

Objectives

Session 1.1

- Describe the Internet and the World Wide Web
- Identify and use tags on a Web page
- Document HTML code using comments
- Save a text document as an HTML file

Session 1.2

- Specify headings
- Format Web page text
- Identify deprecated tags
- Insert special characters, superscripts, and subscripts

Session 1.3

- Insert a scaled image
- Create a horizontal rule
- Create ordered and unordered lists
- Format address text

Using HTML Tags to Create Web Pages

Creating a Basic Web Page

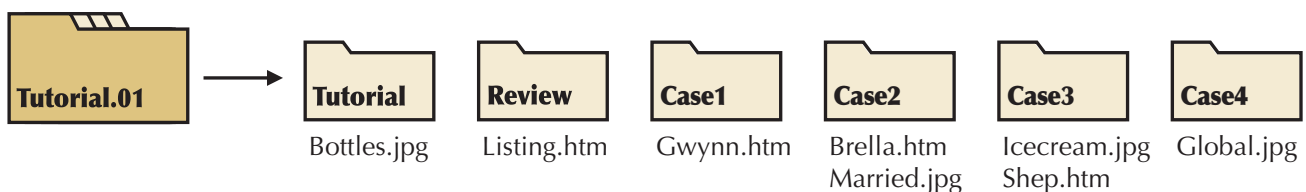
Case | Less Sodas and Beverages

The Less Sodas and Beverages Company is a start-up business that manufactures, sells, and distributes its brand of healthy sodas and beverages. Andy Chanos and Warren Metzger founded Less Sodas and Beverages Company in Sheffield Ridge, Illinois, earlier this year to meet consumer demand for refreshing, natural beverages. Andy and Warren are dedicated to not using any artificial sweeteners, food coloring, or artificial ingredients of any kind in their products. Less Sodas have substantially less carbonation and sugar than most soft drinks, but enough of each to appeal to most consumers. In addition, Less Sodas contain several vitamins and minerals to enhance product appeal, especially to parents who traditionally discourage their children from drinking soft drinks. After starting with a product line of three basic flavors—cola, lemon-lime, and ginger ale—Andy and Warren recently introduced new flavors including orange nut cream, mango mint, and passion fruit cola, which are proving to be very popular.

Andy and Warren hired you as an assistant in the marketing and sales department. Besides designing print ads, flyers, and other sales materials, you are helping Andy and Warren launch an advertising campaign that features the new slogan, “Tired of more? Drink Less.” Andy wants to develop a Web page that features this slogan and highlights the new soda flavors. You are comfortable creating basic Web pages that combine text and graphics and offer to work with Andy to create one for the Less Sodas and Beverages Company. Current and potential customers can then view the Web page to learn about the company and its beverages.

In this tutorial, you develop an HTML template that you can use as the basis for other HTML documents. You also create a basic Web page for Less Sodas that includes headings, text, and an image, and then format the text to make it more appealing and meaningful.

Starting Data Files



Session 1.1

Understanding the Internet and the World Wide Web

Whether you are interested in creating Web pages for personal use or training to become a professional Web developer, you need to know how the Internet and the World Wide Web work. Start by taking a brief look behind the technologies that make the Internet and the World Wide Web what they are today.

The **Internet** is a global network of computers linked by high-speed data lines and wireless systems. The Internet was established in 1969 as a collaborative project between the Department of Defense and several large colleges on the West Coast. National security concerns during the Cold War era sparked interest in developing better communications systems. At that time, the concept of a local area network was a new one, and the idea of linking individual networks to create a “network of networks” was uncharted territory. During the 1970s and 1980s, the primary users of the Internet were educational and research institutions. They used the Internet to freely share and exchange research information, but they did so by sending and receiving short text-only messages. Today, millions of people use the Internet to transfer not only text, but also data, voice, images, and video.

The **World Wide Web** (Web or **WWW** for short) is just one of several services provided by the Internet, which consists of a system of interconnected networks. The software you use to view and browse, or “surf,” Web pages is called a **Web browser**. It is this software that lets you navigate from one document, page, or topic to another.

The Web uses a graphical user interface to deliver content. Until the early 1990s, the Internet had a character-based (nongraphical) user interface. As such, the Internet did not enjoy widespread popularity outside of academia. That changed in November 1993, with the introduction of Mosaic, the first widely adopted browser with a graphical user interface. In 1994, Marc Andreessen, who developed Mosaic at the National Center for Supercomputing Applications at the University of Illinois at Urbana-Champaign, introduced the first commercially available browser, Netscape Navigator. The most popular browsers in use today are Microsoft Internet Explorer, Mozilla Firefox (which is a spin-off of Netscape Navigator), and Apple Safari. Opera is a popular browser used mostly outside the United States.

Tip

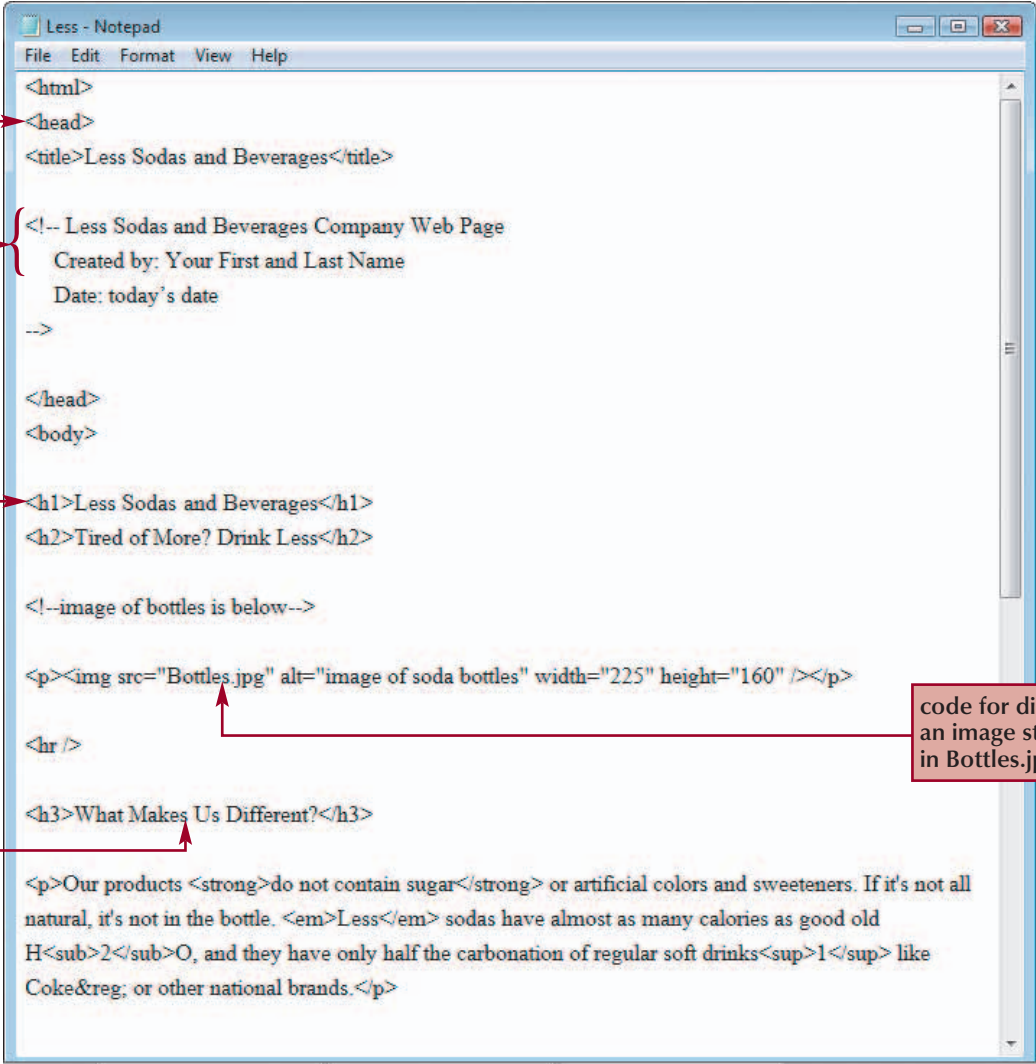
Because most authors capitalize the words Internet and Web, do the same when you are writing about these topics.

Exploring Hypertext and Markup

To display a Web page in a browser, the text and graphics on the Web page must be formatted using **Hypertext Markup Language (HTML)**. **Hypertext** is a way to organize information so that you can click links to jump from one piece of information to another. You can then view a document in a nonlinear fashion, viewing only the pages or sections that are of greatest interest to you. Instead of viewing pages from the first page through the last, the way you read a book, you can view topics or pages in any order, according to your preferences. **Markup** refers to the symbols that indicate how the text or images should be displayed in a browser. Although *language* is part of HTML’s name, it’s not correct to say that HTML is a programming language. Although HTML has syntax—specific rules for the way code should be written—HTML is just a series of instructions for displaying (rendering) text and images on a Web page. The instructions are included as tags. Figure 1-1 shows HTML in its code form, and Figure 1-2 shows the Web page generated by that code.

Sample of HTML code

Figure 1-1



```
<html>
<head>
<title>Less Sodas and Beverages</title>
<!-- Less Sodas and Beverages Company Web Page
Created by: Your First and Last Name
Date: today's date
-->
</head>
<body>
<h1>Less Sodas and Beverages</h1>
<h2>Tired of More? Drink Less</h2>
<!--image of bottles is below-->
<p></p>
<hr />
<h3>What Makes Us Different?</h3>
<p>Our products <strong>do not contain sugar</strong> or artificial colors and sweeteners. If it's not all
natural, it's not in the bottle. <em>Less</em> sodas have almost as many calories as good old
H<sub>2</sub>O, and they have only half the carbonation of regular soft drinks<sup>1</sup> like
Coke® or other national brands.</p>
```

tag

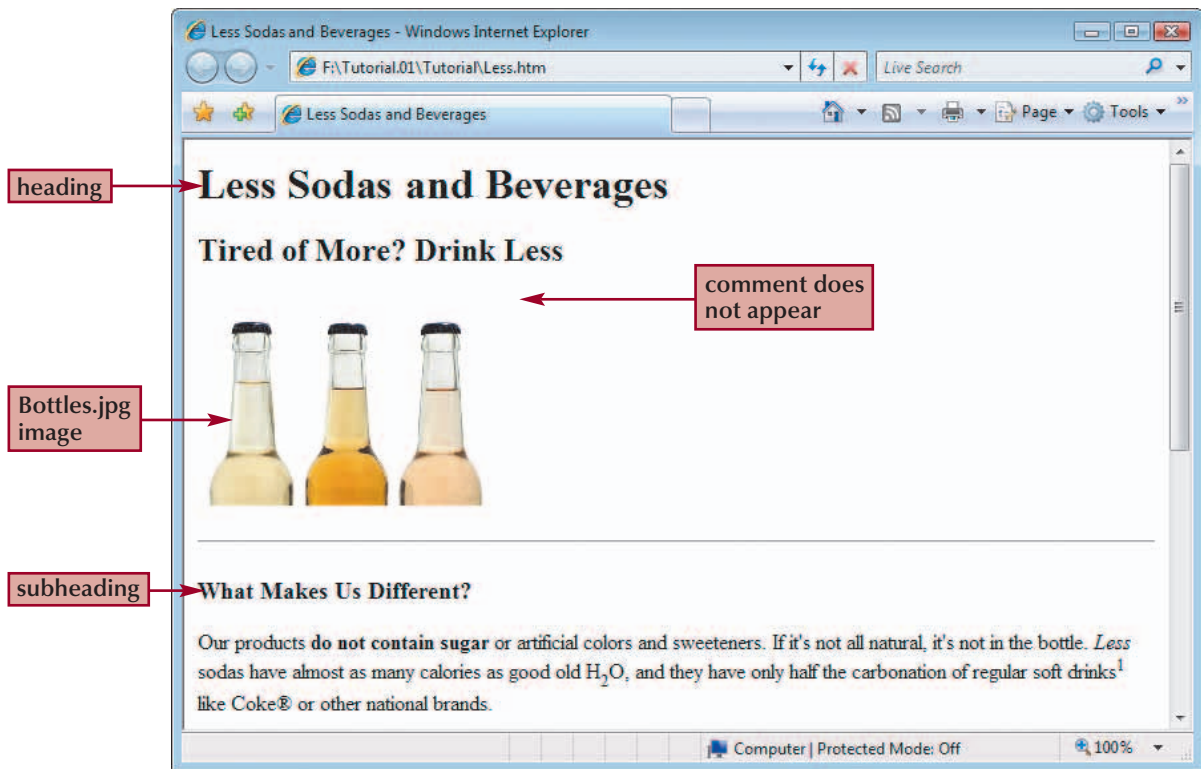
comment

heading

subheading

code for displaying an image stored in Bottles.jpg

Figure 1-2 Resulting Web page as viewed in the browser



The appearance of a Web page depends on both the HTML code and the Web browser. HTML code has changed since its introduction. New tags have been added, but browsers have generally not kept up with all these changes. Some tags are not displayed at all because a browser usually ignores any code it does not understand. Furthermore, several versions of HTML have been released over the years. The current version of HTML is version 4.01. Future versions and new features for HTML are under development by the **World Wide Web Consortium (W3C)**, the recognized keeper of the HTML standard. The W3C Web site is www.w3.org.

