

Table of Contents

| | |
|---|-----------|
| <i>Introduction</i> | 1 |
| About This Book..... | 2 |
| How to Use This Book | 3 |
| How This Book Is Organized..... | 3 |
| Book I: ASP.NET Basics | 3 |
| Book II: Web Controls..... | 3 |
| Book III: HTML | 3 |
| Book IV: C# | 4 |
| Book V: Visual Basic..... | 4 |
| Book VI: Database Programming | 4 |
| Book VII: Using the .NET Framework..... | 4 |
| Book VIII: Advanced ASP.NET Programming..... | 4 |
| Icons Used in This Book..... | 4 |
| Where to Go from Here..... | 5 |
| | |
| <i>Book 1: ASP.NET Basics</i> | 7 |
| | |
| Chapter 1: Welcome to ASP.NET Programming | 9 |
| What Is ASP.NET, and Why Is It So Great? | 9 |
| Windows and IIS dependence | 10 |
| Object orientation | 11 |
| Choice of languages | 11 |
| Visual Studio | 12 |
| Understanding Web Servers and Browsers | 12 |
| Understanding Static Web Pages..... | 13 |
| Understanding Dynamic Web Pages | 14 |
| Looking at a Simple ASP.NET Application | 15 |
| The .aspx (Markup) File for the Simple Calculator Application | 17 |
| The Code-Behind File of the Simple Calculator Application | 18 |
| | |
| Chapter 2: Installing Visual Studio Web Developer 2005 Express Edition or Visual Studio 2005 | 21 |
| Looking at Visual Studio 2005 Editions | 21 |
| Considering Visual Web Developer 2005 Express Edition | 22 |
| Installing Visual Web Developer 2005 Express Edition | 22 |
| Registering Visual Web Developer 2005 Express Edition..... | 27 |
| Installing Visual Studio 2005..... | 30 |

| | |
|---|-----------|
| Chapter 3: Creating Your First ASP.NET 2.0 Application | 35 |
| Understanding Visual Studio Projects | 35 |
| Creating a New Web Site..... | 36 |
| Using the Solution Explorer | 39 |
| Working with Controls | 40 |
| Setting Properties | 44 |
| Setting the Page Title..... | 46 |
| Looking at the Source Code..... | 47 |
| Adding Some Code..... | 48 |
| Running the Application..... | 51 |
| Chapter 4: Understanding Postback, Events, and Code-Behind | 53 |
| Understanding Postback..... | 53 |
| Using the IsPostBack Variable | 54 |
| Understanding Events | 55 |
| Using the Handles Clause in Visual Basic | 56 |
| Designating an Event Handler in C# | 58 |
| Using C#'s Auto Event Wireup..... | 58 |
| Understanding Code-Behind..... | 59 |
| Using Single-File Pages | 60 |
| Chapter 5: Creating Multipage Applications | 63 |
| Understanding the Basics of a Multipage Application | 63 |
| Adding Pages | 66 |
| Redirecting to Another Page..... | 67 |
| Adding Classes | 68 |
| Using Session State | 71 |
| Looking into Data Binding..... | 74 |
| Using Master Pages..... | 75 |
| Creating a Master Page..... | 75 |
| Creating a content page..... | 78 |
| The C# Version of the Shopping Cart Application | 79 |
| The VB.NET Version of the Shopping Cart Application | 83 |
| Chapter 6: Testing and Debugging Your ASP.NET Applications | 87 |
| Creating a Simple Calculator Application | 87 |
| Running an ASP.NET Application | 89 |
| Dealing with Errors | 91 |
| Working in Break Mode | 93 |
| Displaying Variable Data | 93 |
| Stepping Through a Program..... | 95 |
| Setting Breakpoints..... | 96 |
| Using Response.Write for Debugging | 97 |

Book 11: Web Controls 99

Chapter 1: Using Basic Web Server Controls 101

- Using Label Controls 101
- Using TextBox Controls 103
- Using Button Controls 105
- Using CheckBox Controls 107
 - Checking the Checked property 108
 - Another way to check the Checked property 109
- Using RadioButton Controls 111
- Using Image Controls 112

