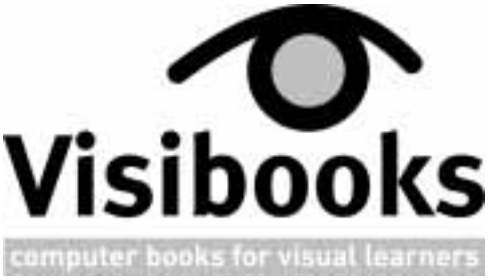
HTML & JavaScript for Visual Learners



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HTML & JavaScript for Visual Learners

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Introduction

Welcome to *HTML and JavaScript for Visual Learners*. If you've never used a Visibook before, you'll find that it contains several hundred illustrations, with comparatively little text. It presents essential tasks, breaks them down into steps, then walks you through them with illustrations.

What you'll learn

You'll learn how to use HTML to create a solid, attractive Web site that's easy to navigate. You'll also learn how to upload it to a Web server.

You won't become an expert in Web publishing—that takes practice and real-world experience. But you will learn the fundamentals of site-building, and get a good foundation on which to build professional-level skills.

Additional resources for acquiring expert-level HTML and JavaScript skills are found at the end of this book.

Follow the steps

See the results

How you'll learn it

This book has five sections: HTML Basics, Layout & Navigation, Interactivity, Advanced Layout, and Practical JavaScript.

At the end of each task and section are practice exercises. Don't worry if you can't work through the whole book in a day or two. Take your time, and try to do the practice. You can check your work against examples posted on the Web.

Before you begin

Before you begin, it's important that you know Windows well. A working knowledge of Windows makes it much easier to learn HTML and JavaScript. You should be familiar with:

- How directories work
- Windows Explorer
- Basic word processing

Make sure you can perform the following tasks:

- Create a folder on your computer's hard drive
- Create a folder within a folder
- Copy a paragraph from one document and paste it into another.

If you have trouble doing this, set aside a couple of hours to learn Windows basics. Have a friend or co-worker who is proficient with computers walk you through Windows Explorer, creating folders and becoming familiar with file extensions.

You should also practice using the Cut, Copy, and Paste commands in a standard word processing program. When you can do these things on your own, you're ready to learn HTML and JavaScript.

HTML Basics

In this section, you'll learn how to:

- **Create a home page**
- **Format text**
- **Create links to new pages**
- **Create e-mail and external links**
- **Insert graphics**
- **Create a navigation system**
- **Change page and link colors**

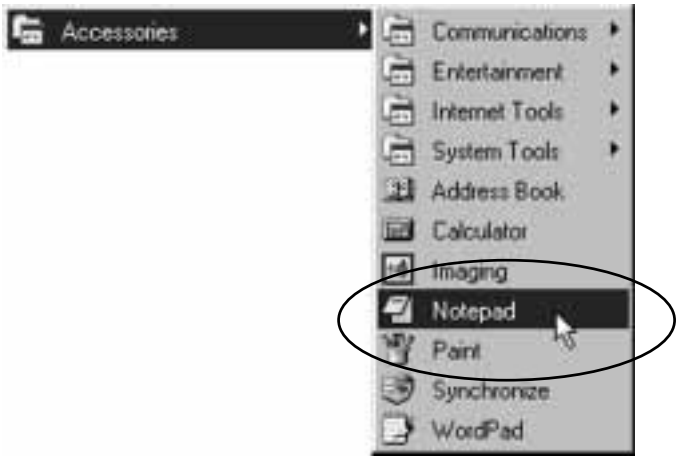
You'll build a site that looks like this:

Create a home page

Create the home page

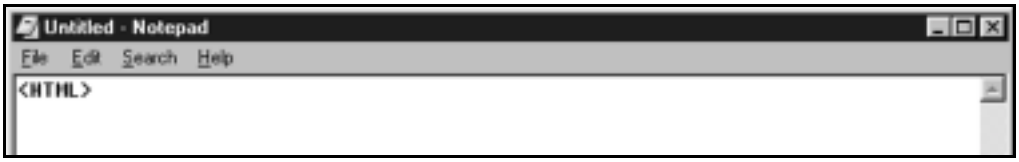
1. Open a browser, such as Internet Explorer or Netscape Navigator.

2. Open the program Notepad. Do this by first clicking the Start button on the taskbar, then Programs, then Accessories, then Notepad.



3. At the top of the Notepad screen, type:

<HTML>

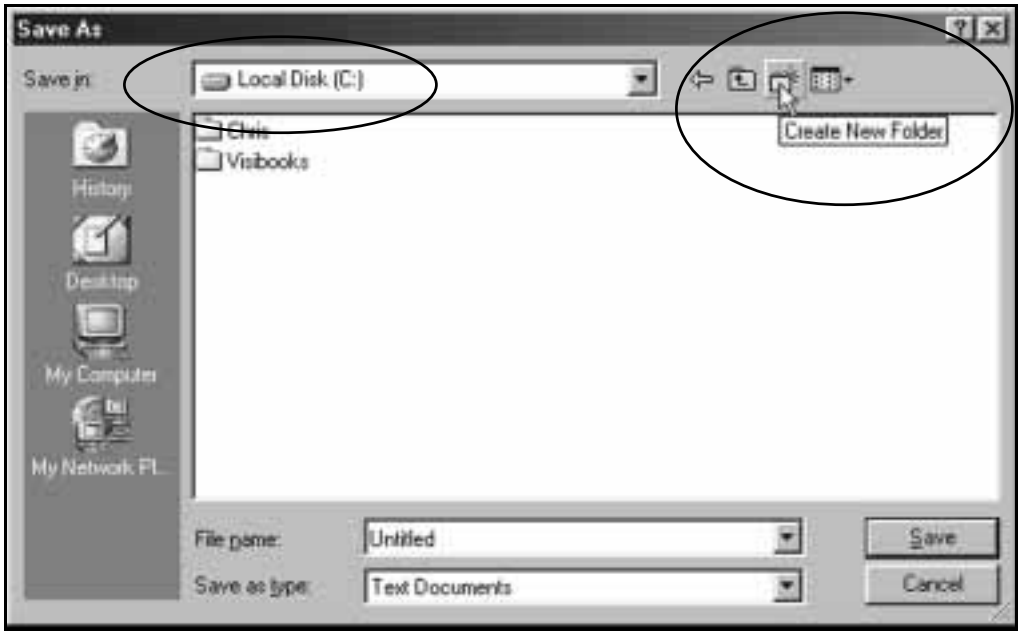


Tip: **<HTML>** *is a tag. Tags are instructions to a Web browser. This particular instruction lets the Web browser know that what follows is a Web page, written in HTML.*

Tags can be written in upper-case or lower-case letters—it doesn't matter which. **<HTML>**, **<html>**, *or* **<HtMl>** *are all fine.*

4. Save the file.

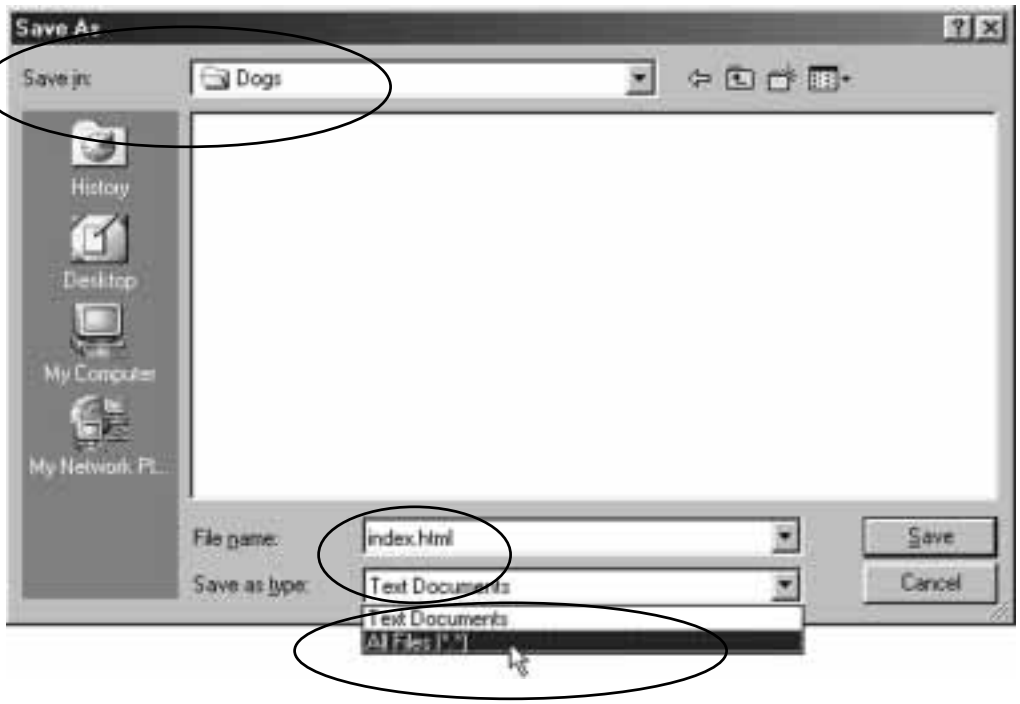
5. When the Save As window appears, select the C:\ drive in the Save in drop-down list.
6. Create a new folder by clicking on the icon.



7. Name the new folder "Dogs," then double-click it so it appears in the Save in box.

8. In the File name textbox, type index.html.

9. In the Save as type drop-down list, select All Files. When you're done, the window should look like this:



10. Save the page by clicking on the Save button.

> **Home page file names**
>
> All Web pages have a .html extension (or .htm).
>
> All home pages have the file name index.html. index.html comes up automatically when the address of a domain or directory where it's located is typed into a browser.
>
> For instance, if you go to www.visibooks.com, the home page appears automatically. That's because its file name is index.html. If the file name of the Visibooks home page was homepage.html, you'd have to type www.visibooks.com/homepage.html to get it to appear.
>
> *The Microsoft exception:* To get your home page to come up automatically on a Web server running Microsoft's Internet Information Server as it's operating system, give your home page the file name default.htm.

11. Below the **<HTML>** tag, type:

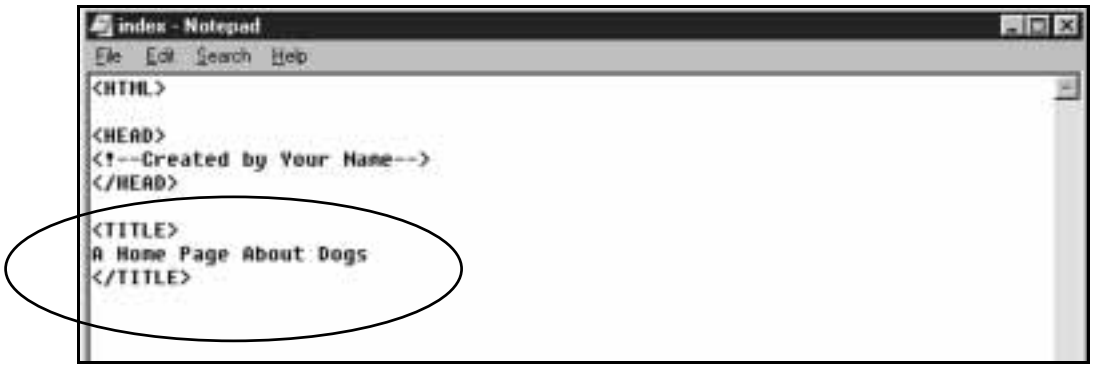
```
<HEAD>
<!--Created by Your Name-->
</HEAD>
```

Tip: *The* **<HEAD>** *section contains information that doesn't show up on the page when it is viewed in a browser. Note the closing* **</HEAD>** *tag: in HTML, you must give the browser instructions to end something as well as start it.*

Tip: **`<!--Created by Your Name-->`** *is called a comment. Whatever text is between the dashes won't show up on a browser's screen—it's only visible if someone views the page's HTML code. You need to include the* **`!`** *for this to work.*

12. Below the **`</HEAD>`** tag, title the page "A Home Page About Dogs" by using **`<TITLE>`** tags:

```
<TITLE>
A Home Page About Dogs
</TITLE>
```

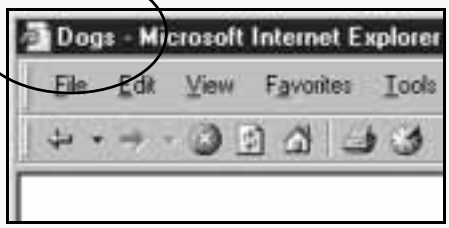


Tip: *Note that the text* "A Home Page About Dogs" *is not a tag. It is text surrounded by tags. The* **`<TITLE>`** *tags tell the browser what to do with the text: make it the title of the page.*

Page titles

The title of a Web page describes the page. It's what appears in a browser's History list. The title also shows up as a link when a page comes up in a search engine. If all your pages have discrete, descriptive titles, they'll be easier for people to find.