InSight

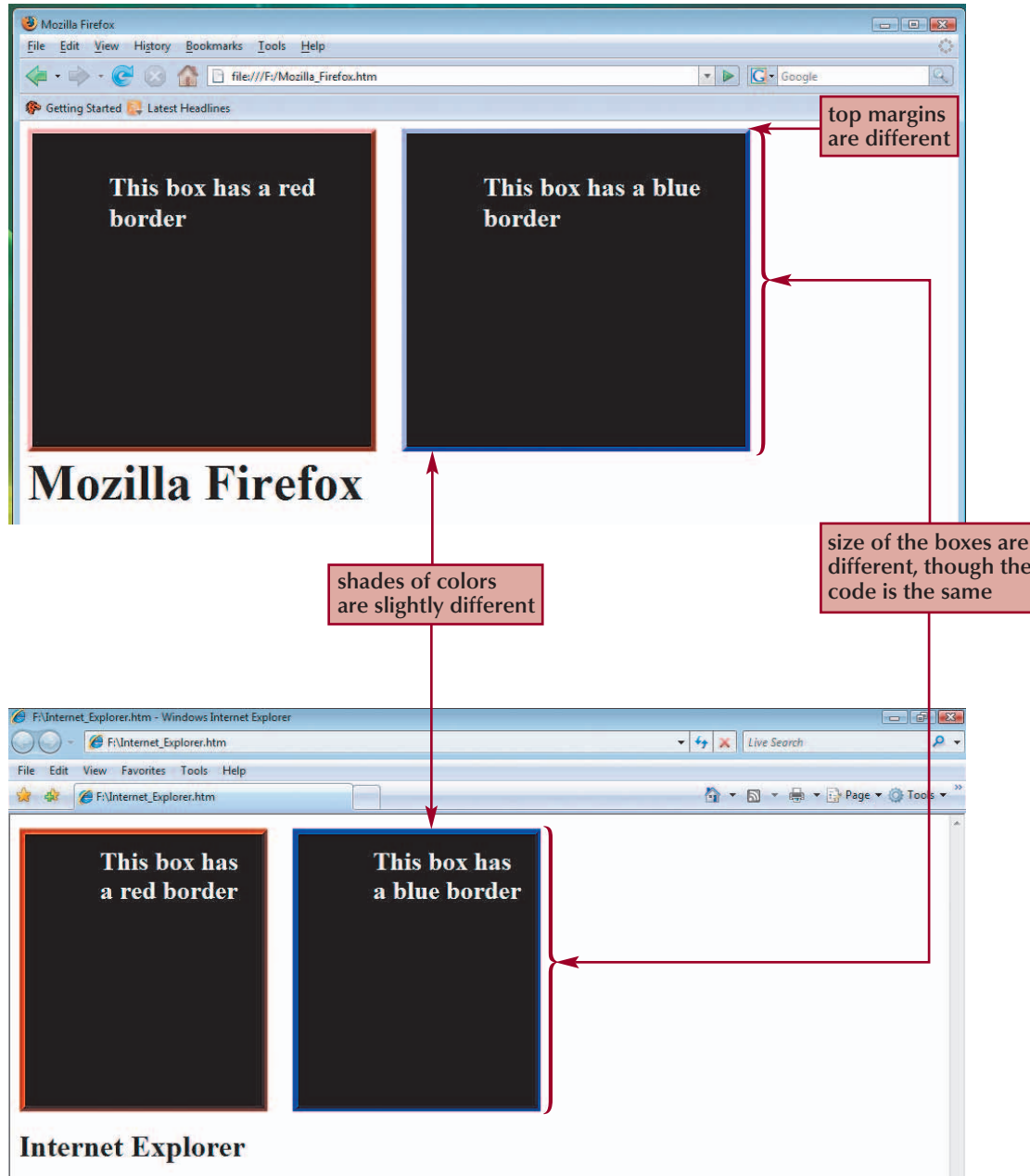
| Designing Web Pages for Multiple Browsers

One Web browser sometimes displays the same HTML code differently from another Web browser. These differences in rendering a page are called cross-browser incompatibilities. When designing your Web pages, you should always use several browsers to compare how they display the pages. Although you might not be able to achieve identical results in all browsers, your goal should be to display your Web pages properly no matter what browser is being used.

To see an example of how different browsers render the same Web page in different ways, compare the Web pages shown in Figure 1-3.

Comparing a Web page in Mozilla Firefox and Microsoft Internet Explorer

Figure 1-3



Both browsers shown in Figure 1-3 are displaying the same HTML document. The size of the black text boxes differs, as does the top margin. The colors on the borders of the boxes are also slightly different. On a simple Web page, these discrepancies might not affect the viewer's experience of the Web page, though it might on a more complex Web page. To anticipate how your HTML documents will appear in various browsers, you should be sure to display your Web pages on the browsers your viewers are likely to use.

Introducing XHTML

XHTML is an acronym for **Extensible Hypertext Markup Language**. XHTML 1.1 is the current version. XHTML specifies that code must be written a certain way. These strict rules help to solve some problems with earlier versions of HTML. When you are learning HTML 4.01 in this text, you are also learning XHTML 1.1. Although this text refers to HTML code without specifying a version number, keep in mind that HTML 4.01 and XHTML 1.1 are the same.

A newer version of XHTML, version 2.0, is currently being developed. XHTML 2.0 is still a draft, and as such, is not supported fully by current versions of Web browsers. When the W3C finalizes a draft, it is called a *recommendation*. When the W3C makes XHTML 2.0 a recommendation, you can expect much better browser support for the new features and changes in XHTML 2.0. Many of the changes in XHTML 2.0 require that users migrate (adopt) the new releases of browsers. Similarly, there have also been several versions of Cascading Style Sheets (CSS). The current version, and the one you will be learning about in this text, is version 2.1.

Understanding What HTML Is Not

HTML's sole focus is to uniformly and consistently deliver content. Complex text formatting, composing images, and manipulating data are not strengths or even features of HTML. Fairly simple formatting tasks such as line spacing and tab indents don't exist in HTML, nor do footnotes, headers and footers, and automatic column and table layout.

To compose and edit a Web page, you need a text editor such as Microsoft Notepad or WordPad or HTML-editing software such as Adobe Dreamweaver or Microsoft Expression Web. If you use an Apple Macintosh, you also might use BBEdit as your text editor. Other programs that are useful to have in your Web page-authoring tool kit are a photo and graphics editor such as Adobe Photoshop or Corel Draw and an animation editor such as Adobe Fireworks or Adobe Flash.

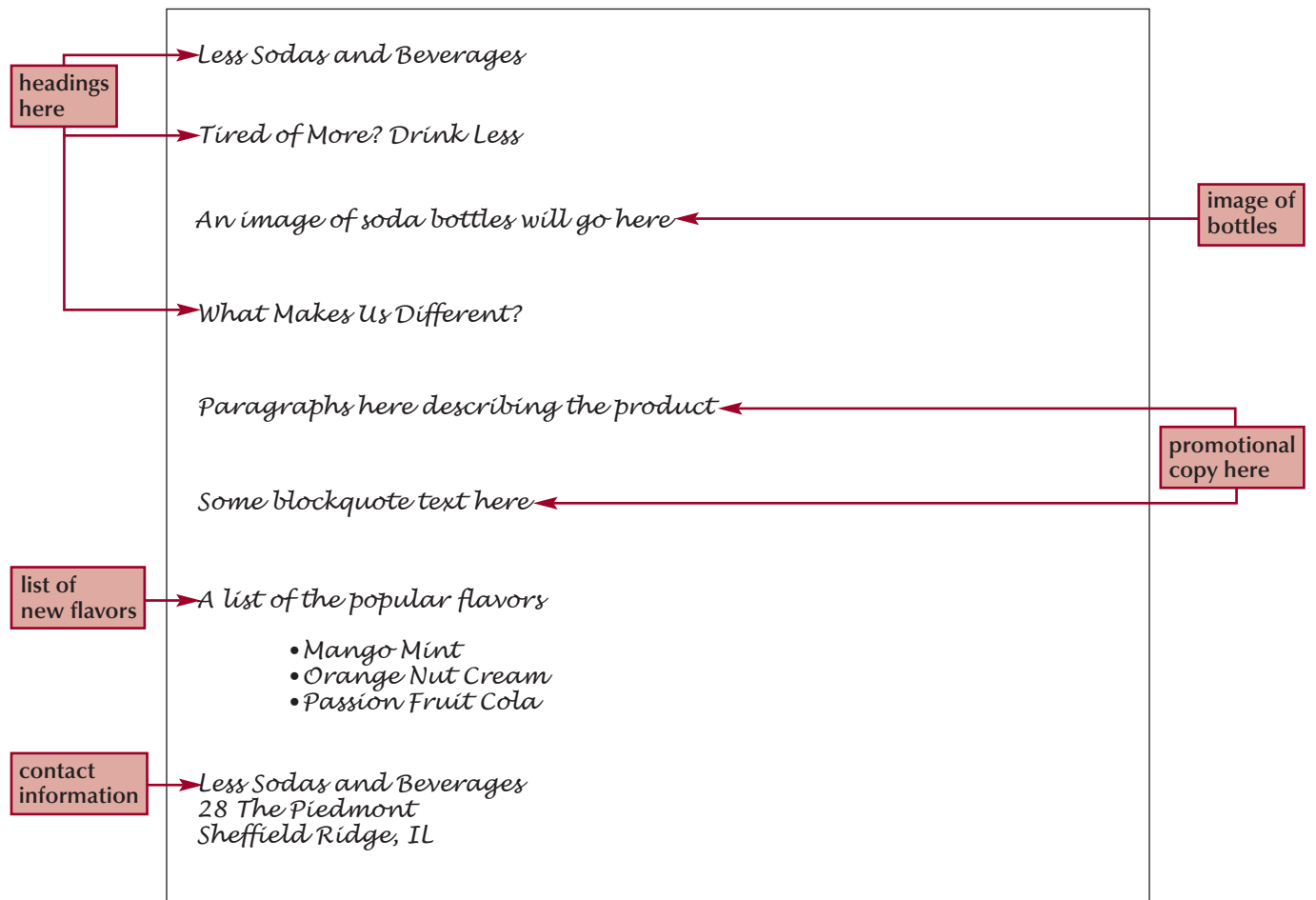
Later in this text, you will learn about Cascading Style Sheets (CSS). CSS allows you to format documents in ways that you cannot when you use HTML only.

Creating a Web Page with Basic HTML Tags

Before you start composing a Web page using HTML, you should sketch or design the page freehand or using a software tool. You meet with Andy Chanos and Warren Metzger to discuss their goals for the Less Sodas and Beverages Company Web page. They want to feature their logo and slogan prominently, briefly explain what makes their company different from other beverage manufacturers, list their flavors, and provide contact information. After collaborating with Andy and Warren, you create the sketch shown in Figure 1-4, which you can use as the model for the completed Web page.

Sketch of the Web page for Less Sodas and Beverages

Figure 1-4



To begin creating this Web page, you distinguish the content—the text and images that appear on the Web page in a browser—from the HTML code. Recall that HTML is composed of formatting codes, more commonly known as tags. Although some tags do not contain formatting instructions and are used only to contain information about a Web page, most tags define how a browser should display text or graphics. Tags begin and end with angle brackets, which surround elements. An element is a structure or a behavior. Elements can be headings, paragraphs, links, tables, or images. Each element type declaration usually has three parts—a start tag, content, and an end tag—in the following format:

```
<start tag>content</end tag>
```

A tag looks like this: `<blockquote>`. Prior to HTML version 4.01, you could enter code using uppercase or lowercase text, or a mix of the two. HTML 4.01/XHTML 1.1 requires that you enter all of your code in lowercase.

Reference Window | **Entering HTML Tags**

- To enter an element with a start tag and an end tag, use the following format:
`<tag>content</tag>`
- To enter an empty element, use the following format:
`content
<tag />`
- To nest tags, use the following format:
`<tag1><tag2>content</tag2></tag1>`

Most tags are paired—they include both a start tag and an end tag. End tags are differentiated from start tags by including a forward slash at the beginning of the end tag, as in `</blockquote>`. It is good coding practice to type the start and end tags first, before entering text or information between the tags, like this: `<blockquote> </blockquote>`. Typing the tags side by side means you are less likely to accidentally omit the closing tag. It's also easier to notice spelling or coding errors in the tags themselves.

Some elements only describe a behavior. For example, the HTML element `
` creates a line break and has no content. Because this element, called a line break tag, or break tag, has no content, it is called an **empty element**. Besides having no content, empty elements do not include a corresponding end tag. For example, there is a *single* break tag, and it ends with a space followed by a slash.

Sometimes tags are used together to create more complex formatting. For example, you have used word processing software to create text that is both bold and italic. To produce the same formatting in an HTML document, you nest tags, which means that you use more than one pair of tags at the same time. For example, to make a book title italic, you code the text as follows:

```
<em>Wizard of Oz</em>
```

To make the same title bold, you code the text as follows:

```
<strong>Wizard of Oz</strong>
```

To make text both bold and italic, you code it as follows:

```
<strong><em>Wizard of Oz</em></strong>
```

When nesting tags, the order of the tags does matter. The tags should be a mirror image of themselves. For example, it would be incorrect to write a code as follows:


```
<strong><em>Wizard of Oz</strong></em>
```

Setting Up File Storage and Preparing a Text Editor

Recall that you can use a text editor such as Notepad or WordPad to create an HTML document. When you do, you should store all your files in the same storage location, such as a folder on your hard drive. If your Web page uses image files or other types of files, the browser looks for those files in the same folder as where you store the HTML document, unless you specify otherwise. If you store the image file in a different folder and do not specify the path to that folder in your HTML code, the browser displays a placeholder icon instead of the image. For now, it's best to store all the files for a Web page in the same file folder.

You're ready to show Andy how to create a basic Web page for Less Sodas and Beverages. Because you plan to use Notepad as your text editor, you can start by creating a shortcut to Notepad on your desktop so you can open it easily. After opening Notepad, you'll make sure the Word Wrap option is selected so that lines of text wrap instead of continuing until you press the Enter key.

To create a desktop shortcut to Notepad:

- ▶ 1. Click the **Start** button  on the taskbar, point to **All Programs**, and then click **Accessories**. The Accessories folder opens.
- ▶ 2. Right-click **Notepad**, point to **Send To** on the shortcut menu, and then click **Desktop (create shortcut)**. A shortcut icon for Notepad appears on the Windows desktop.
- ▶ 3. Double-click the **Notepad** shortcut icon on the desktop. The Notepad window opens. Maximize the Notepad window.
- ▶ 4. Click **Format** on the menu bar. If the Word Wrap command is not checked, click **Word Wrap**.
- ▶ 5. Click in the Notepad document area.

