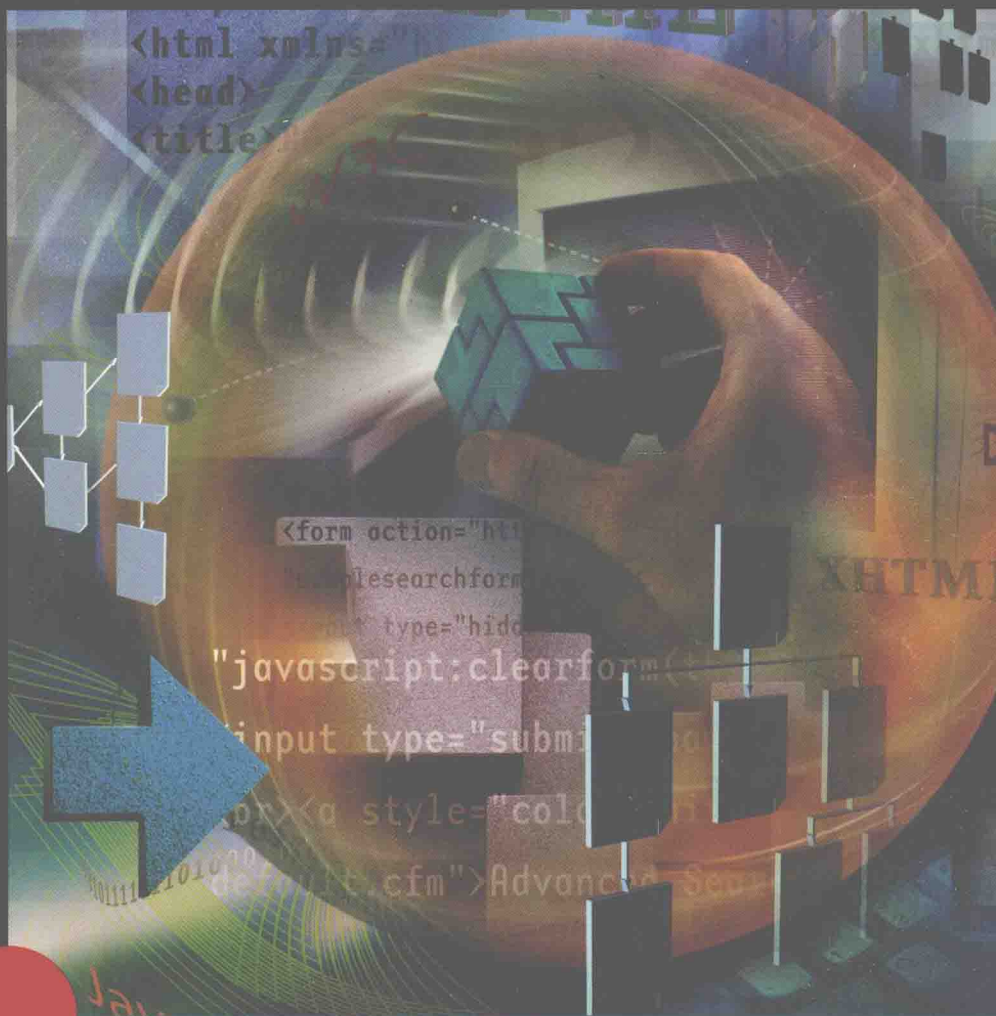


# HTML

Comprehensive Concepts and Techniques

THIRD EDITION

Shelly  
Cashman  
Woods  
Dorin



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Comprehensive Concepts and Techniques

**THIRD EDITION**

**Gary B. Shelly**  
**Thomas J. Cashman**  
**Denise M. Woods**  
**William J. Dorin**

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## HTML Comprehensive Concepts and Techniques, Third Edition

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## Preface

The Shelly Cashman Series® offers the finest textbooks in computer education. We are proud of the fact that our previous HTML books have been so well received. With each new edition of our HTML books, we have made significant improvements based on the comments made by instructors and students. The *HTML, Third Edition* books continue with the innovation, quality, and reliability you have come to expect from the Shelly Cashman Series.