The page title shows up in the top, or "title," bar of the browser used to view it. The title of this page is Dogs.



13. Below the **</TITLE>** tag, add:

```
<BODY>


</BODY>
```

Tip: *Anything you want to be visible in a browser's main window, put between the* **<BODY>** *and* **</BODY>** *tags.*

14. Below the **</BODY>** tag, close the **</HTML>** tag. When you're finished, the code should look like this:

15. Between the **<BODY>** and **</BODY>** tags, type the words:

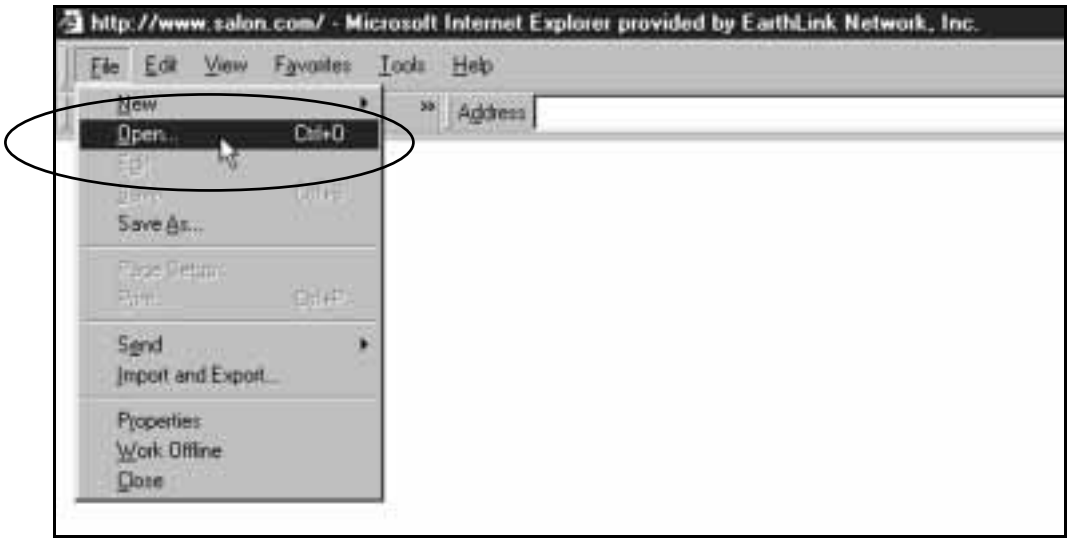
```
Dogs Home Page
```

```
<BODY>

Dogs Home Page


</BODY>
```

16. Save the page.

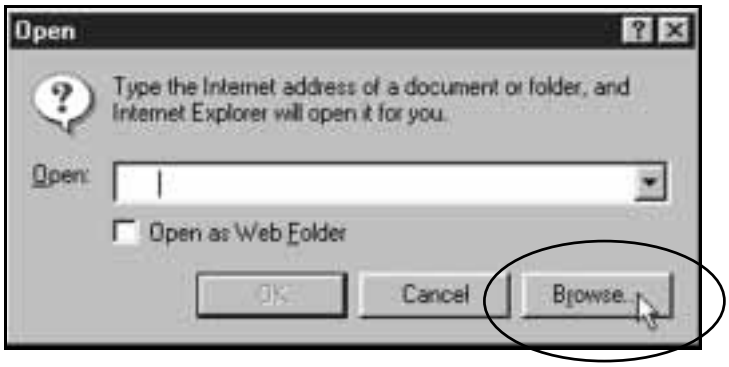
View the page in a browser

1. Go to the browser and on its menu bar, click File, then Open.

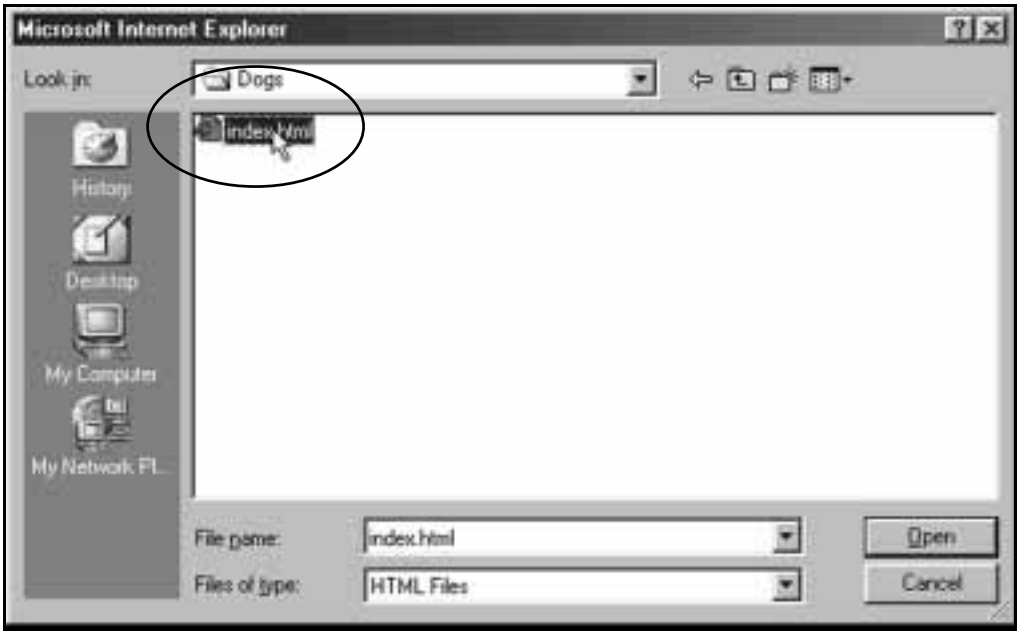


Tip: *If you're using Netscape Communicator instead of Internet Explorer, click* Open Page, *then* Choose File.

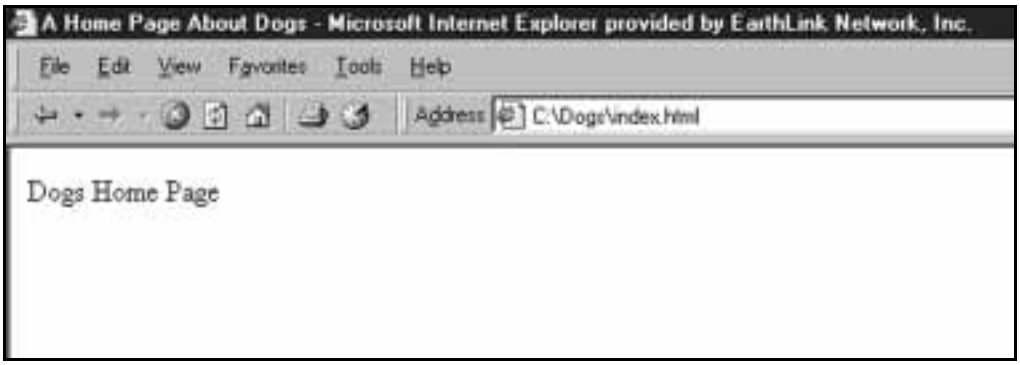
2. When the Open window appears, click the Browse button.



3. When the new window appears, navigate to the Dogs folder in the Look in drop-down list, then select the home page: index.html.



4. Click the Open button, then the OK button. The page should come up in the browser and look like this:



You have created a home page titled "A Home Page About Dogs."

The home page's file name is index.html.

It is located in a folder called Dogs on the C:\ drive.

Format pages and text

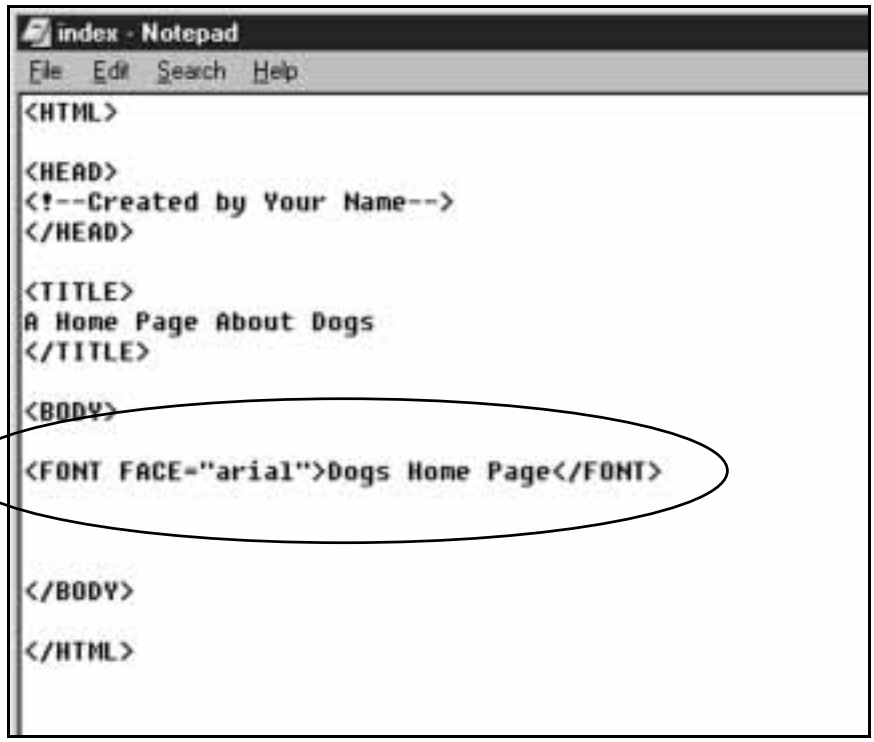
Change fonts

1. In front of the words "Dogs Home Page," insert a **<FONT>** tag with the attribute **FACE="arial"**:

   <FONT FACE="arial">Dogs Home Page**</FONT>**

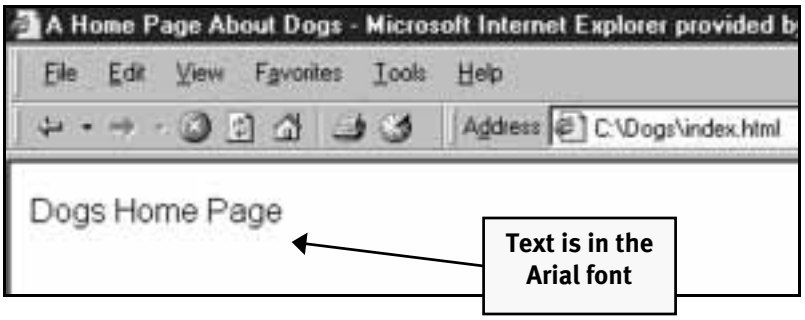
2. After the words, close the **<FONT>** tag:

   <FONT FACE="arial">Dogs Home Page**</FONT>**



Tip: *Think of an attribute as a sub-instruction to the browser. In this case, the* **<FONT>** *tag tells the browser that text will be changed, and the* **FACE** *attribute tells it how to change, specifying the Arial typeface.*

3. View the page in the browser. Click the browser's Refresh button, and the page should look like this:



Web fonts

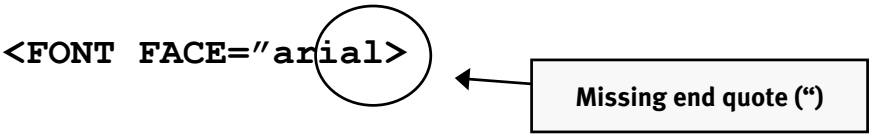
When text is viewed on a computer, only fonts installed on the computer can be seen. For instance, if someone created a page that specified the Tekton font, almost no one viewing it would see it in Tekton because very few computers have that font installed. Computers without Tekton would display text in the default font: Times New Roman.

All Windows computers have the Arial font installed. Windows 95 and later computers have Verdana. Macintoshes have Helvetica, the font that Arial is based upon.

