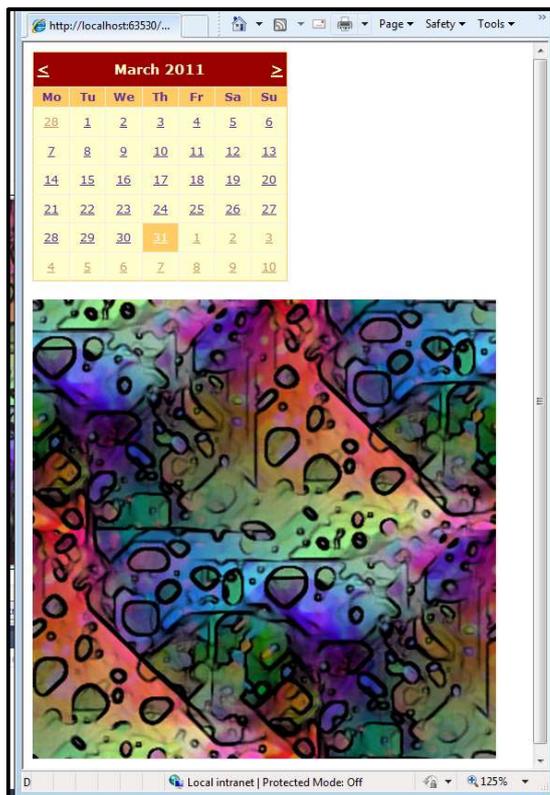
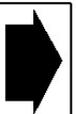

Session 1: Exercise

- 1 Create a new *ASP.NET Web Application* project in your sample files folder called: **Exercise1**
- 2 Add a new *Web Form* item to the project called: **mypage.aspx**
- 3 Add a *Calendar* control to the *mypage.aspx* page.
- 4 Use *QuickTasks* to *Auto Format* the Calendar control to the *Colorful 1* scheme.
- 5 Change the *ID* property of the Calendar control to: **CalendarColorful**
- 6 Add a new folder to the project called: **Images**
- 7 Add the *pattern.jpg* file from the *Images* folder in your sample files folder to your new *Images* folder.
- 8 Add a *HTML Image* control to the page using the *HTML* category of the *ToolBox*.
- 9 Set the *Src* property of the new *Image* control to: **Images/pattern.jpg**
- 10 Delete the *About.aspx* page.
- 11 Set *mypage.aspx* to be the project's start page.
- 12 Start the project in debug mode.
- 13 Save your work.



If you need help
slide the page to
the left



Session 1: Exercise Answers

These are the four questions that students find the most difficult to answer:

Q 7	Q 6	Q 5	Q 3
<p>1. Right-click on the <i>Images</i> folder in the <i>Solution Explorer</i>.</p> <p>2. Click: Add→ Existing Item... from the shortcut menu.</p> <p>3. Browse to the <i>C:\Practice\ASP.NET\Images</i> folder.</p> <p>4. Click on <i>pattern.jpg</i> and then click <i>Add</i>.</p> <p>This was covered in: <i>Lesson 1-7: Manage a project with the Solution Explorer</i>.</p>	<p>1. Right-click on <i>Exercise1</i> in the <i>Solution Explorer</i>.</p> <p>2. Click Add→ New Folder from the shortcut menu.</p> <p>3. Type the name: Images</p> <p>This was covered in: <i>Lesson 1-7: Manage a project with the Solution Explorer</i>.</p>	<p>1. Click on the calendar in <i>Design</i> view.</p> <p>2. Scroll down in the <i>Properties</i> window until you see the <i>ID</i> property.</p> <p>3. Click in the box that currently says <i>Calendar1</i> and change the text to: CalendarColorful</p> <p>This was covered in: <i>Lesson 1-12: Change properties in Design view</i>.</p>	<p>1. Double-click on <i>mypage.aspx</i> in the <i>Solution Explorer</i>.</p> <p>2. Click on the <i>Design</i> button at the bottom of the main panel.</p> <p>3. Drag a <i>Calendar</i> control from the <i>ToolBox</i> to the page.</p> <p>This was covered in: <i>Lesson 1-14: Add controls to a page with the Toolbox</i>.</p>

If you have difficulty with the other questions, here are the lessons that cover the relevant skills:

- 1** Refer to: **Lesson 1-5: Create an ASP.NET Web Application project.**
- 2** Refer to: **Lesson 1-7: Manage a project with the Solution Explorer.**
- 4** Refer to: **Lesson 1-15: Use the QuickTasks menu.**
- 8** Refer to: **Lesson 1-14: Add controls to a page with the Toolbox.**
- 9** Refer to: **Lesson 1-12: Change properties in Design view.**
- 10** Refer to: **Lesson 1-7: Manage a project with the Solution Explorer.**
- 11** Refer to: **Lesson 1-8: Run a project.**
- 12** Refer to: **Lesson 1-8: Run a project.**
- 13** Refer to: **Lesson 1-9: View .aspx pages in Source and Design views.**

Session 2: Exercise

- 1 Open *exercise.aspx* within the *HTMLTest* sample project in *Source* view.
- 2 Set the page title in the head section to: **Session 2 Exercise**
- 3 Add a link to the CSS file called *layout.css*. It can be found in the *styles* folder.
- 4 Add a pair of *div* tags to the page (between the form tags).
- 5 Type the text **Site Name** between the *div* tags.
- 6 Set the *class* property of the *div* tag to the CSS class: **header**
- 7 Switch to *Design* view and add an HTML table to bottom of the page.
- 8 Remaining in *Design* view, merge the bottom two cells of the HTML table.
- 9 In the first cell of the HTML table, type the text: **Site**
- 10 Switch to *Source* view and make the *Site* text bold using HTML.
- 11 Switch to *Design* view and type the text: **Learn ASP 4 web site** into the top-right table cell.
- 12 Make the text you have just typed a hyperlink to: <http://www.ASPNETCentral.com>.
- 13 Add an HTML image element to the bottom row of the table and reference it to the *pattern.jpg* image in the *images* folder.
- 14 Using the *CSS Properties* window, set the *color* CSS property of the *Site Name* text to: **White**
- 15 Add a link to the JavaScript file *exercise.js*. It can be found in the *scripts* folder.
- 16 Add JavaScript code to *exercise.js* to display a pop-up message.



