

# PASSTCERT

QUESTION & ANSWER

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**Exam** : **070-516**

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

**Version** : Demo

1.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create an application. The application uses the ADO.NET Entity Framework to model entities.

You define a Category class by writing the following code segment. (Line numbers are included for reference only.)

```
01 public class Category
02 {
03     public int CategoryID { get; set; }
04     public string CategoryName { get; set; }
05     public string Description { get; set; }
06     public byte[] Picture { get; set; }
07     ...
08 }
```

You need to add a collection named Products to the Category class. You also need to ensure that the collection supports deferred loading.

Which code segment should you insert at line 07?

- A. `public static List <Product> Products { get; set; }`
- B. `public virtual List <Product> Products { get; set; }`
- C. `public abstract List <Product> Products { get; set; }`
- D. `protected List <Product> Products { get; set; }`

**Answer: B**

2.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create a Windows Forms application.

You plan to deploy the application to several shared client computers. You write the following code segment.

(Line numbers are included for reference only.)

```
01 Configuration config = ConfigurationManager.OpenExeConfiguration(exeConfigName);
02 ...
03 config.Save();
04 ...
```

You need to encrypt the connection string stored in the .config file.

Which code segment should you insert at line 02.?

- A. `ConnectionStringsSection section = config.GetSection("connectionString") as ConnectionStringsSection;`  
`section.SectionInformation.ProtectSection("DataProtectionConfigurationProvider");`
- B. `ConnectionStringsSection section = config.GetSection("connectionStrings") as ConnectionStringsSection;`  
`section.SectionInformation.ProtectSection("DataProtectionConfigurationProvider");`
- C. `ConnectionStringsSection section = config.GetSection("connectionString") as ConnectionStringsSection;`  
`section.SectionInformation.ProtectSection("RsaProtectedConfigurationProvider");`
- D. `ConnectionStringsSection section = config.GetSection("connectionStrings") as ConnectionStringsSection;`  
`section.SectionInformation.ProtectSection("RsaProtectedConfigurationProvider");`

**Answer: D**

3.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create an application. The application connects to a Microsoft SQL Server database. The application uses the ADO.NET Entity Framework to model entities.

The database includes objects based on the exhibit.

The application includes the following code segment. (Line numbers are included for reference only.)

```
01 using (AdventureWorksEntities context = new AdventureWorksEntities()){
02     ...
03     foreach (SalesOrderHeader order in customer.SalesOrderHeader){
04         Console.WriteLine(String.Format("Order: {0} ", order.SalesOrderNumber));
05         foreach (SalesOrderDetail item in order.SalesOrderDetail){
06             Console.WriteLine(String.Format("Quantity: {0} ", item.Quantity));
07             Console.WriteLine(String.Format("Product: {0} ", item.Product.Name));
08         }
09     }
10 }
```

You want to list all the orders for a specified customer. You need to ensure that the list contains the following fields:

Order number

Quantity of products

Product name

Which code segment should you insert at line 02?

A. `Contact customer = context.Contact.Where("it.ContactID = @customerId", new ObjectParameter("@customerId", customerId)).First();`

B. `Contact customer = context.Contact.Where("it.ContactID = @customerId", new ObjectParameter("customerId", customerId)).First();`

C. `context.ContextOptions.LazyLoadingEnabled = true;`

`Contact customer = (from contact in context.Contact`  
`include("SalesOrderHeader.SalesOrderDetail")`  
`select conatct).FirstOrDefault();`

D. `Contact customer = (from contact in context.Contact`  
`include("SalesOrderHeader")`  
`select conatct).FirstOrDefault();`

**Answer: B**

4.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create an application. You use the ADO.NET Entity Framework to model entities. You write the following code segment. (Line numbers are included for reference only.)

```
01 AdventureWorksEntities context = new
AdventureWorksEntities("http://localhost:1234/AdventureWorks.svc");
02 ...
03 var q = from c in context.Customers
04         where c.City == "London"
```

```
05         orderby c.CompanyName
06         select c;
```

You need to ensure that the application meets the following requirements:

Compares the current values of unmodified properties with values returned from the data source.

Marks the property as modified when the properties are not the same.

Which code segment should you insert at line 02?

- A. context.MergeOption = MergeOption.AppendOnly;
- B. context.MergeOption = MergeOption.PreserveChanges;
- C. context.MergeOption = MergeOption.OverwriteChanges;
- D. context.MergeOption = MergeOption.NoTracking;

**Answer: B**

5.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create an application. You use the ADO.NET Entity Framework to model entities. You write the following code segment. (Line numbers are included for reference only.)

```
01 public partial class SalesOrderDetail : EntityObject
02 {
03     partial void OnOrderQtyChanging(short value)
04     {
05         ...
06         {
07             ...
08         }
09     }
10 }
```

You need to find out whether the object has a valid ObjectStateEntry instance. Which code segment should you insert at line 05?