To cover all bases, specify multiple fonts:

```
<FONT FACE="verdana,arial,helvetica">
```

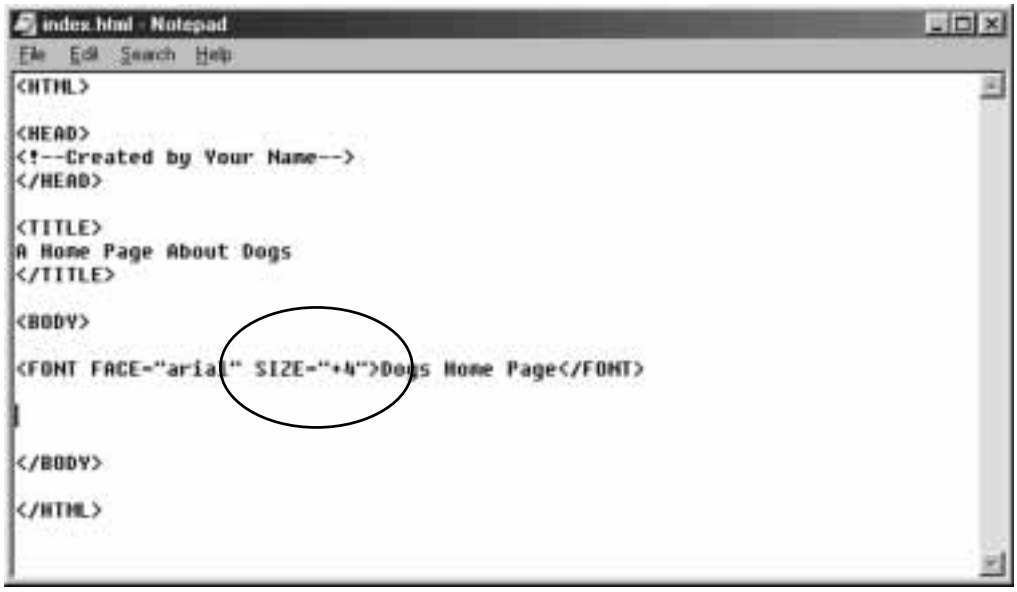
Tip: *If a page doesn't look like it's supposed to—or nothing shows up at all—check the HTML code you've written. You might have left out a quote or made some other small mistake. Something that seems insignificant can wreck a page:*



Change text size

1. In Notepad, add the **SIZE="+4"** attribute to the **<FONT>** tag:

```
<FONT FACE="arial" SIZE="+4">Dogs Home
Page</FONT>
```

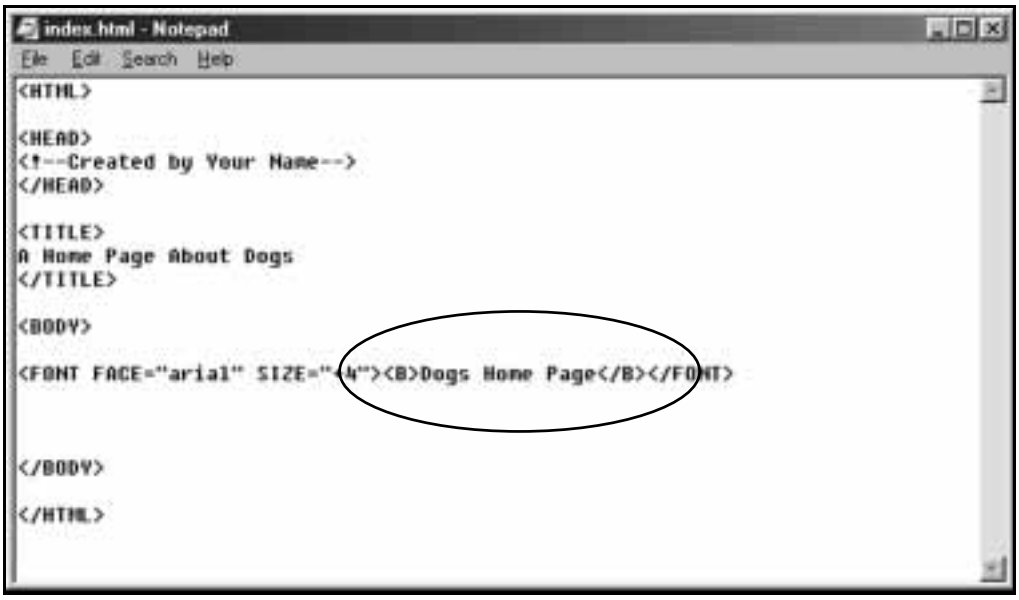


2. Save the page and view it in the browser. It should look like this:

Change text weight

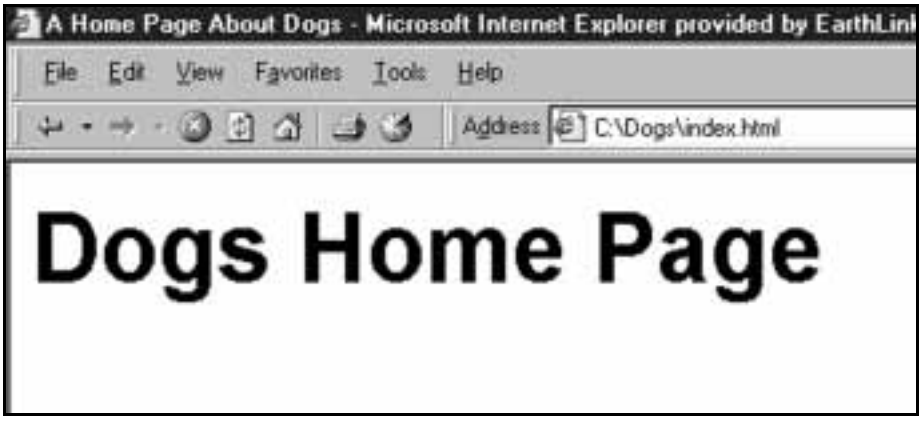
1. In Notepad, add the **<B>** tag in front of the words "Dogs Home Page" and close it after them:

   <FONT FACE="arial" SIZE="+4"><B>Dogs Home Page**</B></FONT>**



Tip: *When inserting multiple tags, arrange them in mirror-image order. The tags and text above are a good example: since it starts with the* **<FONT>** *tag, it ends with the* **</FONT>** *tag. Tags that aren't arranged in mirror-image order can cause display problems in some browsers.*

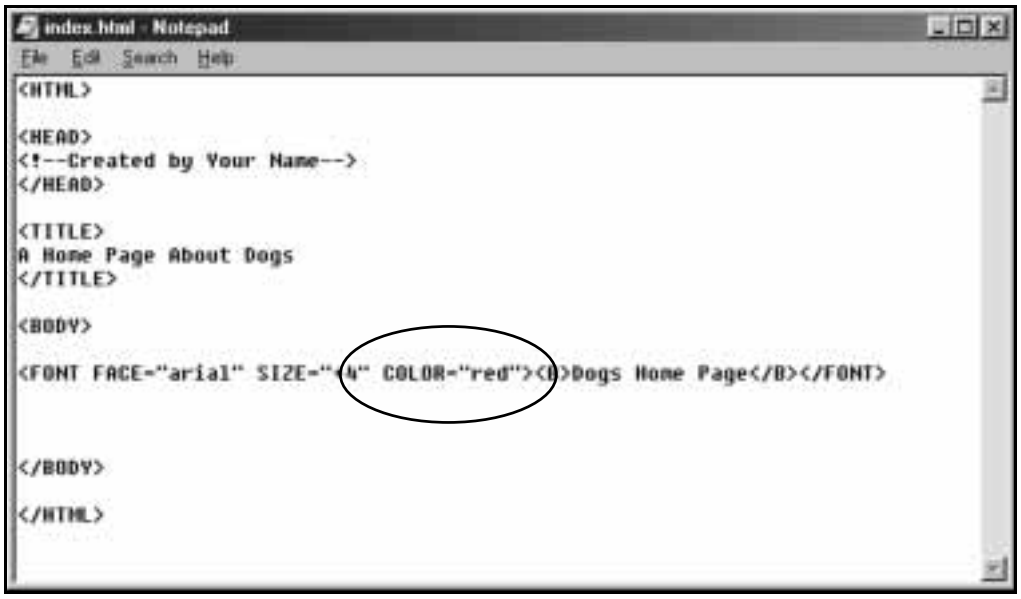
2. Save the page and view it in the browser. It should look like this:



Change text color

1. In the **<FONT>** tag, add the attribute **COLOR="red"**:

```
<FONT FACE="arial" SIZE="+4" COLOR="red">
```



2. Save the page. View it in the browser, and the text should show up red.

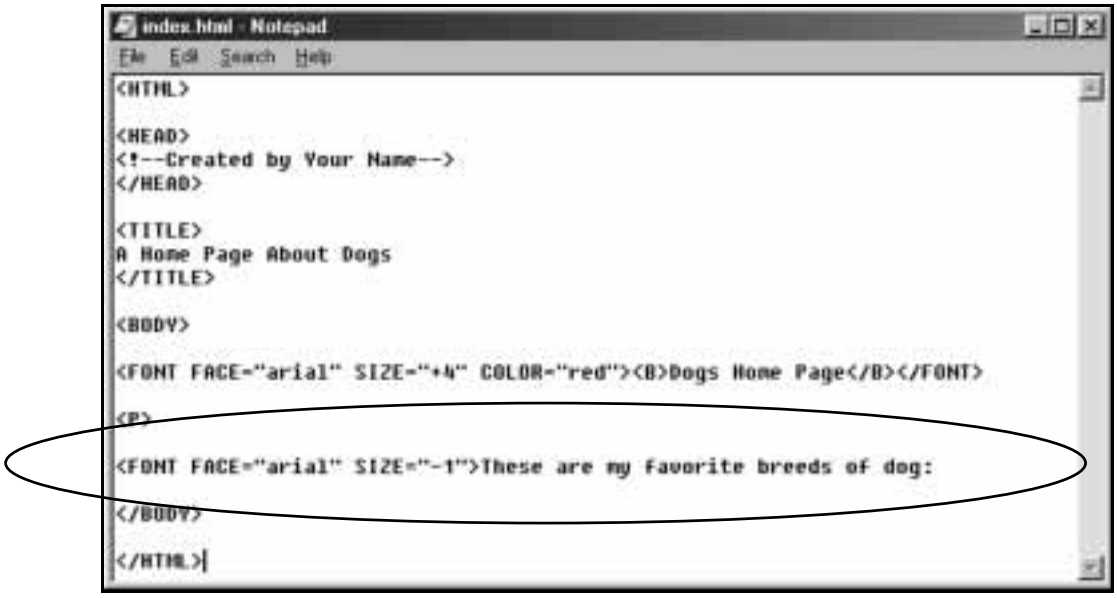
3. Change the text color to black, then save the page.

```
<FONT FACE="arial" SIZE="+4" COLOR="black">
```

Align text

1. Beneath the present text and tags, insert a **<P>** tag to begin a new paragraph.

2. Beneath the **<P>** tag, insert the tag **<FONT FACE="arial" SIZE="-1">** and the words "`These are my favorite breeds of dog:`"



3. Within the **<P>** tag, add the attribute **ALIGN="right"**:

   <P ALIGN="right">

4. Add a closing **</P>** tag after the new paragraph.

   <P ALIGN="right">

   <FONT FACE="arial" SIZE="-1">`These are my favorite breeds of dog:`

   </P>

Tip: *Usually a* **<P>** *tag requires no closing* **</P>** *tag in HTML, but in this case the* **ALIGN="right"** *attribute is used. The closing* **</P>** *tag after the paragraph keeps the browser from right-aligning whatever is beneath it.*

5. Save the page, then view it in the browser. It should look like this:

6. Remove the **ALIGN="right"** attribute from the **<P>** tag.

Tip: *To generate a single-line break rather than the double-space a* **<P>** *tag generates, use the* **
** *tag. Putting a* **
** *or "Break" tag between two lines of text will bump the second line down to the next line:*

```
<FONT FACE="arial" SIZE="+4"><B>Dogs Home
Page</B></FONT>
<BR>
<FONT FACE="arial" SIZE="-1">These are my
favorite breeds of dog:
```