HTMLTest - start

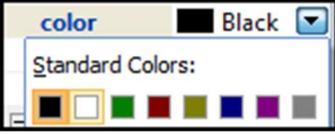
HTMLTest - end

If you need help
slide the page to
the left



Session 2: Exercise Answers

These are the four questions that students find the most difficult to answer:

Q 14	Q 8	Q 7	Q 6
<p>1. Switch to <i>Design</i> view.</p> <p>2. Click on the <i>header</i> div so it is highlighted.</p> <p><DIV> should appear as the selected item in the <i>Properties</i> window.</p> <p>3. Click View→ CSS Properties.</p> <p>4. Open the drop-down list next to <i>color</i> in the CSS <i>Properties</i> window and click the white box.</p>  <p>This was covered in: <i>Lesson 2-9: Use the CSS Properties window.</i></p>	<p>1. Switch to <i>Design</i> view.</p> <p>2. Click and drag from the bottom-left cell of the table to the bottom right, so they are both highlighted.</p> <p>3. Click Table→Modify→ Merge Cells.</p> <p>This was covered in: <i>Lesson 2-5: Create an HTML table.</i></p>	<p>1. Switch to <i>Design</i> view.</p> <p>2. Click below the <i>header</i> div.</p> <p>3. Click Table→ Insert Table.</p> <p>4. Click OK on the dialog that appears.</p> <p>This was covered in: <i>Lesson 2-5: Create an HTML table.</i></p>	<p>1. Switch to <i>Source</i> view.</p> <p>2. Modify the <i>div</i> tag to:</p> <pre><div class="header"> Site Name </div></pre> <p>This was covered in: <i>Lesson 2-10: Use the div and span tags.</i></p>

If you have difficulty with the other questions, here are the lessons that cover the relevant skills:

- 1** Refer to: **Lesson 1-7: Manage a project with the Solution Explorer.**
- 2** Refer to: **Lesson 2-4: Use the title, meta, link and script tags.**
- 3** Refer to: **Lesson 2-4: Use the title, meta, link and script tags.**
- 4** Refer to: **Lesson 2-10: Use the div and span tags.**
- 5** Refer to: **Lesson 2-10: Use the div and span tags.**
- 9** Refer to: **Lesson 2-5: Create an HTML table.**
- 10** Refer to: **Lesson 2-1: Understand HTML bold, italic and heading tags.**
- 11** Refer to: **Lesson 2-5: Create an HTML table.**
- 12** Refer to: **Lesson 2-7: Display images and links on a page.**
- 13** Refer to: **Lesson 2-7: Display images and links on a page.**
- 15** Refer to: **Lesson 2-4: Use the title, meta, link and script tags.**
- 16** Refer to: **Lesson 2-11: Work with JavaScript.**

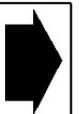
Session 3: Exercise

- 1 Open the *CSharpTest* sample project and open *exercise.aspx*.
- 2 Disable *ViewState* on the *TextBoxText* control by setting its *EnableViewState* property to: **False**
- 3 Add a *Click* event handler to the *ButtonChangeText* control.
- 4 Add code to the new *Click* event handler to set the *Text* property of the *TextBoxText* control to: **The Smart Method**
- 5 Add a *Click* event handler to the *ButtonSendData* control.
- 6 Add code to the *ButtonSendData* control's *Click* event to move to *passdata2.aspx* using *Server.Transfer*.
- 7 Set a breakpoint in the *Click* event of *ButtonSendData*.
- 8 Run *exercise.aspx* in Debug mode and type some text into the text box.
- 9 Click *Send Data* and then use the *Watch* window to get the value of *TextBoxText.Text*.
- 10 Stop debugging and add code to the *ButtonSendData* control's *Click* event handler to store the *Text* of the *TextBoxText* control in *Session* under the key of *Text*.
- 11 Change the *ButtonSendData* control's *Click* event handler to redirect the user to *passdata4.aspx* using *Response.Redirect* instead of *Server.Transfer*.

CSharpTest - start

CSharpTest - end

If you need help
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the left



Session 3: Exercise Answers

These are the four questions that students find the most difficult to answer:

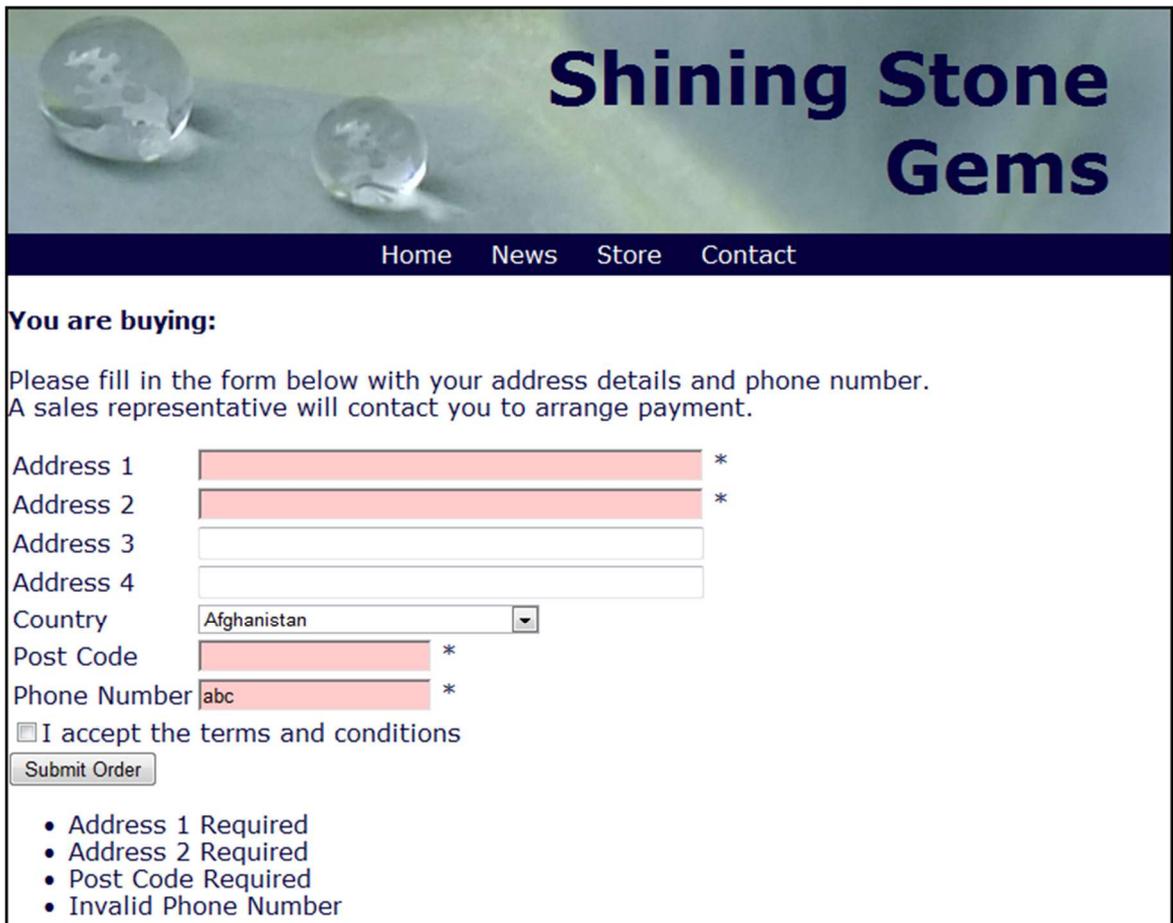
Q 9	Q 7	Q 6	Q 3
<p>1. Run <i>exercise.aspx</i> in Debug mode by clicking: Debug→Start Debugging.</p> <p>2. Click on the <i>Send Data</i> button.</p> <p>Your code will be paused.</p> <p>3. Return to the code-behind file of <i>exercise.aspx</i> if you aren't automatically sent there.</p> <p>4. Click on the <i>Watch</i> button at the bottom of the screen.</p> <p>5. Click in an empty box in the <i>Watch</i> window and type:</p> <p>TextBoxText.Text</p> <p>6. Press <Enter>.</p> <p>This was covered in: <i>Lesson 3-3: Use Breakpoints.</i></p>	<p>1. Open the code-behind file of <i>exercise.aspx</i>.</p> <p>2. Right-click on the <i>Page.Server.Transfer</i> line in the <i>ButtonSendData_Click</i> event handler.</p> <p>3. Click: Breakpoint→Insert Breakpoint from the shortcut menu.</p> <p>This was covered in: <i>Lesson 3-3: Use Breakpoints.</i></p>	<p>1. Open the code-behind file of <i>exercise.aspx</i>.</p> <p>2. Add the following code to the <i>ButtonSendData_Click</i> event handler:</p> <p>Page.Server.Transfer("passdata2.aspx");</p> <p>This was covered in: <i>Lesson 3-10: Move between pages.</i></p>	<p>1. Open <i>exercise.aspx</i> in <i>Design</i> view.</p> <p>2. Select the <i>ButtonChangeText</i> control by clicking on it.</p> <p>3. Click on the <i>Events</i> button in the <i>Properties</i> window.</p>  <p>4. Double-click in the empty box next to <i>Click</i>.</p> <p>This was covered in: <i>Lesson 3-2: Add event handlers to Controls.</i></p>