Chapter 2: Using Validation Controls 115

- Validating the Hard Way 115
- Validation Controls to the Rescue! 117
- Using the RequiredFieldValidator Control 118
- Using the CompareValidator Control 120
- Using the RangeValidator Control 122
- Using the RegularExpressionValidator 123
- Using a CustomValidator Control 125
- Using the ValidationSummary Control 126
- Using the CausesValidation and ValidationGroup Properties 128

Chapter 3: Using List Controls 131

- Using the CheckBoxList Control 131
 - Creating columns 133
 - Aligning text with check boxes 134
 - Spacing things out 135
- Working with ListItem Elements 135
 - Using the Text property 135
 - Using the Value property 136
 - Determining which items are selected 136
 - Using the Collection Editor dialog box 137
- Toiling with the RadioButtonList Control 138
- Utilizing ListBox Controls 139
- Employing DropDownList Controls 141
- Accomplishing More with List Items in Code 143
 - Adding an item to a list 143
 - Clearing the list 143
 - Selecting and deselecting items 144
 - Finding an item 144

Chapter 4: Using Advanced Web Server Controls147

| | |
|---|-----|
| Using the MultiView Control..... | 147 |
| Utilizing the Wizard Control | 152 |
| Creating steps in Visual Studio..... | 154 |
| Using Wizard events..... | 156 |
| Looking at the code for a Wizard control..... | 157 |
| Working with the Calendar Control | 160 |
| Making Use of the FileUpload Control..... | 163 |

Chapter 5: Working with User Controls165

| | |
|--|-----|
| Introducing User Controls..... | 165 |
| Creating a User Control..... | 167 |
| Adding a User Control to a Page | 169 |
| Adding Properties to a User Control | 170 |
| Putting User-Control Properties to Work..... | 173 |

Book III: HTML 175**Chapter 1: HTML Basics177**

| | |
|--|-----|
| XHTML Rulez! | 177 |
| XHTML and the W3C..... | 178 |
| The strict upbringing of XHTML..... | 178 |
| Making your HTML well-formed | 179 |
| More XHTML requirements..... | 180 |
| Taking characters as an entity..... | 181 |
| VWDE's Support for XHTML | 181 |
| A solemn DOCTYPE declaration..... | 181 |
| Validity spy..... | 182 |
| Letting VWDE fix old code..... | 185 |
| You can go your own way..... | 189 |
| Editing Code in Source View | 190 |
| Preserving source code | 191 |
| Cleaning up source code | 192 |
| Using the Tag Navigator | 192 |
| Collapsing and outlining..... | 193 |
| No Comment! | 193 |
| Editing Pages in Design View..... | 194 |
| Establishing a position in Design view | 194 |
| Positioning a Single Control | 197 |
| Viewing an HTML document's structure..... | 197 |
| Manipulating the DOM..... | 198 |
| Formatting Text | 198 |
| The Formatting toolbar | 199 |
| The Format menu | 199 |
| Properties pages..... | 200 |