With Notepad open and Word Wrap turned on, you're ready to start creating the HTML document. Before you do, you want to review the tags that appear at the beginning of every HTML document.

Inserting the Beginning HTML Tags

Every HTML document must contain the following tags:

- **<html> tag:** Indicates the HTML language to the browser
- **<head> tag:** Indicates the document's header area
- **<title> tag:** Displays the page's name in the browser's title bar
- **<body> tag:** Contains the page content

Each HTML document begins with the start `<html>` tag. This tag marks the beginning of an HTML document and is required. It is vital that you code this tag. HTML documents can be converted to other file formats, and the `<html>` tag acts as a signal that an HTML file should be converted into a different file format. You usually place the start `<html>` tag alone on the first line of the HTML document.

The start `<head>` tag follows the start `<html>` tag, typically on its own line. An HTML document's head area contains code and text that does not appear in the browser. Think of the head area as a container for information about the document. The head area usually contains **metadata**—information about the document itself such as its keywords, the author, and a description of its content. Search engines scan this metadata to determine the content of the page. The head area can also contain JavaScript code.

The `<head>` tag and its metadata are followed by title tags, which contain the title for the Web page. The title tags are:

```
<title></title>
```

The text between the title tags appears in the title bar of the browser window, so it should be short and accurately describe the content of the page. Although the length of the page title is not limited, it should generally not exceed 70 characters, including spaces; otherwise, some Web search engines might ignore the page. After entering the title, you need to enter the end `</title>` tag. If you fail to close the title text with a `</title>` tag, or if you incorrectly code the end title tag, the Web page appears blank. If no other code is entered after the title, then an end `</head>` tag follows the `</title>` tag.

The start `<body>` tag comes next. The start `<body>` and end `</body>` tags serve as a container for all of the remaining code, text, and images for your document. Leave a blank line before the start `<body>` tag to make the code easier to read. This blank line is a form of white space, which is the part of the page that doesn't contain text or other content. You create white space by pressing the Spacebar, the Tab key, or the Enter key to improve the visual appearance of the code and to make it easier to read. However, when you are entering white space in Notepad, you are not creating white space in the resulting Web page. This spacing in Notepad is for readability purposes only. In general, you write most of your code at the left edge of the screen, establishing what is known as an "eye line," which makes it easier to find the HTML code in your document by focusing on only one part of the screen.

The last two tags you must code at the end of every HTML document are the end `</body>` and the end `</html>` tags. In summary, every HTML file should include the following tags:

```
<html>
<head>
<title> </title>
</head>

<body>

</body>
</html>
```

As you create an HTML document, you should save it periodically. Save your file with the filename extension of either `.htm` or `html`. It's usually a good idea to follow the "eight dot three" filenaming convention, which is to have a filename of up to eight characters followed by the `.htm` or `.html` extension. The computers that store the files you see on the Web are called **file servers**. Many file servers use an operating system called UNIX. Unlike Windows, some versions of UNIX limit the size of filenames. As such, it's a good coding practice to limit your filenames to no more than eight characters. Furthermore, do not include spaces or punctuation marks in your filenames, and use only letters and numbers in your filenames. Files stored on a UNIX server should also have the filename extension of `.html`, not `.htm`. Never save your Notepad files with the filename extension of `.txt`. If you do, you are saving the file as an ASCII text file. Files that have the filename extension of `.txt` will *not* appear in the browser.

You'll show Andy how to begin creating the Less Sodas and Beverages Web page by entering the required HTML tags in a Notepad document, and then saving the file with an `.htm` filename extension.

To begin creating an HTML document and then save it:

1. Make sure you have created your copy of the Data Files and that your computer can access them.

Trouble? If you don't have the starting Data Files, you need to get them before you can proceed. Your instructor will either give you the Data Files or ask you to obtain them from a specified location (such as a network drive). In either case, make a backup copy of the Data Files before you start so that you will have the original files available in case you need to start over. If you have any questions about the Data Files, see your instructor or technical support person for assistance.
2. In the Notepad window, type the following code, pressing the **Enter** key at the end of each line:

```
<html>
<head>
<title></title>
</head>

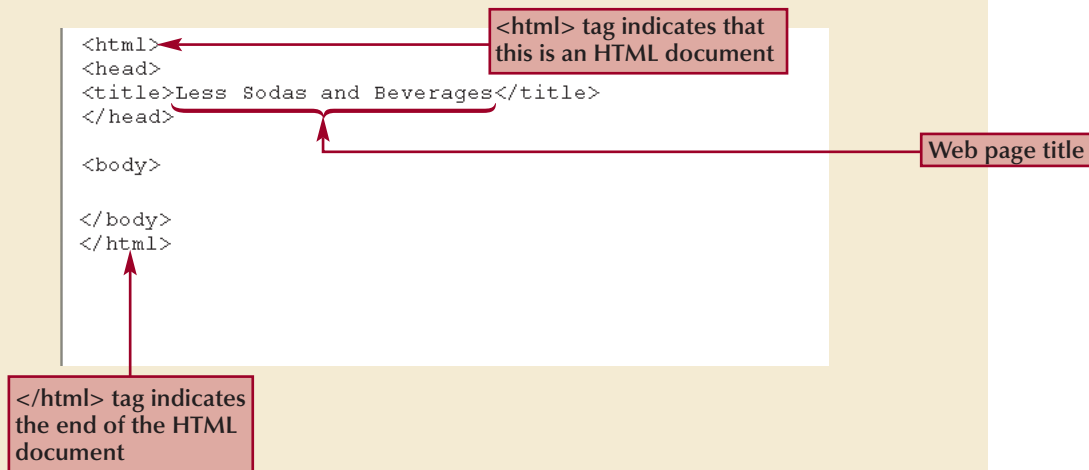
<body>

</body>
</html>
```

3. Click between the start and end title tags, and then type **Less Sodas and Beverages** as the text to appear in the title bar of the browser window. Proofread your code and correct any errors you find. Your code should look like Figure 1-5.

Initial HTML code

Figure 1-5



4. Click **File** on the menu bar, and then click **Save As**. The Save As dialog box opens.
5. Navigate to the drive that contains your Data Files.

Trouble? If you do not know where your Data Files are located, consult with your instructor about where to save your Data Files.
6. Navigate to the **Tutorial.01\Tutorial** folder. This is the folder in which you will store the HTML document.
7. Click the **Save as type** button arrow, and then click **All Files**.

Trouble? If you are using a text editor other than Notepad, use its tools to make sure you are saving the file as an .htm file, not as a .txt file.
8. Select the text in the File name text box, if necessary, and then type **Less.htm** as the name of the file.

- ▶ **9.** Click the **Save** button to save the file.

As you create an HTML document, you should save it frequently so you don't lose your work. Now that you have specified a name and location for the file, you can save the document by clicking File on the menu bar and then clicking Save instead of Save As.

Besides saving as you work, you should also add comments to your code as you develop an HTML document. You'll show Andy how to do that next.

Including Comments

Comments provide documentation for your code, explain how the code was written, indicate an unusual or particular circumstance, or otherwise include information to help you or other Web developers understand the code better. You can include comments anywhere in a document, including within the <head> </head> tags or within the <body> </body> tags. Comments do not appear in the browser.

Reference Window | Including Comments in an HTML Document

- On a new blank line in an HTML document, type the start code for a comment:

```
<!--
```
- Type the comment.
- Type the end code for a comment:

```
-->
```
- Press the Enter key.

HTML comments use the following syntax:

```
<!-- comment -->
```

The comment itself should explain the purpose of the code and other information. The following comment indicates the placement of an image within an HTML document:

```
<!-- image of bottles appears below -->
```

If you fail to close a comment with the end comment code (--> two hyphens followed by an angle bracket), then it's possible that none of your document will be displayed beyond that comment.

You want Andy to establish the habit of including comments in his code, so you'll show him how to add a comment to the Less.htm document.

To add a comment to the HTML document:

- ▶ **1.** Click directly after the </title> tag (on the same line) and then press the **Enter** key to insert a new blank line in the document.
- ▶ **2.** Type the following text, pressing the **Enter** key at the end of each line. Substitute your name and today's date where noted.

```
<!-- Less Sodas and Beverages Company Web Page
      Created by: Your First and Last Name
      Date: today's date
-->
```

- ▶ **3.** Click **File** on the menu bar, and then click **Save** to save your changes.

- ▶ 4. If you are continuing to the next session, keep Notepad open. Otherwise, close Notepad.

So far, the Less.htm file you created can serve as a template for an HTML document, meaning you can use it as the basis for all your Web pages. You only need to change the comment and title text that identifies Less Sodas and Beverages Company to text that fits your current HTML project.

Session 1.1 Quick Check

Review

1. What tag always begins an HTML document?
2. What tags are used to contain data that will not display on the page?
3. Where will text you type between the <title> </title> tags be displayed in a browser?
4. What would happen if you did not code the end </title> tag properly?
5. What two tags serve as a container for all of the text and images on the Web page?
6. What two tags are always coded at the end of an HTML document?
7. What would you code to make the following text into a comment: this is a comment.

Session 1.2

Formatting Text on a Web Page

Although you use HTML to format text for your Web page, HTML is not similar to word processing software. Word processing programs offer many more formatting features than HTML. Don't despair—CSS provides most of the features for your Web pages that you have come to expect from a word processing program. You will begin learning about those features of CSS in the next tutorial. A preliminary overview of the HTML **formatting tags** helps you understand what HTML can achieve in terms of Web page formatting. Now that you have shown Andy how to create an HTML file, you will show him the basic formatting features of HTML.

Using the Heading Tags

Use the **heading tags** to increase the size of text. Text size is measured in points. In typography, 72 points is equal to one vertical inch, and the word *point* is abbreviated as *pt*. HTML has six heading tags: <h1>, <h2>, <h3>, <h4>, <h5>, and <h6>, each of which specifies a certain point size. Each heading tag has a start tag and an end tag, as in the following examples:

```
<h1>Less Sodas and Beverages</h1>  
<h2>Tired of More? Drink Less</h2>
```

The heading tags are one of the best means of illustrating the differences between HTML and word processing programs. In a word processing program, you have extensive control over the point size of text. If you like, you can change the point size to 22-pt, 48-pt, 72-pt, or many other point sizes. Unlike a word processing program, however, HTML offers limited flexibility in changing the size of text. In HTML, you only have six sizes of type.

Figure 1-6 shows the six HTML heading tags. Heading size <h1> produces the largest text (24 pt); heading size <h6> produces the smallest text (8 pt), as shown in Figure 1-7. You do not have to use heading sizes in order, and you can repeat the same size heading tags as often as you like.

Figure 1-6 HTML headings as code

```

<html>
<head>
<title>Less Sodas and Beverages</title>
</head>

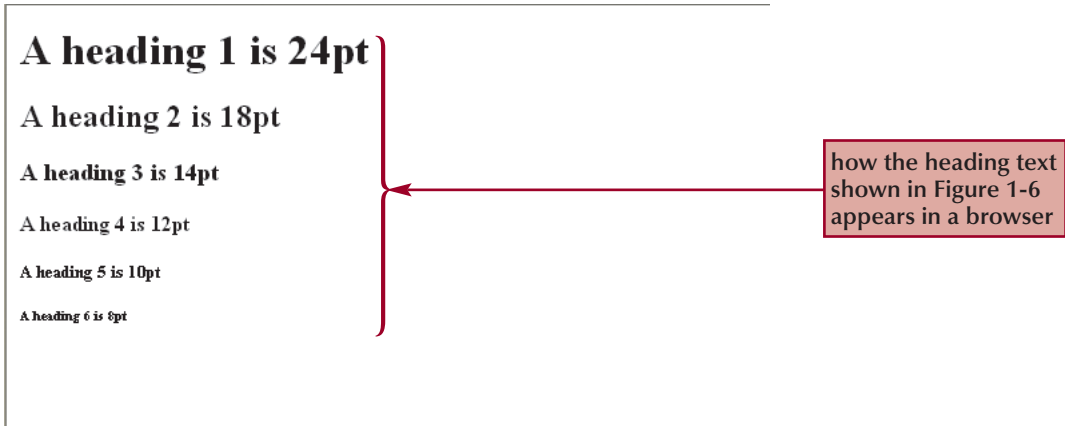
<body>

<h1>A heading 1 is 24pt</h1>
<h2>A heading 2 is 18pt</h2>
<h3>A heading 3 is 14pt</h3>
<h4>A heading 4 is 12pt</h4>
<h5>A heading 5 is 10pt</h5>
<h6>A heading 6 is 8pt</h6>

</body>
</html>
    
```

headings decrease in size depending on their level

Figure 1-7 How headings appear in the browser



Tip
 Be careful not to use the letter l as the number 1. For example, if you type </h1> (letter l) instead of </h1> (number 1) to close the heading text, then all text that follows will appear in the <h1> size.

Heading tags make text bold, so you don't need to code additional tags that make heading text bold. Headings also create a blank line above and below the heading, so you don't need to code paragraph or break tags either before or after a heading.

Now you can begin adding formatting characteristics to the Web page you are creating for Less Sodas and Beverages. Recall that your plan calls for placing an image at the beginning of the page, so you'll code a comment to remind yourself of where to position the image. You'll show Andy how to perform these tasks in the Less.htm document.

Note that in the remaining figures in this tutorial, the text shown in red is text you should enter into your HTML documents.