If you have difficulty with the other questions, here are the lessons that cover the relevant skills:

- 1** Refer to: **Lesson 1-7: Manage a project with the Solution Explorer.**
- 2** Refer to: **Lesson 3-9: Work with ViewState.**
- 4** Refer to: **Lesson 3-1: Change properties with C#.**
- 5** Refer to: **Lesson 3-2: Add event handlers to Controls.**
- 8** Refer to: **Lesson 1-8: Run a project in debug mode.**
- 10** Refer to: **Lesson 3-11: Send data between pages.**
- 11** Refer to: **Lesson 3-10: Move between pages.**

Session 4: Exercise

- 1 Open the *ShiningStone* sample project and open *buy.aspx* in *Design* view.
- 2 Set the maximum length of each of the address text box controls to 50.
- 3 Make each of the address text boxes 50 columns wide.
- 4 Add a *CheckBox* control in the space before the *Submit Order* button.
- 5 Set the *Text* property of the *CheckBox* control to: **I accept the terms and conditions**
- 6 Set the *CheckBox* ID property to: **CheckBoxAcceptTerms**
- 7 Add a *RequiredFieldValidator* control next to the *Address 2* text box and set it up appropriately.
- 8 Add a *RequiredFieldValidator* next to the *Post Code* text box and set it up appropriately.
- 9 Make the background color of the *Post Code* text box match the background color of the *Address 1* text box.
- 10 Make the font of the *Submit Order* button bold.



Shining Stone Gems

Home News Store Contact

You are buying:

Please fill in the form below with your address details and phone number. A sales representative will contact you to arrange payment.

Address 1 *

Address 2 *

Address 3

Address 4

Country

Post Code *

Phone Number *

I accept the terms and conditions

- Address 1 Required
- Address 2 Required
- Post Code Required
- Invalid Phone Number

ShiningStone - start

ShiningStone - end

If you need help
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the left



Session 4: Exercise Answers

These are the four questions that students find the most difficult to answer:

Q 9	Q 7	Q 6	Q 2
<p>1. Open <i>buy.aspx</i> in <i>Design</i> view.</p> <p>2. Click one of the pink text boxes.</p> <p>3. Look at the <i>BackColor</i> property. You will see it is <code>#FFCCCC</code>.</p> <p>4. Click the <i>Post Code</i> text box.</p> <p>5. Set the <i>BackColor</i> property to: <code>#FFCCCC</code></p> <p>This was covered in: <i>Lesson 1-12: Change properties in Design view.</i></p>	<p>1. Open <i>buy.aspx</i> in <i>Design</i> view.</p> <p>2. Drag a <i>RequiredFieldValidator</i> from the <i>Validation</i> category of the <i>Toolbox</i> to the space after <i>TextBoxAddress2</i>.</p> <p>3. Select the <i>RequiredFieldValidator</i>.</p> <p>4. Set the <i>ID</i> property to: RequiredFieldValidatorAddress2</p> <p>5. Set the <i>Text</i> property to: *</p> <p>6. Set the <i>ErrorMessage</i> property to: Address 2 Required</p> <p>7. Set the <i>ControlToValidate</i> property to: TextBoxAddress2</p> <p>This was covered in: <i>Lesson 4-8: Use the RequiredFieldValidator control.</i></p>	<p>1. Open <i>buy.aspx</i> in <i>Design</i> view.</p> <p>2. Select <i>CheckBox1</i> and set its <i>ID</i> property to: CheckBoxAcceptTerms</p> <p>This was covered in: <i>Lesson 4-1: Name controls correctly.</i></p>	<p>1. Open <i>buy.aspx</i> in <i>Design</i> view.</p> <p>2. Select each of the address text box controls by clicking on them.</p> <p>3. Set the <i>MaxLength</i> property of each text box control to: 50</p> <p>This was covered in: <i>Lesson 4-4: Use text boxes.</i></p>

If you have difficulty with the other questions, here are the lessons that cover the relevant skills:

- 1** Refer to: **Lesson 1-7: Manage a project with the Solution Explorer.**
- 3** Refer to: **Lesson 4-4: Use text boxes.**
- 4** Refer to: **Lesson 4-5: Use check boxes.**
- 5** Refer to: **Lesson 4-5: Use check boxes.**
- 8** Refer to: **Lesson 4-8: Use the RequiredFieldValidator control.**
- 10** Refer to: **Lesson 4-10: Use common properties.**

Session 5: Exercise

- 1 Open the *My Project* sample project and open *calculator.aspx* in Design view.
- 2 Add a new *Button* control to the page called: **ButtonCalculate2**
- 3 Add a *Click* event handler to the *ButtonCalculate2* control.
- 4 Create a *string* variable called **PIString** in the *ButtonCalculate2_Click* event handler with a value of: "3.14159265"
- 5 Create a *double* variable called **PIDouble** in the same event handler and set its value to the value of the *PIString* variable by using the *Convert* method.
- 6 Create an *int* variable in the same event handler called **CircleRadius** with a value of: 19
- 7 Create a *double* variable in the same event handler called **CircleCircumference** with a value of: **PIDouble * CircleRadius**
- 8 Use the *Pow* function from the *Math* library to raise the *CircleCircumference* variable to the power of 2.
- 9 Convert the *CircleCircumference* variable to a *string* using the *ToString* method. Call the *string*: **OutputCircumference**
- 10 Create a *DateTime* variable called **TodaysDate** containing today's date.

