Specifies that attempts to update the database should stop immediately when the first concurrency conflict error is detected.

ContinueOnConflict Specifies that all updates to the database should be tried, and that concurrency conflicts should be accumulated and returned at the end of the process.

ExecuteDynamicUpdate() Method Called inside update override methods to redelegate to LINQ to SQL the task of generating and executing dynamic SQL for update operations.

ConflictMode Enumeration

(<http://msdn.microsoft.com/en-us/library/bb345922.aspx>)

DataContext.ExecuteDynamicUpdate Method

([http://msdn.microsoft.com/en-](http://msdn.microsoft.com/en-us/library/system.data.linq.datacontext.executedynamicupdate.aspx)

[us/library/system.data.linq.datacontext.executedynamicupdate.aspx](http://msdn.microsoft.com/en-us/library/system.data.linq.datacontext.executedynamicupdate.aspx))

**Question No : 5 - (Topic 1)**

You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an

application. The application connects to a Microsoft SQL Server database. You use the ADO.NET Entity Framework to model entities.

You need to add a new type to your model that organizes scalar values within an entity.

You also need to map stored procedures for managing instances of the type.

What should you do?

**A.** Add the stored procedures in the SSDL file along with a Function attribute. Define a complex type in the CSDL file.

Map the stored procedure in the MSL file with a ModificationFunctionElement.

**B.** Add the stored procedures in the SSDL file along with a Function attribute. Define a complex type in the CSDL file.

Map the stored procedure in the MSL file with an AssociationEnd element.

**C.** Use the edmx designer to import the stored procedures.

Derive an entity class from the existing entity as a complex type.

Map the stored procedure in the MSL file with an AssociationEnd element.

**D.** Add the stored procedures in the SSDL file along with a Function attribute.

Derive an entity class from the existing entity as a complex type.

Map the stored procedure in the MSL file with a ModificationFunctionElement.

**Answer: A**

**Explanation:**

EndProperty Element (MSL)

(<http://msdn.microsoft.com/en-us/library/bb399578.aspx>)

AssosiationEnd Attribute

(<http://msdn.microsoft.com/en-us/library/cc716774.aspx>)

### Question No : 6 - (Topic 1)

You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to develop an application. You use the ADO.NET Entity Framework Designer to model entities.

You need to ensure that the entities are self-tracking.

What should you do in the ADO.NET Entity Framework Designer?

- A. Change the Code Generation Strategy option from Default to None.
- B. Change the Transform Related Text Templates On Save option to False.
- C. Add an ADO.NET Self-Tracking Entity Generator to the model.
- D. Add an ADO.NET EntityObject Generator to the model.

**Answer: C**

**Explanation:**

The ADO.NET Self-Tracking Entity Generator text template generates the object-layer code that consists of a custom typedObjectContext and entity classes that contain self-tracking state logic so that the entities themselves keep track of their state instead of ObjectContext doing so.

Probably the best usage of self-tracking entities is when working with N-tier applications.

CHAPTER 6 ADO.NET Entity Framework

Lesson 1: What Is the ADO.NET Entity Framework?

The Self-Tracking Entity Generator (page 405)

ADO.NET Self-Tracking Entity Generator Template

(<http://msdn.microsoft.com/en-us/library/ff477604.aspx>)

**Question No : 7 DRAG DROP - (Topic 1)**

You are developing an application that updates entries in a Microsoft SQL Server table named Orders. You need to ensure that you can update the rows in the Orders table by using optimistic concurrency.

What code should you use? (To answer, drag the appropriate properties to the correct locations. 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.)

Properties	Answer Area
Current	<pre> SqlDataAdapter adapter = new SqlDataAdapter(     "SELECT OrderID, OrderName FROM Orders ORDER BY OrderID", cnx); adapter.UpdateCommand = new SqlCommand(     "UPDATE Orders Set OrderID = @OrderID, OrderName = @OrderName " +     "WHERE OrderID = @oldOrderID AND OrderName = @oldOrderName", cnx); SqlParameter parameter = adapter.UpdateCommand.Parameters.Add(     "@OrderID", SqlDbType.NChar, 5, "OrderID"); parameter.SourceVersion = DataRowVersion. Property ; parameter = adapter.UpdateCommand.Parameters.Add(     "@OrderName", SqlDbType.NVarChar, 30, "OrderName"); parameter.SourceVersion = DataRowVersion. Property ; parameter = adapter.UpdateCommand.Parameters.Add(     "@oldOrderID", SqlDbType.NChar, 5, "OrderID"); parameter.SourceVersion = DataRowVersion. Property ; parameter = adapter.UpdateCommand.Parameters.Add(     "@oldOrderName", SqlDbType.NVarChar, 30, "OrderName"); parameter.SourceVersion = DataRowVersion. Property ; </pre>
Default	
Original	

