

# Contents

<i>Foreword</i> .....	<i>xiii</i>
<i>About the Authors</i> .....	<i>xv</i>
<i>Acknowledgments</i> .....	<i>xvii</i>
<i>Introduction</i> .....	<i>xix</i>
 <i>Chapter 1 Meeting the Challenges of the Web</i> .....	 <i>1</i>
<i>What Are the Challenges of Web Development?</i> .....	<i>1</i>
<i>Creating Multitiered Applications for the Web</i> .....	<i>2</i>
<i>Using HTML and XML</i> .....	<i>9</i>
<i>Programming in the Internet Environment</i> .....	<i>17</i>
<i>ASP.NET Namespaces</i> .....	<i>27</i>
<i>Recap</i> .....	<i>36</i>
 <i>Chapter 2 Creating a Web Application</i> .....	 <i>37</i>
<i>Starting a Web Project</i> .....	<i>38</i>
<i>Using the Global.asax File</i> .....	<i>53</i>
<i>Cascading Style Sheets</i> .....	<i>69</i>
<i>Instrumentation and Tracing</i> .....	<i>83</i>
<i>Recap</i> .....	<i>91</i>
 <i>Chapter 3 Creating a Web Page</i> .....	 <i>93</i>
<i>Understanding the ASP.NET Control Tree</i> .....	<i>94</i>
<i>Unraveling the Page Processing Sequence</i> .....	<i>101</i>
<i>Understanding Web Form Classes</i> .....	<i>120</i>
<i>Recap</i> .....	<i>137</i>

<b>Chapter 4 Using the HTML Controls .....</b>	<b>139</b>
The HTMLControls Namespace .....	140
Using Image Controls .....	144
Using Container Controls .....	152
Using Input Controls .....	201
Using Client Events .....	217
Recap .....	221
 <b>Chapter 5 Using the Web Server Controls .....</b>	 <b>223</b>
Understanding the Capabilities of Web Server Controls .....	224
The Web Controls Namespace .....	228
Using Basic Web Server Controls .....	242
Using Complex Web Server Controls .....	285
Recap .....	301
 <b>Chapter 6 Using the Validation Controls .....</b>	 <b>303</b>
Adding a Validation Control to a Web Page .....	304
The Validation Base Classes .....	307
Validating Required Fields .....	311
Validating Field Formats .....	312
Validating Field Values .....	321
Performing Custom Validation .....	326
Using the ValidationSummary Control .....	332
Recap .....	339
 <b>Chapter 7 Using Data-Bound Controls .....</b>	 <b>341</b>
Data Binding .....	341
Using the Collection Controls .....	350
Recap .....	399
 <b>Chapter 8 Developing an XML Web Service .....</b>	 <b>401</b>
Describing an XML Web Service .....	402
Communicating with an XML Web Service .....	405
Locating an XML Web Service .....	409
Creating an XML Web Service .....	411
Accessing an XML Web Service .....	423
Returning an Array from a XML Web Method .....	433
Returning a Structure from a Web Method .....	435

<i>Exchanging Objects with a Web Method</i> .....	437
<i>Using SOAP Headers</i> .....	439
<i>Recap</i> .....	451

## **Chapter 9 Accessing Relational Data** ..... 453

<i>What Is Special About ADO.NET?</i> .....	454
<i>The ADO.NET DataSet Class</i> .....	455
<i>Data Providers</i> .....	458
<i>Accessing a Database from a Dataset</i> .....	462
<i>Populating a Database</i> .....	483
<i>Using a Data Reader</i> .....	496
<i>Improving Column Names via Mapping</i> .....	501
<i>Using Data Views</i> .....	504
<i>Accessing a Dataset via an XML Web Service</i> .....	508
<i>Editing a Database Table from a DataGrid</i> .....	509
<i>Validating Data Table Entries</i> .....	517
<i>Recap</i> .....	529

## **Chapter 10 Creating a User Control** ..... 531

<i>Understanding User Controls</i> .....	532
<i>Creating a Simple User Control</i> .....	537
<i>Exposing User Control Properties</i> .....	542
<i>Changing Content Dynamically</i> .....	547
<i>Handling User Control Client Events</i> .....	553
<i>Converting a Web Form to a User Control</i> .....	560
<i>Caching Output for Reuse</i> .....	561
<i>Recap</i> .....	573

## **Chapter 11 Creating a Rendered Control** ..... 575

<i>Creating a Web Control Library</i> .....	575
<i>Creating a Simple Rendered Control</i> .....	577
<i>Registering and Using a Custom Control</i> .....	585
<i>Using Web Control Properties</i> .....	594
<i>Rendering Content Changes Dynamically</i> .....	598
<i>Handling PostBack Events</i> .....	602
<i>Recap</i> .....	610

<b>Chapter 12 Creating a Composite Control</b>	613
Creating a Simple Composite Control	613
Varying Styles Within a Composite Control	617
Raising an Event from a Composite Control	624
Creating a Template Control	630
Recap	636
<b>Chapter 13 Building a Web Application</b>	639
Updating a Database from a Web Application	640
Authenticating a Visitor	665
Viewing Database Information from a Web Site	692
Recap	717
<b>Chapter 14 Configuring and Deploying         a Web Application</b>	719
Configuring a Web Application	720
Securing a Web Application	738
Deploying a Web Application	751
Recap	765
<b>Chapter 15 Creating a Web Site</b>	767
Working with a Professional Designer	767
Implementing a Web Design	775
Encapsulating Design Elements in Controls	784
Personalizing Web Pages	809
Reading Database Information Efficiently	817
Inviting Spiders, Crawlers, and Surfers	825
Recap	831
<b>Appendix A Web Design and Usability:         Tips and Tricks</b>	833
Gain Trust Through Clear Writing	833
Create Effective, Useful Web Links	838
Make Web Pages Easy to Navigate	841
Add Value with a Web Site Search Tool	843
Produce Fast-Loading, High-Quality Graphics	845
Make Your Web Site More Accessible	848
Recap	849

<b>Appendix B HTML Quick Reference .....</b>	<b>851</b>
<i>The Doctype Declaration .....</i>	<i>851</i>
<i>The html Section .....</i>	<i>852</i>
<i>The head Section .....</i>	<i>852</i>
<i>The body Section .....</i>	<i>854</i>
<i>Formatting Web Pages with HTML .....</i>	<i>854</i>
 <b>Appendix C XML Quick Reference .....</b>	 <b>863</b>
<i>Document Object Model .....</i>	<i>864</i>
<i>Node Trees .....</i>	<i>864</i>
<i>Nodes .....</i>	<i>866</i>
 <b>Appendix D Setting Up Your Own                     Development Server .....</b>	 <b>875</b>
<i>Hardware Requirements for Windows 2000 Server .....</i>	<i>878</i>
<i>Source Code Control .....</i>	<i>878</i>
 <b>Index .....</b>	 <b>879</b>

Programming the Web with Visual Basic .NET

Petersen, C.; Torkelson, L.

2002, XLIV, 936 p. 371 illus. In 2 volumes, not available separately., Softcover

ISBN: 978-1-59059-027-0

A product of Apress