

MCTS Self-Paced Training Kit (Exam 70-516): Accessing Data with Microsoft® .NET Framework 4

ISBN: 978-0-7356-2739-0

First printing: June, 2011

To ensure the ongoing accuracy of this book and its companion content, we've reviewed and confirmed the errors listed below. If you find a new error, we hope you'll report it to us on our website: www.microsoftpressstore.com/contact-us/errata.

Page	Location	Description	Date corrected
N/A	Throughout book	All references to: Code First Should read: Model First	8/12/2011
7	Exam Tip reader aid, first line	Reads: AutoIncementStep and AutoIncrementSeed Should read: AutoIncrementStep and AutoIncrementSeed	8/12/2011
8	Fourth paragraph, end of second line	Reads: ...you can use the ImportDataRow method,... Should read: ...you can use the ImportRow method,...	8/12/2011
10	Table, last row, description column	Reads: An attached data row is deleted by using the Delete method of the DataRow object or when it is removed from its table by calling the DataTable.DeleteRow method. Should read: An attached data row is deleted by using the Delete method of the DataRow object.	8/12/2011
12	Visual Basic code sample, fourth and fifth lines	Reads: Dim retVal As String = String.Format(_ "RowState: {0}" + vbCrLf Should read: Dim retVal As String = String.Format(_ "RowState: {0}" + vbCrLf, row.RowState);	8/12/2011

Page	Location	Description	Date corrected
13	Note reader aid, last sentence	<p>Reads: Because the rows are now synchronized with the rows at the database server.</p> <p>Should read: Because the rows are now synchronized with the rows at the database server. (Depending on how you loaded the data, this call may have been made automatically for you).</p>	10/15/2014
13	First paragraph, fourth line	<p>Reads: In a typical data environment (after data has been loaded), the DataRow state of the loaded rows is set to Added. Calling AcceptChanges on the data table resets the row state of all the DataRow objects to Unchanged.</p> <p>Should read: In a typical data environment (after data has been loaded), the DataRow state of the loaded rows is set to Added. Calling AcceptChanges on the data table resets the row state of all the DataRow objects to Unchanged. (Depending on how you loaded the data, this call may have been made automatically for you.)</p>	10/15/2014
14	Visual Basic code block, third-to-last line	<p>Reads: For Each dr As DataRow In dt.Rows</p> <p>Should read: For Each dr As DataRow In cars.Rows</p>	8/12/2011
21	Visual Basic code block, third line	<p>Reads: Dim vendor as DataTable = vendorData.Tables.Add("Vendors")</p> <p>Should read: Dim vendors as DataTable = vendorData.Tables.Add("Vendors")</p>	8/12/2011
21	C# code block, sixth line from bottom	<p>Reads: DataTable part = vendorData.Tables.Add("Parts");</p> <p>Should read: DataTable parts = vendorData.Tables.Add("Parts");</p>	8/12/2011
26	Second paragraph, last sentence	<p>Reads: You can set ChangeRule to a member of the Rule enumeration to get the appropriate behavior.</p> <p>Should read: You can set UpdateRule to a member of the Rule enumeration to get the appropriate behavior.</p>	10/15/2014

Page	Location	Description	Date corrected
26	Visual Basic and C# code blocks	<p>Middle line of Visual Basic code reads: Dim fk as ForeignKeyConstraint = part.Constraints("vendors_parts")</p> <p>Should read: Dim fk as ForeignKeyConstraint = parts.Constraints("vendors_parts")</p> <p>Penultimate line of C# code reads: (ForeignKeyConstraint)part.Constraints["vendors_parts"];</p> <p>Should read: (ForeignKeyConstraint)parts.Constraints["vendors_parts"];</p>	8/12/2011
27	C# code block, third-to-last line	<p>Reads: people.PrimaryKey = new DataColumn[] { person.Columns["Id"] };</p> <p>Should read: people.PrimaryKey = new DataColumn[] { people.Columns["Id"] };</p>	8/12/2011
28	Second paragraph, penultimate line	<p>Reads: ...the Sales data table and its data are added to masterData.</p> <p>Should read: ...the Orders data table and its data are added to masterData.</p>	10/15/2014
33	Question 2, first sentence	<p>Reads: You want to set up a primary key column.</p> <p>Should read: You want to set up an auto-number primary key column.</p>	10/15/2014
34	Last paragraph	<p>Reads: If this code is executed on the cars DataSet defined in the previous lesson...</p> <p>Should read: If this code is executed on the cars DataTable defined in the previous lesson...</p>	10/15/2014
35	Second paragraph, second sentence	<p>Reads: To change the name of the repeating element for the DataRow objects from Car to Auto, you can change...</p> <p>Should read: To change the name of the repeating element for the DataRow objects from Cars to Auto, you can change...</p>	10/15/2014
41	Visual Basic code block, third line	<p>Reads: Dim vendor as DataTable = vendorData.Tables.Add("Vendors")</p> <p>Should read: Dim vendors as DataTable = vendorData.Tables.Add("Vendors")</p>	10/15/2014