To enter the heading tags:

- ▶ 1. If necessary, open the **Less.htm** file in Notepad.
- ▶ 2. Position the insertion point below the start `<body>` tag.
- ▶ 3. Press the **Enter** key, and then type the following HTML code between the `<body>` and `</body>` tags, as shown in red in Figure 1-8.

```

<h1>Less Sodas and Beverages</h1>
<h2>Tired of More? Drink Less</h2>

<!--image of bottles is below-->

<h3>What Makes Us Different?</h3>

```

Code for headings and a comment**Figure 1-8**

```

<html>
<head>
<title>Less Sodas and Beverages</title>

<!-- Less Sodas and Beverages Company Web Page
      Created by: Your First and Last Name
      Date: today's date
-->

</head>
<body>

<h1>Less Sodas and Beverages</h1>
<h2>Tired of More? Drink Less</h2>

<!--image of bottles is below-->

<h3>What Makes Us Different?</h3>

</body>
</html>


```

enter the text
shown in red

- ▶ 4. Save your document.

Now that you've entered some basic content in the Web page for Less Sodas and Beverages, you're ready to view the page in a browser.

Displaying a Web Page in a Browser

As mentioned earlier, you should test your Web pages in more than one browser as you develop the HTML code. Doing so ensures that most or all of your audience can view the page. As you make changes to the HTML document in your text editor, you can open the document in your Web browser to see how it is displayed. Each time you open the document in a browser, you should refresh the page to make sure the browser displays the current version of the file. Each browser provides a Refresh command or Refresh button. In Internet Explorer 7.0, for example, you can press the F5 key or click the Refresh button  to refresh the page.

Reference Window | **Displaying a Web Page in a Browser**

- Create and save an HTML document.
- Start your Web browser, and then use the browser's tools to open the HTML document.
- After changing the HTML document, open it in the browser again or refresh the page in the browser.

The following steps use Internet Explorer to display the `Less.htm` Web page, but you can use any other browser as well. You do not need to be connected to the Internet to view the page. Besides saving an HTML document as you work, you should also display it in a Web browser periodically to make sure the code is free of errors such as missing end tags. You'll show Andy how to use a Web browser to display the Web page you created.

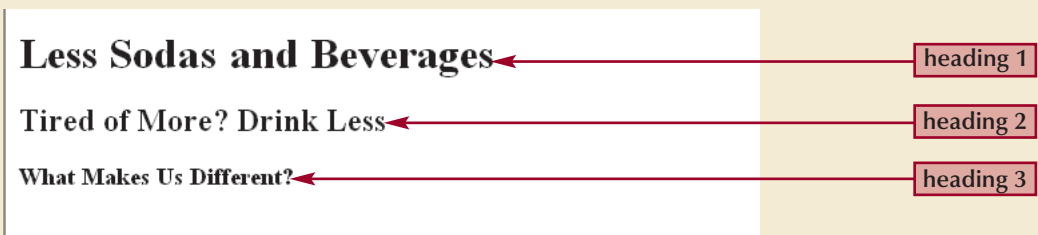
To view the Less Sodas and Beverages Company Web page:

- ▶ 1. Start Internet Explorer and wait for the home page to appear. Maximize the browser window.

Trouble? If you are using a different Web browser, start that program instead of Internet Explorer.

Trouble? If a dialog box opens explaining you are not connected to the Internet, close the dialog box. You do not need to be connected to the Internet to display an HTML document.
- ▶ 2. Open the **Less.htm** file from the `Tutorial.01\Tutorial` folder containing your Data Files. Your browser displays the Web page, shown in Figure 1-9.

Figure 1-9

Headings displayed in the browser

- ▶ 3. Minimize the browser window.

So far, you've created an HTML document that contains the required HTML codes, and then inserted and formatted some content and comments. Next, you'll continue creating the Web page by adding body text, an image, and a list.

Creating Body Text

Now that you have developed an HTML template document and started a Web page by inserting headings, you can customize the Web page by using tags to control the appearance of text. You can do so using paragraph and line break tags.

The paragraph tag is one of two tags that control line endings in an HTML document:

```
<p></p>
```

The start `<p>` tag precedes each paragraph; the end `</p>` tag ends each paragraph. Together, the start and end paragraph tags create a blank line between paragraphs when the document is displayed in the browser. As such, the paragraph tags are equivalent to pressing the Enter key twice to create a blank line in a word processing document. You type your paragraph text in Notepad the same way you would if you were typing a word processing document, by letting the text wrap as you type the paragraph. You do not need to press the Enter key at the end of each line unless you intend to end the line before the right margin, as you do when you type the inside address in a letter.

A paragraph typed in Notepad would look like this:

```
<p>Our Orange Nut Cream is a blend of natural orange flavors and real
coconut milk. The resulting combination gives our Orange Nut Cream an
incredibly smooth and rich taste.</p>
```

The line break tag is equivalent to pressing the Enter key once to end a line. Recall that the break tag is an empty element, meaning it has no corresponding end tag and no content. Instead, the break tag ends with the combination of a space and a slash. The break tag looks like this:

```
<br />
```

Code the `
` tag at the beginning of a line of code, rather than at the end of a line of code. Doing so makes it easier to find where you have coded `
` tags. Use the `
` tag when you want to end a line before the right margin without wrapping, such as in a mailing address:

```
<p>Mr. Andy Chanos
<br />4708 N. Washington
<br />Sheffield Ridge, IL 61361</p>
```

At this point, you'll show Andy how to enter text for the body of the document using the paragraph tags.

To enter the body text using paragraph tags:

1. In the Less document, click below the `<h3>` heading and then press the **Enter** key twice to insert a new blank line.
2. Type the text following text, but do *not* press the **Enter** key until after you type the end `</p>` tag.

```
<p>Our products do not contain sugar or artificial colors and
sweeteners. If it's not all natural, it's not in the bottle.
Less' sodas have almost as many calories as good old H2O, and they
have only half the carbonation of regular soft drinks like Coke or
other national brands.</p>
```

3. Press the **Enter** key to insert a blank line, and then type another paragraph of text, again letting the text wrap just as you would if you were typing a paragraph in a word processing document. Press the **Enter** key after you type the end `</p>` tag. Figure 1-10 shows all the inserted text in red.

```
<p>Our Orange Nut Cream is a blend of natural orange flavors and
real coconut milk. The resulting combination gives our Orange
Nut Cream an incredibly smooth and rich taste.</p>
```

Tip

Be sure to save your HTML document before you open the file in your browser.

Figure 1-10 Entering body text with paragraph tags

```

<html>
<head>
<title>Less Sodas and Beverages</title>

<!-- Less Sodas and Beverages Company Web Page
Created by: Your First and Last Name
Date: today's date
-->

</head>
<body>

<h1>Less Sodas and Beverages</h1>
<h2>Tired of More? Drink Less</h2>

<!--image of bottles is below-->

<h3>What Makes Us Different?</h3>

<p>Our products do not contain sugar or artificial colors and sweeteners. If it's not all natural,
it's not in the bottle. Less sodas have almost as many calories as good old H2O, and they have only
half the carbonation of regular soft drinks like Coke or other national brands.</p>

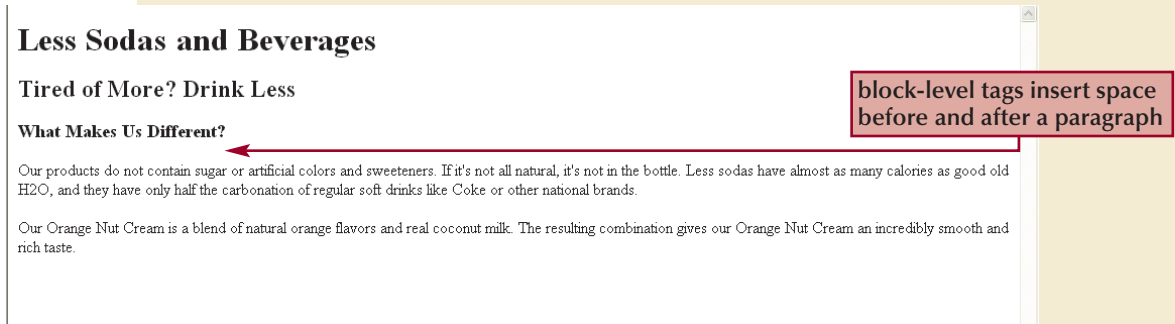
<p>Our Orange Nut Cream is a blend of natural orange flavors and real coconut milk. The resulting
combination gives our Orange Nut Cream an incredibly smooth and rich taste.</p>

</body>
</html>
    
```

body text entered using paragraph tags

- ▶ 4. Click **File** on the menu bar, and then click **Save** to save your changes.
- ▶ 5. Restore the browser window and then refresh the page. Your document should look as it does in Figure 1-11.

Figure 1-11 Web page with paragraph added



block-level tags insert space before and after a paragraph

InSight | Avoiding Redundant Code

You can press the Enter key as many times as you like to enter white space in a word processing document. HTML, however, ignores redundant code. Enter a space once after a colon or any mark of terminal punctuation—which is any punctuation mark that ends a sentence—such as the period, the exclamation point, and the question mark. Extra spaces are deleted in the browser, so you don't need to waste effort by typing more than one space after a mark of terminal punctuation. If you enter two spaces after a period in your code, only one space is displayed in the browser.

Paragraph and heading tags are **block-level elements**, which means they automatically create a blank line above and below the text. Block-level elements also provide internal padding (spacing), a border, and an external margin. Later, when you learn about Cascading Style Sheets (CSS), you will use paddings, borders, and margins to improve the appearance of your Web pages.

Inserting Logical and Physical Formatting Tags

Logical tags let the browser determine how to display the text in an HTML document. For example, two of the most common logical tags are `` and ``. The `` tag makes text bold; the `` tag makes text italic. The logical tags are as follows:

```
<strong>do not contain sugar</strong>
<em>Less</em>
```

You can also make text bold using the `` tag or make text italic using the `<i>` tag. These are two of the most common physical formatting tags. **Physical tags** emphatically state how text should be displayed; in this instance as either bold or italic text. The following lines show the same text coded with physical tags:

```
<b>do not contain sugar</b>
<i>Less</i>
```

Both the `` `` tags and the `` `` tags make text bold. Similarly, both the `<i>` `</i>` tags and the `` `` tags make text italic. Which should you use? Most HTML editing programs use the `` and the `` tags. Therefore, because of the widespread preference for these logical tags over the physical tags, use the logical tags `` and `` in all your code, rather than the physical tags `` and `<i>`.

Recall that block-level elements automatically create a blank line above and below the tag. Tags that create formatting within a block of text, such as a paragraph, are said to format text *inline*. The `` and the `` tags are examples of inline elements.

Andy wants to emphasize some text in the Less Sodas and Beverages Web page. He'd like to display "do not contain sugar" in bold so people viewing the Web page notice that text immediately. He'd also like to display "Less" in "Less Sodas" so that viewers understand the play on words. You'll show him how to use the `` and `` tags to format this text according to his preferences.

To format text as bold and as italic:

- ▶ 1. In the first paragraph of the Less document, type **** before the phrase "do not contain sugar." Do not insert a space after the right angle bracket (`>`).
- ▶ 2. Type **** after the phrase "do not contain sugar." Do not insert a space before the left angle bracket (`<`).
- ▶ 3. At the beginning of the third sentence, type **** before "Less" and type **** after "Less." Again, do not insert spaces between the code and content. Figure 1-12 shows the inserted text in red.

Trouble? If your lines of code do not wrap as shown in Figure 1-12, click Format on the Notepad menu bar, click Word Wrap if that command is not checked. If the Word Wrap command is already checked, click to remove the check mark. Then click Format on the Notepad menu bar, and click Word Wrap again to select it.

Figure 1-12 Entering and tags

```

<html>
<head>
<title>Less Sodas and Beverages</title>

<!-- Less Sodas and Beverages Company Web Page
Created by: Your First and Last Name
Date: today's date
-->

</head>
<body>

<h1>Less Sodas and Beverages</h1>
<h2>Tired of More? Drink Less</h2>

<!--image of bottles is below-->

<h3>What Makes Us Different?</h3>

<p>Our products do not contain sugar or artificial colors and sweeteners. If it's
not all natural, it's not in the bottle. Less sodas have almost as many calories as good
old H2O, and they have only half the carbonation of regular soft drinks like Coke or other
national brands.</p>

<p>Our Orange Nut Cream is a blend of natural orange flavors and real coconut milk. The resulting
combination gives our Orange Nut Cream an incredibly smooth and rich taste.</p>

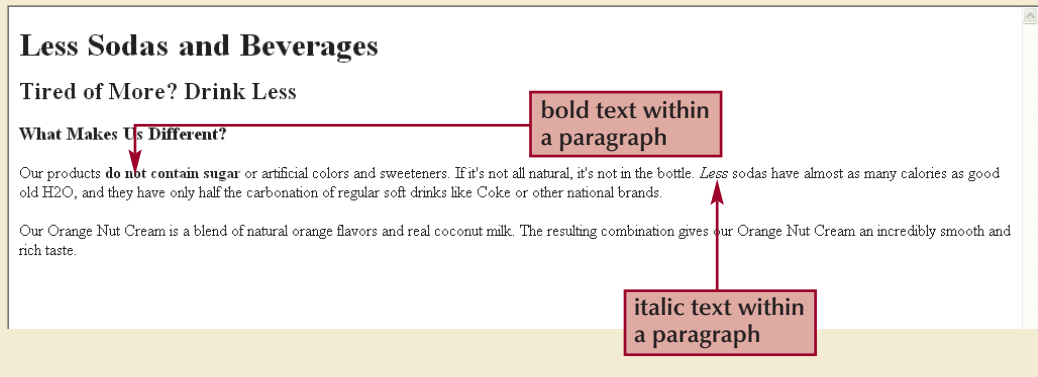
</body>
</html>
    
```

text between tags appears bold in the browser

text between tags appears italic in the browser

- ▶ 4. Check your work, making sure your document matches Figure 1-12, and then save the Less document in your text editor.
- ▶ 5. Refresh the Less Sodas and Beverages page in your browser, and then compare it to Figure 1-13.