| | |
|--|------------|
| Chapter 2: Creating Tables | 201 |
| Some Basic Table Talk | 202 |
| Adding headers, a caption, and a summary | 202 |
| Grouping and spanning columns and rows..... | 205 |
| Creating Tables in the Designers..... | 207 |
| The Toolbox table | 207 |
| The table designer..... | 208 |
| The ASP.NET table tool..... | 209 |
| Creating Tables Programmatically..... | 212 |
| Building a table by using the Repeater control | 212 |
| Building an ASP.NET table from scratch..... | 215 |
| Creating a Table-Based Framework | 217 |
| | |
| Chapter 3: Working with Forms | 221 |
| Understanding Forms | 221 |
| Creating a Form | 223 |
| A call to action — sent by post | 223 |
| Staying on target..... | 224 |
| Your special events form..... | 224 |
| Working with Text Boxes..... | 225 |
| Creating text fields with <input> | 226 |
| Creating a password text box | 227 |
| Super-sizing a text field..... | 227 |
| Working with Buttons | 229 |
| Creating a submit button..... | 229 |
| Creating a reset button | 230 |
| Creating an ordinary button | 230 |
| Creating an image button | 230 |
| Creating submit, reset, and ordinary buttons another way | 231 |
| Working with Check Boxes and Radio Buttons | 232 |
| Creating a check box..... | 232 |
| Creating a radio button..... | 232 |
| Using Drop-Down Lists and List Boxes..... | 233 |
| Creating a drop-down list | 233 |
| Creating a list box..... | 234 |
| Creating a hierarchical drop-down list and list box..... | 235 |
| Checking Form Submissions with ASP.NET | 237 |
| Setting the Tab Order | 238 |
| | |
| Chapter 4: Using Styles and Style Sheets | 241 |
| Understanding Styles..... | 241 |
| Cascading Style Sheets | 242 |
| Style selectors and other syntax | 244 |

| | |
|--|-----|
| Working with Styles in Visual Studio 2005 and Visual Web Developer | 246 |
| Setting the CSS validation schema | 246 |
| Creating inline styles in Design view | 248 |
| Creating inline styles in Source view | 252 |
| Building external style sheets | 254 |
| Creating a class with style | 256 |
| Using Span and Div for Styles and Positions | 257 |
| Highlighting text with | 258 |
| Creating a layer with <div> | 259 |
| Showing and hiding the <div> | 260 |
| Creating and Applying Styles in Code | 261 |
| Applying inline styles in code | 261 |
| Inserting embedded styles with code | 262 |
| Letting users choose their style sheet | 263 |

Chapter 5: Using Client-Side Script 267

| | |
|---|-----|
| Sampling Client-Side Script on Microsoft.com | 267 |
| Compensating for browser differences | 268 |
| Embedding multimedia content | 268 |
| Tracking page views and statistics | 269 |
| Making the page interactive | 270 |
| Creating random content and surveys | 270 |
| Embedding Script in an ASP.NET Page | 271 |
| Embedding a block of script | 272 |
| Inserting a hidden field into a page | 274 |
| Embedding code so that it executes on startup | 275 |
| Embedding code to catch a page submit | 277 |
| Capturing the hidden field | 278 |
| Referencing external scripts | 279 |
| Storing an array of values in a page | 280 |
| Using Client-Side Scripts in ASP.NET | 281 |
| Identifying page elements by using script | 282 |
| Using alert() to stop users cold | 284 |
| confirm() a drastic action | 285 |
| Creating a rollover effect | 286 |
| Client-Side Script and Validation Controls | 287 |
| How Auto-PostBack Uses Client-Side Script | 289 |
| Using Client-Side Callbacks | 291 |
| Creating the Web page interface | 292 |
| Preparing the JavaScript | 293 |
| Building the server-side algorithm | 294 |
| Implementing ICallbackEventHandler | 294 |
| Generating the callback code | 296 |
| Making the callback call | 297 |
| Callback source code | 298 |

***Book IV: C#*301**

| | |
|---|------------|
| Chapter 1: C# Programming Basics | 303 |
| Dealing with Keywords | 303 |
| Working with Statements | 304 |
| Types of statements | 304 |
| White space | 305 |
| Working with Blocks | 306 |
| Creating Identifiers | 307 |
| Crafting Comments | 307 |
| Single-line comments | 307 |
| Delimited comments | 308 |
| Introducing Object-Oriented Programming | 308 |
| Understanding classes and objects | 308 |
| Coding a class | 309 |
| Creating an object from a class | 310 |
| Using .NET Framework Classes | 311 |
| Declaring Variables | 312 |
| Declaring two or more variables in one statement | 313 |
| Declaring instance variables | 313 |
| Declaring local variables | 314 |
| Initializing Variables | 315 |
| Initializing variables with assignment statements | 315 |
| Initializing variables with initializers | 315 |
| Working with Built-in Data Types | 316 |
| Integer (int) types | 317 |
| Floating-point types | 318 |
| The decimal type | 319 |
| The char type | 319 |
| The boolean type | 320 |
| Working with Strings | 320 |
| Declaring and initializing strings | 321 |
| Combining strings | 321 |
| Converting strings to primitives | 322 |
| Working with Arithmetic Operators | 323 |
| Dividing Integers | 325 |
| Combining Operators | 326 |
| Using the Unary Plus and Minus Operators | 327 |
| Using Increment and Decrement Operators | 328 |
| Using the Assignment Operator | 329 |
| Using Compound Assignment Operators | 331 |