Page	Location	Description	Date corrected
44	Visual Basic and C# sample code blocks	<p>Reads:</p> <pre>Dim fs as new FileStream(_ desktopFileName("VendorData.bin"), FileMode.Create)</pre> <p>Visual Basic code should read:</p> <pre>Dim fs as new FileStream(_ desktopFileName("VendorData.bin"), FileMode.Create)</pre> <p>C# code should read:</p> <pre>FileStream fs = new FileStream(desktopFileName("VendorData.bin"), FileMode.Create);</pre>	8/12/2011
47	Fourth paragraph, second and third sentences	<p>Reads:</p> <p>If the end of data is reached, the Read method returns null. Any attempt to execute the Read method after the end of data is reached will always return null, even if more DataRow objects are added.</p> <p>Should read:</p> <p>If the end of data is reached, the Read method returns false and no data is loaded. Any attempt to execute the Read method after the end of data is reached will always return false and no data will be loaded, even if more DataRow objects are added.</p>	10/15/2014
47	First paragraph, second sentence	<p>Reads:</p> <p>For example, if you are using DataTableReader to iterate over the rows in a DataTable object, you will be able to add or remove rows while in your looping code.</p> <p>Should read:</p> <p>For example, if you are using DataTableReader object to iterate over the rows in a DataTable object, you won't be able to use the DataTableReader to modify the rows, but you will be able to access the DataTable object in your looping code to directly add or remove rows.</p>	8/12/2011
49, 50	Visual Basic and C# code blocks	<p>The lines that read:</p> <pre>Dim theCar = CType(cars.Rows(0)("CarObject"), Car)</pre> <p>Should read:</p> <pre>Dim theCars = CType(cars.Rows(0)("CarObject"), Car)</pre> <p>The lines that read:</p> <pre>Return Car</pre> <p>Should read:</p> <pre>Return cars</pre>	8/12/2011

Page	Location	Description	Date corrected
52	Both bulleted item lead-ins	<p>First bulleted lead-in reads: DisplayMember</p> <p>Should read: DataTextField</p> <p>Second bulleted lead-in reads: ValueMember</p> <p>Should read: DataValueField</p>	10/15/2014
66	Table 2-1, last row, middle column	<p>Reads: SqlPermission</p> <p>Should read: SqlClientPermission</p>	10/15/2014
69	"Configuring an OLEDB Connection String" section, first paragraph, last sentence	<p>Reads: Table 2-3 describes the most common ODBC connection string settings.</p> <p>Should read: Table 2-3 describes the most common OLEDB connection string settings.</p>	10/15/2014
69	Third connection string example, third line	<p>Reads: Trusted_Connection=yes</p> <p>Should read: Trusted_Connection=yes;</p>	10/15/2014
86	Final paragraph	<p>Reads: ...a stored procedure called uspGetCustomerById,...</p> <p>Should read: ...a stored procedure called CustOrderHist,...</p>	10/15/2014
88	First code block, ninth line	<p>Reads: "UPDATE Products SET UnitPrice = UnitPrice * 1.1 WHERE ProductID =</p> <p>Should read: "UPDATE Products SET UnitPrice = UnitPrice * 1.1 WHERE ProductID = 10"</p>	10/15/2014
89	Second paragraph, last sentence	<p>Reads: ...in the Sales table directly into a variable called count.</p> <p>Should read: ...in the Products table directly into a variable called count.</p>	10/15/2014
90	Last paragraph, sixth line	<p>Reads: ...using the default PreserveChanges enumeration value,...</p> <p>Should read: ...using the default PreserveCurrentValues enumeration value,...</p>	10/15/2014