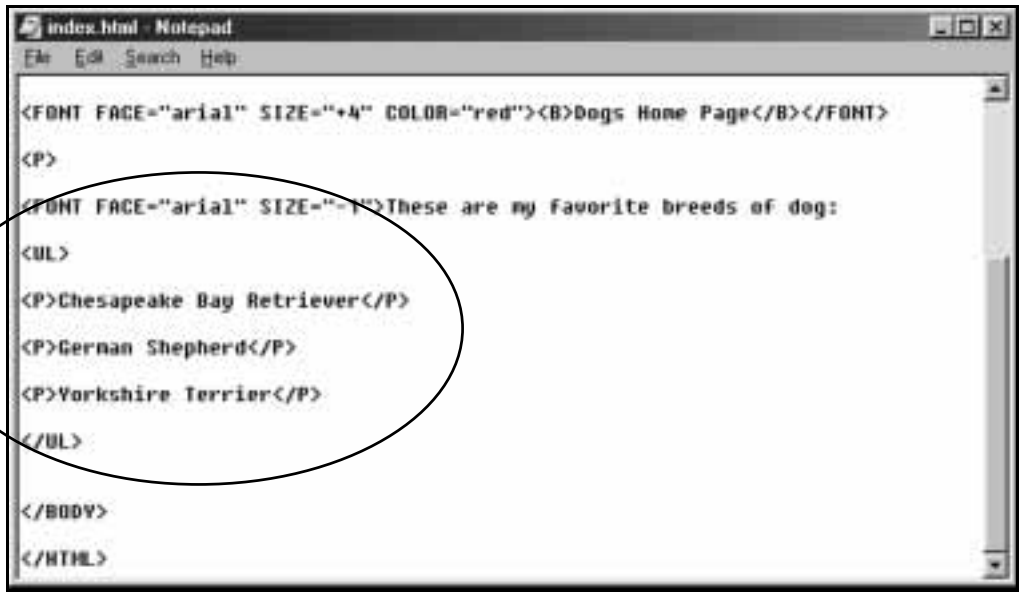
Indent text

1. Below the text, "These are my favorite breeds of dog:," insert three new paragraphs:

```
<P>Chesapeake Bay Retriever</P>

<P>German Shepherd</P>

<P>Yorkshire Terrier</P>
```

2. Enclose these paragraphs in Unordered List tags to indent them:

```
<UL>

<P>Chesapeake Bay Retriever</P>

<P>German Shepherd</P>

<P>Yorkshire Terrier</P>

</UL>
```



3. Save the page and view it in the browser. It should look like this:

Tip: *Notice how all the text below the* **`<FONT FACE="arial" SIZE="-1">`** *tag looks the same. It will stay that way until the closing* **`</FONT>`** *tag is inserted.*

Create lists

1. With the three breeds of dog, replace the **<P>** and **</P>** tags with **<LI>** tags to generate bullets in front of the text that follows:

```
<UL>

<LI>Chesapeake Bay Retriever

<LI>German Shepherd

<LI>Yorkshire Terrier

</UL>
```

2. Save the page and view it in the browser. It should look like this:

Complete the site

1. Change the title of the home page to "My Favorite Dogs."

2. Change the bulleted list to a numbered list.

   Tip: *Use* **<OL>** *instead of* **<UL>** *to generate a numbered list.*

3. Change the numbered list back to a bulleted list.

4. Make the list items bold. When you view it in the browser, the page should look like this:

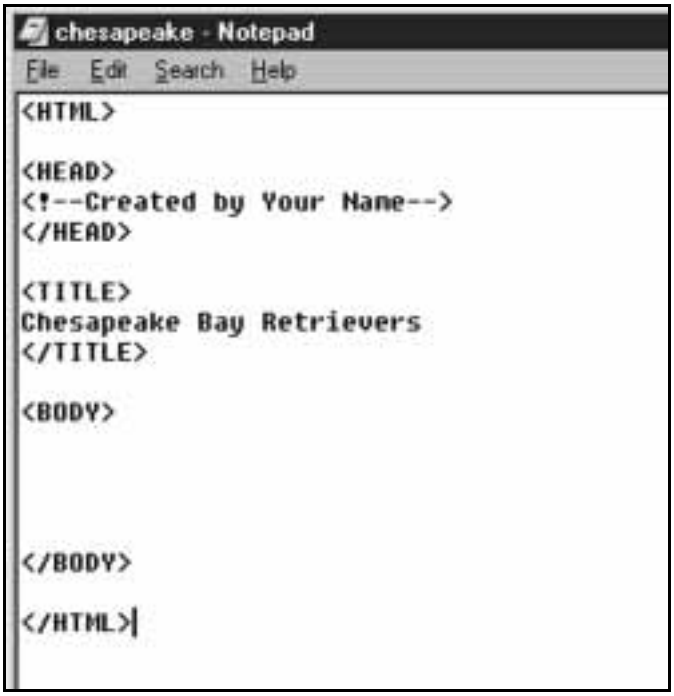
Create links to new pages

Step 1: Create a new page

1. In Notepad, change the title of the page to "`Chesapeake Bay Retrievers`," then take out all the tags and text between the **<BODY>** and **</BODY>** tags.

2. On the menu bar, click File, then Save As.

3. Save the new page with the file name chesapeake.html.



Tip: *Remember to* Save as type: All Files.

File names for the Web

Most Web servers are Unix- or Linux-based, which don't deal cleanly with spaces in file names. For instance if you name a file fido page.html, it may show up in the URL box of the browser as fido%20page.html.

Also, Web servers are case-sensitive, so keeping file names lower-case eliminates a potential source of mistakes.

Make all file names in a Web site—pages, graphics and folders—lower-case, with no spaces.

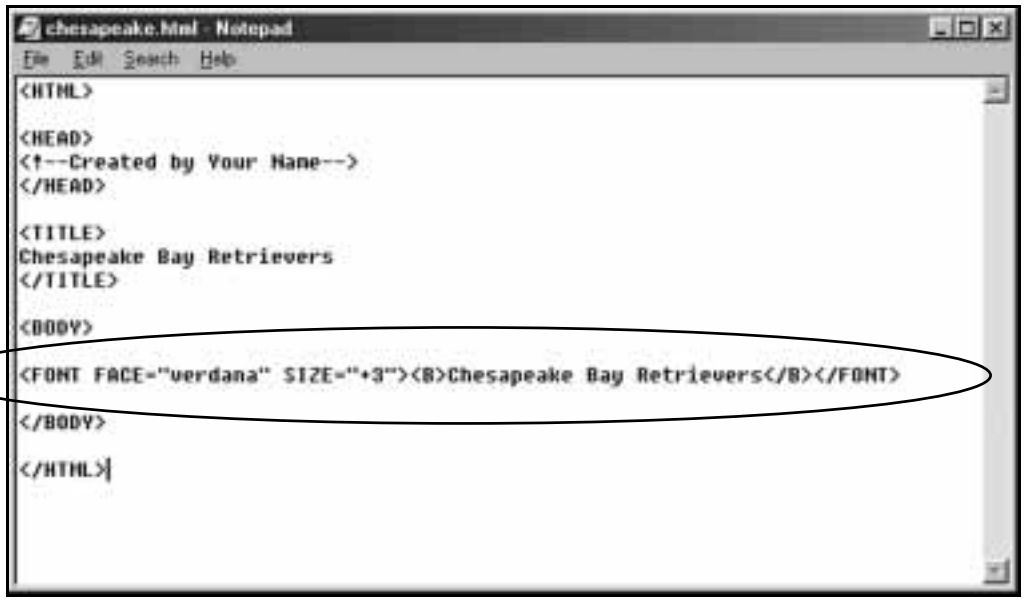
Correct file name: german.html

Incorrect: German Shepherds.html

4. Beneath the **<BODY>** tag, type "Chesapeake Bay Retrievers." This is the page heading. Make it verdana, bold, size +3:

```
<BODY>

<FONT FACE="verdana" SIZE="+3"><B>Chesapeake
Bay Retrievers</B></FONT>

</BODY>
```

5. Save the page.

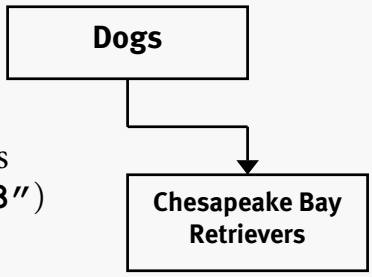


Providing navigation clues with text size

The heading of the Chesapeake Bay Retriever page is made one size smaller than the heading of the home page. That's because the CBR page is one step down in the site hierarchy.

Level 1: Dogs
(top level heading; **`SIZE="+4"`**)

Level 2: Chesapeake Bay Retrievers
(second-level heading; **`SIZE="+3"`**)

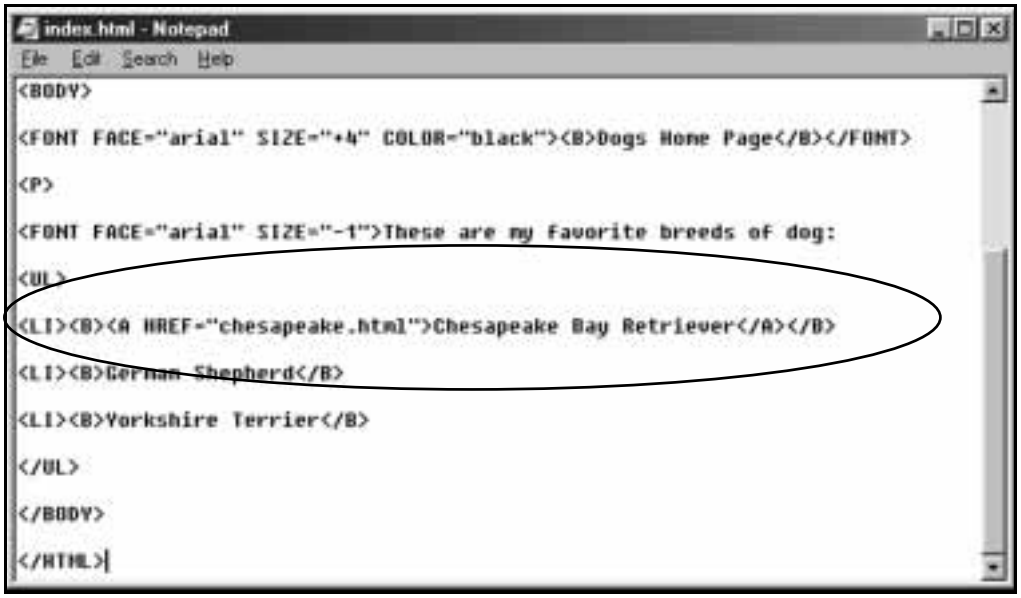


Making the heading of the CBR page smaller than the home page's heading helps show people where they are in the site.

Step 2: Link to the new page

1. Open the home page (index.html) in Notepad. In front of the first item, `Chesapeake Bay Retriever`, insert an anchor tag. Then close the anchor tag :

```
<LI><B><A HREF="chesapeake.html">Chesapeake
Bay Retriever</A></B>
```



How an anchor tag works

Anchor tags create a clickable link to another page.

A page with this file name... **...is linked to these words.**

```
<a href="filename.html">New Page</a>
```

2. Save the home page and view it in the browser. The words **Chesapeake Bay Retriever** should be a link, and the page should look like this:

3. Click on the **Chesapeake Bay Retriever** link. The Chesapeake Bay Retriever page should appear in the browser.

Complete the site

1. Create new pages for German Shepherds and Yorkshire Terriers.

Page	Title	File Name
German Shepherds	German Shepherds	german.html
Yorkshire Terriers	Yorkshire Terriers	yorkshire.html

2. On the home page, link the words German Shepherd and Yorkshire Terrier to their pages.

3. On the home page, remove the words "**Home Page**" after "**Dogs**."

4. On the Chesapeake Bay Retriever, German Shepherd and Yorkshire Terrier pages, put the page headings in the same font and weight as the home page (Verdana; bold).

5. Make the page headings of these pages one size smaller than the heading on the home page, just like on the Chesapeake Bay Retriever page.