My Project - start

My Project - end

If you need help
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the left



Session 5: Exercise Answers

These are the four questions that students find the most difficult to answer:

Q 9	Q 8	Q 5	Q 4
<p>Use the following line of code:</p> <pre>string OutputCircumference = CircleCircumference .ToString();</pre> <p>This was covered in: <i>Lesson 5-8: Convert variables using Convert and Parse.</i></p>	<p>Use the following line of code:</p> <pre>CircleCircumference = Math.Pow (CircleCircumference, 2);</pre> <p>This was covered in: <i>Lesson 5-11: Use the Math library for advanced mathematics.</i></p>	<p>Use the following line of code:</p> <pre>double PIDouble = Convert.ToDouble(PIStrng);</pre> <p>This was covered in: <i>Lesson 5-8: Convert variables using Convert and Parse.</i></p>	<p>Use the following line of code:</p> <pre>string PIStrng = "3.14159265";</pre> <p>This was covered in: <i>Lesson 5-3: Use string variable properties and methods.</i></p>

If you have difficulty with the other questions, here are the lessons that cover the relevant skills:

- 1** Refer to: Lesson 1-7: Manage a project with the Solution Explorer.
- 2** Refer to: Lesson 1-14: Add controls to a page with the Toolbox.
- 3** Refer to: Lesson 3-2: Add event handlers to Controls.
- 6** Refer to: Lesson 5-4: Use integer variables.
- 7** Refer to: Lesson 5-10: Perform basic mathematical operations.
- 10** Refer to: Lesson 5-7: Use DateTime variables.

Session 6: Exercise

- 1 Open the *My Project* sample project and add a new class called: **Circle.cs**
- 2 Add a public *double* property to the *Circle* class called: **CircleCircumference**
- 3 Add a public method to the *Circle* class called: **CalculateDiameter**
- 4 Make the *CalculateDiameter* method return a *double* value.
(Don't worry about the indicated error, this will be overcome in question 6).
- 5 Make the *CalculateDiameter* method ask for a *double* argument called: **Radius**
- 6 Add code to the *CalculateDiameter* method to multiply the *Radius* argument by 2 and return the result.
- 7 Add a constructor to the *Circle* class.
- 8 Make the constructor require a *double* value as an argument called: **Circumference**
- 9 Make the constructor set the *CircleCircumference* property to the value of the *Circumference* argument.
- 10 Make the *CalculateDiameter* method static.
- 11 Add a new Web Form to the project called: **circlecalculator.aspx**
- 12 Open the code-behind file of *circlecalculator.aspx*.
- 13 Add code to the *Page_Load* event handler to create an instance of the *Circle* class named **MyCircle** using a *Circumference* argument of: **50**
- 14 Add code on the next line to create a new *double* variable called: **MyCircleDiameter**
- 15 Add code on the next line to call the static *CalculateDiameter* method of the *Circle* class with a *Radius* argument of **7.95**, storing the resulting value in the *MyCircleDiameter* variable.
(Remember that *CalculateDiameter* is a static method and is called in a different way to normal methods).
- 16 Add code to output the value of *MyCircleDiameter* using *Response.Write*.
- 17 View *circlecalculator.aspx* in your browser.



My Project - start

My Project - end

If you need help
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the left



Session 6: Exercise Answers

These are the four questions that students find the most difficult to answer:

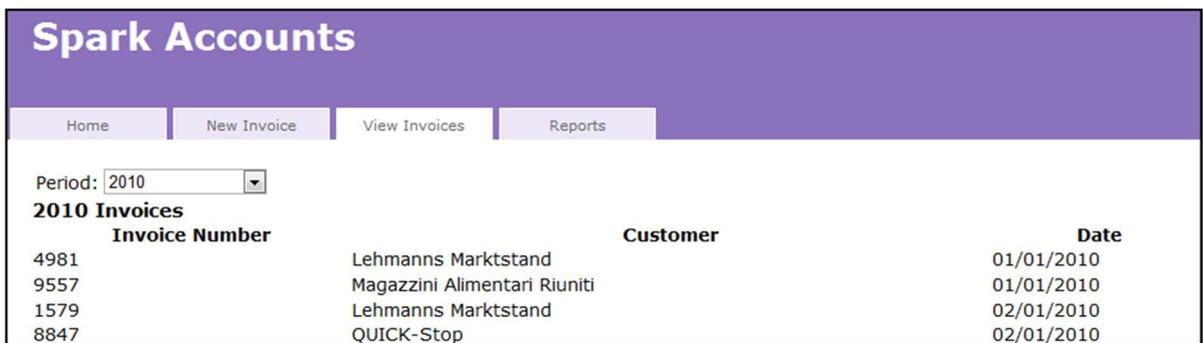
Q 10	Q 7	Q 6	Q 3
<p>Change the line that starts the <i>CalculateDiameter</i> method to:</p> <pre>public static double CalculateDiameter (double Radius)</pre> <p>This was covered in: <i>Lesson 6-9: Create a static method.</i></p>	<p>Use the following code:</p> <pre>public Circle() { }</pre> <p>This was covered in: <i>Lesson 6-11: Create class constructors.</i></p>	<p>Use the following line of code:</p> <pre>return Radius * 2;</pre> <p>This was covered in: <i>Lesson 6-7: Create methods that return a value.</i></p>	<p>Use the following code to add the public method:</p> <pre>public void CalculateDiameter() { }</pre> <p>This was covered in: <i>Lesson 6-5: Create and use methods.</i></p>

If you have difficulty with the other questions, here are the lessons that cover the relevant skills:

- 1** Refer to: Lesson 6-1: Create a class.
- 2** Refer to: Lesson 6-1: Create a class.
- 4** Refer to: Lesson 6-7: Create methods that return a value.
- 5** Refer to: Lesson 6-6: Create methods with arguments.
- 8** Refer to: Lesson 6-11: Create class constructors.
- 9** Refer to: Lesson 6-11: Create class constructors.
- 11** Refer to: Lesson 1-7: Manage a project with the Solution Explorer.
- 12** Refer to: Lesson 1-7: Manage a project with the Solution Explorer.
- 13** Refer to: Lesson 6-11: Create class constructors.
- 14** Refer to: Lesson 5-5: Use floating point variables.
- 15** Refer to: Lesson 6-9: Create a static method.
- 16** Refer to: Lesson 3-7: Understand Request and Response.
- 17** Refer to: Lesson 1-8: Run a project in debug mode.

Session 7: Exercise

- 1 Open the *Spark* sample project and open *viewtransactions.aspx* in *Design* view.
- 2 Add a *SelectedIndexChanged* event handler to the *DropDownListSelectedPeriod* control.
- 3 Add an *if* statement to the event handler that checks if the value of the *DropDownListSelectPeriod* control's *SelectedValue* property is equal to: "2010"
- 4 If the value of the property is "2010", make your *if* statement change the *Panel2010.Visible* property to **true** and the *Panel2011.Visible* property to **false**.
- 5 Use *else if* to check if the value of the property is "2011". If it is, set the *Panel2011.Visible* property to **true** and the *Panel2010.Visible* property to **false**.
- 6 Open *viewtransactions.aspx* in your browser and test your code.



The screenshot shows a web application titled "Spark Accounts". It has a navigation menu with "Home", "New Invoice", "View Invoices", and "Reports". Below the menu, there is a "Period:" dropdown menu set to "2010". Underneath, the text "2010 Invoices" is displayed. A table follows with columns for "Invoice Number", "Customer", and "Date".