Page	Location	Description	Date corrected
94	Visual Basic code block, fifth-to-last line	<p>Reads: bc.DestinationTableName = "StoreList"</p> <p>Should read: bc.DestinationTableName = "CustomerList"</p>	10/15/2014
95	First paragraph, third sentence	<p>Reads: For example, the preceding code sample retrieved only the STORE names.</p> <p>Should read: For example, the preceding code sample retrieved only the customer names and IDs. The retrieved data could be further limited by adding a WHERE clause to the SQL statement.</p>	8/12/2011
97	Last paragraph, fourth line	<p>Reads: DbDataAdapter is great for ad hoc changes and demos,...</p> <p>Should read: DbCommandBuilder is great for ad hoc changes and demos,...</p>	10/15/2014
102	Visual Basic and C# code blocks	<p>In the Visual Basic code sample, the following line should be deleted: Case DbProvider.Oracle connection = New System.Data.OracleClient.OracleConnection()</p> <p>In the C# code sample, the following line should be deleted: case DbProvider.Oracle: connection = new System.Data.OracleClient.OracleConnection(); break;</p>	8/12/2011
113	Code block, fourth section	<p>Reads: cmdUpdateRepairs.Parameters.Add("@OriginalDescription", SqlDbType.VarChar, 20, "Description").SourceVersion = DataRowVersion.Original;</p> <p>Should read: cmdUpdateRepairs.Parameters.Add("@OriginalDescription", SqlDbType.VarChar, 60, "Description").SourceVersion = DataRowVersion.Original;</p>	10/15/2014
122	First sentence after table	<p>Reads: The following is a description of the concurrency levels that Table 2-6 shows.</p> <p>Should read: The following is a description of the isolation levels that Table 2-6 shows.</p>	10/15/2014

Page	Location	Description	Date corrected
134	First paragraph, last sentence	<p>Reads: ...they are different connection objects, which will cause the single transaction to be promoted to a distributed transaction.</p> <p>Should read: ...they are different connection objects, which will cause the single transaction to be promoted to a distributed transaction if using SQL Server 2005, but later releases of SQL Server do not promote to a distributed transaction.</p>	10/15/2014
140	Question 3, answer B	<p>Reads: B. As a DataGram file</p> <p>Should read: B. As a DataDiff file</p>	8/12/2011
179	C# code block, middle of page	<p>Reads: The result: 99</p> <p>Should read: The result: 99 2008</p>	8/12/2011
187	"Skip" section, Visual Basic and C# code blocks	<p>Visual Basic reads: Dim scores = {88, 56, 23, 99, 65, 93, 78, 23, 99, 90}</p> <p>Should read: Dim scores = {88, 56, 23, 99, 65, 93, 78, 99, 90}</p> <p>C# reads: int[] scores = { 88, 56, 23, 99, 65, 93, 78, 23, 99, 90 };</p> <p>Should read: int[] scores = { 88, 56, 23, 99, 65, 93, 78, 99, 90 };</p>	10/15/2014
214	Visual Basic code block, first line on page	<p>Reads: For i = 0 To pageCount</p> <p>Should read: For i = 0 To pageCount -1</p>	10/15/2014
217, 218	Last sentence (continues to 218)	<p>Reads: If you need to perform a join on multiple keys, use the Visual Basic And keyword or the && C# operator.</p> <p>Should read: If you need to perform a join on multiple keys, use the Visual Basic And keyword. In C# you need to construct an anonymous type for each side of the equals.</p>	10/15/2014

Page	Location	Description	Date corrected																					
219	C# code block, from third line	<p>Reads:</p> <pre>var carsWithRepairs = from c in cars join rep in repairs on c.VIN equals rep.VIN into temp from r in temp.DefaultIfEmpty() orderby c.VIN, r == null ? 0 : r.Cost</pre> <p>Should read:</p> <pre>var carsWithRepairs = from c in cars join rep in repairs on c.VIN equals rep.VIN into temp from r in temp.DefaultIfEmpty() orderby c.VIN, r == null ? 0 : r.Cost</pre>	10/15/2014																					
232	"Lesson Summary" paragraph	<p>Reads:</p> <p>This lesson provided a detailed overview of the ADO.NET disconnected classes.</p> <p>Should read:</p> <p>This lesson provided an introduction to LINQ.</p>	10/15/2014																					
234	Table 3-3	<p>Should read:</p> <table> <thead> <tr> <th>CUSTOMER</th> <th>ORDER</th> <th>ORDERITEM</th> </tr> </thead> <tbody> <tr> <td>CustomerID</td> <td>OrderID</td> <td>OrderItemID</td> </tr> <tr> <td>Name</td> <td>CustomerID</td> <td>OrderID</td> </tr> <tr> <td>Address</td> <td>OrderDate</td> <td>ProductID</td> </tr> <tr> <td>City</td> <td>RequiredDate</td> <td>Quantity</td> </tr> <tr> <td>State</td> <td>ShippedDate</td> <td>Price</td> </tr> <tr> <td></td> <td></td> <td>Discount</td> </tr> </tbody> </table>	CUSTOMER	ORDER	ORDERITEM	CustomerID	OrderID	OrderItemID	Name	CustomerID	OrderID	Address	OrderDate	ProductID	City	RequiredDate	Quantity	State	ShippedDate	Price			Discount	8/12/2011
CUSTOMER	ORDER	ORDERITEM																						
CustomerID	OrderID	OrderItemID																						
Name	CustomerID	OrderID																						
Address	OrderDate	ProductID																						
City	RequiredDate	Quantity																						
State	ShippedDate	Price																						
		Discount																						
257	Step 8, last line	<p>Reads:</p> <pre>./SqlExpress</pre> <p>Should read:</p> <pre>.\SqlExpress</pre>	10/15/2014																					