| | |
|---|------------|
| Chapter 2: Doing Things Conditionally in C# | 333 |
| Using Simple boolean Expressions | 333 |
| Using if Statements | 335 |
| Simple if statements..... | 335 |
| if-else statements..... | 338 |
| Nested if statements | 339 |
| else-if statements..... | 341 |
| Mr. Spock's Favorite Operators (the Logical Ones, of Course)..... | 343 |
| Using the ! operator | 344 |
| Using the & and && operators..... | 345 |
| Using the and operators | 346 |
| Pulling the Ol' Switch-er-oo | 347 |
| Creating else-if monstrosities | 347 |
| Using the switch statement..... | 348 |
| A better version of the Voter-Error-Code Decoder program | 349 |
| | |
| Chapter 3: Going Around in Circles (Or, Looping in C#) | 351 |
| Your Basic while Loop | 351 |
| The while statement | 352 |
| A counting loop | 352 |
| Breaking Out of a Loop..... | 353 |
| Looping Forever | 354 |
| Using the continue Statement | 355 |
| Understanding do-while Loops | 356 |
| The Famous for Loop..... | 358 |
| The formal format of the for loop | 358 |
| Scoping out the counter variable | 360 |
| Counting even numbers | 361 |
| Counting backward | 361 |
| for loops without bodies | 362 |
| Ganging up your expressions | 362 |
| Omitting expressions | 363 |
| Breaking and continuing your for loops | 364 |
| Nesting Your Loops..... | 365 |
| | |
| Chapter 4: Using Methods and Exceptions | 367 |
| The Basics of Making Methods..... | 367 |
| A Simple Example..... | 368 |
| Methods that Return Values | 369 |
| Declaring the method's return type..... | 370 |
| Using the return statement to return the value..... | 370 |
| Using Methods that Take Parameters | 371 |
| Declaring parameters | 371 |
| Understanding pass-by-value..... | 372 |

| | |
|--|-------------|
| Understanding Exceptions | 373 |
| Catching Exceptions | 374 |
| Catching Different Exception Types | 375 |
| Using the Exception Message | 376 |
| Using a finally Block..... | 376 |
| Chapter 5: Getting into Object-Oriented Programming | .377 |
| What Is Object-Oriented Programming? | 377 |
| Understanding Objects..... | 379 |
| Objects have identity..... | 379 |
| Objects have type..... | 380 |
| Objects have state..... | 381 |
| Objects have behavior | 381 |
| The Life Cycle of an Object | 382 |
| Working with Related Classes..... | 383 |
| Inheritance | 383 |
| Interfaces | 384 |
| Declaring a Class | 385 |
| Picking class names | 385 |
| What goes in the class body | 385 |
| Using Fields..... | 386 |
| Creating Properties | 387 |
| Using Methods..... | 389 |
| Creating Constructors | 390 |
| Basic constructors | 391 |
| Default constructors | 392 |
| Using this..... | 392 |
| Working with Static Members..... | 393 |
| Working with static fields or properties..... | 394 |
| Using static methods | 394 |
| Chapter 6: Working with Inheritance | .397 |
| Understanding Inheritance | 397 |
| A real-world explanation | 398 |
| A fun explanation | 399 |
| A business-world explanation..... | 399 |
| Inheritance hierarchies..... | 400 |
| Creating Derived Classes | 400 |
| Overriding Methods..... | 401 |
| Protecting Your Members | 402 |
| Using this and base in Your Derived Classes..... | 403 |
| Inheritance and Constructors | 404 |
| Casting Up and Down | 405 |
| Determining an Object's Type: The is Operator | 406 |
| Poly What? | 407 |