Invoice Number	Customer	Date
4981	Lehmans Marktstand	01/01/2010
9557	Magazzini Alimentari Riuniti	01/01/2010
1579	Lehmans Marktstand	02/01/2010
8847	QUICK-Stop	02/01/2010

- 7 Close your browser and open the code-behind file of *newtransaction.aspx*.
- 8 Add an *if* statement to the start of the *ButtonSubmit_Click* event handler to check if the value of the *DropDownListCustomer* control's *SelectedValue* property is "6", "9" or "11". If so, set the *Text* property of the *LabelError* control to:
That customer is currently out of use
- 9 Add an *else* statement to the *ButtonSubmit_Click* event handler which will run if the value of the property is not "6", "9" or "11".
- 10 Add *try* and *catch* statements to the *ButtonSubmit_Click* event handler and place any error messages in the *Text* property of the *LabelError* control.
- 11 Add a comment to the *CalculateVAT* method to explain what it does. (VAT or Value Added Tax is a sales tax levied in Europe).
- 12 Add a summary to the *CalculateVAT* method and populate it with useful descriptions.

Spark - start

Spark - end

If you need help
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Session 7: Exercise Answers

These are the four questions that students find the most difficult to answer:

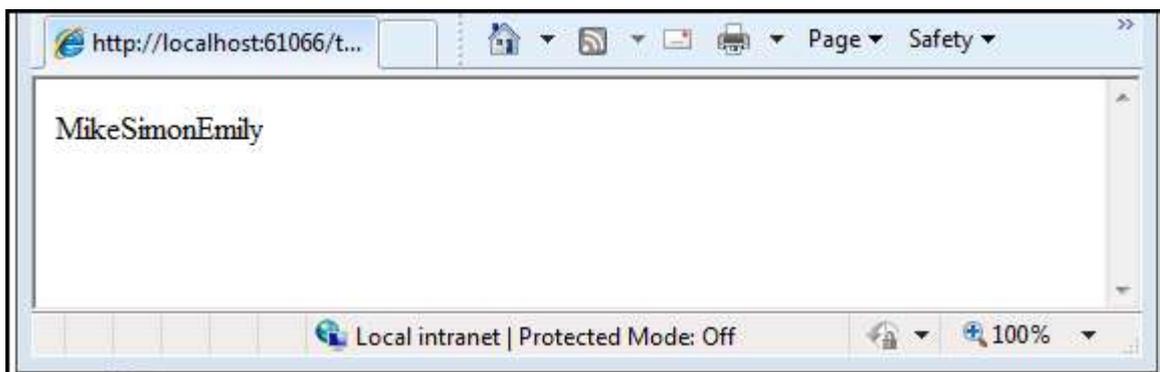
Q 10	Q 9	Q 8	Q 4
<p>Add the code:</p> <pre>try { ...at the very beginning of the event handler. At the very end of the event handler, add: } catch (Exception Ex) { LabelError.Text = Ex.Message; } </pre> <p>This was covered in: <i>Lesson 7-6: Use try and catch to handle errors.</i></p>	<p>After the end of your last <i>if</i> statement, add the code:</p> <pre>else { } </pre> <p>This was covered in: <i>Lesson 7-2: Use else and else if.</i></p>	<p>Use the following lines of code:</p> <pre>string CustomerID = DropDownListCustomer .SelectedValue; if (CustomerID == "6" CustomerID == "9" CustomerID == "11") { LabelError.Text = "That customer is currently out of use."; } </pre> <p>This was covered in: <i>Lesson 7-3: Use basic logical operators.</i></p>	<p>Use the following lines of code:</p> <pre>if (DropDownListSelectPeriod .SelectedValue == "2010") { Panel2010.Visible = true; Panel2011.Visible = false; } </pre> <p>This was covered in: <i>Lesson 7-1: Use the if statement.</i></p>

If you have difficulty with the other questions, here are the lessons that cover the relevant skills:

- 1** Refer to: Lesson 1-7: Manage a project with the Solution Explorer.
- 2** Refer to: Lesson 3-2: Add event handlers to Controls.
- 3** Refer to: Lesson 7-1: Use the if statement.
- 5** Refer to: Lesson 7-2: Use else and else if.
- 6** Refer to: Lesson 1-8: Run a project in debug mode.
- 7** Refer to: Lesson 1-7: Manage a project with the Solution Explorer.
- 11** Refer to: Lesson 7-7: Use comments.
- 12** Refer to: Lesson 7-8: Use summaries.

Session 8: Exercise

- 1 Open the *My Project* sample project and create a new class called: **MyData.cs**
- 2 Add a new public method called **GetNumbers**, which returns an array of *int* variables.
(You'll see an error at this stage as you have not yet created code that returns a value).
- 3 Create an array of *int* variables called **Numbers** in the *GetNumbers* method containing the numbers: **1, 1, 3, 5, 8** and make the method return the array.
(The previously flagged error should disappear as soon as you specify the return value).
- 4 Add a new public method called **GetNames**, which returns a *List* of *string* variables.
(You'll see an error at this stage as you have not yet created code that returns a value).
- 5 Create a *List* of *string* variables called **Names** in the *GetNames* method containing the names: **"Mike", "Simon", "Emily"** and make the method return it.
(The previously flagged error should disappear as soon as you specify the return value).
- 6 Add a new public method called **ProcessNames**, which doesn't return a value.
- 7 Create a *List* of *string* variables called **NamesToProcess** in the *ProcessNames* method and populate it with the *List* collection returned by the *GetNames()* method.
- 8 Use a *for* loop to loop through the list of names and make each one upper case using the *ToUpper* method of the *string* variable type.
- 9 Add a new public method called **AppendNames** which returns a *string* value.
(You'll see an error at this stage as you have not yet created code that returns a value).
- 10 In the new method, add a *foreach* loop which loops through the names returned by the *GetNames* method and appends them all to a single *string* variable. Make the method return the *string*.
- 11 Add a new page called **test.aspx** and use the *Page_Load* event handler to call the *AppendNames* method of the *MyData* class and output the return value to the top of the web page.



My Project - start

My Project - end

If you need help
slide the page to
the left



Session 8: Exercise Answers

These are the four questions that students find the most difficult to answer:

Q 10	Q 8	Q 5	Q 3
<p>Use the following code:</p> <pre>public string AppendNames() { string AppendedNames = ""; foreach (string Name in GetNames()) { AppendedNames = AppendedNames + Name; } return AppendedNames; }</pre> <p>This was covered in: <i>Lesson 8-3: Iterate through a collection using foreach.</i></p>	<p>Use the following code:</p> <pre>public void ProcessNames() { List<string> NamesToProcess = GetNames(); for (int Counter = 0; Counter < NamesToProcess.Count; Counter++) { NamesToProcess [Counter] = NamesToProcess [Counter].ToUpper(); } }</pre> <p>This was covered in: <i>Lesson 8-4: Iterate through a collection using a for loop.</i></p>	<p>Use the following code:</p> <pre>public List<string> GetNames() { List<string> Names = new List<string>(); Names.Add("Mike"); Names.Add("Simon"); Names.Add("Emily"); return Names; }</pre> <p>It is also possible to do this using less code.</p> <p>This was covered in: <i>Lesson 8-2: Create a collection.</i></p>	<p>Use the following code:</p> <pre>public int[] GetNumbers() { int[] Numbers = new int[5]; Numbers[0] = 1; Numbers[1] = 1; Numbers[2] = 3; Numbers[3] = 5; Numbers[4] = 8; return Numbers; }</pre> <p>It is also possible to do this using less code.</p> <p>Both this and the alternative technique were covered in: <i>Lesson 8-1: Create an array.</i></p>