Page	Location	Description	Date corrected
260	Visual Basic code block	<p>Reads:</p> <pre>private void mnuBasicQuery_Click(object sender, RoutedEventArgs e) { var ctx = new NorthwindDataContext(); var sw = new StringWriter(); ctx.Log = sw; var customers = from c in ctx.Customers where c.CompanyName.Contains("Restaurant") orderby c.PostalCode select c; dg.ItemsSource = customers; MessageBox.Show(sw.GetStringBuilder().ToString()); }</pre> <p>Should read:</p> <pre>Private Sub mnuBasicQuery_Click(ByVal sender As System.Object, _ { ByVal e As System.Windows.RoutedEventArgs) Dim ctx = New NorthwindDataContext() Dim sw = New StringWriter() ctx.Log = sw Dim customers = From c In ctx.Customers Where c.CompanyName.Contains("Restaurant") Order By c.PostalCode Select c dg.ItemsSource = customers MessageBox.Show(sw.GetStringBuilder().ToString()); End Sub</pre>	8/12/2011
327	First bulleted item	<p>If your edition of this books is missing the description of the first bulleted point, it should read as follows:</p> <ul style="list-style-type: none"> ■ GetPrefixOfNamespace A method that returns the prefix of the current element as a string. 	10/15/2014
355	"Lesson Summary" section, first paragraph	<p>Reads:</p> <p>This lesson provided detailed information about transforming data by using LINQ to SQL.</p> <p>Should read:</p> <p>This lesson provided detailed information about transforming data by using LINQ to XML.</p>	8/12/2011
363	Table 6-2, File Types row, last column	<p>Reads:</p> <p>EDMX, CDSL, MSL, SSDL files</p> <p>Should read:</p> <p>EDMX, CSDL, MSL, SSDL files</p>	10/15/2014
363	Table 6-1, fourth row, third column	<p>Reads:</p> <p>More time required but has mode features</p> <p>Should read:</p> <p>More time required but has more features</p>	10/15/2014

Page	Location	Description	Date corrected
365	Second bulleted item, second sentence	<p>Reads: The Entity Framework supports type types of development...</p> <p>Should read: The Entity Framework supports two types of development...</p>	10/15/2014
401	Second paragraph, first sentence	<p>Reads: The CDSL-to-SSDL (C-S) mapping content needs to be changed.</p> <p>Should read: The CSDL-to-SSDL (C-S) mapping content needs to be changed.</p>	10/15/2014
412	Second bulleted item	<p>Reads: Your POCO class getters and setters can have any access modifier (public, private, and so on), but none of the mapped properties can be overrideable (C# virtual), and you can't specify that you require partial trust support.</p> <p>Should read: Your POCO class getters and setters can have any access modifier (public, private, and so on), but none of the mapped properties can be NonOverrideable (C# sealed), and you can't specify that you require partial trust support.</p>	10/15/2014
413	XML code sample, end of fourth line	<p>Reads: CAST(1 - od.Discount AS DECIMAL)</p> <p>Should read: CAST(1 - od.Discount AS DECIMAL(18,2))</p>	10/15/2014
416	Step 14, second paragraph	<p>Reads: An album can have many songs, and a song can be on one album, many albums, or no album.</p> <p>Should read: An album can have many songs, and a song can be on one album or no album.</p>	10/15/2014
437	"Attaching Entities to an Object Context" section, first paragraph, fourth line	<p>Reads: ...with the NoTacking option or</p> <p>Should read: ...with the NoTracking option or</p>	8/12/2011