6. Save all pages and click on the home page's links to make sure they work.

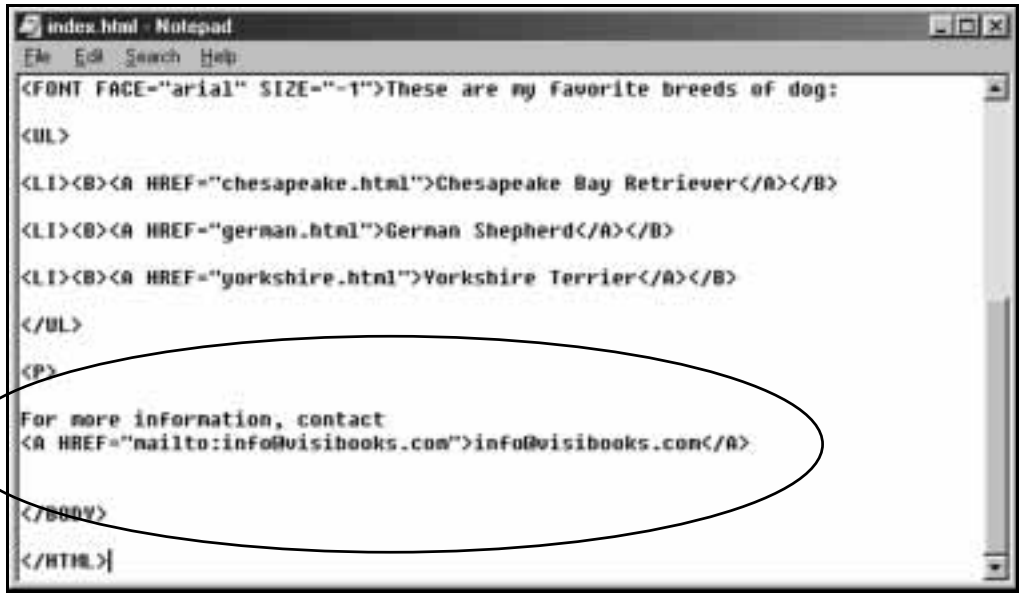
Create e-mail and external links

Create an e-mail link

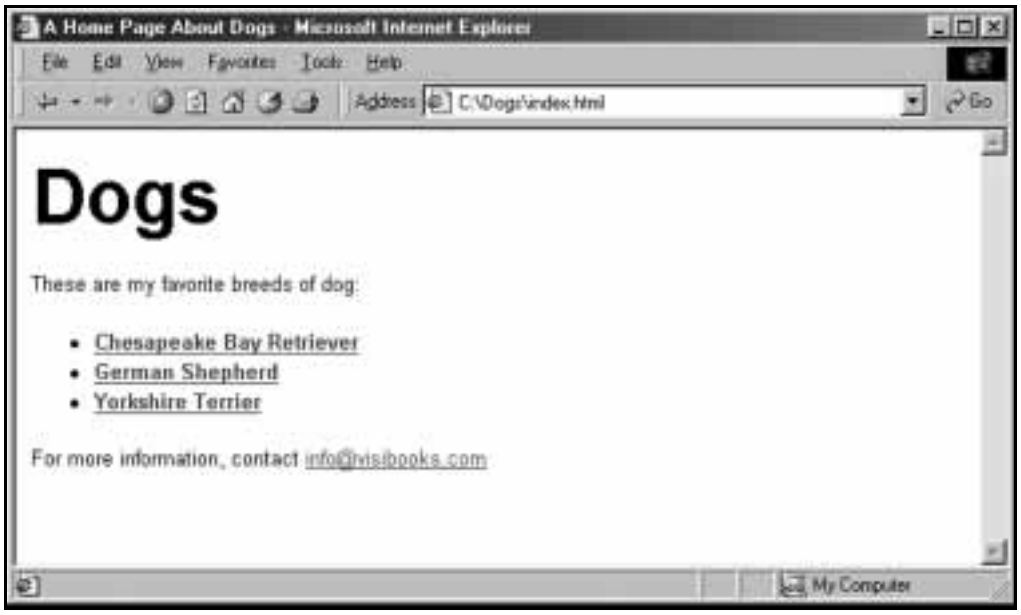
1. In a new paragraph beneath the list, type the sentence "`For more information, contact info@visibooks.com`."

2. Surround the e-mail address with anchor tags, but instead of linking it to a Web page, use the **`mailto`** command to link it to an e-mail program:

```
For more information, contact
<A HREF="mailto:info@visibooks.com">
info@visibooks.com</A>
```



3. Save the page. When you view it in the browser, it should look like this:



How e-mail links work

When someone goes to a Web site and clicks on an e-mail link, it's supposed to open the e-mail program on that person's computer and insert the address into a new message.

If the person's e-mail program isn't configured correctly, this won't work. That's why e-mail links should use the e-mail address as a link: so people can enter the address manually if they have to.

Link to an external site

1. In Notepad, add a new sentence after the last one. Type the sentence, "`Please also visit www.dogs.com`."

2. Surround the Web address `www.dogs.com` with these anchor tags to link it to the external Web site:

   `<A HREF="http://www.dogs.com">``www.dogs.com`**`</A>`**

   Tip: *For an external link to work, you must type* **`http://`** *as part of the Web address.*

3. Save the page.

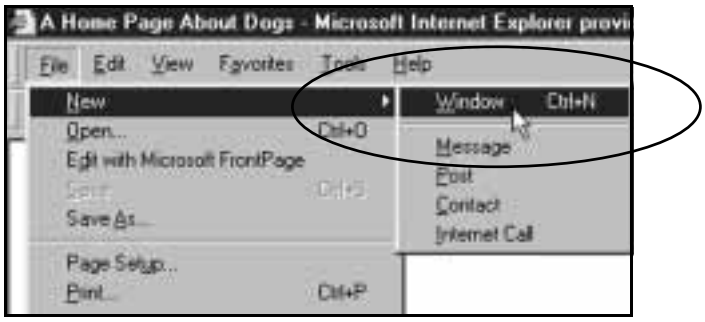
4. Preview the page in the browser, then click on the link to see if it links to the external site www.dogs.com.

5. Close the browser.

Insert and align graphics

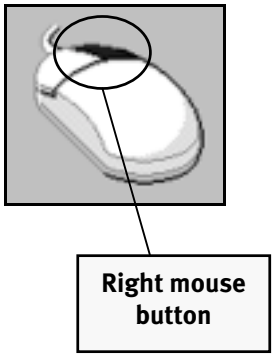
Capture a graphic from the Web

1. Open a new browser window.



2. Go to the Web site www.visibooks.com/dogpics.

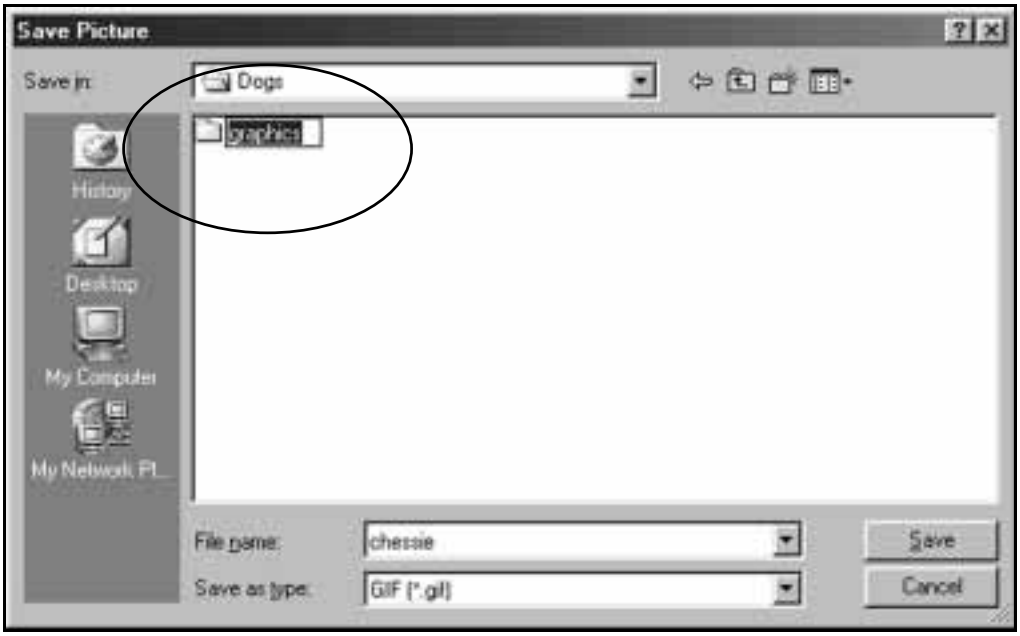
3. Place your cursor on top of the picture of the Chesapeake Bay Retriever, then click with your right mouse button.



4. Click Save Picture As.

5. When the Save Picture window appears, select the "Dogs" folder in the Save in drop-down list.

6. Create a new folder within Dogs called "graphics."



7. Double-click on the graphics folder so it appears in the Save in drop-down list.

8. Click the Save button to save the graphic inside the graphics folder.

Tip: *Creating this separate sub-folder to hold your site's graphics makes the site easier to organize and update.*

Insert a graphic

1. In Notepad, open the Chesapeake Bay Retriever page, file name chesapeake.html.

2. Create a new paragraph under the main heading.

3. In the new paragraph, insert an image tag:

```
<IMG SRC="graphics/chessie.gif">
```

folder — graphic

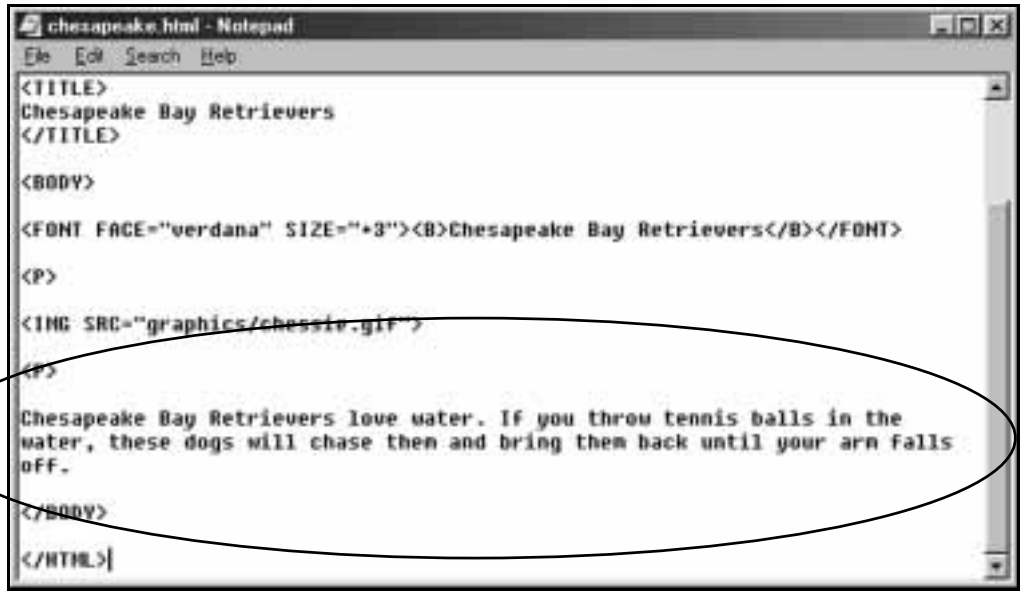
Tip: *Notice that in this image tag there's a "path." For the image source, the tag first points to the graphics folder, then to the file name of the image within it.*

4. Save the page, then view it in the browser. It should now look like this:

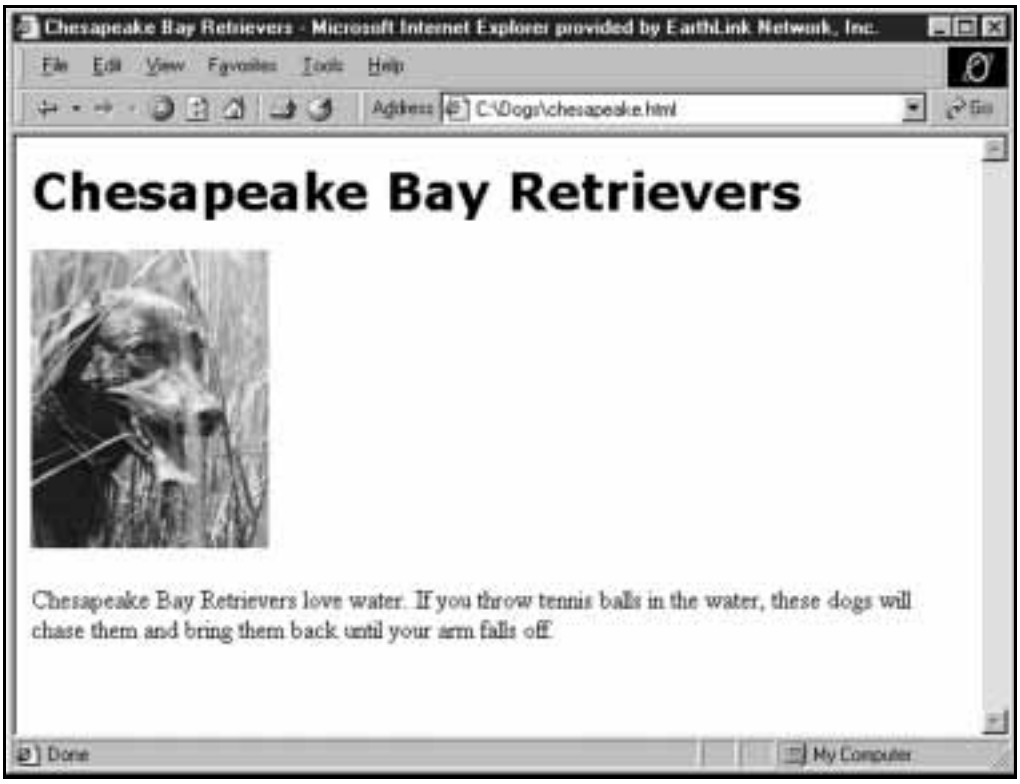
Align a graphic

1. In a new paragraph below the graphic, type in:

```
Chesapeake Bay Retrievers love water. If you
throw tennis balls in the water, these dogs
will chase them and bring them back until
your arm falls off.
```