If you have difficulty with the other questions, here are the lessons that cover the relevant skills:

- 1** Refer to: *Lesson 6-1: Create a class.*
- 2** Refer to: *Lesson 6-7: Create methods that return a value, Lesson 8-1: Create an array.*
- 4** Refer to: *Lesson 6-7: Create methods that return a value, Lesson 8-2: Create a collection.*
- 6** Refer to: *Lesson 6-5: Create and use methods.*
- 7** Refer to: *Lesson 8-2: Create a collection.*
- 9** Refer to: *Lesson 6-7: Create methods that return a value.*
- 11** Refer to: *Lesson 1-7: Manage a project with the Solution Explorer, Lesson 6-2: Create an instance of a class, Lesson 3-7: Understand Request and Response.*

Session 9: Exercise

- 1 Create a new *ASP.NET Web Application* in your sample files folder, named: **Session9**
- 2 Start the project in *Debug* mode, view its pages and then close your web browser.
(This is necessary because the project must be built before the *ASP.NET Configuration* utility will work properly. Starting debugging causes the project to be built).
- 3 Open the *ASP.NET Configuration* utility for your new project.
- 4 Enable roles for the application.
- 5 Add a new role called: **Moderator**
- 6 Add a new folder to the project called: **Moderate**
- 7 Add a new *aspx* page to the *Moderate* folder called: **default.aspx**
- 8 Add a *Calendar* control to your new page.
- 9 Use the *ASP.NET Configuration* utility to add access rules to allow only users with the *Moderator* role to access the *Moderate* folder.
- 10 Create a new user account and assign it to the *Moderator* role.
- 11 Attempt to view the new *default.aspx* page in the *Moderate* folder in your browser.
- 12 Log in when prompted using the user you created in step 10.

If all of the above questions were completed correctly you will now see the new *default.aspx* file in the *Moderate* folder.



Session9 - end

If you need help
slide the page to
the left



Session 9: Exercise Answers

These are the four questions that students find the most difficult to answer:

Q 10	Q 9	Q 5	Q 3
<p>1. Open the <i>ASP.NET Configuration</i> utility (if it isn't open already).</p> <p>2. Click the <i>Security</i> tab.</p> <p>3. Click <i>Create user</i>.</p> <p>4. Complete the form.</p> <p>5. Check the <i>Moderator</i> box.</p> <p>6. Click <i>Create User</i>.</p> <p>This was covered in: <i>Lesson 9-1: Use .NET's built-in security features.</i></p>	<p>1. Open the <i>ASP.NET Configuration</i> utility.</p> <p>2. Click the <i>Security</i> tab.</p> <p>3. Click <i>Manage Access Rules</i>.</p> <p>4. Click the <i>Moderate</i> folder on the left.</p> <p>5. Click <i>Add new access rule</i>.</p> <p>6. Click <i>Allow</i>.</p> <p>7. Click <i>OK</i>.</p> <p>8. Click <i>Add new access rule</i>.</p> <p>9. Click <i>Anonymous Users</i>.</p> <p>10. Click <i>Deny</i>.</p> <p>11. Click <i>OK</i>.</p> <p>This was covered in: <i>Lesson 9-8: Add folder-level security.</i></p>	<p>1. Open the <i>ASP.NET Configuration</i> utility.</p> <p>2. Click the <i>Security</i> tab.</p> <p>3. Click <i>Create or Manage roles</i>.</p> <p>4. Type Moderator into the <i>New role name</i> text box.</p> <p>5. Click <i>Add Role</i>.</p> <p>This was covered in: <i>Lesson 9-9: Set up roles.</i></p>	<p>Click <i>Project</i> → <i>ASP.NET Configuration</i>.</p> <p>Alternatively, click the icon in the <i>Solution Explorer</i>:</p>  <p>This was covered in: <i>Lesson 9-2: Manage a site with ASP.NET Configuration.</i></p>

If you have difficulty with the other questions, here are the lessons that cover the relevant skills:

- 1** Refer to: **Lesson 1-5: Create an ASP.NET Web Application project.**
- 2** Refer to: **Lesson 1-8: Run a project in debug mode.**
- 4** Refer to: **Lesson 9-9: Set up roles.**
- 6** Refer to: **Lesson 1-7: Manage a project with the Solution Explorer.**
- 7** Refer to: **Lesson 1-7: Manage a project with the Solution Explorer.**
- 8** Refer to: **Lesson 1-14: Add controls to a page with the Toolbox.**
- 11** Refer to: **Lesson 9-1: Use .NET's built-in security features.**
- 12** Refer to: **Lesson 9-1: Use .NET's built-in security features.**

Session 10: Exercise

- 1 Open the *Session10* project from your sample files folder.
- 2 Add *LINQ to SQL Classes* to the project. Call the file: **Session10.dbml**
- 3 Add the *Customer* table from the *Spark* database to the *LINQ to SQL Classes*.
- 4 Add the *SpGetLastInvoiceNumber* stored procedure from the *Spark* database to the *LINQ to SQL Classes*.
- 5 Open the code-behind file of *Default.aspx*.
- 6 Add code to the *Page_Load* event handler to retrieve a *Customer* object with the *CustomerID* of 7 and display the object's *CustomerName* property in the *TextBoxEditCustomerName* control.
- 7 Add *Click* event handlers to the *ButtonAddCustomer* and *ButtonSaveCustomer* controls.
- 8 Add code to the *ButtonSaveCustomer_Click* event handler to retrieve the customer with the *CustomerID* of 7 and set its *CustomerName* property to the value entered in the *TextBoxEditCustomer* control.
- 9 Add code to the *ButtonSaveCustomer_Click* event handler to commit the changes to the *CustomerName* property to the database by calling the *SubmitChanges* method.
- 10 Add code to the *ButtonAddCustomer_Click* event handler to add a new record to the *Customer* table in the database.
Set the new record's *CustomerName* property to the value of the *TextBoxNewCustomerName.Text* property.
(Remember to use the *InsertOnSubmit* method before the *SubmitChanges* method).
- 11 Add *try* and *catch* code to all three event handlers and put the *Message* property of any exceptions into the *LabelError.Text* property.
- 12 View and test the *default.aspx* page in your browser.