Book V: Visual Basic409

Chapter 1: Mastering the Basics of Visual Basic411

| | |
|--|-----|
| Looking at Classes, Structures, and Modules..... | 411 |
| Working with Source Files..... | 412 |
| Creating Sub Procedures..... | 413 |
| Working with Statements..... | 414 |
| Creating Identifiers..... | 415 |
| Adding Comments to Your Code..... | 416 |
| Declaring Variables..... | 416 |
| Working with Data Types..... | 417 |
| Integer types..... | 418 |
| Floating-point types..... | 419 |
| The decimal type..... | 419 |
| The char type..... | 420 |
| The Boolean type..... | 420 |
| Working with Strings..... | 420 |
| Declaring and initializing strings..... | 420 |
| Combining strings..... | 421 |
| Converting strings..... | 421 |
| Working with Arithmetic Operators..... | 422 |
| Combining Operators..... | 423 |
| Using Assignment Statements..... | 424 |
| Using Assignment Operators..... | 425 |

Chapter 2: Controlling Your Programs427

| | |
|--|-----|
| Using If Statements..... | 427 |
| The basic If statement..... | 428 |
| The single-line If..... | 429 |
| The Else clause..... | 429 |
| Nesting If statements..... | 430 |
| The Elself structure..... | 430 |
| Using Conditional Expressions..... | 433 |
| Getting Logical..... | 434 |
| Using the Not operator..... | 435 |
| Working with the And operator..... | 435 |
| Utilizing the AndAlso operator..... | 435 |
| Using the Or and OrElse operators..... | 436 |
| Using the Select Case Statement..... | 436 |
| Working with For/Next Loops..... | 438 |
| Using While loops..... | 439 |
| Utilizing Do loops..... | 440 |
| Exiting a loop..... | 441 |
| Nesting your loops..... | 441 |

Chapter 3: Working With Procedures, Exceptions, and Arrays443

- Using Sub Procedures.....444
- Working with Functions.....445
- Getting Finicky about Parameters.....446
- Understanding Exceptions.....448
 - Catching exceptions.....448
 - Using a Finally block.....450
- Using Arrays450
 - Creating an array.....451
 - Initializing an array.....451
 - Using For loops with arrays.....452
 - Using two-dimensional arrays452

Chapter 4: Exploring Object-Oriented Programming455

- Introducing Object-Oriented Programming.....455
 - Objects have identity.....456
 - Objects have type.....456
 - Objects have state.....456
 - Objects have behavior.....457
- Creating Objects from Classes458
- Declaring Classes458
 - Using fields.....459
 - Creating properties460
 - Using methods.....462
 - Creating constructors.....463
- Using Shared Members.....464

Chapter 5: Demystifying Inheritance in VB.NET467

- Understanding Inheritance.....467
- Understanding Inheritance Hierarchies469
- Creating a Derived Class469
- Overriding Methods.....470
- Using Protected Members.....471
- Using the MyBase Keyword.....472
- Using Casting with Inheritance.....472
- Determining an Object’s Type.....474
- Confronting Polymorphism474

***Book VI: Database Programming*477**

Chapter 1: Accessing Data with ADO.NET479

- Understanding the Basics of Relational Databases480
 - Gathering data into tables.....480
 - Organizing with rows and columns.....481

| | |
|--|-----|
| Distinguishing data with primary keys and foreign keys | 481 |
| Indexing your data for fast retrieval | 484 |
| Working with Databases Using SQL | 485 |
| Creating a table with CREATE TABLE | 486 |
| Deleting a table with DROP TABLE | 489 |
| Getting data with SELECT | 490 |
| Selecting only specific rows with the WHERE clause | 491 |
| Adding data with INSERT | 491 |
| Modifying data with UPDATE | 492 |
| Removing data with DELETE | 493 |
| Piecing Together SQL Statements | 494 |
| Connecting to Data with ADO.NET | 495 |
| Issuing Database Commands | 498 |
| Calling statements that return no data | 498 |
| Calling a stored procedure | 499 |
| Calling statements that return one data item | 500 |
| Displaying Data on a Web Page | 501 |
| Retrieving Data from a Table | 503 |
| Adding Security to Your SQL Statements — Read This! | 504 |