Figure 1-13 Web page with bold and italic text



The blockquote tags are another type of physical tag. You use the <blockquote> </blockquote> tags to establish an indent of about one inch on both the left and the right sides of the page.

Although the tag is named “blockquote,” you can use the <blockquote> tag to indent any text—it doesn’t have to be quoted text. Also, the <blockquote> tags are block-level elements, so the browser displays a blank line both before and after the blockquote. Another set of tags, the <q> </q> (the quote) tags, are used for inline quotes. However, the quote tags are not yet widely supported by most browsers.

Andy reviews the Less Sodas and Beverages Web page, and decides that he wants to insert another paragraph describing how Less' sodas can be good for you, and he'd like that paragraph to stand out from the rest of the text. To do so, you will show him how to create a blockquote.

To create blockquoted text:

- ▶ 1. In the Less document, insert a blank line after the second paragraph you just added. Then type the following HTML code.


```
<blockquote>Think a soft drink can't be good for you? Think again!
<em>Less</em> sodas are enhanced with vitamins and minerals to
fortify you through your busy day. Not only do our sodas and
beverages taste great, they also are a good source of
nutrition.</blockquote>
```
- ▶ 2. Press the **Enter** key to end the paragraph. Figure 1-14 shows the inserted text in red.

Code for <blockquote> text

Figure 1-14

```
<h3>What Makes Us Different?</h3>

<p>Our products <strong>do not contain sugar</strong> or artificial colors and sweeteners. If it's
not all natural, it's not in the bottle. <em>Less</em> sodas have almost as many calories as good
old H2O, and they have only half the carbonation of regular soft drinks like Coke or other
national brands.</p>

<p>Our Orange Nut Cream is a blend of natural orange flavors and real coconut milk. The resulting
combination gives our Orange Nut Cream an incredibly smooth and rich taste.</p>

<blockquote>Think a soft drink can't be good for you? Think again! <em>Less</em> sodas are
enhanced with vitamins and minerals to fortify you through your busy day. Not only do our sodas
and beverages taste great, they also are a good source of nutrition.</blockquote>

</body>
</html>
```

<blockquote> tag
to indent the text
in the browser

- ▶ 3. Make changes as necessary to match Figure 1-14, and then save the document in your text editor.
- ▶ 4. Refresh the Less Sodas and Beverages page in your browser, and then compare it to Figure 1-15.

Figure 1-15

Block quote displayed in the browser



You and Andy examine the Less Sodas and Beverages Web page so far, looking for text that needs to be revised or refined. You notice that “H₂O” in the first paragraph should be formatted to display the “2” as a subscript. You also want to insert a registered trademark symbol after “Coke” as well. You’ll show Andy how to use special formatting codes to make these types of changes.

Using Special Formatting Codes

As HTML and XHTML evolve from one version to another, they stop using or supporting tags that have proved to be problematic in browsers. They also add codes for special elements such as acronyms, abbreviations, special characters, superscripts, and subscripts. This section describes these formatting codes and explains how to use them.

Identifying Deprecated and Seldom-Used Tags

HTML 4.01/XHTML 1.1 eliminates some of the tags that were used in earlier versions of HTML. A tag that should no longer be used is called a **deprecated tag**. Some of the deprecated tags are `<center>`, which was used to center text, and ``, which was used to change the appearance, size, and color of text.

The `<u>` `</u>` tags are the underline tags, which underline text. The underline tags are also deprecated—and for good reason. Underlining could be confused with links to a Web site, which are customarily underlined. *Never use the underline tags.* When you want to emphasize text in your Web page, you should substitute italics (emphasized text) for underlining. If you receive a handwritten draft of a Web page from an author who does not know HTML, it might include underlined text. Be sure you substitute that underlining with emphasized text when you code the Web page.

A number of logical formatting tags used to format text in the Courier typeface or to make text italic have been part of HTML since HTML1.0. Although they are seldom used today, you might still encounter them. The `<tt>` `</tt>` tags are used to produce text in teletype (a Courier typeface). The teletype tags are deprecated. The tags shown below produce the text shown in Figure 1-16.

```
<code>Code</code>
<dfn>Definition</dfn>
<kbd>Keyboard</kbd>
<samp>Sample</samp>
<var>Variable</var>
```

Deprecated HTML logical formatting tags displayed in the browser

Figure 1-16

```
Code Definition Keyboard Sample Variable
```

Using the Acronym and the Abbreviation Tags

An **acronym** is a group of letters that stands for several words. An **abbreviation** is a shortened form of a noun. For example, if you encounter the acronym *CGI* or the abbreviation *pt* in printed text, you might not know the meaning of that acronym or abbreviation. Both the `<acronym>` `</acronym>` and the `<abbr>` `</abbr>` tags are designed to produce a **ScreenTip** in the browser window. When you use the mouse pointer to point to (or mouse over) the acronym or abbreviated text, a small box containing text on a shaded background (a ScreenTip) is displayed. The ScreenTip text serves to either define or explain the acronym or the abbreviation. In addition, the `<acronym>` tag displays the acronym on the screen with a dotted line (called a tracer) under the acronym, which helps to draw attention to the acronym. In Internet Explorer versions 6 and earlier, the tracer does not appear. Firefox does display the tracer for both abbreviations and acronyms, shows ScreenTips as black text on a white background, and casts a shadow under the ScreenTip. See the following code examples:

```
<acronym title="Graphical User Interface">GUI</acronym>  
<abbr title="The shorthand notation for point">pt</abbr>
```

In the browser, you can point to “GUI” to view “Graphical User Interface” in the ScreenTip. Similarly, you can point to “pt” to view “The shorthand notation for point” in the ScreenTip.

Using the Acronym and Abbreviation Tags

| Reference Window

- To display a ScreenTip defining an acronym, use the `<acronym>` tag with a title attribute, as follows:

```
<acronym title="acronym definition">ACRONYM</acronym>
```

- To display a ScreenTip showing the complete form of an abbreviation, use the `<abbr>` tag with a title attribute, as follows:

```
<abbr title="complete word or phrase">Abbreviation</abbr>
```

The `<acronym>` and `<abbr>` tags do not format text; however, these tags often appear nested within `` or `` tags. Because the tags serve the same purpose (producing a ScreenTip), the forthcoming XHTML version 2.0 has eliminated the `<acronym>` tag and kept the `<abbr>` tag. However, Internet Explorer 6.0 (and earlier versions) do not support the `<abbr>` tag, but they do support the `<acronym>` tag.

The text for the `<acronym>` or the `<abbr>` tag ScreenTip is coded by using the *title* attribute. An **attribute** defines a change to a tag. Each attribute has (takes) a **value** that describes to what extent or in what manner the tag will be changed. Think of attributes as nouns and values as adjectives.

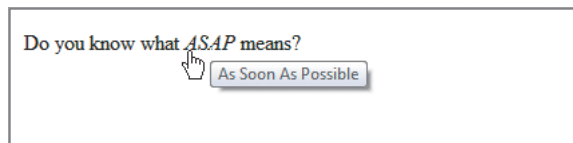
All values must be enclosed in quotation marks. You code the attribute, an equals sign, and then the value. The following example shows the code for the acronym ASAP and resulting ScreenTip. The attribute is “title” and the attribute’s *value* is “As Soon As Possible.” Do not insert a space before or after the equals sign, as in the following code:

```
Do you know what <em><acronym title="As Soon As Possible">
ASAP</acronym></em> means?
```

Figure 1-17 shows how the ScreenTip looks in a browser.

Figure 1-17

Acronym and ScreenTip



When you type quotation marks in your HTML code, it’s a good coding practice to type both quotation marks first. By doing so, you avoid the mistake of omitting the closing quotation mark.

Now you are ready to show Andy how to insert special characters such as trademark symbols.

Inserting Special Characters

Some characters in HTML cannot be created by using the keyboard. Those characters are called **special characters**. Other characters, such as < > (angle brackets) and the & (ampersand), are reserved for writing code. How do you display these characters in the browser when necessary? You can do so in two ways: by **named entity reference** or by **character reference**. The named entity reference is a combination of symbols, including a suggestion of the name of the character that when typed together, represent a specific character. The named entity reference is preceded by an ampersand and followed by a semicolon. For example, to produce the registered trademark symbol, you enter the following code:

```
&reg;
```

In the browser screen, the registered trademark symbol appears: ®

The character reference refers to the code’s position in the ISO (the International Standards Organization) character set. The character number is preceded by the ampersand symbol and the pound symbol, and the reference is followed by a semicolon. To produce the registered trademark symbol using a character reference, you use the following code:

```
&#174;
```

Not all special characters can be coded by using named entity references, but all special characters can be inserted by using character references. For example, the dagger character (†) and the double dagger character (‡) can only be coded by using a character reference.

Figure 1-18 illustrates common named entity references and character references.

Named entity and character references

Figure 1-18

Named Entity Reference	Character Reference	Symbol Displayed in a Browser	Description
<	<	<	Less than or left angle bracket
>	>	>	Greater than or right angle bracket
n/a	†	†	Dagger
n/a	‡	‡	Double dagger
—	—	—	Em dash
–	–	–	En dash
 	 	(a space)	Space
©	©	©	Copyright
®	®	®	Registered trademark
·	·	•	Round bullet

Andy notices that the word “Coke” should be followed by the registered trademark symbol. In the Less Sodas and Beverages Web page, you’ll show him how to insert a special character, the registered trademark symbol, after the word “Coke” in the first paragraph of the page.

To create special characters:

1. In the first paragraph of the Less document, position the insertion point directly after the word “Coke,” and then type **®** as shown in Figure 1-19.

Code for the registered trademark special character

Figure 1-19

```
<p>Our products <strong>do not contain sugar</strong> or artificial colors and sweeteners. If it's not all natural, it's not in the bottle. <em>Less</em> sodas have almost as many calories as good old H2O, and they have only half the carbonation of regular soft drinks like Coke&reg; or other national brands.</p>
```

registered trademark symbol code

2. Save the document in your text editor.
3. Refresh the Less Sodas and Beverages Web page in your browser. Figure 1-20 shows the registered trademark symbol as it appears in the browser.

Figure 1-20

The registered trademark symbol displayed in the browser

Less Sodas and Beverages

Tired of More? Drink Less

What Makes Us Different?

Our products **do not contain sugar** or artificial colors and sweeteners. If it's not all natural, it's not in the bottle. *Less* sodas have almost as many calories as good old H₂O, and they have only half the carbonation of regular soft drinks like Coke® or other national brands.

Our Orange Nut Cream is a blend of natural orange flavors and real coconut milk. The resulting combination gives our Orange Nut Cream an incredibly smooth and rich taste.

Think a soft drink can't be good for you? Think again! *Less* sodas are enhanced with vitamins and minerals to fortify you through your busy day. Not only do our sodas and beverages taste great, they also are a good source of nutrition.

registered trademark
symbol

Creating Superscripts and Subscripts

You use the `^{` `}` tags to create a superscript, which raises a character one-half the line of type. Similarly, you use the `_{` `}` tags to create a subscript, which lowers a character by one-half the line of type. Superscript and subscript characters are useful when you need to include footnotes, endnotes, and other notations in your Web pages.

Andy wants to create a footnote to follow the word “drinks” in the first paragraph on the Less Sodas and Beverages Web page to qualify his claim that Less’ sodas have half the carbonation of regular soft drinks. You code the superscripted number 1 using the `^{` `}` codes, then enter the footnote text below the paragraph containing the superscript. You can code the footnote text as a paragraph that includes `^{` `}` codes to superscript the number 1 so that people viewing the Web page can find the footnote easily. In addition, you will show Andy how to create a subscript so that the chemical formula for water appears as H₂O.

To create superscripts and subscripts in the Less Sodas and Beverages Web page:

- ▶ 1. In the Less document, click directly before the “2” in H₂O, type `_{`, click directly after the “2,” and then type `}` to subscript the 2.
- ▶ 2. Directly after “drinks” in “regular soft drinks,” type `¹` to superscript the 1.
- ▶ 3. Insert a blank link after the first paragraph, and then type the following code:

```
<p><sup>1</sup>When compared to the leading cola-flavored
beverages.</p>
```

Figure 1-21 shows the inserted text in red.

Code for superscript and subscript**Figure 1-21**

subscript will appear slightly below the line of text

```
<p>Our products <strong>do not contain sugar</strong> or artificial colors and sweeteners. If it's not all natural, it's not in the bottle. <em>Less</em> sodas have almost as many calories as good old H<sub>2</sub>O, and they have only half the carbonation of regular soft drinks<sup>1</sup> like Coke<sup>2</sup> or other national brands.</p>
<p><sup>1</sup>When compared to the leading cola-flavored beverages.</p>
```

footnote text including a superscript entered as a paragraph

superscript entered here as a footnote reference

- ▶ 4. Save the document in your text editor.
- ▶ 5. Refresh the Less Sodas and Beverages Web page in your browser. Figure 1-22 shows how the <sup> and <sub> tags look when viewed in a browser.

Superscript and subscript displayed in the browser**Figure 1-22**

Less Sodas and Beverages

Tired of More? Drink Less

superscript

What Makes Us Different?

Our products **do not contain sugar** or artificial colors and sweeteners. If it's not all natural, it's not in the bottle. *Less* sodas have almost as many calories as good old H₂O, and they have only half the carbonation of regular soft drinks¹ like Coke² or other national brands.

subscript

¹When compared to the leading cola-flavored beverages.

footnote

Our Orange Nut Cream is a blend of natural orange flavors and real coconut milk. The resulting combination gives our Orange Nut Cream an incredibly smooth and rich taste.

Think a soft drink can't be good for you? Think again! *Less* sodas are enhanced with vitamins and minerals to fortify you through your busy day. Not only do our sodas and beverages taste great, they also are a good source of nutrition.

- ▶ 6. If you are continuing to the next session, keep Notepad and your Web browser open. Otherwise, close all open windows.

