

Table of Contents

Preface	iii
Chapter 1: Introduction to Web.....	1
1.1 The Web System Architecture	1
The OSI Reference Model.....	2
The TCP/IP Model.....	3
The Client/Server Architecture.....	5
1.2 Exploring HTTP.....	6
1.3 Uniform Resource Locator	7
1.4 Domain Name System	8
Name Space.....	8
Domain Namespace.....	8
Root Server	10
Resolver	10
1.5 Web Browsers	10
1.6 Web Pages	11
Static Web Pages.....	11
Dynamic Web Pages	11
Active Web Pages.....	12
1.7 Use of Cookies to Store Information.....	12
Summary.....	13
Exercise.....	13
Chapter 2: Hypertext Markup Language	15
2.1 Introducing HTML.....	16
2.2 Exploring HTML Editors.....	17
2.3 Getting Started with HTML	17
Opening the Notepad Text Editor.....	17
Writing HTML Code.....	18
Saving an HTML Code	20
2.4 Displaying a Web Page in a Web Browser.....	21
2.5 Displaying an HTML Document in Dreamweaver.....	24
Explaining the <!doctype> Tag	24
Explaining the Meta Tag	25
Explaining HTML Tags	26
2.6 Formatting Text	27
Defining Paragraphs	27
Inserting Line Breaks	28
Inserting Spaces.....	28
Defining Headings	29
Inserting the <pre> Tag.....	30
Defining Font Style Tags	30

2.7	Changing the Background Color.....	33
2.8	Introducing HTML Links	33
	Creating Hyperlinks to Navigate Within an HTML Document.....	34
	Creating E-mail Links	36
	Using Images as Hyperlinks	36
2.9	Working with Lists.....	37
	Ordered Lists	37
	Unordered Lists	40
	Definition Lists	41
2.10	Working with Images	41
	Inserting Images	42
	Using the <map> Tag in Images	43
2.11	Working with Tables.....	44
	The <table> Tag.....	44
	The Row Tag	45
	The Header Tag	45
	The Data Tag.....	45
	Table Borders, Alignment and Width.....	46
	Cell Spacing and Padding	47
2.12	Working with Forms	48
	Using the Form Element.....	48
	Using the Input Element	49
	Using the Select and Option Elements	49
	Using the Textarea Element	50
2.13	Working with Frames	51
	Using the <frameset> Tag.....	52
	Using the <frame> Tag.....	54
	Using the <iframe> Tag.....	56
	Using the <noframes> Tag.....	56
2.14	Understanding XHTML.....	58
2.15	Basic Design Considerations for a Website.....	58
	Use of Tables or Frames.....	59
	Mouse Clicks.....	59
	Good Navigation.....	59
	File Size Issues	60
	Browser Compatibility Issues.....	60
	Finding Your Way Around.....	60
	Canvas Size	61
	Summary.....	62
	Exercise.....	62

Chapter 3: Cascading Style Sheet.....	63
3.1 Introduction to Cascading Style Sheet.....	64
Understanding the Concept of CSS	64
3.2 CSS Syntax.....	65
Grouping Selectors and Rules	67
Using the Class Selector.....	67
Using the ID Selector	68
Comparing IDs and Classes Selectors	69
Using CSS Comments.....	69
3.3 Types of Style Sheets.....	70
Using the External Style Sheet.....	70
Using the Internal Style Sheet.....	71
Using the Inline Style Sheet	72
3.4 CSS Properties and Text Attributes.....	72
Setting the Color Attribute.....	72
Setting the Alignment Attribute.....	73
Setting the Decoration Attribute	73
Setting the Transformation Attribute	74
Setting the Indent Attribute	74
Setting the Letter Spacing and Word Spacing Attributes	74
Setting the White Space Attribute	75
Setting the Line-height Attribute	75
Setting the Direction Attribute	76
Setting the Unicode-bidi Attribute.....	76
3.5 CSS Padding.....	77
Using Padding Properties	77
Setting the Padding on all Sides	77
Setting Padding for Each Side	78
3.6 List Properties	78
Setting the list-style-image Property.....	78
Setting the list-style-position Property	81
Setting the list-style-type Property.....	81
Setting the list-style Property.....	82
3.7 CSS Positioning.....	82
Using Relative Positioning	82
Using Absolute Positioning	82
Using Fixed Positioning	83
Using the Z-index Property	85
3.8 CSS Margins.....	86
3.9 Colors and CSS	87
Setting the CSS Color Property.....	87