In this HTML book, you will find an educationally sound, highly visual, and easy-to-follow pedagogy that combines a vastly improved step-by-step approach with corresponding screens. All projects and exercises in this book are designed to take advantage of enhancements to the HTML and XHTML standards. The popular More About feature offers in-depth knowledge of HTML. The new Q&A feature offers students a way to solidify important HTML concepts. The Learn It Online page presents a wealth of additional exercises to ensure your students have all the reinforcement they need. The project material is developed to ensure that students will see the importance of learning HTML for future coursework.

## Objectives of This Textbook

*HTML: Comprehensive Concepts and Techniques, Third Edition* is intended for a three-unit course that presents an in-depth coverage of HTML and basic Web design techniques. No experience with Web page development or computer programming is required. Specific objectives of this book are as follows:

- To teach the fundamentals of developing Web pages using HTML
- To present a thorough study of the HTML language and how to create Web pages suitable for course work, professional purposes, and personal use
- To acquaint students with the XHTML guidelines
- To expose students to common Web page formats and functions
- To illustrate how to add functionality to Web pages using JavaScript and DHTML
- To show the benefits of XML
- To promote curiosity and independent exploration of World Wide Web resources
- To develop an exercise-oriented approach that allows students to learn by example
- To encourage independent study and help those who are learning how to create Web pages in a distance education environment

## The Shelly Cashman Approach

Features of the Shelly Cashman Series *HTML, Third Edition* books include:

- **Project Orientation:** Each project in the book presents a practical problem and complete solution using an easy-to-understand methodology.
- **Step-by-Step, Screen-by-Screen Instructions:** Each of the tasks required to complete a project is identified throughout the project. Full-color screens accompany the steps.
- **Thoroughly Tested Projects:** Unparalleled quality is ensured because every screen in the book is produced by the author only after performing a step, and then each project must pass Course Technology's award-winning Quality Assurance program.



**More About and Q&A Features:** These marginal annotations provide background information, tips, and answers to common questions that complement the topics covered, adding depth and perspective to the learning process.

- **Integration of the World Wide Web:** The World Wide Web is integrated into the HTML learning experience by (1) More About annotations that send students to Web sites for up-to-date information and alternative approaches to tasks; (2) an HTML Quick Reference Summary Web page that summarizes HTML tags and attributes; and (3) the Learn It Online page at the end of each project, which has project reinforcement exercises, learning games, and other types of student activities.

## Organization of This Textbook

*HTML: Comprehensive Concepts and Techniques, Third Edition* is comprised of twelve projects and five appendices. Each project ends with a large number of exercises to reinforce what students learn in the project. The projects and appendices are organized as follows:

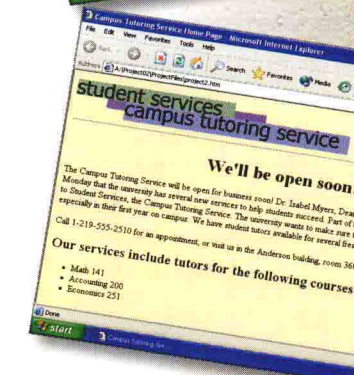
**Project 1 - Introduction to HTML** This introductory project provides students with an overview of the Internet, World Wide Web, Web pages, HTML, and Web development. Topics include the types and purposes of Web sites; Web browsers; HTML standards; Dynamic Hypertext Markup Language (DHTML) and Extensible Hypertext Markup Language (XHTML) and their relationship to HTML. Additionally, Web editors; the five phases of the Web development life cycle, and the importance of usability testing are defined.

**Project 2 - Creating and Editing a Web Page** In Project 2, students are introduced to basic HTML tags and the various parts of a Web page. Topics include starting and quitting Notepad and a browser; entering headings and text into an HTML file; creating a bulleted list with HTML; adding background color, a horizontal rule, and an image; saving the HTML file and viewing it in the browser; printing the HTML file and the Web page; and Web page design.