- A. if (this.EntityState != EntityState.Detached)
- B. if (this.EntityState != EntityState.Unchanged)
- C. if (this.EntityState != EntityState.Modified)
- D. if (this.EntityState != EntityState.Added)

**Answer: D**

6.You use Microsoft Visual Studio 2010, Microsoft Sync Framework, and Microsoft .NET Framework 4.0 to create an application.

You have a ServerSyncProvider connected to a Microsoft SQL Server database. The database is hosted on a Web server.

Users will use the Internet to access the Customer database through the ServerSyncProvider.

You write the following code segment. (Line numbers are included for reference only.)

```
01 SyncTable customerSyncTable = new SyncTable("Customer");
02 customerSyncTable.CreationOption = TableCreationOption.UploadExistingOrCreateNewTable;
03 ...
04 customerSyncTable.SyncGroup = customerSyncGroup;
05 this.Configuration.SyncTables.Add(customerSyncTable);
```

You need to ensure that the application meets the following requirements:

Users can modify data locally and receive changes from the server.

Only changed rows are transferred during synchronization.

Which code segment should you insert at line 03?

A. `customerSyncTable.SyncDirection = SyncDirection.DownloadOnly;`

B. `customerSyncTable.SyncDirection = SyncDirection.Snapshot;`

C. `customerSyncTable.SyncDirection = SyncDirection.Bidirectional;`

D. `customerSyncTable.SyncDirection = SyncDirection.UploadOnly;`

**Answer: C**

7.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create a Windows Communication Foundation (WCF) Data Services service.

The service connects to a Microsoft SQL Server 2008 database. The service is hosted by an Internet Information Services (IIS) 6.0 Web server.

The application works correctly in the development environment. However, when you connect to the service on

the production server, attempting to update or delete an entity results in an error.

You need to ensure that you can update and delete entities on the production server. What should you do?

A. Add the following line of code to the InitializeService method of the service:

`config.SetEntitySetAccessRule ("*", EntitySetRights.WriteDelete | EntitySetRights.WriteInsert);`

B. Add the following line of code to the InitializeService method of the service:

`config.SetEntitySetAccessRule ("*", EntitySetRights.WriteDelete | EntitySetRights.WriteMerge);`

C. Configure IIS to allow the PUT and DELETE verbs for the .svc Application Extension.

D. Configure IIS to allow the POST and DELETE verbs for the .svc Application Extension.

**Answer: C**

8.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create an application.

The application connects to a Microsoft SQL Server 2008 database. The database includes a table named `dbo.Documents`

that contains a column with large binary data. You are creating the Data Access Layer (DAL).

You add the following code segment to query the `dbo.Documents` table. (Line numbers are included for reference only.)

```
01 public void LoadDocuments(DbConnection cnx)
02 {
03     var cmd = cnx.CreateCommand();
04     cmd.CommandText = "SELECT * FROM dbo.Documents";
05     ...
06     cnx.Open();
07     ...
08     ReadDocument(reader);
09 }
```

You need to ensure that data can be read as a stream. Which code segment should you insert at line 07?

A. `var reader = cmd.ExecuteReader(CommandBehavior.Default);`

- B. var reader = cmd.ExecuteReader(CommandBehavior.SchemaOnly);
- C. var reader = cmd.ExecuteReader(CommandBehavior.KeyInfo);
- D. var reader = cmd.ExecuteReader(CommandBehavior.SequentialAccess);

**Answer: D**

9. You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create an application. The application connects to a Microsoft SQL Server database. You create a DataSet object in the application.

You add two DataTable objects named App\_Products and App\_Categories to the DataSet.

You add the following code segment to populate the DataSet object.

(Line numbers are included for reference only.)

```
01 public void Fill(SqlConnection cnx, DataSet ds)
02 {
03     var cmd = cnx.CreateCommand();
04     cmd.CommandText = "SELECT * FROM dbo.Products; " + "SELECT * FROM dbo.Categories";
05     var adapter = new SqlDataAdapter(cmd);
06     ...
07 }
```

You need to ensure that App\_Products and App\_Categories are populated from the dbo.Products and dbo.Categories database tables.

Which code segment should you insert at line 06?