Page	Location	Description	Date corrected
440	First paragraph, first sentence	<p>Reads: It's important to note that a cascading delete in the Entity Framework works only if the dependent entity objects are loaded.</p> <p>Should read: If you add a Cascade delete rule to the model, you should have a corresponding Cascade delete rule in the database on the relationship between parent and child tables. This is the most efficient means for performing cascade deletes because the child rows don't need to be loaded into memory first. If you don't have a corresponding Cascade delete rule in the database, it's important to note that a cascading delete in the Entity Framework works only if the dependent entity objects are loaded.</p>	10/15/2014
477	Paragraph after Table 7-7, last line	<p>Reads: \$function=IsOf('MyModel.SavingsAccount')</p> <p>Should read: \$filter=isof('MyModel.SavingsAccount')</p>	8/12/2011
478	Step 9	<p>Reads: ...set the DataService generic parameter to NorthwindDataService.</p> <p>Should read: ...set the DataService generic parameter to NorthwindEntities.</p>	8/12/2011

Page	Location	Description	Date corrected
553, 554	Visual Basic and C# code blocks	<p>For clarity, the code samples at the bottom of page 553 and on 554 should be updated to the following:</p> <pre> Visual Basic Private Sub mnuVerifySignature_Click(_ ByVal sender As System.Object, _ ByVal e As System.Windows.RoutedEventArgs) _ Handles mnuVerifySignature.Click If signature Is Nothing Then MessageBox.Show("Create signature first") Return End If Dim data = "The quick brown fox jumped over the lazy dog." Dim rsa = 24 ' verify signature Dim cspParms = New CspParameters(rsa) cspParms.Flags = CspProviderFlags.UseMachineKeyStore cspParms.KeyContainerName = "My Keys" Dim algorithm = New RSACryptoServiceProvider(cspParms) Dim sourceBytes() As Byte = _ New System.Text.UnicodeEncoding().GetBytes(data) 'be sure to sign the data first by 'using mnuSigintSignature_Click above Dim valid = algorithm.VerifyData(sourceBytes, _ "SHA256", signature) MessageBox.Show(valid.ToString()) End Sub C# private void mnuVerifySignature_Click(object sender, RoutedEventArgs e) { var data = "The quick brown fox jumped over the lazy dog."; var rsa = 24; // verify signature var cspParms = new CspParameters(rsa); cspParms.Flags = CspProviderFlags.UseMachineKeyStore; cspParms.KeyContainerName = "My Keys"; var algorithm = new RSACryptoServiceProvider(cspParms); </pre>	8/12/2011

Page	Location	Description	Date corrected
		<pre> var sourceBytes = new System.Text.UnicodeEncoding().GetBytes(data); //be sure to sign the data first by //using mnuSigntlSignature_Click above var valid = algorithm.VerifyData(sourceBytes, "SHA256", signature); MessageBox.Show(valid.ToString()); } </pre>	
554	"Encrypted Communications to SQL Server" paragraph, third line	<p>Reads: ...you can set the TrustServerCertificate setting to true...</p> <p>Should read: ...you can set the TrustServerCertificate setting to yes...</p>	10/15/2014
559, 619	Question 2, answer A	<p>Page 559 reads: A. RNGCryptoServiceProvider</p> <p>Should read: A. RSACryptoServiceProvider</p> <p>Page 619 reads: A. Incorrect: RNGCryptoServiceProvider is an asymmetric algorithm.</p> <p>Should read: A. Incorrect: RSACryptoServiceProvider is an asymmetric algorithm.</p>	10/15/2014
602	Case Scenario 1, answer 3	<p>Reads: 3. You can use the provider classes to send changes back to the database server. SqlConnection can connect to the database server. The SqlDataAdapter class gets the changes in each data table, and SqlDataAdapter has SqlCommand properties for select, insert, update, and delete.</p> <p>Should read: 3. You can use the provider classes (covered in the next chapter) to send changes back to the database server. SqlConnection can connect to the database server. The SqlDataAdapter class gets the changes in each data table, and SqlDataAdapter has SqlCommand properties for select, insert, update, and delete.</p>	10/15/2014

Page	Location	Description	Date corrected
608	Visual Basic and C# code blocks	Visual Basic line reads: Where OrderAmount > 20000 Should read: Where OrderAmount > 1000 C# code reads: where OrderAmount > 20000 Should read: where OrderAmount > 1000	10/15/2014