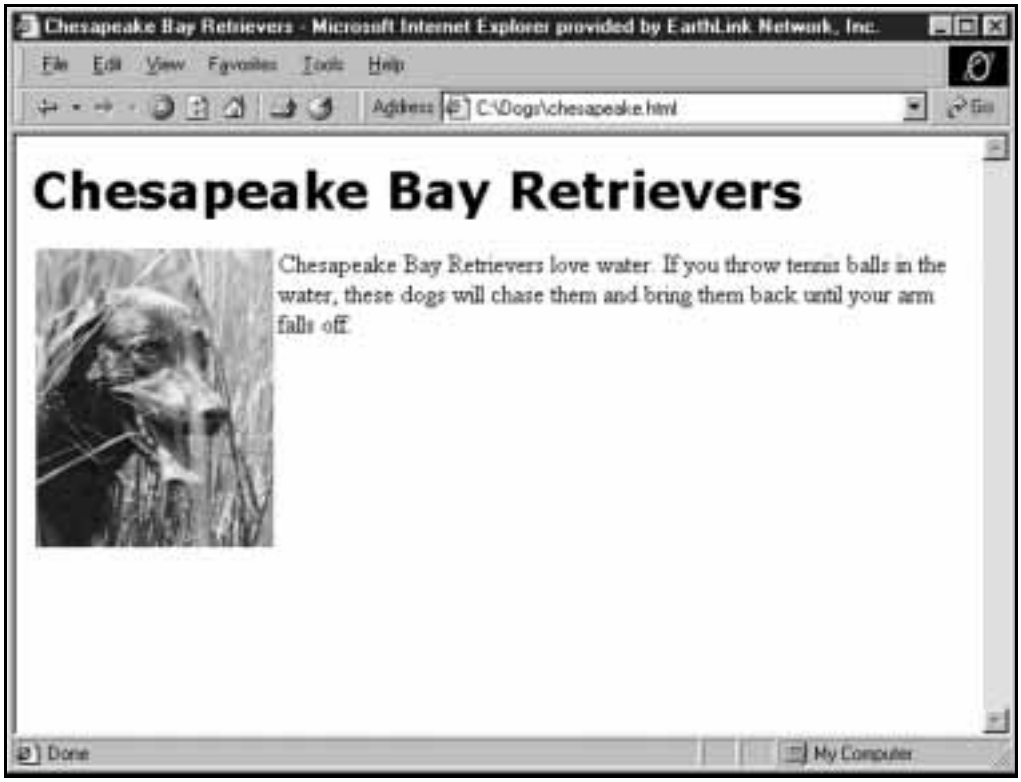
2. Save the page and view it in the browser. The page should look like this:



3. Go back to Notepad and add the **ALIGN="left"** attribute to the **<IMG>** tag:

```
<IMG SRC="graphics/chessie.gif"
ALIGN="left">
```

4. Save the page and view it in the browser (just click the "Refresh" or "Reload" button). It should look like this:



Format a graphic

1. In the Chesapeake Bay Retriever page, add this **ALT** attribute to the **<IMG>** tag:

```
<IMG SRC="graphics/chessie.gif" ALIGN="left"
ALT="Chesapeake Bay Retriever">
```

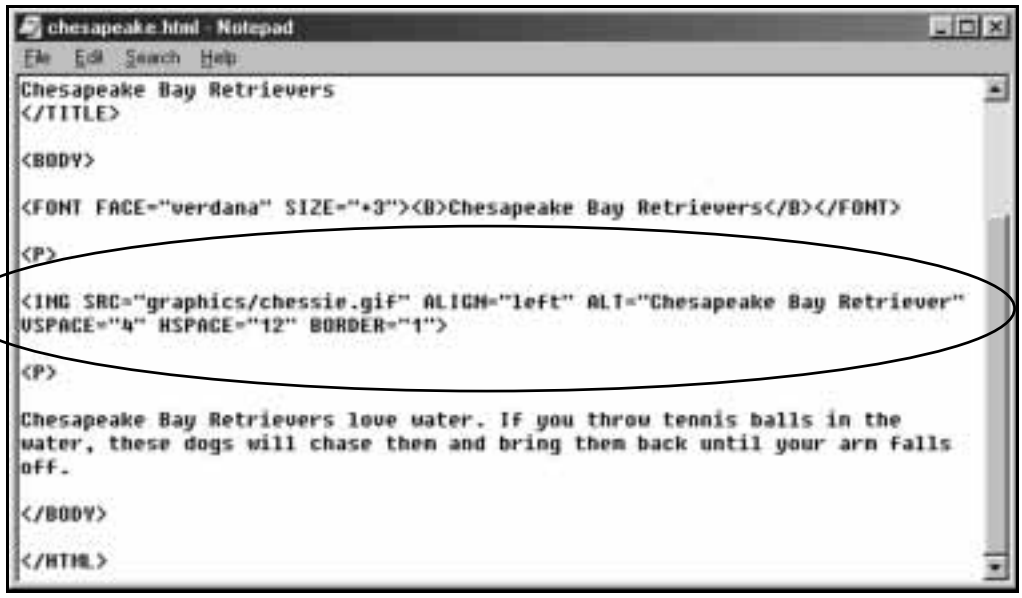
> "Alt" text allows visually-impaired people to know what a graphic represents. Alt text also allows search engines to index visual content.

2. Add the **VSPACE="4"** and **HSPACE="12"** attributes as well:

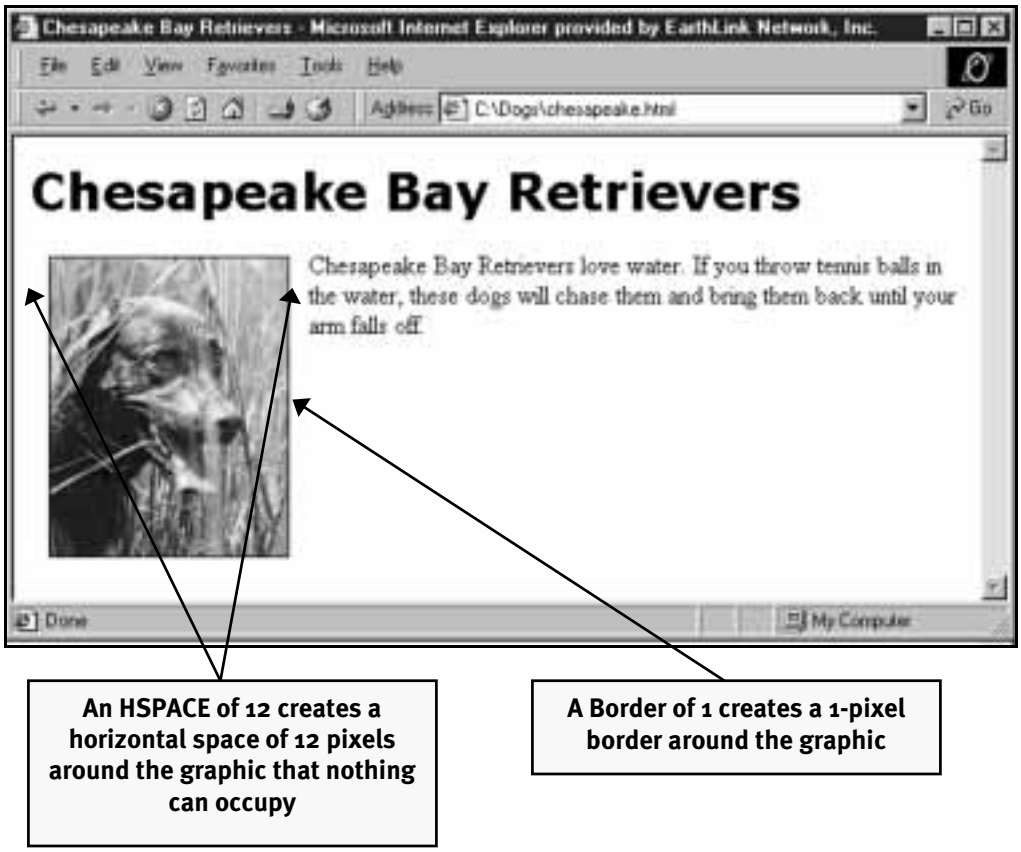
```
<IMG SRC="graphics/chessie.gif" ALIGN="left"
ALT="Chesapeake Bay Retriever" VSPACE="4"
HSPACE="12">
```

3. Also, add the **BORDER="1"** attribute:

```
<IMG SRC="graphics/chessie.gif" ALIGN="left"
ALT="Chesapeake Bay Retriever" VSPACE="4"
HSPACE="12" BORDER="1">
```



4. Save the page and view it in the browser. It should now look like this:



5. Move your cursor onto the graphic. The "Alt" text—an alternative text description of the graphic—should pop up.

   The text should be aligned with the top of the graphic.

   Tip: *If you know the dimensions of a graphic, you can make it load faster by specifying its width and height in pixels:*

```
<IMG SRC="graphics/chessie.gif" ALIGN="left"
ALT="Chesapeake Bay Retriever" VSPACE="4"
HSPACE="12" BORDER="1" WIDTH="150"
HEIGHT="189">
```

Insert more graphics

1. Go to www.visibooks.com/dogpics. Save the German Shepherds graphic in C:\dogs\graphics with the file name shepherds.gif.

2. Save the Yorkshire Terrier graphic in C:\dogs\graphics with the file name yorkie.gif.

3. Insert shepherds.gif into the German Shepherds page in a new paragraph below the heading.

4. Insert yorkie.gif into the Yorkshire Terriers page in a new paragraph below the heading.

5. On the German Shepherds page, type "German Shepherds are smart dogs" in a paragraph below the graphic.

6. On the Yorkshire Terriers page, type "Yorkshire Terriers are cute" in a paragraph below the graphic.

7. On both pages, align the text to the side of the graphic, as on the Chesapeake Bay Retrievers page.

8. On both pages, give the graphic a border of 1, vspace of 4, and hspace of 12.

9. On all three "Dog" pages, put all paragraph text (not the main headings) in the arial font, with a size of -1.

Create a basic navigation system

Link back to the home page

1. In Notepad, open the Chesapeake Bay Retrievers page, chesapeake.html.

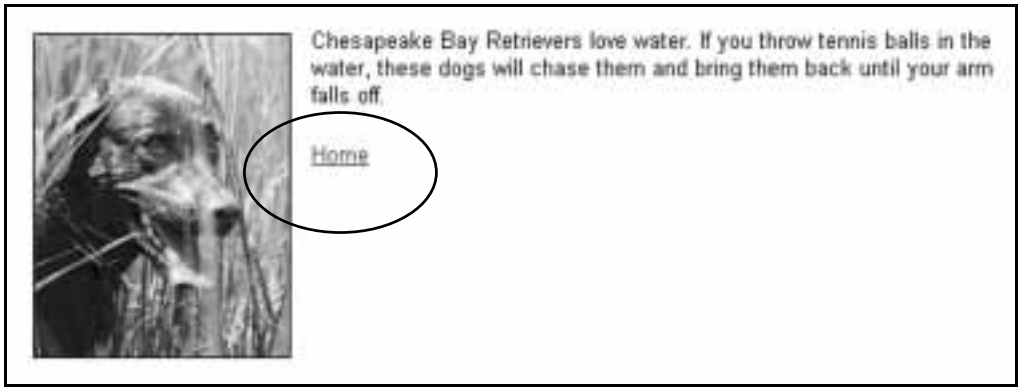
2. Type the word "Home" in a new paragraph beneath the first paragraph.

3. Enclose it in anchor tags that link it back to the home page:

   <A HREF="index.html">Home**</A>**

   Tip: *Remember,* index.html *is the file name for the home page.*

4. Save the page, and view it in the browser. The word Home should now be a link, and the page should look like this:



5. On the German Shepherds page, create a link back to the home page. Do this the same way you created the link for the Chesapeake Bay retriever page.