- A. adapter.Fill(ds, "Products");  
adapter.Fill(ds, "Categories");
- B. adapter.Fill(ds.Tables["App\_Products"]);  
adapter.Fill(ds.Tables["App\_Categories"]);
- C. adapter.TableMappings.Add("Table", "App\_Products");  
adapter.TableMappings.Add("Table1", "App\_Categories");  
adapter.Fill(ds);
- D. adapter.TableMappings.Add("Products", "App\_Products");  
adapter.TableMappings.Add("Categories", "App\_Categories");  
adapter.Fill(ds);

**Answer: D**

10. You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create a Windows Communication

Foundation (WCF) Data Services service. You deploy the data service to the following URL:

<http://contoso.com/Northwind.svc>.

You add the following code segment. (Line numbers are included for reference only.)

```
01 var uri = new Uri(@"http://contoso.com/Northwind.svc/");
02 var ctx = new NorthwindEntities(uri);
03 var categories = from c in ctx.Categories select c;
04 foreach (var category in categories) {
05     PrintCategory(category);
06     ...
```

```

07  foreach (var product in category.Products) {
08      ...
09      PrintProduct(product);
10  }
11 }

```

You need to ensure that the Product data for each Category object is lazy-loaded. What should you do?

A. Add the following code segment at line 06:

```
ctx.LoadProperty(category, "Products");
```

B. Add the following code segment at line 08:

```
ctx.LoadProperty(product, "*");
```

C. Add the following code segment at line 06:

```
var strPrdUri = string.Format("Categories({0})?$expand=Products", category.CategoryID);
```

```
var productUri = new Uri(strPrdUri, UriKind.Relative);
```

```
ctx.Execute<Product>(productUri);
```

D. Add the following code segment at line 08:

```
var strprdUri= string.format("Products?$filter=CategoryID eq {0}", category.CategoryID);
```

```
var prodcutUri = new Uri(strPrd, UriKind.Relative);
```

```
ctx.Execute<Product>(productUri);
```

**Answer: A**

11. You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create an application. The application connects to a Microsoft SQL Server database. You load records from the Customers table into a DataSet object named dataset.

You need to retrieve the value of the City field from the first and last records in the Customers table.

Which code segment should you use?

A. DataTable dt = dataset.Tables["Customers"];

```
string first = dt.Rows[0]["City"].ToString();
```

```
string last = dt.Rows[dt.Rows.Count - 1]["City"].ToString();
```

B. DataTable dt = dataset.Tables["Customers"];

```
string first = dt.Rows[0]["City"].ToString();
```

```
string last = dt.Rows[dt.Rows.Count]["City"].ToString();
```

C. DataRelation relationFirst = dataset.Relations[0];

```
DataRelation relationLast = dataset.Relations[dataset.Relations.Count - 1];
```

```
string first = relationFirst.childTable.Columns["City"].ToString();
```

```
string last = relationLast.childTable.Columns["City"].ToString();
```

D. DataRelation relationFirst = dataset.Relations[0];

```
DataRelation relationLast = dataset.Relations[dataset.Relations.Count];
```

```
string first = relationFirst.childTable.Columns["City"].ToString();
```

```
string last = relationLast.childTable.Columns["City"].ToString();
```

**Answer: A**

12. You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create an application.

The application connects to a Microsoft SQL Server database.

The application has two DataTable objects that reference the Customers and Orders tables in the



database.

The application contains the following code segment. (Line numbers are included for reference only.)

```
01 DataSet customerOrders = new DataSet();
02 customerOrders.EnforceConstraints = true;
03 ForeignKeyConstraint ordersFK = new ForeignKeyConstraint("ordersFK",
04
customerOrders.Tables["Customers"].Columns["CustomerID"],
05
customerOrders.Tables["Orders"].Columns["CustomerID"]);
06 ...
07 customerOrders.Tables["Orders"].Constraints.Add(ordersFK);
```

You need to ensure that an exception is thrown when you attempt to delete Customer records that have related Order records.

Which code segment should you insert at line 06?

- A. ordersFK.DeleteRule = Rule.SetDefault;
- B. ordersFK.DeleteRule = Rule.None;
- C. ordersFK.DeleteRule = Rule.SetNull;
- D. ordersFK.DeleteRule = Rule.Cascade;

**Answer: B**

13. You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create an application.

The application connects to a Microsoft SQL Server database.

The application uses a DataTable named OrderDetailTable that has the following columns:

ID  
OrderID  
ProductID  
Quantity  
LineTotal

Some records contain a null value in the LineTotal field and 0 in the Quantity field.

You write the following code segment. (Line numbers are included for reference only.)

```
01 DataColumn column = new DataColumn("UnitPrice", typeof(double));
02 ...
03 OrderDetailTable.Columns.Add(column);
```

You need to add a calculated DataColumn named UnitPrice to the OrderDetailTable object.

You also need to ensure that UnitPrice is set to 0 when it cannot be calculated.

Which code segment should you insert at line 02?