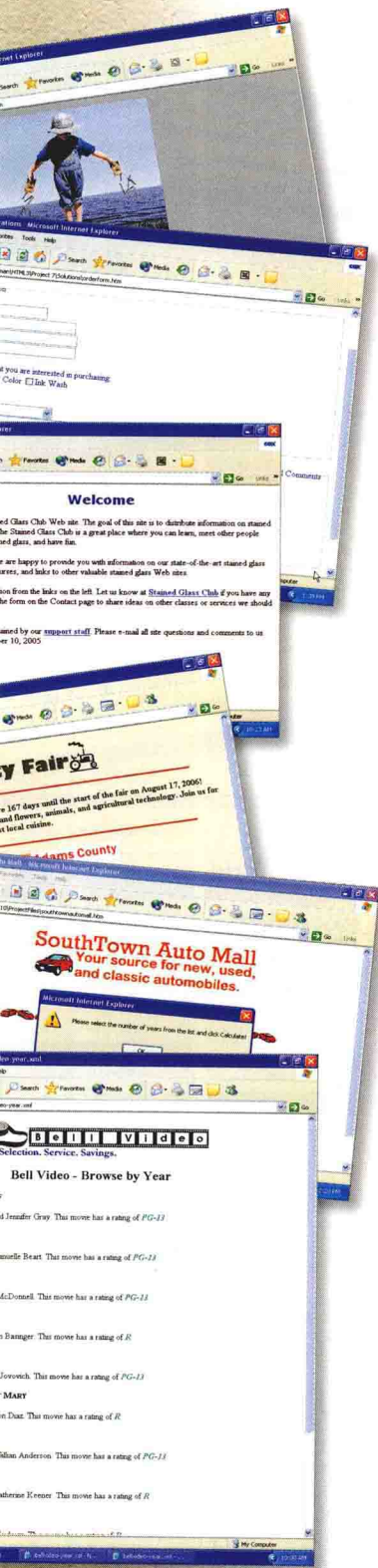
**Project 3 - Creating Web Pages with Links, Images, and Formatted Text** In Project 3, students are introduced to linking terms and definitions. Topics include adding an e-mail link; linking to another page on the same Web site; linking to another Web site; setting link targets within a page; linking to targets; types of image files; alternative text for images; defining image size; wrapping text around an image; and inserting images onto Web pages.

**Project 4 - Creating Tables in a Web Site** In Project 4, students learn how to create tables using HTML tags. First, students assess table needs and then plan the table. Topics include table definitions and terms; table uses; creating borderless tables; inserting images into tables; vertical and horizontal alignment within a table; adding color to a cell; adding links to another page; adding an e-mail link; using the row-span and colspan attributes; adding captions; and spacing within and between cells.

**Project 5 - Creating an Image Map** In Project 5, students learn how to use an image map to create more advanced Web pages. Topics include image mapping purpose and considerations; selecting images for mapping; dividing an image into hotspots; creating links with hotspots; and using text to describe links. Students also use graphics software to determine the coordinates needed for image mapping.







**Project 6 - Using Frames in a Web Site** In Project 6, students are introduced to using frames for Web page creation. Topics include purpose and considerations when using frames; resizing frames; frame headers; scroll bars; frame navigation; linking frames; and two-frame and three-frame Web pages. Additional topics include using the `nore-size` attribute and creating four-frame Web pages.

**Project 7 - Creating a Form on a Web Page** In Project 7, students create a form that will allow readers to complete a survey online and send the entered information via e-mail. Topics include form purposes and basics; selecting check boxes on a form; choosing menu items on a form; form text boxes for free-form text; and creating an e-mail link to transfer the form information back to the Web page developer. Students also are introduced to using advanced selection menus and fieldset tags to segregate groups of information.

**Project 8 - Creating Style Sheets** In Project 8, students are introduced to the three different types of cascading style sheets — embedded style sheet, an external style sheet, and an inline style sheet. Topics include adding an embedded style sheet to change the link styles, adding an external style sheet to format a Web page, and adding an inline style sheet to change a text style.

**Project 9 - Integrating JavaScript and HTML** In Project 9, students are introduced to integrating JavaScript into an HTML file. Topics include placing JavaScript tags and comments within HTML; placing HTML tags within JavaScript statements; using the document object; defining variables; writing user-defined functions; extracting the current system date and using it to calculate the number of days to a future date; writing dynamica message to a Web page; changing the color of the browser scroll bar face and scroll bar track; and using the `setTimeout()` method.