6. On the Yorkshire Terriers page, create the same sort of link back to the home page.

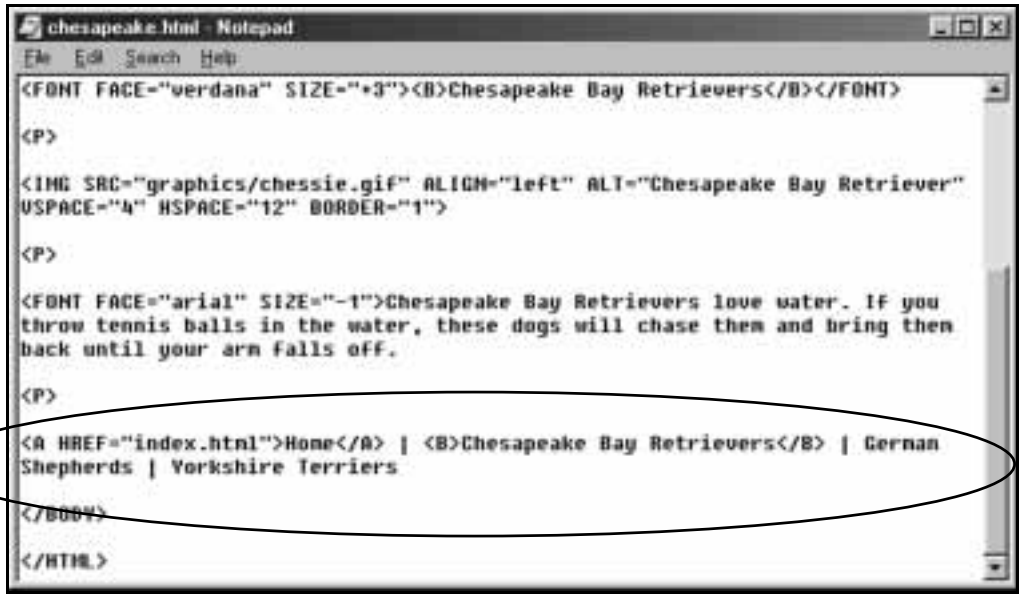
Link pages to each other

1. In Notepad, open the Chesapeake Bay Retrievers page.

2. Following the `Home` link, type:

   ```
   | Chesapeake Bay Retrievers | German Shepherds |
   Yorkshire Terriers
   ```

3. Make the words "`Chesapeake Bay Retrievers`" bold to show site users "You are here."



4. Link the words "German Shepherds" to the German Shepherds page:

   `<A HREF="german.html">``German Shepherds`**`</A>`**

5. Link the words "Yorkshire Terriers" to the Yorkshire Terriers page.

6. Save the page and view it in the browser. It should look like this:

Showing "you are here"

A site's navigational system should show people two things: where they are, and where they can go.

To show people where they are, make the link corresponding to the current page into plain text. This lets users know that if they can't go to that page, they must be looking at it.

Home | **Chesapeake Bay Retrievers** | German Shepherds | Yorkshire Terriers

↑
You are here

Making the text bold reinforces the "you are here" message.

Use graphics as links

1. In Notepad, open the home page. Below the bulleted list of links, in a new paragraph, insert the Chesapeake Bay Retriever, German Shepherd and Yorkshire Terrier graphics:

```
<IMG SRC="graphics/chessie.gif">
<IMG SRC="graphics/shepherds.gif">
<IMG SRC="graphics/yorkie.gif">
```

2. Enclose the first image tag within anchor tags that link it to the Chesapeake Bay Retriever page:

```
<A HREF="chesapeake.html"><IMG
SRC="graphics/chessie.gif"></A>
```

3. Save the page, then preview it in the browser. When you click on the Chesapeake Bay Retriever graphic, it should take you to the Chesapeake Bay Retriever page.

4. Go back to Notepad and add the **BORDER="0"** attribute to the first image tag:

```
<A HREF="chesapeake.html"><IMG
SRC="graphics/chessie.gif" BORDER="0"></A>
```

5. Save the page and view it in the browser again. The blue link border around the Chesapeake Bay Retriever graphic should be gone:

Change page, link colors

Change background color of page

1. Open the home page in Notepad.

2. In the **<BODY>** tag, add the attribute **BGCOLOR="#ffffcc"**:

   ```
   <BODY BGCOLOR="#ffffcc">
   ```

3. Save the page and view it in the browser. The background color of the page should now be pale yellow.

Hexadecimal colors

The **ffffcc** that stands for pale yellow is a hexadecimal color. Hexadecimal colors allow you to specify colors more precisely than you can with words. For example, you could use the attribute **BGCOLOR=yellow** in the body tag and the page background would turn bright yellow, but if you used **BGCOLOR=pale yellow**, that wouldn't work.

For shades of color, hexadecimals must be used. They work like this:

Computers show color as a mix of red, green and blue. In hexadecimal colors, the first pair of letters or numbers signify red, the second pair signify green, and the third pair signify blue:

Red	Green	Blue
ff	ff	cc

Hexadecimal colors, continued

The color values go from the maximum amount of color (**ff**) to no color at all (**00**):

Max		Mid-range			None
ff	cc	99	66	33	00

Navy blue would be shown in hexadecimals as no red (**00**), no green, (**00**), and a little bit of blue (**66**):

000066

A list of hexadecimal color codes is posted at:

www.webmonkey.com/reference/color_codes

Change link colors

1. In the home page, add the attribute **LINK="#ff0000"** to the **<BODY>** tag:

   <BODY BGCOLOR="#ffffcc" LINK="#ff0000">

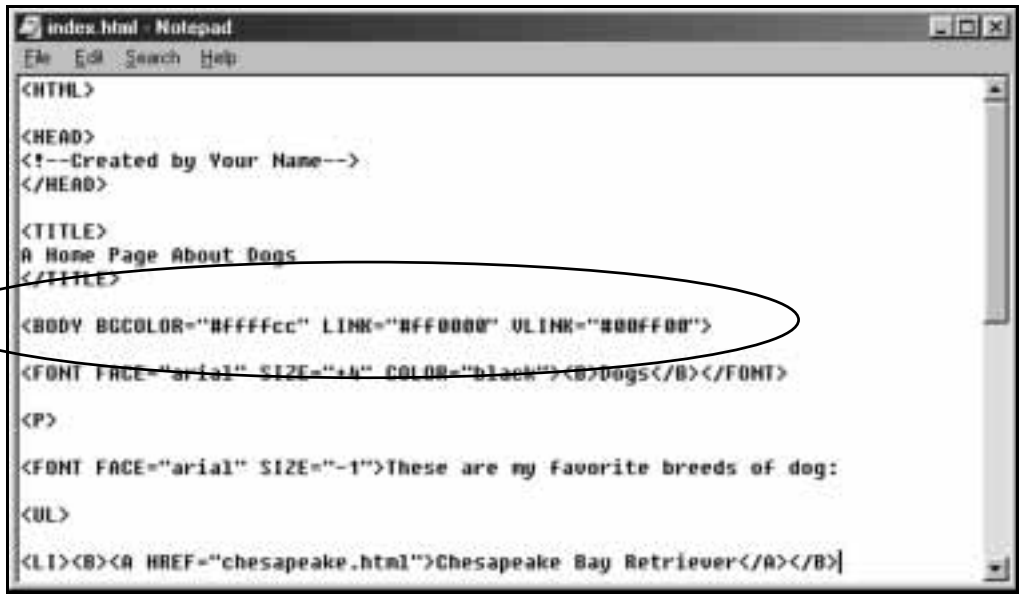
   This makes the links on the page show up in red.

2. Add the attribute **VLINK="#00ff00"** to the **<BODY>** tag:

   <BODY BGCOLOR="#ffffcc" LINK="#ff0000" VLINK="#00ff00">

   This makes visited links show up in green.

   Tip: *Visited links are links to pages that have already been viewed in the browser.*



3. Save the page and view it in the browser. The links on the page should either be red or green.

Consistent link colors

Link colors should be consistent throughout a Web site. If the links on one page are red, they should be red on every page.

Learning that "red equals link" once is much easier for people than having to figure out the link color for each page or section of a site.

Layout & Navigation

In this section, you'll learn how to:

- **Lay out pages using tables**
- **Create navigation bars**
- **Add subsections to site**
- **Place tables within tables**
- **Link to an external site using frames**

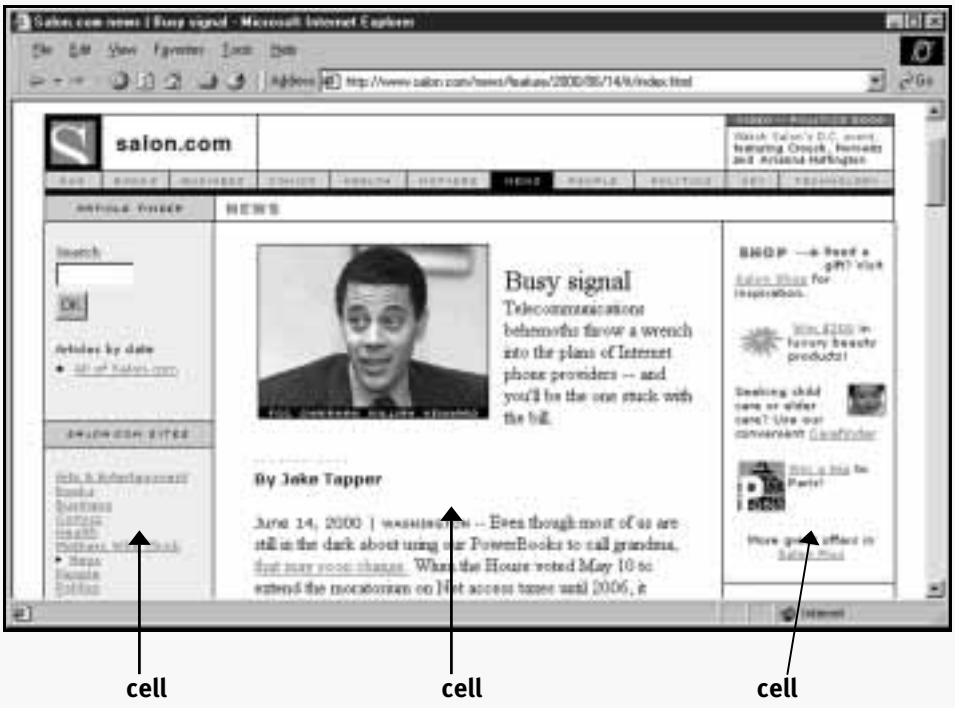
You'll build a site that looks like this:

Lay out pages using tables

Tables and Web page layout

Almost all professional-quality Web sites are laid out using tables. Just like a spreadsheet has cells that contain numbers, a table on a Web page has cells that contain links, graphics, and text.

The lines on this page clearly show its layout with table cells:



Create a table

1. Create a new folder on the C:\ drive called "Travel."

2. In Notepad, create a home page (file name index.html) titled "Traveling Down South." Save it in the Travel folder.

   Tip: *Make sure that your new home page has the correct file name—index.html—and all necessary tags:*

```
<HTML>
<HEAD>
<!--Created by Your Name-->
</HEAD>
<TITLE>
Traveling Down South
</TITLE>
<BODY>

</BODY>
</HTML>
```

3. You're going to create a simple one-row, two-cell table that looks like this:

links	content

4. The first step is to begin the table. Below the **<BODY>** tag, begin your table with the **<TABLE>** tag:

```
<BODY>
<TABLE>
```

5. Below the **<TABLE>** tag, start a row with the **<TR>** (Table Row) tag:

```
<BODY>
<TABLE>
<TR>
```

6. In the table row, start the first cell with the **<TD>** (Table Data) tag:

```
<BODY>
<TABLE>
<TR>
<TD>
```

7. After the **<TD>** tag, type the word "`links`," then close the cell with the **</TD>** tag:

```
<BODY>
<TABLE>
<TR>
<TD>Links</TD>
```