Chapter 2: Displaying and Editing Data for the Web 507

| | |
|---|-----|
| Writing Data to a Page with a Label | 507 |
| Binding to Data | 509 |
| Creating a data source | 509 |
| Using a data source | 516 |
| Repeating Through a Result Set | 518 |
| Setting server control properties in a Repeater control | 519 |
| Adding some style to the Repeater control | 520 |
| Altering the look of the Repeater control's rows | 521 |
| Creating a Data-Entry Page | 523 |

Chapter 3: Displaying and Editing with the GridView Control 529

| | |
|---|-----|
| Setting Up the AdventureWorks Database | 529 |
| Creating a GridView Control | 530 |
| Formatting the Display | 532 |
| Editing and Deleting Data with a GridView | 534 |
| Sorting and Paging the Data in Your Grid | 540 |
| Customizing the Columns in a Grid | 542 |
| Specifying headers | 546 |
| Displaying formatted text with the BoundField type | 546 |
| Displaying images from a URL with the ImageField type | 547 |

| | |
|---|----------------|
| Chapter 4: Displaying and Editing Detail Data | 551 |
| Introducing the DetailsView and FormView Controls | 552 |
| Displaying a Record with a DetailsView Control | 552 |
| Moving through data by paging | 556 |
| Using GridView and DetailsView controls together | 556 |
| Editing Data with a DetailsView | 560 |
| Searching and displaying details | 564 |
| Displaying Record Details with a FormView Control | 566 |
| Using GridView and FormView controls together | 567 |
| Editing data with a FormView | 569 |
| Chapter 5: Advanced Data Retrieval | 575 |
| Ditching the Eval Method | 575 |
| Binding to Different Kinds of Data | 578 |
| Skipping the SQLDataSource | 578 |
| Binding SqlDataAdapter results to controls | 580 |
| Attaching arrays to data-bound controls | 581 |
| Advanced Usage of Repeater Controls | 584 |
| Creating a table around a Repeater | 584 |
| Handling Repeater events | 586 |
| Chapter 6: Reading XML and Generic Data | 591 |
| Putting Together Some XML | 591 |
| Transforming XML into a Formatted Table | 594 |
| Displaying XML in a TreeView Control | 600 |
| Accessing Generic Data with an ObjectDataSource Control | 604 |

Book VII: Using the .NET Framework **609**

| | |
|--|------------|
| Chapter 1: Handling Strings | 611 |
| Formatting Strings | 611 |
| Supplying parameters other than strings | 612 |
| Formatting the numeric parameters | 613 |
| Formatting dates and times | 615 |
| Customizing data formats | 616 |
| Handling Special HTML Characters in Strings | 619 |
| Splitting and Combining Strings | 620 |
| Splitting strings | 621 |
| Combining strings | 622 |
| Converting to Strings with the ToString Method | 623 |
| Converting Strings to Numbers | 625 |
| Piecing Together Strings with a StringBuilder | 626 |