SESSION 10 EXERCISE

Home About

NEW CUSTOMER

Customer Name Simon Smart

Add Customer

EDIT CUSTOMER

Customer Name Hanari Carnes

Save Customer Label

Session10 - start

Session10 - end

If you need help
slide the page to
the left



Session 10: Exercise Answers

These are the four questions that students find the most difficult to answer:

Q 11	Q 10	Q 8	Q 6
<p>1. Enclose your code in the following:</p> <pre>try { [Code] } </pre> <p>2. Add the following:</p> <pre>catch (Exception Ex) { LabelError .Text = Ex .Message; } </pre> <p>This was covered in: <i>Lesson 7-6: Use try and catch to handle errors.</i></p>	<p>Use the following code:</p> <pre>using (Session10DataContext Data = new Session10DataContext()) { Customer NewCustomer = new Customer(); NewCustomer .CustomerName = TextBoxNewCustomer Name.Text; Data.Customers .InsertOnSubmit (NewCustomer); Data.SubmitChanges(); } </pre> <p>This was covered in: <i>Lesson 10-8: Insert database records using LINQ.</i></p>	<p>Use the following code:</p> <pre>using (Session10DataContext Data = new Session10DataContext()) { Customer MyCustomer = Data.Customers.Single (Customer => Customer.CustomerID == 7); MyCustomer .CustomerName = TextBoxEditCustomer Name.Text; } </pre> <p>This was covered in: <i>Lesson 10-7: Update database records using LINQ.</i></p>	<p>Use the following code:</p> <pre>if (!Page.IsPostBack) { using (Session10DataContext Data = new Session10DataContext()) { Customer MyCustomer = Data.Customers .Single (Customer => Customer .CustomerID == 7); TextBoxEditCustomer Name.Text = MyCustomer .CustomerName; } } </pre> <p>This was covered in: <i>Lesson 10-3: Retrieve a single row of data using LINQ.</i></p>

If you have difficulty with the other questions, here are the lessons that cover the relevant skills:

- 1** Refer to: *Lesson 1-7: Manage a project with the Solution Explorer.*
- 2** Refer to: *Lesson 10-2: Add LINQ data classes to a project.*
- 3** Refer to: *Lesson 10-2: Add LINQ data classes to a project.*
- 4** Refer to: *Lesson 10-2: Add LINQ data classes to a project.*
- 5** Refer to: *Lesson 1-7: Manage a project with the Solution Explorer.*
- 7** Refer to: *Lesson 3-2: Add event handlers to Controls.*
- 9** Refer to: *Lesson 10-7: Update database records using LINQ.*
- 12** Refer to: *Lesson 1-8: Run a project in debug mode.*

Session 11: Exercise

- 1 Open the *Spark* project from your sample files folder.
- 2 Open *customer.aspx* in *Design* view.
- 3 Add a *LinqDataSource* control to retrieve records from the *Customer* table, sorted by *CustomerName*. Name your new control: **LinqDataSourceCustomer**
- 4 Add a *GridView* control and attach it to the *LinqDataSource* control.
- 5 Enable sorting and paging for the *GridView* control.
- 6 Add *Command fields* to the *GridView* control to edit and delete records.
- 7 Use *AutoFormat* to make the *GridView* control more presentable.
- 8 Add a *DropDownList* control to the page. Name your new control: **DropDownListCustomer**
- 9 Add C# code to the *Page_Load* event handler of *customer.aspx* to retrieve the contents of the *Customer* table and place it in the *DropDownList* control.
- 10 Set the *DropDownList* control's *DataTextField* property to **CustomerName** and the *DataValueField* property to **CustomerID**.



The screenshot shows a web application titled "Spark Accounts". It has a navigation menu with "Home", "New Invoice", "View Invoices", and "Reports". Below the menu is a table with the following data:

CustomerID	CustomerName	Edit	Delete
3	Ana Trujillo Emparedados y helados	Edit	Delete
1	Bottom-Dollar Markets	Edit	Delete
10	B's Beverages	Edit	Delete
9	Cactus Comidas para llevar	Edit	Delete
4	Frankenversand	Edit	Delete
7	Hanari Carnes	Edit	Delete
11	Island Trading	Edit	Delete
8	La maison d'Asie	Edit	Delete
5	Lehmanns Marktstand	Edit	Delete
6	Magazzini Alimentari Riuniti	Edit	Delete

Below the table is a pagination bar showing "1 2" and a DropDownList control with "Bottom-Dollar Markets" selected.

Spark - start

Spark - end

If you need help
slide the page to
the left



Session 11: Exercise Answers

These are the three questions that students find the most difficult to answer:

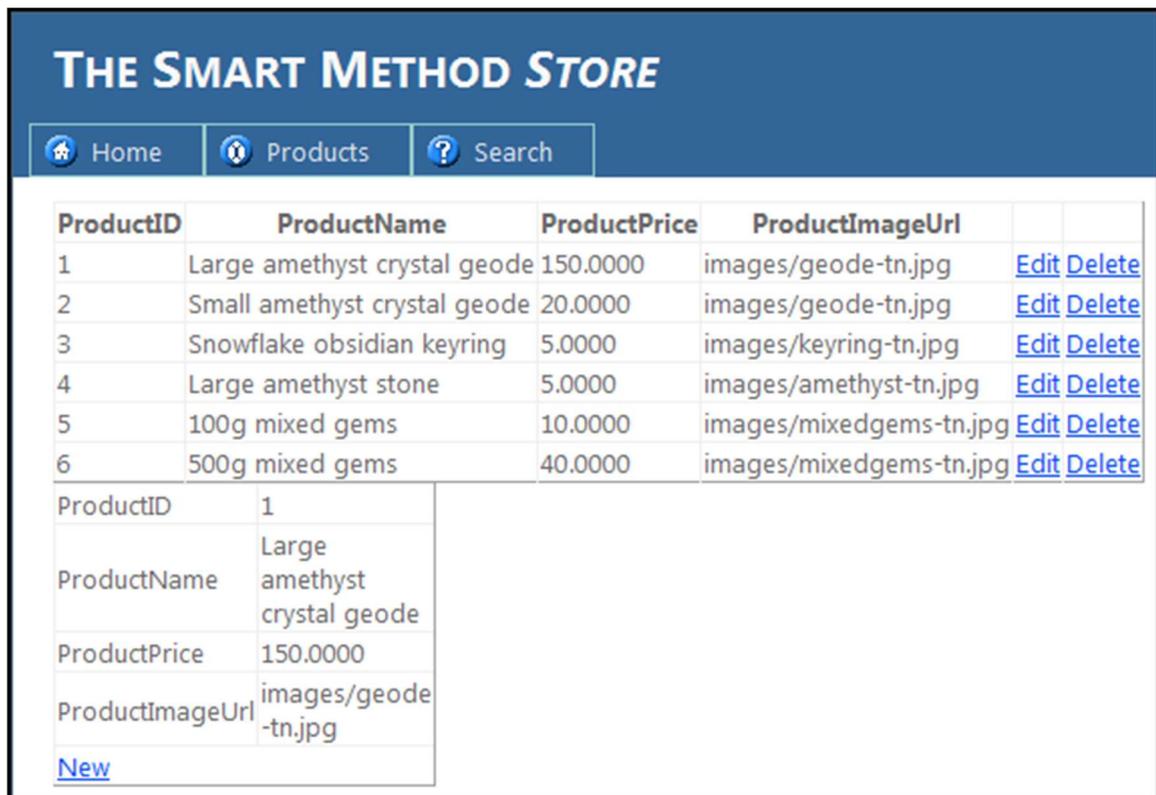
Q 9	Q 6	Q 3
<p>Use the following code:</p> <pre>using (SparkDataContext Data = new SparkDataContext()) { DropDownListCustomer .DataSource = Data.Customers; DropDownListCustomer .DataBind(); }</pre> <p>This was covered in: <i>Lesson 11-8: Bind data to a control using C#.</i></p>	<ol style="list-style-type: none"> 1. Click <i>Edit Columns...</i> in the QuickTasks menu of the <i>GridView</i> control. 2. Expand the <i>CommandField</i> category in the <i>Available Fields</i> list. 3. Click <i>Edit, Update, Cancel</i> from the <i>CommandField</i> category. 4. Click <i>Add</i>. 5. Click <i>Delete</i> from the <i>CommandField</i> category. 6. Click <i>Add</i>. 7. Click <i>OK</i>. <p>This was covered in: <i>Lesson 11-5: Add editing features to a GridView.</i></p>	<ol style="list-style-type: none"> 1. Add a <i>LinqDataSource</i> control to the page. 2. Set the <i>ID</i> property of the new control to: LinqDataSourceCustomer 3. Click <i>Configure Data Source...</i> from the QuickTasks menu of the control. 4. Ensure that <i>Spark.SparkDataContext</i> is selected and click <i>Next</i>. 5. Ensure that <i>Customers(Table<Customer>)</i> is selected in the <i>Table</i> drop-down. 6. Click <i>OrderBy...</i> 7. Ensure <i>CustomerName</i> is selected in the <i>Sort by</i> drop-down. 8. Click <i>OK</i>. 9. Click <i>Finish</i>. <p>This was covered in: <i>Lesson 11-1: Use the LinqDataSource control.</i></p>