**Project 10 - Creating Pop-up Windows, Adding Scrolling Messages, and Validating Forms** In Project 10, three common uses of JavaScript are presented: creating pop-up windows, adding scrolling messages, and validating forms. Topics include using JavaScript to conduct data entry validation on the client computer; working with the document object, forms, string lengths, and the Math object `pow()` method; using the If-Else control structure with the `parseInt()`, `isNaN()`, `parseFloat()` to validate user input forms; and writing user-defined functions called by event handlers.

**Project 11 - Using DHTML to Enhance Web Pages** In Project 11, students use DHTML in Web page development. Topics include defining the document object model (DOM); using the `<div>` tag as a layer; writing the code to make text or image object scroll across or down a Web page, which use the JavaScript `setTimeout()`, `clearTimeout()` to start and stop scrolling; creating rotating banners on a Web page; using `onMouseover` and `onMouseout` event handlers to execute pop-up ScreenTips; using the `<span>` tag as a container for embedded style sheet code to format Web pages text and the ScreenTips; and calling user-defined functions directly with the JavaScript command.

**Project 12 - Creating and Using XML Documents** In Project 12, students develop an understanding of XML documents, the W3C design goals for creating XML tags, and real-world uses for XML. Topics include learning the syntax rules for well-formed and valid XML documents and the rules for creating a generic identifier (GI); defining document prolog, document instance, and recordset; describing the purpose of processing instructions, Document Type Definitions (DTD), and XSL style sheets; binding a CSS file to an XML document, an XSL style sheet to an XML document, and an XML document to an HTML Web page; using the XSL template, `for-each`, `order-by`, and `value-of` elements to display XML data; using the built-in table element methods; and creating a JavaScript user-defined function to search for specific data in an XML document.



**Appendix A - HTML Quick Reference** Appendix A includes an HTML quick reference that contains the most frequently used tags and their associated attributes.

**Appendix B - Browser-Safe Color Palette** Appendix B summarizes the 216 browser-safe colors that display equally well on different monitors, operating systems, and browsers – including both the Windows and Mac OS operating systems and Internet Explorer and Netscape browsers.

**Appendix C - Style Sheet Browser Compatibility Tables** Appendix C provides a listing of the CSS (cascading style sheet) properties and values supported by versions 4.x, 5.x, and 6.x of Internet Explorer and versions 4.x, 6.x, and 7.x of Netscape Navigator.

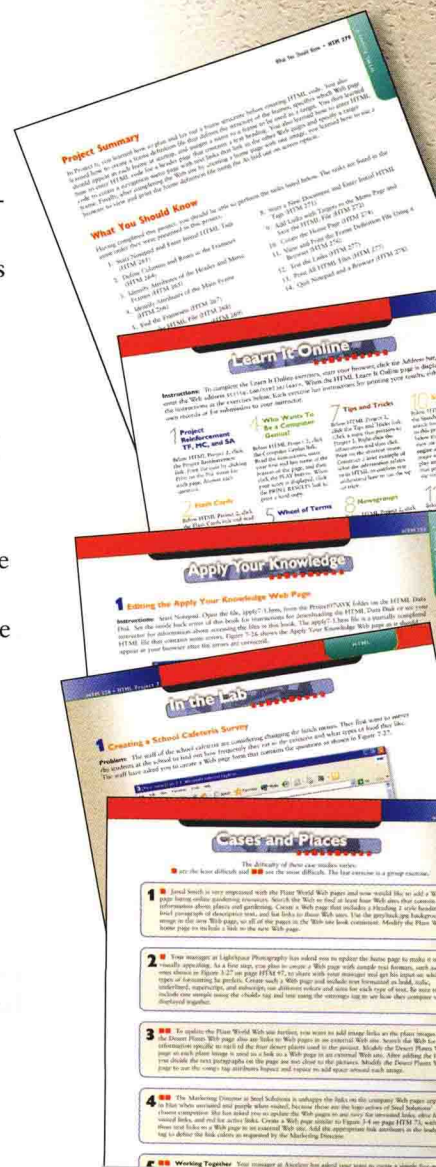
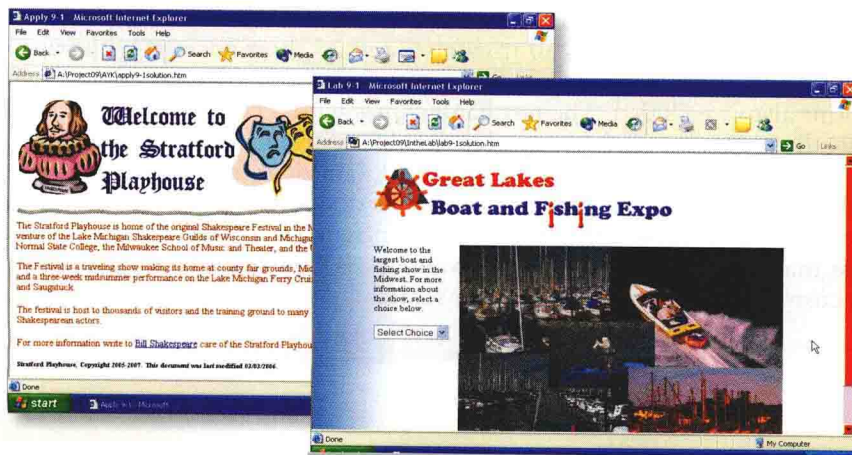
**Appendix D - JavaScript Quick Reference** Appendix D is a JavaScript quick reference of statements, objects, properties, methods, and event handlers.