| | |
|--|------------|
| Chapter 2: Manipulating Dates and Times | 629 |
| Getting the Current Date and Time..... | 629 |
| Reading the Components of a DateTime Structure | 630 |
| Streaming a DateTime Structure | 632 |
| Handling Local Times Versus Universal Times | 634 |
| Calculating with Dates | 637 |
| Parsing a Date-Time String..... | 642 |
| | |
| Chapter 3: Storing Objects in Specialized Collections | 647 |
| Iterating Through a Collection | 647 |
| Using the ArrayList Class | 651 |
| Sorting a list | 652 |
| Comparing different types | 655 |
| Using the Hashtable Class..... | 657 |
| Using the Stack Class | 660 |
| Using the Queue Class | 662 |
| Collecting Strings | 664 |
| Using the StringCollection class | 664 |
| Using the StringDictionary class | 664 |
| Ordering Associations with the OrderedDictionary..... | 665 |
| | |
| Chapter 4: Building Strongly Typed Collections with Generic Classes | 667 |
| Understanding the Name Game | 668 |
| Using the Generic List Class | 668 |
| Working with the Generic LinkedList Class | 670 |
| Employing the Generic Dictionary Class | 676 |
| Using the Generic SortedDictionary Class..... | 679 |
| Using the Generic Stack Class | 679 |
| Working with the Generic Queue Class | 681 |
| | |
| Book VIII: Advanced ASP.NET Programming | 683 |
| | |
| Chapter 1: Security: Using Login Controls | 685 |
| Understanding Authentication and Authorization | 685 |
| Implementing Forms Authentication | 686 |
| Creating the Web site | 687 |
| Adding pages to the resto Web site | 688 |
| Implementing membership features | 689 |
| Creating users | 692 |
| Creating access rules for the pages | 693 |
| Using the Login control | 697 |
| Using the LoginName control | 700 |

| | |
|---|-----|
| Using the LoginStatus control..... | 701 |
| Using the LoginView control..... | 702 |
| Using the PasswordRecovery control | 703 |
| Using the ChangePassword control..... | 705 |
| Assigning users to roles..... | 706 |
| Giving permissions to a role | 707 |
| Peering into the Application Programming Interface (API)..... | 709 |
| Using the Membership and MembershipUser classes | 709 |
| Using the Roles class | 711 |

Chapter 2: Using Profiles715

| | |
|--|-----|
| Understanding Profiles..... | 715 |
| Enabling Anonymous User Profiles..... | 716 |
| Deciding what data to store..... | 717 |
| Enabling profiles in the configuration file..... | 717 |
| Generating the database | 719 |
| Exploring the profile database..... | 719 |
| Building the Profile-Based Web Page..... | 721 |
| Adding control markup to the page..... | 721 |
| Adding code to retrieve profile values | 723 |
| Displaying the date and time in the chosen language..... | 723 |
| Storing the language choice in the profile | 724 |
| Storing the image choice in the profile..... | 724 |
| Storing the background color in the profile..... | 725 |
| Testing the profile properties | 725 |
| Using Profiles with Authenticated Users | 726 |
| Viewing the list of profiles..... | 727 |
| Maintaining the Profiles Database | 729 |
| Deleting inactive profiles..... | 730 |
| Deleting a specific profile | 731 |
| Using a Custom Profile Provider | 732 |
| Obtaining the Access provider | 733 |
| Building the Access provider..... | 733 |

Chapter 3: Site Navigation739

| | |
|--|-----|
| Understanding Site Navigation..... | 739 |
| Using a Web.sitemap File..... | 740 |
| Creating the Web.sitemap file | 740 |
| Adding data to the sitemap file | 742 |
| Using the SiteMapDataSource control..... | 743 |
| Using the TreeView Control..... | 744 |
| Creating a TreeView in Design view | 745 |
| Creating a TreeView programmatically | 750 |
| Creating a TreeView from a sitemap..... | 754 |