If you have difficulty with the other questions, here are the lessons that cover the relevant skills:

- 1 Refer to: Lesson 1-7: Manage a project with the Solution Explorer.
- 2 Refer to: Lesson 1-7: Manage a project with the Solution Explorer.
- 4 Refer to: Lesson 11-3: Use the GridView control.
- 5 Refer to: Lesson 11-4: Add sorting and paging to a GridView.
- 7 Refer to: Lesson 1-15: Use the QuickTasks menu.
- 8 Refer to: Lesson 1-14: Add controls to a page with the Toolbox.

Session 12: Exercise

- 1 Open the *SmartMethodStore* project from your sample files folder.
- 2 Open *products.aspx* from the *admin* folder.
- 3 Add a *LinqDataSource* control to the page which retrieves all entries from the *Product* table.
- 4 Add a *GridView* control and link it to the *LinqDataSource*.
- 5 Add the ability to update and delete products to the new *GridView* control.
- 6 Add a *DetailsView* control linked to the same *LinqDataSource* control.
- 7 Add the ability to insert a new product to the *DetailsView* control.
- 8 Open *orders.aspx* from the *admin* folder.
- 9 Add *LinqDataSource* and *GridView* controls to display all records from the *Order* table where *OrderSent* is *false* and *OrderPaid* is *true*.
- 10 Add a *ButtonField* to the *GridView* control and set its *Text* property to: **Send Order**
- 11 Add a *RowCommand* event handler to your *GridView* control that will set the selected order's *OrderSent* property to *true* when the *Send Order ButtonField* is clicked.



The screenshot displays the 'THE SMART METHOD STORE' application. At the top, there is a navigation bar with 'Home', 'Products', and 'Search' links. Below this is a table listing products with columns for ProductID, ProductName, ProductPrice, ProductImageUrl, and Edit/Delete links. The first product is selected, and its details are shown in a form below the table, including fields for ProductID, ProductName, ProductPrice, and ProductImageUrl, along with a 'New' link.

ProductID	ProductName	ProductPrice	ProductImageUrl		
1	Large amethyst crystal geode	150.0000	images/geode-tn.jpg	Edit	Delete
2	Small amethyst crystal geode	20.0000	images/geode-tn.jpg	Edit	Delete
3	Snowflake obsidian keyring	5.0000	images/keyring-tn.jpg	Edit	Delete
4	Large amethyst stone	5.0000	images/amethyst-tn.jpg	Edit	Delete
5	100g mixed gems	10.0000	images/mixedgems-tn.jpg	Edit	Delete
6	500g mixed gems	40.0000	images/mixedgems-tn.jpg	Edit	Delete

ProductID	1
ProductName	Large amethyst crystal geode
ProductPrice	150.0000
ProductImageUrl	images/geode-tn.jpg
New	

SmartMethodStore - start

SmartMethodStore - end

If you need help
slide the page to
the left



Session 12: Exercise Answers

These are the four questions that students find the most difficult to answer:

Q 11	Q 9	Q 7	Q 5
<p>1. Add a <i>RowCommand</i> event handler to your <i>GridView</i> control.</p> <p>2. Add the following code:</p> <pre>int RowClicked = Convert.ToInt32 (e.CommandArgument); int OrderID = Convert.ToInt32 (GridViewOrder.DataKeys[RowClicked].Value); using (StoreDataContext Data = new StoreDataContext()) { Order OrderToSend = Data.Orders .Single(Order => Order.OrderID == OrderID); OrderToSend .OrderSent = true; Data.SubmitChanges(); } GridViewOrder.DataBind();</pre> <p>This was covered in: <i>Lesson 12-4: Create a Products page.</i></p>	<p>1. Add a new <i>LinqDataSource</i> to the page.</p> <p>2. Click <i>Configure Data Source</i> from the <i>QuickTasks</i> menu of the <i>LinqDataSource</i>.</p> <p>3. Click <i>Next</i>.</p> <p>4. Choose <i>Orders</i> from the <i>Table</i> drop-down.</p> <p>5. Click <i>Where...</i></p> <p>6. Choose <i>OrderSent</i> from the <i>Column</i> drop-down.</p> <p>7. Choose <i>==</i> from the <i>Operator</i> drop-down.</p> <p>8. Choose <i>None</i> from the <i>Source</i> drop-down.</p> <p>9. Type False into the <i>Value</i> box.</p> <p>10. Click <i>Add</i> and repeat the process for the <i>OrderPaid</i> property with a value of: True</p> <p>12. Add a <i>GridView</i> control and link it to the <i>LinqDataSource</i>.</p> <p>This was covered in: <i>Lesson 11-1: Use the LinqDataSource control.</i></p>	<p>1. Open the <i>Edit Columns</i> dialog from the <i>QuickTasks</i> menu of the <i>DetailsView</i> control.</p> <p>2. Add a <i>New, Insert, Cancel</i> field from the <i>CommandField</i> category.</p> <p>3. Click OK.</p> <p>4. Set the <i>EnableInsert</i> property of your <i>LinqDataSource</i> to: True</p> <p>This was covered in: <i>Lesson 11-6: Use the DetailsView control.</i></p>	<p>1. Open the <i>Edit Columns</i> dialog from the <i>QuickTasks</i> menu of the <i>GridView</i> control.</p> <p>2. Add an <i>Edit, Update, Cancel</i> field from the <i>CommandField</i> category.</p> <p>3. Add a <i>Delete</i> field from the <i>CommandField</i> category.</p> <p>4. Set the <i>EnableUpdate</i> and <i>EnableDelete</i> properties of your <i>LinqDataSource</i> to: True</p> <p>This was covered in: <i>Lesson 11-5: Add editing features to a GridView.</i></p>

If you have difficulty with the other questions, here are the lessons that cover the relevant skills:

- 1** Refer to: *Lesson 1-7: Manage a project with the Solution Explorer.*
- 2** Refer to: *Lesson 1-7: Manage a project with the Solution Explorer.*
- 3/4** Refer to: *Lesson 11-3: Use the GridView control.*
- 6** Refer to: *Lesson 11-6: Use the DetailsView control.*
- 8** Refer to: *Lesson 1-7: Manage a project with the Solution Explorer.*
- 10** Refer to: *Lesson 12-4: Create a Products page.*