**Appendix E - XML Quick Reference** Appendix E is an XML quick reference, which contains syntax rules, XML applications, element definitions and attributes, coding examples, and XLS style sheet notation.

## End-of-Project Student Activities

A notable strength of the Shelly Cashman Series *HTML* books is the extensive student activities at the end of each project. Well-structured student activities can make the difference between students merely participating in a class and students retaining the information they learn. The activities in the Shelly Cashman Series *HTML* books include the following.

- **What You Should Know** A listing of the tasks completed within a project together with the pages on which the step-by-step, screen-by-screen explanations appear.
- **Learn It Online** Every project features a Learn It Online page that contains 12 exercises. These exercises include True/False, Multiple Choice, Short Answer, Flash Cards, Practice Test, Learning Games, Tips and Tricks, Newsgroup usage, Expanding Your Horizons, Search Sleuth, and Online Help.
- **Apply Your Knowledge** This exercise usually requires students to open and manipulate a file on the Data Disk that parallels the activities learned in the project. To obtain a copy of the Data Disk, follow the instructions on the inside back cover of this textbook.
- **In the Lab** Three in-depth assignments per project require students to utilize the project concepts and techniques to solve problems on a computer.
- **Cases and Places** Five unique real-world case-study situations, including one small-group activity.



## Instructor Resources CD-ROM

The Shelly Cashman Series is dedicated to providing you with all of the tools you need to make your class a success. Information on all supplementary materials is available through your Course Technology representative or by calling one of the following telephone numbers: Colleges and Universities, 1-800-648-7450; High Schools, 1-800-824-5179; Private Career Colleges, 1-800-347-7707; Canada, 1-800-268-2222; Corporations with IT Training Centers, 1-800-648-7450; and Government Agencies, Health-Care Organizations, and Correctional Facilities, 1-800-477-3692.

The Instructor Resources for this textbook include both teaching and testing aids. The contents of each item on the Instructor Resources CD-ROM (ISBN 0-619-25520-X) are described below.

**INSTRUCTOR'S MANUAL** The Instructor's Manual is made up of Microsoft Word files, which include detailed lesson plans with page number references, lecture notes, teaching tips, classroom activities, discussion topics, projects to assign, and transparency references. The transparencies are available through the Figure Files described below.

**LECTURE SUCCESS SYSTEM** The Lecture Success System consists of intermediate files that correspond to certain figures in the book, allowing you to step through the creation of an application in a project during a lecture without entering large amounts of data.

**SYLLABUS** Sample syllabi, which can be customized easily to a course, are included. The syllabi cover policies, class and lab assignments and exams, and procedural information.

**FIGURE FILES** Illustrations for every figure in the textbook are available in electronic form. Use this ancillary to present a slide show in lecture or to print transparencies for use in lecture with an overhead projector. If you have a personal computer and LCD device, this ancillary can be an effective tool for presenting lectures.