Tips for Typing HTML Code in a Text Editor

At this point, you have entered much of the code that makes up the basic Web page for Less Sodas and Beverages. The following list contains tips and hints for making your HTML coding error-free.

- **Type all code in lowercase.**

Type your HTML/XHTML code in lowercase. Continue to capitalize the first letter of proper nouns. Filenames may be typed with an initial capital to call attention to a filename in the code.

- **List codes separately as much as possible.**

With the exception of the <title> </title> tags, don't wrap the tags for an HTML document. You are trying to create an eye line where most of the HTML tags are coded at the left margin. Doing so will make it easier to locate and debug (correct) your HTML code. Use the following style:

```
<html>
<head>
<title>Your Title Goes Here</title>
</head>
```

The following example is poor coding practice:

```
<html><head><title>Your Title Goes Here</title></head>
```

- **Use white space.**

Leave a blank line before and after the start <body> tag, as shown in the following code:

```
</head>

<body>

<p>Here is the first paragraph of the document.</p>
```

Code the paragraph tags as follows, letting the text wrap:

```
<p>Here is the first sentence of the first paragraph. You want to
leave some "breathing room" so that you can easily debug your code.
</p>
```

```
<p>Here is another paragraph. Because a blank line was entered
between these paragraphs, it's much easier to see where one paragraph
ends and another begins. In general, your Web page code should
look similar to a typed business letter.</p>
```

When you type a block-level element in a text editor, leave a blank line before and after the block-level element, just as you would if you were typing paragraphs in a letter:

```
<body>

<h1>This Is the Heading</h1>

<p>Here is the first paragraph of text. Note that there is only
one space at the end of each sentence. HTML eliminates extra
space.</p>

<p>Here is the second paragraph of text. Do you notice how this
code includes a blank line between the paragraphs in my code?
Doing so gives the code some "breathing room" and makes the code
much more readable. </p>

<blockquote>Here is the text for the blockquote. Text that has
been blockquoted will be indented about one inch on both the left and
the right.</blockquote>

</body>
</html>
```

At the end of each document, leave a blank line before the </body> and </html> tags, as follows:

```
... the end of the document.</p>

</body>
</html>
```

- **Insert a break code at the beginning of a line, not after it.**

Code your `
` tags at the start of a line of code, not at the end of a line; code like this:

```
<p>John Doe  
<br />28 Smith Street  
<br />Santa Fe, CA 30039</p>
```

Rather than this:

```
<p>John Doe<br />  
28 Smith Street<br />  
Santa Fe, CA 30039</p>
```

- **Enter code between start and end tags.**

Always type your code in a container tag, such as the `<p></p>` tags or any other of the HTML formatting tags, as follows:

```
<p>This is some paragraph text. This paragraph uses the container  
tags for paragraph text, which are the start and end paragraph  
tags.</p>
```

The following is an example of poor coding, without tags to contain the paragraph text:

```
This is some paragraph text. This paragraph is not enclosed within  
paragraph tags or any other formatting tags.
```

- **Don't use deprecated tags.**

For example, don't use underline tags. If you need to emphasize text or call attention to it, use italics instead and code ` ` tags, not `<u> </u>` tags.

- **Format terminal punctuation properly.**

Insert one space, rather than two, after a colon and space once after any mark of terminal punctuation (the period, the exclamation point, and the question mark). Extra spaces are deleted in the browser.

- **Beware of quotation marks from pasted text.**

If you are cutting/copying and pasting text from a word processing document or another program into Notepad, look to see if any of the copied or pasted text has quotation marks. Notepad only uses straight quotes ("like this") and not curly quotes ("like this"). If your file is still not displayed properly, delete all the quotes from the pasted text and type in straight quotes.

Session 1.2 Quick Check

Review

1. What set of tags display text in the largest size of type?
2. In addition to making text larger or smaller, what else do heading tags do to the appearance of text?
3. What set of logical tags makes text bold?
4. What set of logical tags makes text italic?
5. What set of tags indents text on the left and right by approximately one inch?
6. What does it mean if a tag is deprecated?
7. What is a special character?

Session 1.3

Using Images on a Web Page

In the early days of the Web, many, if not most, Web pages were text only. Even with text-only pages, transmission speeds were very slow. Because pages took a long time to download, Web page authors used very few images. With the greater use of high-speed broadband transmission, today it is quite common to display many images on a Web page. Images are a great way to add variety and interest to your Web pages; however, using too many images can be distracting and even make the page look amateurish. In a later tutorial, you will learn how to use thumbnail images, which are small images that link to a page that displays a larger version of the same image

Understanding Image Files and File Types

Most images used on the Web today are either drawings, such as clip art, and photos. Clip art and photos are typically stored in two different types of files. Clip-art drawings are in a **GIF (Graphics Image Format)** file format—in other words, files with a .gif extension. *GIF* is pronounced (most often) with a hard *g* sound, although some people do pronounce it as *jiff*. GIF was originally devised by AOL/CompuServe. A GIF file renders (displays) line drawings and other images on your Web page. The images are generally simple and not as clear and sharp as a photograph because their file size is **compressed**, which means that the image file is reduced to a much smaller file size. Although the image loses some detail and clarity, the image is faster to download.

Photos are usually stored in a **JPG—or JPEG—(Joint Photographic Experts Group)** file format—in other words, files with a .jpg extension. JPG is pronounced *jay peg*.

A newer image file format is PNG (pronounced *ping*), which is the Portable Network Graphics format, a file format the W3C chose for its superior compression to replace .gif files. Bitmap files, which have the .bmp filename extension, are standard Windows graphics files. In general, avoid using bitmap files because they tend to be much larger than other file formats and therefore take a longer time to download.

Acquiring Images

Because using images affects the overall file size and download time, you need to be judicious in your use of images. If the image will enhance the appearance of the page or convey useful information, then include the image. Displaying a page that is composed mostly of images and very little text is considered amateurish and should be avoided. On the other hand, a page that has text only also is not desirable because it doesn't have very much visual interest.

There are plenty of places to obtain images for use on your Web pages. Many Web sites offer free clip art and photographs in .gif and .jpg file formats. You can also buy images and clip art on CDs or DVDs, or obtain images as part of an Office suite, such as Microsoft Office or image-editing software such as Adobe Photoshop. You can also use your digital camera or your cell phone as sources to capture images.

If you find an image on a Web page that you want to use, make sure you have permission to use the image yourself—you might otherwise be violating United States copyright law. If you purchase an image and the rights to duplicate it, or if an image is specifically marked “free of copyright” or “in the public domain,” you can copy an image from the Web directly from a Web page.

Copying an Image from a Web Page

| Reference Window

- On a Web page, right-click the image you want to copy, and then click Save Picture As (or a similar command) on the shortcut menu.
- Change the filename—but not the extension—if necessary.
- Navigate to where you want to save the image file, and then click the Save button.

Using the Image Tag

You use the **image tag** `` to insert an image on a Web page. Like the `
` tag, which was discussed earlier, the `` tag is an empty tag, not a paired tag, so it must end with the “space slash” combination, as in ``.

For now, you should precede and follow the `` tag with a set of paragraph tags, which aligns the image at the left margin in the browser window. In a later tutorial, you will learn how to position an image anywhere on the Web page.

The `` tag uses several attributes. It always includes the *src attribute*, the source attribute. The value of the source attribute is the name of the image file that should appear in the Web page. Values must always be preceded by an opening quote and followed by a closing quote. For example, the following code displays the image contained in the Bottles.jpg file:

```
<p>
```

The order of the attributes and values does not matter; however, it’s a good coding practice to always list the *src attribute* and its value first.

Another attribute used with images is the *alt attribute*, which gives a brief description of the image. The words associated with the alt attribute appear before the image downloads. Also, when you point to the image, the alternative text appears. It is a good idea to always use the alt attribute with an image, even though doing so is not required. Vision-impaired users who surf the Web using site reader software hear the alternative text that describes the image. In addition, some users do not have a GUI browser, and others with slow Web connections might disable the display of images in order to speed up download times. The alternative text should be brief, but descriptive, as in the following example:

```
<p>
```

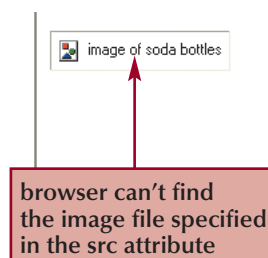
If the browser can’t load the image file specified in the image tag, the **placeholder icon** appears in place of the image. The placeholder icon indicates that an image should appear in its place. The alternative text also appears next to the placeholder icon. See Figure 1-23.

Tip

Be sure to include the end quote after the alt text. If you do not, the browser considers all text that follows as part of the alt text and does not display your document past that point.

Placeholder icon and alternative text in the browser

Figure 1-23



If you see the placeholder icon instead of an image when viewing your Web page in a browser, check your source code to make sure you typed the tag and the associated HTML code correctly. Be particularly mindful of images that have the numbers 0 and 1 in their filenames—they might be the letters *O* and *I*. Also check the image tag code; a common error is to type `` instead of ``. Additionally, check to make sure that the file type is correct. If you coded `` and the file actually is a .gif file, the placeholder icon appears because even though you have the correct filename, the file type is incorrect. Finally, confirm that the image file and the HTML file are in the same storage location.

Creating a Folder for Images

If your Web site involves fewer than 10 pages, you should store the .htm files and image files in the same folder. For sites greater than 10 pages, it's a good idea to create a separate folder (usually named "images") in which to store your images. If you have saved the image file in a different storage location than the HTML file, you must specify the path to the image, as follows:

```
<p>
```

Tip

Although Windows and other operating systems use the backslash (\) to specify the path to a file, HTML code uses only forward slashes (/).

Using the Width and the Height Attributes

You use the **width** and **height attributes** to scale an image—to change either the width or the height of the image as it appears on a Web page. You can increase or decrease the height or the width of the image in pixels.

Generally, the width of the entire screen is about 640 pixels and the height of the entire screen is 480 pixels. However, most users have their browser window set to display a screen size (a resolution) of at least 800 x 600 pixels and perhaps as many as 1024 x 768 pixels. You can determine the width and the height of an image by using Microsoft Paint or any other image-editing software.

You must use caution in scaling an image because if you enlarge the image too much, it might look grainy and distorted on the screen. To be safe, always scale an image to be smaller, not larger. Also be aware of an image's **aspect ratio**, which is the relationship between the width and the height. If you scale the image by reducing the height *only* or the width *only*, the image becomes distorted. If the original image is 400 x 200 pixels for example, you could scale the image to be 200 x 100 pixels (half its original height and half its original width). Specifying a width and height for the image makes the image download faster. If you omit the width and height attributes, the image generally scales to its original size, which may not be desirable, especially if the image is quite large. You could code the width and height attributes as in the following example:

```
<p>` tag, as in the following example:

```
<p></p>
```

You are now ready to insert an image into the Less Sodas and Beverages Web page. Confirm that the image file Bottles.jpg is stored in the same folder in which you have saved the Less.htm file.

## To add a scaled image with alternative text to your Web page:

1. If necessary, open the Less.htm file in Notepad or another text editor.
2. In the Less document, insert a blank line after the <!--image of bottles is below--> comment, and then type the following code, which is also shown in red in Figure 1-24.

```
<p></p>
```

Code for inserting the Bottles.jpg image

Figure 1-24

```
<!--image of bottles is below-->
<p></p>
<h3>What Makes Us Different?</h3>
```

complete  
filename

alt text

width and  
height attributesspace and slash  
to end the tag

3. Save the document in your text editor.
4. If necessary, open the Less document in the browser or refresh the Web page. The page should look like Figure 1-25.

Document with a scaled image

Figure 1-25

## Less Sodas and Beverages

### Tired of More? Drink Less

Bottles.jpg image  
displayed on the  
Web page

#### What Makes Us Different?

Our products **do not contain sugar** or artificial colors and sweeteners. If it's not all natural, it's not in the bottle. *Less* sodas have almost as many calories as good old H<sub>2</sub>O, and they have only half the carbonation of regular soft drinks<sup>1</sup> like Coke® or other national brands.

<sup>1</sup>When compared to the leading cola-flavored beverages.

Our Orange Nut Cream is a blend of natural orange flavors and real coconut milk. The resulting combination gives our Orange Nut Cream an incredibly smooth and rich taste.

Think a soft drink can't be good for you? Think again! *Less* sodas are enhanced with vitamins and minerals to fortify you through your busy day. Not only do our sodas and beverages taste great, they also are a good source of nutrition.

Looking over the Web page, Andy decides he'd like to include a horizontal line below the image of the bottles to divide the page into two parts. You'll show him how to insert a line, or rule, next.

## Creating Horizontal Rules

**Horizontal rules** are lines that are used to visually divide a page into sections. The tag to create a horizontal rule is:

```
<hr />
```

The `<hr />` tag is the only tag needed to display a horizontal rule. The `<hr />` tag is an empty element, so it is followed by the space slash combination. By default, horizontal rules are displayed from the left edge to the right edge of the window, are centered, are 2 pixels in height, and are gray or silver, depending on your browser.

Horizontal rules help organize a Web page, dividing the page into areas with similar content. You'll show Andy how to add a horizontal rule to the Less Sodas and Beverages page in the next set of steps.

### To add a horizontal rule to the document:

- ▶ 1. In the Less document, insert a blank line after the image code you entered in the previous steps.
- ▶ 2. Type `<hr />` and then press the **Enter** key.
- ▶ 3. Save the document in your text editor.
- ▶ 4. Refresh the Web page in the browser to display the updated Less.htm file. The page should look like Figure 1-26.

Figure 1-26

### Horizontal rule below the image

#### Less Sodas and Beverages

Tired of More? Drink Less



horizontal rule displayed  
on the Web page

#### What Makes Us Different?

Our products **do not contain sugar** or artificial colors and sweeteners. If it's not all natural, it's not in the bottle. *Less* sodas have almost as many calories as good old H<sub>2</sub>O, and they have only half the carbonation of regular soft drinks<sup>1</sup> like Coke® or other national brands.

<sup>1</sup>When compared to the leading cola-flavored beverages.

Our Orange Nut Cream is a blend of natural orange flavors and real coconut milk. The resulting combination gives our Orange Nut Cream an incredibly smooth and rich taste.

Think a soft drink can't be good for you? Think again! *Less* sodas are enhanced with vitamins and minerals to fortify you through your busy day. Not only do our sodas and beverages taste great, they also are a good source of nutrition.

Web page designers also often want to display lists on their pages. You'll explore how to create bulleted and numbered lists next.

## Creating Unordered and Ordered Lists

You can use HTML to create **unordered lists** (a bulleted list) and **ordered lists** (lists with numbers or letters). A third type of HTML list, the definition list, isn't really a type of list; you usually use it to create a hanging indent. You will learn about definition lists in a later tutorial.

### Inserting Unordered (Bulleted) Lists

Use an unordered list when the items in a list have no order of importance and do not need to appear in sequence. For example:

- Banana
- Orange

You begin the unordered list with the start `<ul>` tag. On separate lines, you include each list item, which is preceded by the `<li>` start tag and followed by the `</li>` end tag, as in the following example:

```

 Mango Mint
 Orange Nut Cream
 Passion Fruit Cola
```

At the end of the list, you code the `</ul>` end tag:

```

 Mango Mint
 Orange Nut Cream
 Passion Fruit Cola

```

Note the list items are indented in the code. Indenting your HTML code has no effect on its appearance in the browser, but it is a good idea to indent the list items because it makes the code easier to read.

### Creating Ordered Lists

Use an ordered list when the items in a list have a particular order of importance or should appear in sequence. An ordered list would look as follows:

1. Preheat oven to 450 degrees.
2. Bake for 30 minutes.

You begin the ordered list with the `<ol>` start tag. As in an unordered list, each list item in the list is preceded by the `<li>` start tag and followed by the `</li>` end tag. At the end of the list, you code the `</ol>` end tag. The code for an ordered list would look like this:

```

 Preheat oven to 450 degrees
 Bake for 30 minutes

```

Ordered lists can appear as Arabic numbers (1, 2, 3, etc., which is the default), Roman numerals, or uppercase or lowercase letters. You will learn how to change the list style type in a later tutorial.

Lists are block-level elements. The `<ol>` and `<ul>` start tags create a blank line before a list. Their corresponding end tags, `</ol>` and `</ul>`, create a blank line after a list.

Andy wants to list the most recent and popular flavors that Less Sodas and Beverages offers. You'll show him how to add a list to the Less document. First, you'll insert an `<h3>` heading to introduce the list, code the list of soda flavors, and then follow the list with a horizontal rule.

**To add an `<h3>` heading, an unordered list, and another horizontal rule:**

- ▶ 1. In the Less document, insert a blank line after the `<blockquote>` code.
- ▶ 2. Type the following code, which is also shown in red in Figure 1-27.

```
<h3>Some of Our More Popular Flavors</h3>

 Mango Mint
 Orange Nut Cream
 Passion Fruit Cola

<hr />
```

Figure 1-27

**Code for the unordered list**

```
<blockquote>Think a soft drink can't be good for you? Think again! Less sodas are
enhanced with vitamins and minerals to fortify you through your busy day. Not only do our sodas
and beverages taste great, they also are a good source of nutrition.</blockquote>

<h3>Some of Our More Popular Flavors</h3>

 Mango Mint
 Orange Nut Cream
 Passion Fruit Cola


<hr />
```

items in the bulleted list

- ▶ 3. Save the document in your text editor.
- ▶ 4. Refresh the Web page in the browser. It should look similar to Figure 1-28.

Figure 1-28

**Unordered list in the browser**




---

**What Makes Us Different?**

Our products **do not contain sugar** or artificial colors and sweeteners. If it's not all natural, it's not in the bottle. *Less* sodas have almost as many calories as good old H<sub>2</sub>O, and they have only half the carbonation of regular soft drinks<sup>1</sup> like Coke® or other national brands.

<sup>1</sup>When compared to the leading cola-flavored beverages.

Our Orange Nut Cream is a blend of natural orange flavors and real coconut milk. The resulting combination gives our Orange Nut Cream an incredibly smooth and rich taste.

Think a soft drink can't be good for you? Think again! *Less* sodas are enhanced with vitamins and minerals to fortify you through your busy day. Not only do our sodas and beverages taste great, they also are a good source of nutrition.

**Some of Our More Popular Flavors**

- Mango Mint
- Orange Nut Cream
- Passion Fruit Cola

soda flavors appear in a bulleted list

Another special kind of text you can add to a Web page is a mailing or e-mail address. You'll learn how to code an address next.

## Using the Address Tags

You use the `<address>` `</address>` tags to produce italicized text. Although the `<address>` tag is a not block-level element, it generates a new line, so you should always code the `<address>` tag as a separate line. By convention, the `<address>` `</address>` tags are used at the bottom of the home page to italicize contact information or the e-mail link used to send comments to the Webmaster, the person in charge of the Web site.

Andy would like to display the mailing address for Less Sodas and Beverages at the bottom of the document. You will show him how to do so now. To create line breaks in the address, you will use the `<br />` tag.

### To add a mailing address to the document:

1. In the Less document, insert a new blank line above the `</body>` tag at the end of the document.
2. Type the following code, which is also shown in red in Figure 1-29.

```
<address>Less Sodas and Beverages

28 The Piedmont

Sheffield Ridge, IL
</address>
```

Code for the address

Figure 1-29

```
<h3>Some of Our More Popular Flavors</h3>

 Mango Mint
 Orange Nut Cream
 Passion Fruit Cola

<hr />

<address>Less Sodas and Beverages

28 The Piedmont

Sheffield Ridge, IL
</address>

</body>
</html>
```

address inserted at  
the end of the document

3. Save the document in your text editor.
4. Refresh the page in the browser. It should look like Figure 1-30.

Address text in the browser

Figure 1-30

#### Some of Our More Popular Flavors

- Mango Mint
- Orange Nut Cream
- Passion Fruit Cola

*Less Sodas and Beverages*  
*28 The Piedmont*  
*Sheffield Ridge, IL*

italicized address inserted with  
<address> and <br /> codes


Figure 1-31 shows the final Web page for Less Sodas and Beverages.

Figure 1-31

## Completed Web page for Less Sodas and Beverages

**Less Sodas and Beverages**

Tired of More? Drink Less




---

**What Makes Us Different?**

Our products **do not contain sugar** or artificial colors and sweeteners. If it's not all natural, it's not in the bottle. *Less* sodas have almost as many calories as good old H<sub>2</sub>O, and they have only half the carbonation of regular soft drinks<sup>1</sup> like Coke® or other national brands.

<sup>1</sup>When compared to the leading cola-flavored beverages.

Our Orange Nut Cream is a blend of natural orange flavors and real coconut milk. The resulting combination gives our Orange Nut Cream an incredibly smooth and rich taste.

Think a soft drink can't be good for you? Think again! *Less* sodas are enhanced with vitamins and minerals to fortify you through your busy day. Not only do our sodas and beverages taste great, they also are a good source of nutrition.

**Some of Our More Popular Flavors**

- Mango Mint
- Orange Nut Cream
- Passion Fruit Cola

---

*Less Sodas and Beverages*  
23 The Piedmont  
Sheffield Ridge, IL

► **5.** Close all open windows.

As mentioned earlier, the text you include in the head section of an HTML document is used by search engines. You'll learn how to help search engines include your Web page in their search results next.

## Working with Search Engines

One of the most useful aspects of the Web is the ability to find Web pages on any topic. By entering one or more keywords, you can find Web pages that contain or are otherwise associated with those keywords. Tags embedded within HTML documents help search engines find the data you are seeking.

### Coding Meta Tags

When you view the source code for an HTML page, you often see one or more <meta> tags within the <head> </head> tags. One use of <meta> tags is that they can help **search engines**, such as Google, find your site on the Web based on the keywords you have coded within the <meta> tags on the home page. The <meta> tag is an empty tag, and as such, needs to end with the space slash combination.

The `<meta>` tag uses several attributes and values. The *name* attribute is used with the *content* attribute. The name attribute uses several values, such as *keywords*. The keywords are those words that best identify the content of your site, so choose words that are most commonly found on your Web pages. Also include common misspellings and a variety of capitalization options to anticipate how users might enter the keywords. You can list the keywords on one line or on several lines, as shown in the following example:

```
<meta name="keywords" content="soda, beverages, refreshments, drinks, fruit, Less, Lesss, Les" />
```

Other values for the name attribute that you might see are *generator*, which identifies the program used to generate the HTML code, and *author*, which identifies who authored the Web page. The following code uses the generator and author values for the name attribute:

```
<meta name="generator" content="Notepad" />
<meta name="author" content="John Smith" />
```

The *description* and its content value are what appears when a browser generates the list of hits for a particular search topic. The description content is coded as follows:

```
<meta name="description" content="This is the home page for Less Sodas and Beverages, the maker of refreshing, more healthful drinks for the whole family." />
```

Just as you should know what to include in your HTML documents, it is equally important to know what to avoid when writing HTML code. The following list helps you avoid some programming pitfalls.

- Save your file in Notepad and preview the file in the browser frequently. Don't wait until you've coded an entire Web page before you view the page in the browser. If you save your file and preview it in the browser often, you will catch errors where they occur, and you won't have to debug an entire page of code at a time.
- Make sure that you save your file with the file extension of .htm or .html. If you save your file with the file name extension of .txt, the file will not be displayed in the browser.
- Proofread your code and content carefully. Check for typographical errors and misspellings. A Web page should be error free.
- Check for syntax errors. Are any angle brackets missing? Are any quotation marks missing? Are any end tags missing?
- If your document does not appear in the browser at all, check to see that you have included important end tags such as </title> and </head>. Also check those end tags for syntax and typographical errors. For example, <title /> and </hhead> are typical errors.
- If part of your document does not appear in the browser, check to see if you are missing the end comment code: - -> at the point where the text or images stop displaying in the browser.
- If some text appears unusually large, check to see whether you have failed to code end heading tags or have coded an end heading tag incorrectly. Make sure the headings match. For example, if you coded a start <h2> tag, the line must end with the end </h2> tag, not a different heading tag (e.g., </h3>).
- If your Web page does not appear as you intended in the browser, convert a line of code in the document to a comment (a technique known as "commenting out" the code) to see what effect hiding that code has on the document when viewed in the browser. Insert a start comment tag before the code you are trying to debug and insert an end comment tag after that code. Commenting out code is a good way to isolate an area where there might be an error in the code.

## Receiving an HTML File as an E-Mail Attachment

If you receive an HTML file as an e-mail attachment, save the attached file locally to your hard drive, desktop, or flash drive, then open the file in Notepad and view the source code. If you open an attached HTML file in the browser and then save the file by choosing File/Save As *in the browser*, the source code will become corrupt. Compare the original code below with the corrupted code:

Original code:

```
<html>

<title>What Happened Here?</title>

</head>

<body>

 <p>This is an example of a document that was opened as an
e-mail attachment. The reader opened the file, and saved the file by
choosing File/Save in the browser, rather than saving the file locally.
As such, the code has become corrupt.</p>

</body>

</html>
```

Corrupted code:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">

<!-- saved from url=(0141)https://mail3.it.farmingdale.edu/exchange/
inbox/attachment.EML/corrupt.htm/C58EA28C-18C0-4a97-9AF2-036E93DDAFB3/
corrupt.htm?attach=1 -->

<HTML><HEAD><TITLE>What Happened Here?</TITLE>

<META http-equiv=Content-Type content="text/html; charset=iso-8859-1">

<META content="MSHTML 6.00.2900.2180" name=GENERATOR></HEAD>

<BODY>

<P>This is an example of a document that was opened as an
e-mail attachment. The reader opened the file, and saved the file by
choosing File/Save in the browser, rather than saving the file locally.
As such, the code has become
corrupt.</P></BODY></HTML>
```

### Session 1.3 Quick Check

Review

1. What attribute must always be used with the image tag?
2. What does it mean to scale an image?
3. What attributes are used to scale an image?
4. What code is used to create a horizontal rule?
5. What are the two types of lists discussed in this chapter?
6. What tags are used to create an area identifying an address?

### Tutorial Summary

Review

In this tutorial, you learned about how the Internet and Web work. You were introduced to the concept of tags and how they work in pairs. You learned about the basic HTML tags included in every Web page, along with tags used to format the appearance of text in Web pages. You also learned about tag attributes that can further customize a page's appearance. You learned how to include images on Web pages using the <img> tags. Finally, you learned how to use tags to include horizontal rules, ordered lists, unordered lists, and metadata in your HTML documents.

## Key Terms

abbreviation	Graphics Interchange Format (GIF)	named entity reference
acronym	heading tag	ordered list
aspect ratio	height attribute	physical tag
attribute	horizontal rule	placeholder icon
block-level element	hypertext	scaling
character reference	Hypertext Markup Language (HTML)	ScreenTip
compressed	image tag	search engine
deprecated tag	Internet	special character
element	Joint Photographic Experts Group (JPG or JPEG)	unordered list
element type declaration	logical tag	value
empty element	markup	Web browser
Extensible Hypertext Markup Language (XHTML)	metadata	width attribute
file server		World Wide Web (Web)
formatting tag		World Wide Web Consortium (W3C)

## Practice | Review Assignments

Take time to practice the skills you learned in the tutorial using the same case scenario.