**Answer:**

Properties	Answer Area
Current	<pre> SqlDataAdapter adapter = new SqlDataAdapter(     "SELECT OrderID, OrderName FROM Orders ORDER BY OrderID", cnx); adapter.UpdateCommand = new SqlCommand(     "UPDATE Orders Set OrderID = @OrderID, OrderName = @OrderName " +     "WHERE OrderID = @oldOrderID AND OrderName = @oldOrderName", cnx); SqlParameter parameter = adapter.UpdateCommand.Parameters.Add(     "@OrderID", SqlDbType.NChar, 5, "OrderID"); parameter.SourceVersion = DataRowVersion. Current ; parameter = adapter.UpdateCommand.Parameters.Add(     "@OrderName", SqlDbType.NVarChar, 30, "OrderName"); parameter.SourceVersion = DataRowVersion. Current ; parameter = adapter.UpdateCommand.Parameters.Add(     "@oldOrderID", SqlDbType.NChar, 5, "OrderID"); parameter.SourceVersion = DataRowVersion. Original ; parameter = adapter.UpdateCommand.Parameters.Add(     "@oldOrderName", SqlDbType.NVarChar, 30, "OrderName"); parameter.SourceVersion = DataRowVersion. Original ; </pre>
Default	
Original	

**Question No : 8 - (Topic 3)**

You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to develop an



application. You use the ADO.NET Entity Framework Designer to model entities.

The application includes twoObjectContext instances named context1 and context2.

You need to persist the changes in both object contexts within a single transaction.

Which code segment should you use?

**A.** Using scope As New TransactionScope()

```
context1.SaveChanges()
```

```
context2.SaveChanges()
```

```
End Using
```

**B.** Using scope As New TransactionScope()

```
Using scope1 As New _
```

```
TransactionScope(TransactionScopeOption.RequiresNew)
```

```
context1.SaveChanges()
```

```
scope1.Complete()
```

```
End Using
```

```
Using scope2 As New _
```

```
TransactionScope(TransactionScopeOption.RequiresNew)
```

```
context2.SaveChanges()
```

```
scope2.Complete()
```

```
End Using
```

```
scope.Complete()
```

```
End Using
```

**C.** Using scope As New TransactionScope()

```
Using scope As New _
```

```
TransactionScope(TransactionScopeOption.RequiresNew)
```

```
context1.SaveChanges()
```

```
End Using
```

```
Using scope As New _
```

```
TransactionScope(TransactionScopeOption.RequiresNew)
```

```
context2.SaveChanges()
```

```
End Using
```

```
End Using
```

**D.** Using scope As New TransactionScope()

```
context1.SaveChanges()
```

```
context2.SaveChanges()
```

```
scope.Complete()
```

```
End Using
```

**Answer: D**

**Explanation:**

TransactionScope.Complete Indicates that all operations within the scope are completed successfully.

TransactionScope Class

(<http://msdn.microsoft.com/en-us/library/system.transactions.transactionscope.aspx>)

**Question No : 9 - (Topic 1)**

You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an application.

You manually create your own Context class named AdventureWorksDB that inherits from Object Context.

You need to use Adventure WorksDB to invoke a stored procedure that is defined in the data source.

Which method should you call?

- A. Translate
- B. ExecuteFunction
- C. ExecuteStoreQuery
- D. ExecuteStoreCommand

**Answer: B**

**Explanation:**

ExecuteFunction(String, ObjectParameter[]) Executes a stored procedure or function that is defined in the data source and expressed in the conceptual model; discards any results returned from the function; and returns the number of rows affected by the execution.

ExecuteStoreCommand() Executes an arbitrary command directly against the data source using the existing connection.

ExecuteStoreQuery<TElement>(String, Object[]) Executes a query directly against the data source that returns a sequence of typed results.

Translate<TElement>(DbDataReader) Translates a DbDataReader that contains rows of entity data to objects of the requested entity type.

ObjectContext.ExecuteFunction Method

(<http://msdn.microsoft.com/en-us/library/dd986915.aspx>)