**POWERPOINT PRESENTATIONS** PowerPoint Presentations is a multimedia lecture presentation system that provides slides for each project. Presentations are based on project objectives. Use this presentation system to present well-organized lectures that are both interesting and knowledge based. PowerPoint Presentations provides consistent coverage at schools that use multiple lecturers.

**SOLUTIONS TO EXERCISES** Solutions are included for the end-of-project exercises, as well as the Project Reinforcement exercises.

**TEST BANK & TEST ENGINE** The ExamView test bank includes 110 questions for every project (25 multiple choice, 50 true/false, and 35 short answer) with page number references and, when appropriate, figure references. A version of the test bank you can print also is included. The test bank comes with a copy of the test engine, ExamView, the ultimate tool for your objective-based testing needs. ExamView is a state-of-the-art test builder that is easy to use. ExamView enables you to create paper-, LAN-, or Web-based tests from test banks designed specifically for your Course Technology textbook. Utilize the ultra-efficient QuickTest Wizard to create tests in less than five minutes by taking advantage of Course Technology's question banks, or customize your own exams from scratch.



**DATA FILES FOR STUDENTS** All the files that are required by students to complete the exercises are included. You can distribute the files on the Instructor Resources CD-ROM to your students over a network, or you can have them follow the instructions on the inside back cover of this book to obtain a copy of the Data Disk.

**ADDITIONAL ACTIVITIES FOR STUDENTS** These additional activities consist of Project Reinforcement Exercises, which are true/false, multiple choice, and short answer questions that help students gain confidence in the material learned.

## Online Content

Course Technology offers textbook-based content for Blackboard, WebCT, and MyCourse 2.1.

**BLACKBOARD AND WEBCT** As the leading provider of IT content for the Blackboard and WebCT platforms, Course Technology delivers rich content that enhances your textbook to give your students a unique learning experience.

**MYCOURSE 2.1** MyCourse 2.1 is Course Technology's powerful online course management and content delivery system. MyCourse 2.1 allows non-technical users to create, customize, and deliver Web-based courses; post content and assignments; manage student enrollment; administer exams; track results in the online grade book; and more.



# To the Student... Getting the Most Out of Your Book

Welcome to *HTML: Comprehensive Concepts and Techniques, Third Edition*. You can save yourself a lot of time and gain a better understanding of HTML if you spend a few minutes reviewing the figures and callouts in this section.

## 1 Project Orientation

Each project begins by presenting a practical Web page development problem and then shows the Web pages that will be created to solve the problem. The remainder of the project steps through creating the Web pages. The project orientation lets you see firsthand how Web development problems are solved from start to finish using HTML.