| | |
|---|------------|
| Using the Menu Control..... | 756 |
| Creating a Menu in Design view..... | 756 |
| Creating a Menu programmatically..... | 760 |
| Creating a Menu from a sitemap..... | 764 |
| Using the SiteMapPath Control | 764 |
| Creating a SiteMapPath in Design view | 765 |
| Creating a SiteMapPath control programmatically..... | 766 |
| Using an image as a path separator | 768 |
| Chapter 4: Working with Themes | 771 |
| Understanding Site Themes..... | 771 |
| Creating an Opening Theme | 772 |
| Adding the App_Themes folder..... | 773 |
| Adding a .skin file | 774 |
| Creating rough skin | 775 |
| Refining the skin properties..... | 776 |
| Testing the skin..... | 776 |
| Letting Users Choose a Theme..... | 777 |
| The Normal theme | 778 |
| The Accountant theme | 779 |
| A theme for lawyers | 779 |
| Applying a Theme Programmatically | 780 |
| Storing the Theme in a Profile..... | 782 |
| Dos and Don'ts for Themes | 783 |
| Shifting Definitions to Styles..... | 783 |
| Overriding Themes and Who's the Boss..... | 784 |
| Theme vs StyleSheetTheme..... | 784 |
| Implementing a global theme | 786 |
| Exempting a page from theming..... | 787 |
| Exempting a control from theming | 787 |
| Where to Get Themes | 787 |
| Chapter 5: Building Portals with Web Parts | 789 |
| Understanding Portals..... | 789 |
| An Example Web Portal | 790 |
| Security for your custom page | 791 |
| Personalization of your page | 791 |
| Choice of language | 792 |
| Choice of content | 792 |
| Custom layout..... | 794 |
| Show and hide content | 794 |
| Themes | 794 |
| Understanding the Parts of Web Parts | 795 |
| Web parts infrastructure elements | 795 |
| Personalization, logins, and Web parts | 796 |

| | |
|---|-----|
| Creating a Simple Web Part..... | 796 |
| Faking a login for development purposes..... | 796 |
| Create a page and Web-part zones..... | 798 |
| Add some Web-part content..... | 800 |
| Test the Web-part page..... | 801 |
| Oops, I closed the Web part and it's gone!..... | 804 |
| Letting the User Move Web Parts Around..... | 805 |
| Adding code to support Web-part Design mode..... | 805 |
| Playing with Web-part Design mode..... | 807 |
| Connecting Web Parts Together..... | 809 |
| Creating a data consumer Web part..... | 809 |
| Creating a data provider Web part..... | 811 |
| Creating a connectable data provider..... | 812 |
| Creating a data exchange interface..... | 813 |
| Getting Web parts on the same page..... | 814 |
| Connecting Web Parts Dynamically..... | 820 |
| Web parts à la mode..... | 821 |
| Creating a mode selector..... | 821 |
| Adding a ConnectionsZone interface..... | 823 |
| Making connections..... | 824 |
| Breaking connections..... | 826 |
| Using the Editor Controls..... | 827 |
| Adding EditorZone and AppearanceEditorPart controls..... | 827 |
| Changing a Web part's appearance..... | 828 |
| Using other editor parts..... | 829 |
| Letting Users Select Their Web Parts..... | 829 |
| Adding CatalogZone and DeclarativeCatalogPart controls..... | 830 |
| Selecting a part from the catalog..... | 831 |

Chapter 6: Creating and Consuming Web Services 833

| | |
|--|-----|
| Understanding Web Services..... | 834 |
| A supercomputer scenario..... | 834 |
| A super solution..... | 834 |
| The black box..... | 835 |
| Exposing an API..... | 835 |
| Not just HTTP..... | 836 |
| Expanding demands..... | 836 |
| It can be done..... | 836 |
| Creating a Web Service..... | 837 |
| Add a Web service to your project..... | 837 |
| Analyze this!..... | 838 |
| Replace the default namespace..... | 840 |
| Add the RomanNumerals function..... | 841 |
| A quick test of the Web service..... | 843 |
| Other valuable information..... | 844 |
| Providing information to clients..... | 846 |

| | |
|--|------------|
| Consuming a Web Service..... | 846 |
| Using the service in a Web page and project..... | 847 |
| Using the service from Windows Forms..... | 852 |
| Using the service from VBScript | 853 |
| Pick a platform..... | 855 |
| Serving a Larger Helping of Data..... | 856 |
| Preparing the RockHits Web service | 856 |
| Securing a Web Service | 860 |
| <i>Index</i> | 863 |