### Data File needed for the Review Assignments: Listing.htm

Warren Metzger, Andy's partner at Less Sodas and Beverages, reviewed the basic Web page you helped Andy create and asks you to revise a different Web page at the Less Sodas and Beverages site. He wants you to add metadata to the head section so that search engines can index this page. In the body of the text, he'd like you to add an acronym and its accompanying ScreenTip. He also thinks the ordered list should be changed to a numbered list. Finally, Warren wants to display a copyright notice at the bottom of the page. Complete the following steps:

1. Use Notepad (or another text editor) to open the file named **Listing.htm** provided in your Tutorial.01\Review folder.
2. Save the file in the same location with the name **ListingNew.htm**.
3. In the <head> </head> section, type the following metadata for the document:

```
<meta name="keywords" content="soda, beverages, soft drinks, cola, mango, coconut" />
<meta name="author" content="Your First Name Your Last Name" />
<meta name="description" content="This is the home page for Less Sodas and Beverages, the healthy alternative to other soft drinks." />
```

4. Change the unordered list to an ordered list by deleting the <ul> </ul> tags and replacing them with <ol> </ol> tags.
5. Leave a blank line after the last paragraph, and then type the following code to add a line with an acronym:

```
<p>All our products are packaged with our <acronym title="Nutritional Information Label">NIL</acronym> easy-to-read label.</p>
```

6. On a blank line before the </body> tag, type the following code to add an <h5> heading and a special character:

```
<h5>© 2010</h5>
```

7. Save your HTML document, and then open **ListingNew** in your browser. The document should be similar to the one shown in Figure 1-32.

Figure 1-32

#### Why People Choose Less Over Other Soft Drinks and Beverages

**It's a fact; in blind taste tests, people choose *Less* by a margin of 3:1 over other soft drinks. Here are the top 10 reasons (in order) why people want *Less* in their lives.**

1. *Less* just tastes better.
2. *Less* has fewer calories than other soft drinks.
3. *Less* uses ingredients that are all natural; nothing artificial is ever used.
4. People enjoy the light, refreshing carbonation of *Less* products.
5. *Less* has such a variety of flavors that are not available with most other brands.
6. *Less* costs a little more, but people feel it's worth it.
7. Parents like *Less* because it's a more healthful drink than the national brand soft drinks.
8. Everyone loves *Less*!
9. *Less* comes in a four-pack as well as an eight-pack.
10. People love our commercials.

People didn't often mention our bottle design or our easy-to-read informational bottle labels, but we love our consumer-friendly bottle, too. *Less* has NIL.

All our products are packaged with our NIL easy-to-read label.

©2010

8. Point to the acronym. The ScreenTip should show the acronym's definition.
9. Close all open windows.

- Submit the results of the preceding steps to your instructor, either in printed or electronic form, as requested.

## Apply | Case Problem 1

*Use the skills you learned in the tutorial to update a basic Web page for an insurance company.*

### Data File needed for this Case Problem: Gwynn.htm

**Gwynn & Gwynn Insurance Company** John and Mary Gwynn recently decided to embark on a business of their own. John has devoted most of his professional life to insurance, while Mary has been working for the last 10 years as a financial planner. Together, they hope to offer a range of financial services that will appeal to many people in the Santa Ruis Valley in California, where they live. John and Mary have asked you to set up a Web site for them highlighting the services they offer. Complete the following:

- Use Notepad or another text editor to open the file named **Gwynn.htm** provided with your Data Files in the Tutorial.01\Case1 folder.
- Save the file in the same location with the name **GwynnNew.htm**.
- Within the <title> </title> tags, type the following code:  
**Gwynn & Gwynn Insurance**
- In the <body> section, format “The Gwynn & Gwynn Insurance Company” as an <h1> heading.
- Below the <h1> heading, insert a horizontal rule.
- Format the words “Let Us Insure You” and “Let Us Reassure You” as <h3> headings.
- Insert <p> and </p> tags to format the text after the <h3> heading from “Need your taxes done?” to “not years from now.” as paragraph text. Also format the text starting with “No one else” and ending with “financial means.” as paragraph text.
- Format the words “We Offer” as an <h4> heading.
- Format the next three lines as an unordered list.
- Format the line that begins “Remember our motto” as an <h4> heading.
- Format the last four lines of text as an address. Make sure that each line of the address will be displayed in the browser on its own line.
- Save your HTML document, and then open **GwynnNew** in your browser. The document should be similar to the one shown in Figure 1-33.

Figure 1-33

## The Gwynn & Gwynn Insurance Company

### Let Us Insure You

No one else in the valley region has the same comprehensive insurance coverage plans as we offer. Whether you are looking for auto, home, or life insurance, we've got a plan to fit your lifestyle and your financial means.

### Let Us Reassure You

Need your taxes done? Yes, we do that, too. In fact, we also offer comprehensive financial planning for all levels of income. Need some advice about planning for how to pay for college? Let us give you our expert advice about what types of financial planning are available so that you can set aside enough money to pay for your child's education right now, not years from now.

### We Offer

- Fast service
- Low rates
- 24x7x365 claim service

Remember our motto: With Gwynn & Gwynn, It's a Win & Win

*Gwynn & Gwynn  
132 Hyde Avenue  
Suite 130  
Santa Ruis, CA*

13. Close all open windows.
14. Submit the results of the preceding steps to your instructor, either in printed or electronic form, as requested.

## Apply

## Case Problem 2

Use the skills you learned in the tutorial to create a Web page for an umbrella manufacturer.

### Data Files needed for this Case Problem: [Brella.htm](#), [Married.jpg](#)


**Umbrella Universe** Umbrella Universe is small start-up company in Duluth, Minnesota, that manufactures and sells specialty umbrellas. Umbrella Universe distinguishes itself in the marketplace by creating custom umbrellas in a variety of shapes, colors, and sizes. The company also imprints custom logos and messages on its umbrellas. Juan Ramos, the marketing manager, has asked you to create a Web site that details the company's products and the customizing services they offer. Complete the following:

1. Use Notepad to open the file **Brella.htm** provided with your Data Files in the Tutorial.01\Case 2 folder.
2. Save the file in the same location with the name **BrellaNew.htm**.
3. Within the title tags, enter **Umbrella Universe** as the title.
4. Format the first line of text so that the words "Umbrella Universe" appear as an <h1> heading.
5. Below the <h1> heading, create a comment that reads **code for image is below**.
6. Below the comment, and between the <p> </p> tags, insert the image **Married.jpg**. Include the phrase **image of just married umbrella** as alternative text for the image. The original height of the image is 300 pixels and the original width is 400 pixels. Scale the image to be 90 percent of the original height and width. (Remember to keep the aspect ratio.)
7. Format the second line of text with the words "Our Bestsellers" as an <h3> heading.
8. In the first paragraph, format the text "Slogans and messages are no problem for us." as both bold and italic.
9. Format each type of umbrella to be an <h4> heading. The umbrella types are Storm-brella, Logobrella, and so on.

- EXPLORE** 10. In the last paragraph, insert an em dash (a long dash) after the word “pattern.” Use a named character reference to do so. (*Hint*: Refer to Figure 1-18 for the correct code for an em dash.)
11. Insert a horizontal rule following the last paragraph.
12. Format the contact information for the e-mail address using the `<address>` `</address>` tags.
- EXPLORE** 13. Format the phone number so that it appears in code font. Use the `<code>` `</code>` logical tags to do so.
14. Save your HTML document, and then open **BrellaNew** in your browser. The document should be similar to the one shown in Figure 1-34.

Figure 1-34

## Umbrella Universe



**Our Bestsellers**

**Logobrella**

Put your company's logo on a custom designed umbrella. *Slogans and messages are no problem for us.* If you need a logo, we'll design one for you for a very reasonable price.

**Stornbrella**

This umbrella is guaranteed to withstand winds of up to 100 miles per hour. Made with a reinforced steel carriage and solid oak handle, this umbrella will get you through the fiercest storms without breaking.

**Santabrella**

Order this festive umbrella that comes in either red or green. A picture of Santa on his sled will give you season's greetings throughout the holiday weeks.

**Jumbobrella**

Our largest umbrella. Two people can comfortably be sheltered from harsh weather by this oversized umbrella, more than twice the size of the standard umbrella.

**Lovebrella**

This umbrella comes in pink or white and has hearts and cupids displayed in an alternating pattern — a perfect give for the special someone in your life.

---

Contact us at [umbrellauniverse@brellamail.com](mailto:umbrellauniverse@brellamail.com)

Or call us at: (631) 555-0011

15. Close all open windows.
16. Submit the results of the preceding steps to your instructor, either in printed or electronic form, as requested.

## Challenge | Case Problem 3

Use what you've learned, and expand your skills, to create a Web page for an ice cream shop.

### Data Files needed for this Case Problem: Icecream.jpg, Shep.htm

**Shep's Ice Cream Parlour** Shep's Ice Cream Parlour, located in Hefferton, Vermont, is famous for its ice cream confections. Located at the same site for more than 100 years, Shep's Ice Cream is celebrated across the entire New England area. Shep Connor has always prided himself on being very inventive when it comes to ice cream flavors and asks you to build a Web site that is equally inventive to promote his new product line. He provides you with a handwritten outline of the Web page, and asks you to create a page according to this design. Complete the following:

#### EXPLORE

1. Use Notepad to open the file named **Shep.htm** provided with your Data Files in the Tutorial.01\Case3 folder.
2. Save the file in the same location with the name **ShepNew.htm**.
3. Enter **Shep's Ice Cream** as the title.
4. In the <head> area, enter a <meta> tag to describe the Web page. For the content, use the text **Shep's is New England's finest ice cream parlour**.
5. Format the first line of text that contains "Shep's Old-Fashioned Ice Cream Parlour" to appear as an <h1> heading.
6. Between the <p> </p> tags, insert the image **Icecream.jpg**. Specify the alternative text for the image as **picture of Shep's sign**. The dimensions of the image are a height of 320 pixels and a width of 450 pixels.
7. Insert a horizontal rule below the image.
8. Format the subheadings including "What We Do," "You Haven't Tried These," "Toppings Include," and "Visit us at:" as <h3> headings.
9. Shep's notes indicate that you should underline the words "dream supreme ice cream" in the first paragraph. Format this text appropriately.
10. In the second paragraph, insert the code to make "IST" into an acronym. The title for the acronym is **Incredibly Scrumptious Toppings**.
11. Insert the registered trademark symbol after the end </acronym> tag following the letters IST. Use a named entity reference to do so.
12. Format the list of toppings as an unordered list.
13. Insert the dagger symbol as a superscript after James Dunn's name. Insert another dagger symbol as a superscript before the "Food critic for the Lancaster Gazette" text. (*Hint*: Refer to Figure 1-18 for the correct code for a dagger symbol.)
14. Format the quoted text as a blockquote.
15. At the bottom of the page, use the <address></address> tags to format the address. Insert break tags as necessary to display the address on three separate lines.
16. Save your HTML document, and then open **ShepNew** in your browser. The document should be similar to the one shown in Figure 1-35.

#### EXPLORE

#### EXPLORE

Figure 1-35

## Shep's Old-Fashioned Ice Cream Parlour



### What We Do

Shep's Ice Cream has been at the same site for more than one hundred years. Located in the small town of Hefferton, Vermont, people from all over New England come to Shep's Ice Cream Parlour. You must drop by and try our *dream supreme ice cream*.

### You Haven't Tried These

Shep's Ice Cream is noted for making ice cream from very unusual flavors. Some of our new flavors include cheesecake, banana mint, and white chocolate brownie. Try all of our flavors with IST®, our Incredibly Scrumptious Toppings. See the list below:

### Toppings Include

- cherries and berries
- shaved fudge
- twice whipped cream
- sprinkles and showers

James Dunn† says:

"This is certainly one of the finer Ice Cream Parlours in all of New England. I am always amazed at the freshness of the ingredients. Many people travel to Hefferton just to visit Shep's. It's definitely worth the trip."

†Food critic for the Lancaster Gazette

### Visit us at:

*Shep's Ice Cream  
123 Benson Street  
Hefferton, VT*

17. Close all open windows.
18. Submit the results of the preceding steps to your instructor, either in printed or electronic form, as requested.

## Research | Case Problem 4

Work with the skills you've learned and use the Internet to research global warming and create an informational Web page.

### Data File needed for this Case Problem: Global.jpg

**Hemispheric Research** Tony Alovese founded Hemispheric Research in Jacksonville, Florida, to study global warming and its effects on weather, sea levels, and species habitat. He recently hired you to assist him in his research and to produce Web pages that educate and inform interested users. Use the Web or other resources to research the topic of global warming and create an informational Web page for Hemispheric Research. In this case problem, you will be creating a new file. Complete the following:

1. Use your favorite search engine to find and read at least three Web sites or online articles about global warming.

2. Prepare for creating the Hemispheric Research Web page by developing the following material:
  - a. Write at least four paragraphs about global warming and its effects on the Earth.
  - b. Compose headings that will precede each paragraph.
  - c. Find a quote from your research that you can use on the Web page.
  - d. Create a list of the four of the effects of global warming.
3. Open your browser and Notepad.
4. Create an HTML document with all of the HTML tags required for a basic HTML document.
5. Within the <title></title> tags, give your page a descriptive page title.
6. In the <body> section, include examples of the following:
  - Comment
  - Global.jpg image file (include the alt attribute as well)
  - Horizontal rule
  - Four paragraphs of text
  - Blockquote
  - At least two examples of h2, h3, or h4 headings
  - Special character
  - Bold text
  - Italic text
  - Superscript or a subscript
  - Ordered or unordered list
  - Acronym
  - Break tag
  - Address tag
7. Save your file with the filename **Warming.htm**.
8. Open Warming.htm in your browser, review the Web page, and make any changes as necessary.
9. Close all open windows.
10. Submit the results of the preceding steps to your instructor, either in printed or electronic form, as requested.

**Session 1.1**

1. <html>
2. <head> </head>
3. in the title bar at the top of the screen
4. nothing would display on the Web page
5. <body> </body>
6. </body> </html>
7. <! -- this is a comment -- >

**Session 1.2**

1. <h1> </h1>
2. They add a blank line above and below the heading and they make text bold.
3. <strong> </strong>