Setting the CSS Background Color Property	87
3.10 CSS Properties and Table Attributes.....	88
Defining Borders	89
Setting Border and Cell Spacing.....	90
Summary	91
Exercise.....	91
Chapter 4: Introduction to JavaScript.....	93
4.1 Understanding JavaScript	93
4.2 About Dynamic HTML (DHTML)	94
4.3 Selecting a Development Environment for JavaScript	95
4.4 HTML and JavaScript	97
Integrating Script under the <head> tag.....	97
Integrating Script Under the <body> Tag.....	97
Importing the External JavaScript.....	98
First JavaScript Program.....	98
4.5 Elements of JavaScript	103
JavaScript Statements.....	103
JavaScript Statement Blocks.....	103
JavaScript Comments.....	103
4.6 Using JavaScript in Dreamweaver	104
4.7 Variables	106
4.8 Operators.....	108
Basic Operators.....	108
Compound Operators.....	110
4.9 Flow Control Statements	113
Decision Types.....	113
Loop Types.....	117
4.10 Arrays	122
Creating an Array.....	122
Initializing an Array.....	123
4.11 Functions	125
4.12 Event Handling.....	128
HTML Events.....	128
Attaching an Event to HTML Document	129
Attaching Event to an Object	133
4.13 Browsers and JavaScript.....	138
Detecting Browsers	138
4.14 Web Pages and JavaScript.....	142
Opening a Web Page.....	142
Displaying Alert Box.....	145
Displaying Confirmation Box.....	148
Displaying Prompt Box	151

4.15	Frames and JavaScript	155
	Creating Basic Frames	155
4.16	Validating User Form.....	161
	Creating Form Validation	161
	JavaScript and Object	165
	Summary	166
	Exercise.....	167
Chapter 5: Server-Side Programming-I: Basics.....		169
5.1	Introducing Client-Side Scripting	169
5.2	Introducing Server-Side Scripting.....	170
5.3	Getting Started with Servlets	172
	Defining Servlets	172
	Advantages of Servlets Over CGI	173
	Describing Life Cycle of a Servlet	173
	Creating a Servlet.....	175
	Configuring a Servlet.....	176
	Packaging, Deploying, and Running a Servlet in a Web Application.....	177
	Using Servlets to Display the Current Date and Time	179
	Using Servlets to Create Excel Spreadsheets	179
	Using Servlets to Create a Simple Counter	180
	Accessing Server Information by Using a Servlet	181
	Accessing a Servlet by Using an HTML Page.....	182
5.4	Getting Started with JSP	187
	Describing the Life Cycle of a JSP Page.....	187
	Explaining the Structure of a JSP Page	190
	Creating a JSP Page	212
5.5	Getting Started with Active Server Pages	213
	Creating an ASP Page	213
	Installing IIS on the Windows Operating System for ASP	214
	Running ASP on IIS	215
	Exploring ASP Built-in Objects.....	215
	Exploring ASP Forms	245
	Comparing ASP with JSP	247
	Advantages of JSP Over ASP	248
	Summary	248
	Exercise.....	249
Chapter 6: Server Side Programming-II: Session Tracking		251
6.1	Defining a Session	251
6.2	Introducing Session Tracking	252
6.3	Exploring Session Tracking Mechanisms.....	252

	Cookies	253
	Hidden Form Fields	258
	URL Rewriting.....	259
	Secure Socket Layer (SSL)Session	262
6.4	Using Java Servlet API in Session Tracking	263
	History of Session Tracking	263
	Session Creation and Tracking	263
	The Java Servlet API	267
6.5	Creating a Login Application Using Session Tracking.....	272
	Describing the Directory Structure of the Login Application	273
	Creating the Front-End.....	273
	Creating and Managing Sessions	274
	Configuring the Login Application	277
	Running the Login Application.....	278
	Summary	279
	Exercise.....	279
Chapter 7: Database Management with JDBC & ADO.....		281
7.1	Exploring SQL Basics	281
	Defining DML.....	282
	Defining DDL.....	284
7.2	Defining API for Database Connection	286
7.3	Connecting to Databases using JDBC and ADO	286
	Defining JDBC Drivers	287
	Explaining Connection Classes and Interfaces of JDBC API.....	288
	Accessing a Database Using JDBC.....	290
	Accessing the Database using ADO	297
	Creating a Program in ASP	304
	Summary	306
	Exercise.....	306
Chapter 8: Introduction to XML		307
8.1	History of XML	307
8.2	Working with XML Documents	308
	Describing the Guidelines for Creating a Well-formed XML Document.....	308
	Exploring the Components of an XML Document	310
	Creating an XML Document.....	313
	Viewing the XML Document in a Web Browser	315
8.3	Introducing XSL.....	315
	Exploring XSLT.....	316
	Attaching a Stylesheet to an XML Document.....	321
8.4	Describing RSS.....	322
	Understanding the RSS Feed	322
	Exploring RSS Elements	322

Creating an RSS Feed	323
8.5 Explaining Web Services	324
Understanding the Web Services Architecture	325
Implementing Web Services	325
8.6 Understanding SOA	326
Summary	327
Exercise	327
Index	329