## 2 Consistent Step-By-Step, Screen-By-Screen Presentation

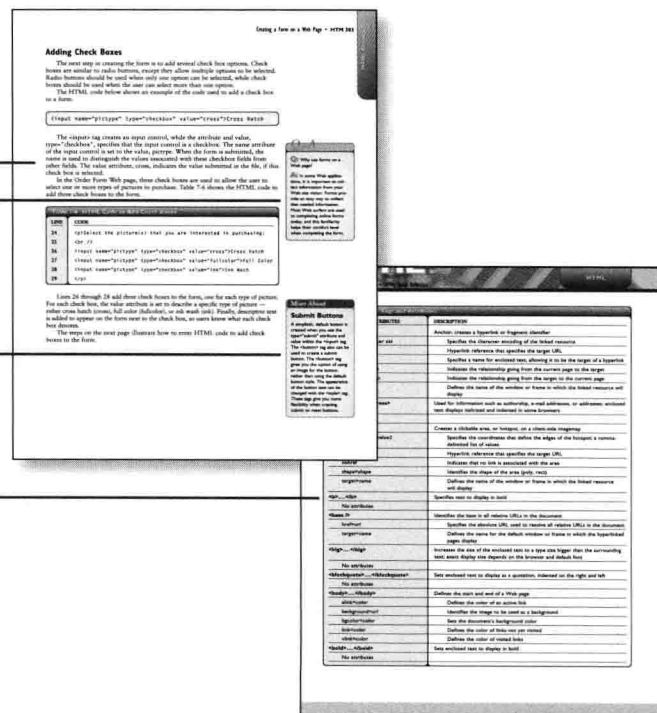
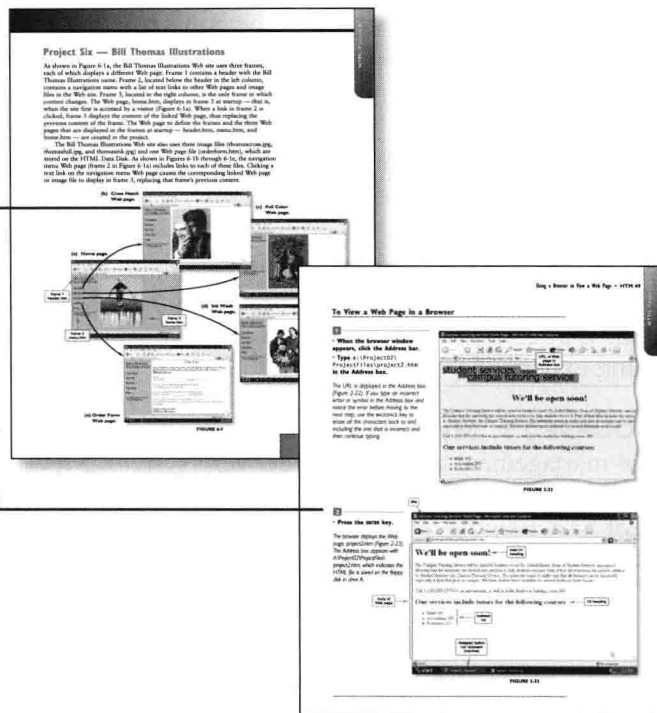
Project solutions are built using a step-by-step, screen-by-screen approach. This pedagogy allows you to build the solution on a computer as you read through the project. Generally, each step is followed by an italic explanation that indicates the result of the step.

## 3 More Than Just Step-By-Step

More About and Q&A annotations in the margins of the book and substantive text in the paragraphs provide background information, Web design techniques, and tips that complement the topics covered, adding depth and perspective. When you finish with this book, you will be ready to use HTML to create sophisticated Web pages on your own.

## 4 HTML Quick Reference

Appendix A is an HTML Quick Reference that presents a concise summary of the HTML tags and their associated attributes that are used to create Web pages. Use this appendix as a reference when creating Web pages using HTML.







## Shelly Cashman Series – Traditionally Bound Textbooks

The Shelly Cashman Series presents the following computer subjects in a variety of traditionally bound textbooks. For more information, see your Course Technology representative or call 1-800-648-7450. For Shelly Cashman Series information, visit Shelly Cashman Online at [scseries.com](http://scseries.com)

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Computers	Discovering Computers 2006: A Gateway to Information, Complete Discovering Computers 2006: A Gateway to Information, Introductory Discovering Computers 2006: A Gateway to Information, Brief Discovering Computers: Fundamentals, Second Edition Teachers Discovering Computers: Integrating Technology in the Classroom, Third Edition Essential Introduction to Computers, Sixth Edition (40-page)
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### WINDOWS APPLICATIONS