- A. column.Expression = "LineTotal/Quantity";
- B. column.Expression = "LineTotal/ISNULL(Quantity, 1)";
- C. column.Expression = "if(Quantity > 0, LineTotal/Quantity, 0)";
- D. column.Expression = "iif(Quantity > 0, LineTotal/Quantity, 0)";

**Answer: D**

14. You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create an application.

The application connects to a Microsoft SQL Server database and contains a LINQ to SQL data model.

The data model contains a function named createCustomer that calls a stored procedure.

The stored procedure is also named createCustomer. The createCustomer function has the following signature.

createCustomer (Guid customerID, String customerName, String address1)

The application contains the following code segment. (Line numbers are included for reference only.)

```
01 CustomDataContext context = new CustomDataContext();
02 Guid userID = Guid.NewGuid();
03 String address1 = "1 Main Steet";
04 String name = "Marc";
05 ...
```

You need to use the createCustomer stored procedure to add a customer to the database.

Which code segment should you insert at line 05?

- A. context.createCustomer(userID, customer1, address1);
- B. context.ExecuteCommand("createCustomer", userID, customer1, address1);  
Customer customer = new Customer() { ID = userID, Address1 = address1, Name = customer1, };
- C. context.ExecuteCommand("createCustomer", customer);  
Customer customer = new Customer() { ID = userID, Address1 = address1, Name = customer1, };
- D. context.ExecuteQuery(typeof(Customer), "createCustomer", customer);

**Answer: A**

15. You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create an application.

The application connects to a Microsoft SQL Server database.

You use the ADO.NET Entity Framework to manage persistence-ignorant entities. You create anObjectContext instance named context.

Then, you directly modify properties on several entities. You need to save the modified entity values to the database.

Which code segment should you use?

- A. context.SaveChanges(SaveOptions.AcceptAllChangesAfterSave);
- B. context.SaveChanges(SaveOptions.DetectChangesBeforeSave);
- C. context.SaveChanges(SaveOptions.None);
- D. context.SaveChanges();

**Answer: B**

16. You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create an application.

You use the ADO.NET Entity Data Model (EDM) to define a Customer entity.

You need to add a new Customer to the data store without setting all the customer's properties. What should you do?

- A. Call the Create method of the Customer object.
- B. Call the CreateObject method of the Customer object.
- C. Override the Create method for the Customer object.
- D. Override the SaveChanges method for the Customer object.

**Answer: B**

17. You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create an application.

The application connects to a Microsoft SQL Server 2008 database.

You use the ADO.NET Entity Framework to model your entities. You use ADO.NET self-tracking entities. You need to ensure that the change-tracking information for the self-tracking entities can be used to update the database.

WhichObjectContext method should you call after changes are made to the entities?

- A. Attach
- B. Refresh
- C. SaveChanges
- D. ApplyChanges

**Answer: D**

18. You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create an application. The application uses the ADO.NET Entity Framework to manage Plain Old CLR Objects (POCO) entities. You create a new POCO class. You need to ensure that the class meets the following requirements:

It can be used by an ObjectContext.

It is enabled for change-tracking proxies.

Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- A. Modify each mapped property to contain sealed and protected accessors.
- B. Modify each mapped property to contain non-sealed, public, and virtual accessors.
- C. Configure the navigation property to return a type that implements the ICollection interface.
- D. Configure the navigation property to return a type that implements the IQueryable interface.
- E. Configure the navigation property to return a type that implements the IEntityWithRelationships interface.

**Answer: BC**

19. You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create an application. The application uses the ADO.NET Entity Framework to model entities. The application allows users to make changes while disconnected from the data store. Changes are submitted to the data store by using the SubmitChanges method of the DataContext object. You receive an exception when you call the SubmitChanges method to submit entities that a user has changed in offline mode.

You need to ensure that entities changed in offline mode can be successfully updated in the data store.

What should you do?

- A. Set the ObjectTrackingEnabled property of DataContext to true.
- B. Set the DeferredLoadingEnabled property of DataContext to true.
- C. Call the SaveChanges method of DataContext with a value of false.
- D. Call the SubmitChanges method of DataContext with a value of System.Data.Linq.ConflictMode.ContinueOnConflict.

**Answer: A**

20. You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4.0 to create an application. The application connects to a Microsoft SQL Server database. The application uses the ADO.NET LINQ to SQL model to retrieve data from the database. The application will not modify retrieved data. You need to ensure that all the requested data is retrieved. You want to achieve this goal using the minimum amount of resources. What should you do?

- A. Set ObjectTrackingEnabled to true on the DataContext class.
- B. Set ObjectTrackingEnabled to false on the DataContext class.
- C. Set DeferredLoadingEnabled to true on the DataContext class.
- D. Set DeferredLoadingEnabled to false on the DataContext class.

**Answer: B**