Microsoft Office	Microsoft Office 2003: Essential Concepts and Techniques (5 projects) Microsoft Office 2003: Brief Concepts and Techniques (9 projects) Microsoft Office 2003: Introductory Concepts and Techniques, Second Edition (15 projects) Microsoft Office 2003: Advanced Concepts and Techniques (12 projects) Microsoft Office 2003: Post Advanced Concepts and Techniques (11 projects) Microsoft Office XP: Essential Concepts and Techniques (5 projects) Microsoft Office XP: Brief Concepts and Techniques (9 projects) Microsoft Office XP: Introductory Concepts and Techniques, Windows XP Edition (15 projects) Microsoft Office XP: Introductory Concepts and Techniques, Enhanced Edition (15 projects) Microsoft Office XP: Advanced Concepts and Techniques (11 projects) Microsoft Office XP: Post Advanced Concepts and Techniques (11 projects)
Integration	Teachers Discovering and Integrating Microsoft Office: Essential Concepts and Techniques, Second Edition Integrating Microsoft Office XP Applications and the World Wide Web: Essential Concepts and Techniques
PIM	Microsoft Outlook 2002: Essential Concepts and Techniques • Microsoft Office Outlook 2003: Introductory Concepts and Techniques
Microsoft Works	Microsoft Works 6: Complete Concepts and Techniques <sup>1</sup> • Microsoft Works 2000: Complete Concepts and Techniques <sup>1</sup>
Microsoft Windows	Microsoft Windows XP: Comprehensive Concepts and Techniques <sup>2</sup> Microsoft Windows XP: Brief Concepts and Techniques Microsoft Windows 2000: Comprehensive Concepts and Techniques <sup>2</sup> Microsoft Windows 2000: Brief Concepts and Techniques Microsoft Windows 98: Comprehensive Concepts and Techniques <sup>2</sup> Microsoft Windows 98: Essential Concepts and Techniques Introduction to Microsoft Windows NT Workstation 4
Notebook Organizer	Microsoft Office OneNote 2003: Introductory Concepts and Techniques
Word Processing	Microsoft Office Word 2003: Comprehensive Concepts and Techniques <sup>2</sup> • Microsoft Word 2002: Comprehensive Concepts and Techniques <sup>2</sup>
Spreadsheets	Microsoft Office Excel 2003: Comprehensive Concepts and Techniques <sup>2</sup> • Microsoft Excel 2002: Comprehensive Concepts and Techniques <sup>2</sup>
Database	Microsoft Office Access 2003: Comprehensive Concepts and Techniques <sup>2</sup> • Microsoft Access 2002: Comprehensive Concepts and Techniques <sup>2</sup>
Presentation Graphics	Microsoft Office PowerPoint 2003: Comprehensive Concepts and Techniques <sup>2</sup> • Microsoft PowerPoint 2002: Comprehensive Concepts and Techniques <sup>2</sup>
Desktop Publishing	Microsoft Office Publisher 2003: Comprehensive Concepts and Techniques <sup>2</sup> • Microsoft Publisher 2002: Comprehensive Concepts and Techniques <sup>1</sup>

### PROGRAMMING

Programming	Microsoft Visual Basic .NET: Comprehensive Concepts and Techniques <sup>2</sup> • Microsoft Visual Basic 6: Complete Concepts and Techniques <sup>1</sup> • Java Programming: Comprehensive Concepts and Techniques, Second Edition <sup>2</sup> • Structured COBOL Programming, Second Edition • Understanding and Troubleshooting Your PC • Programming Fundamentals Using Microsoft Visual Basic .NET
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### INTERNET

Concepts	Discovering the Internet: Brief Concepts and Techniques • Discovering the Internet: Complete Concepts and Techniques
Browser	Microsoft Internet Explorer 6: Introductory Concepts and Techniques, Windows XP Edition • Microsoft Internet Explorer 5: An Introduction • Netscape Navigator 6: An Introduction
Web Page Creation	Web Design: Introductory Concepts and Techniques • HTML: Comprehensive Concepts and Techniques, Third Edition <sup>2</sup> • Microsoft Office FrontPage 2003: Comprehensive Concepts and Techniques <sup>2</sup> • Microsoft FrontPage 2002: Comprehensive Concepts and Techniques <sup>2</sup> • Microsoft FrontPage 2002: Essential Concepts and Techniques • JavaScript: Complete Concepts and Techniques, Second Edition <sup>1</sup> • Macromedia Dreamweaver MX: Comprehensive Concepts and Techniques <sup>2</sup>

### SYSTEMS ANALYSIS

Systems Analysis	Systems Analysis and Design, Sixth Edition
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### DATA COMMUNICATIONS

Data Communications	Business Data Communications: Introductory Concepts and Techniques, Fourth Edition
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<sup>1</sup>Also available as an Introductory Edition, which is a shortened version of the complete book. <sup>2</sup>Also available as an Introductory Edition and as a Complete Edition, which are shortened versions of the comprehensive book.



# HTML

Comprehensive Concepts and Techniques  
THIRD EDITION

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