You've created the first cell in the row:

links	content

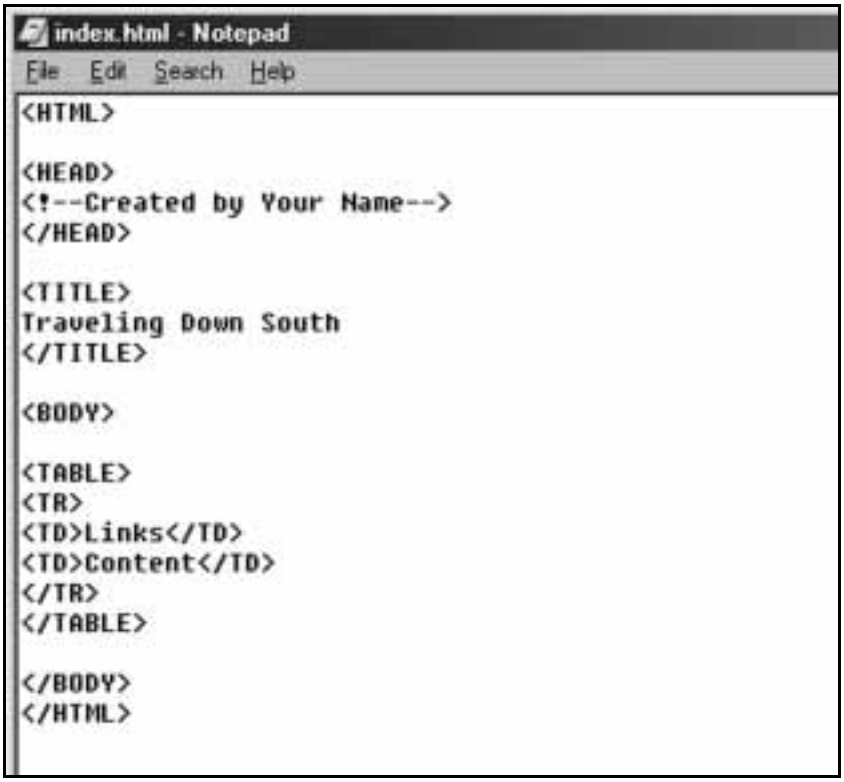
8. Now create the second cell in the row by adding a **<TD>** tag, the word `Content`, and closing the cell with a **</TD>** tag:

```
<BODY>
<TABLE>
<TR>
<TD>Links</TD>
<TD>Content</TD>
```

links	content

9. Finish the table by closing the row with a **</TR>** tag, then closing the table with the **</TABLE>** tag:

```
<BODY>
<TABLE>
<TR>
<TD>Links</TD>
<TD>Content</TD>
</TR>
</TABLE>
```



10. You have set up the basic table. To make it possible to see the table outlines in a browser, add the attribute **BORDER="1"** to the **<TABLE>** tag:

```
<BODY>
<TABLE BORDER=1>
<TR>
<TD>Links</TD>
<TD>Content</TD>
</TR>
</TABLE>
```

11. Save the page, then view it in the browser. It should look like this:

Format a table

1. Now you'll extend the table. In Notepad, add the **WIDTH="100%"** attribute to the **<TABLE>** tag:

```
<BODY>
<TABLE BORDER=1 WIDTH="100%">
<TR>
<TD>Links</TD>
<TD>Content</TD>
</TR>
</TABLE>
```

2. Save the page and view it in the browser. It should look like this:

Percentage vs. fixed-width tables

When laying out a page using a table, set the table's width at 100%. That way, the contents of the page can stretch to fill the whole monitor, regardless of the monitor's resolution.

If you want it to fit a fixed-width table on all monitors, you're limited to a table 580 pixels wide:

640 pixels width of low-resolution monitor	−	**20 pixels** browser offset: the distance that page content is indented from the sides of the browser	−	**40 pixels** 20 for the vertical scroll bar, plus 20 extra	=	**580 pixels** width available for table

Creating pages with fixed-width tables offers precise control, but wastes space on higher-resolution monitors:

Page: laid out using a table 580 pixels wide

Monitor used to view page: 1280 pixels wide

3. Remove the table border by specifying **BORDER="0"**:

```
<BODY>
<TABLE BORDER="0" WIDTH="100%">
<TR>
<TD>Links</TD>
<TD>Content</TD>
</TR>
</TABLE>
```

4. Make the first cell light grey by adding the attribute **BGOLOR="#CCCCCC"** to the first **<TD>** tag:

```
<BODY>
<TABLE BORDER="0" WIDTH="100%">
<TR>
<TD BGCOLOR="#CCCCCC">Links</TD>
<TD>Content</TD>
</TR>
</TABLE>
```

5. Save the page and view it in the browser. It should look like this:

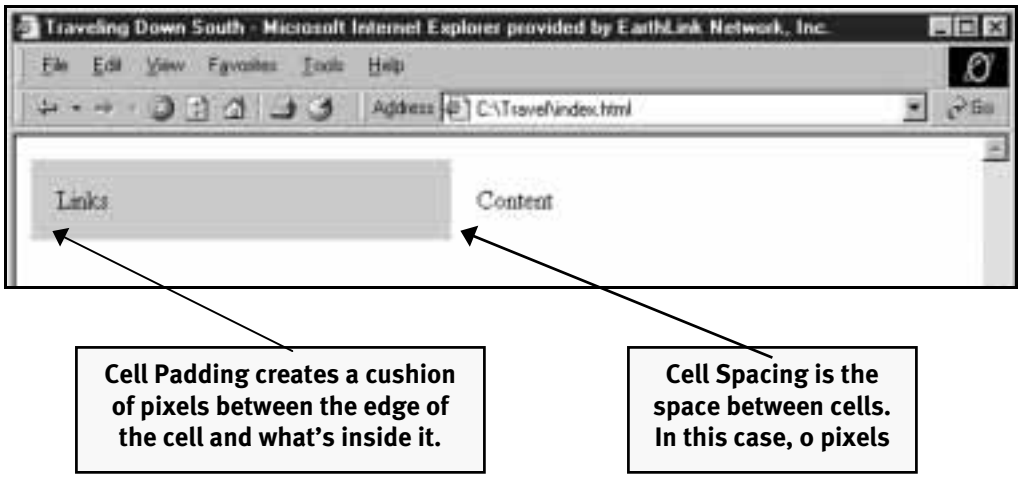
6. You'll notice that the word Links is right up against the edge of the left-hand cell. To add a 16-pixel margin between the edge of the cells and their contents, add the attribute **CELLPADDING="16"** to the **<TABLE>** tag:

```
<BODY>
<TABLE BORDER="0" WIDTH="100%"
CELLPADDING="16">
<TR>
<TD BGCOLOR="#CCCCCC">Links</TD>
<TD>Content</TD>
</TR>
</TABLE>
```

7. To eliminate the spacing between cells, add the attribute **CELLSPACING="0"** to the **<TABLE>** tag:

```
<BODY>
<TABLE BORDER="0" WIDTH="100%"
CELLPADDING="16" CELLSPACING="0">
<TR>
<TD BGCOLOR="#CCCCCC">Links</TD>
<TD>Content</TD>
</TR>
</TABLE>
```

8. Save the page and view it in the browser. It should look like this:



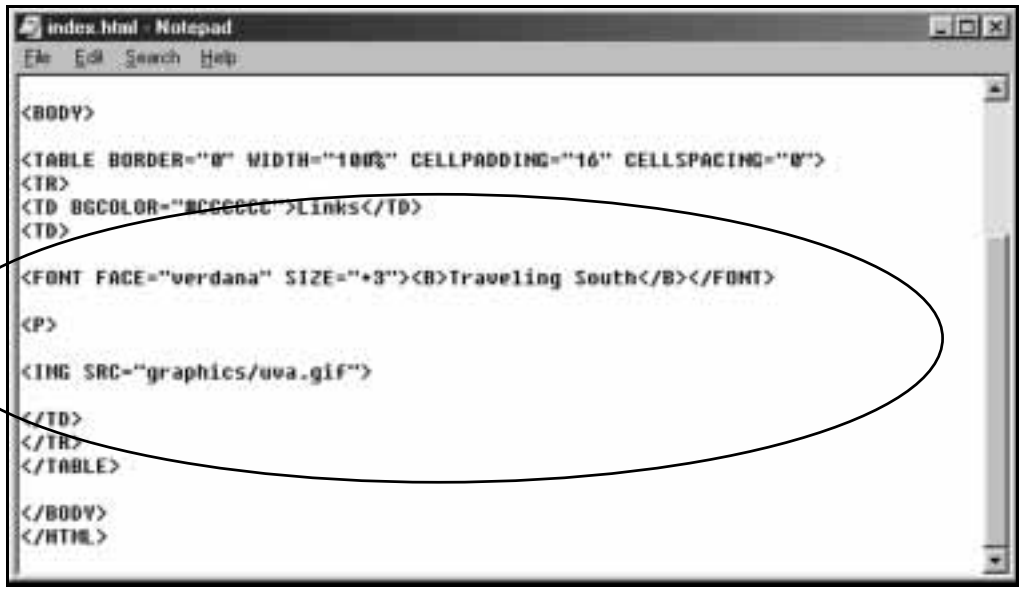
Create a table-based home page

1. Create a folder called "graphics" inside the Travel folder on your hard drive.

2. Go to www.visibooks.com/travelpic. Capture the graphic there (uva.gif) and save it in the graphics folder.

3. In the right-hand cell on the home page, replace the word Content with the heading "**Traveling South**." Give the heading a size of +3, put it in the Verdana font, and make it bold.

4. Insert the graphic in a new paragraph beneath the heading.



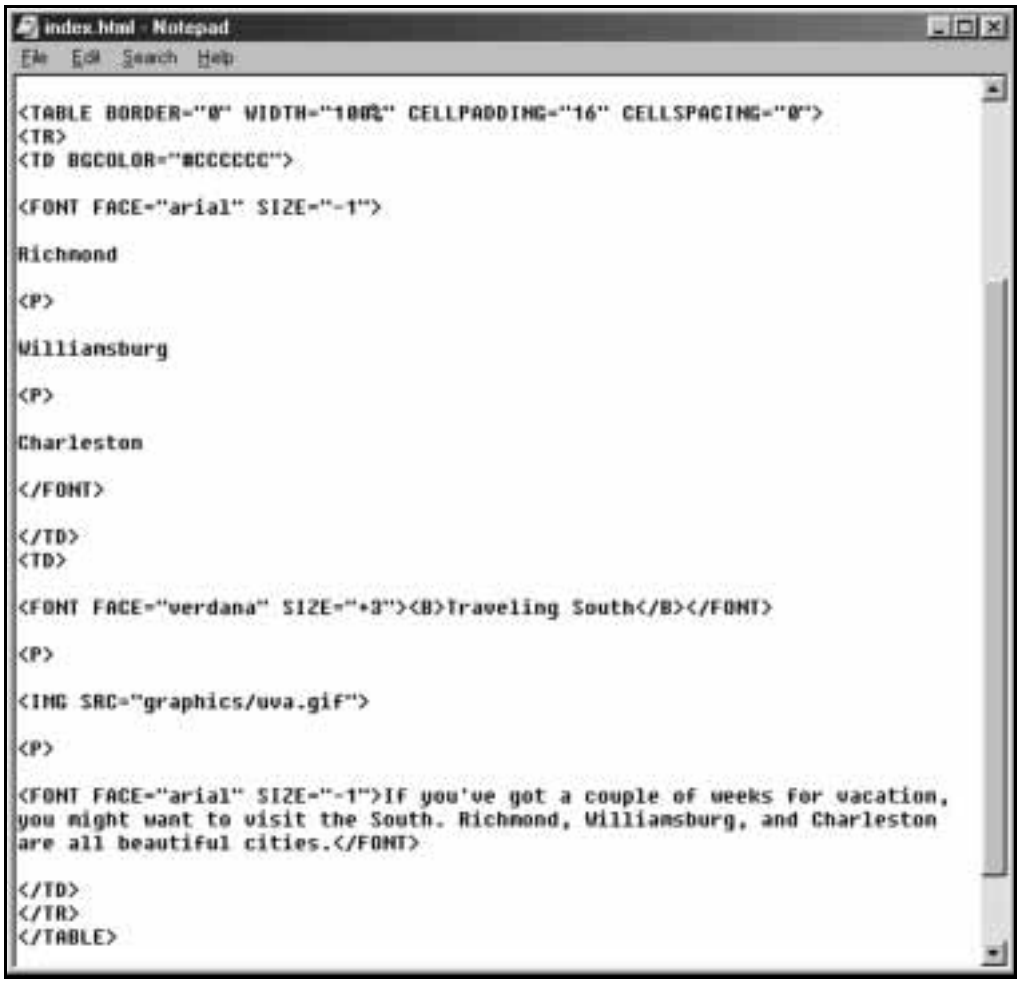
5. Under the graphic, add the following sentences as a new paragraph:

   If you've got a couple of weeks for vacation, you might want to visit the South. Richmond, Williamsburg, and Charleston are all beautiful cities.

   Make the text arial, size -1.

6. In the left-hand cell, replace the word Links with the names of this site's main sections: Richmond, Williamsburg and Charleston. Separate them with **<P>** tags and put them in the arial font, at size -1.

   The code for the page can look like this:



7. Save the page and view it in the browser. It should look like this:

8. To bring the left-hand cell's content to the top of the cell, add the attribute **VALIGN="top"** to the first **<TD>** tag. (To cover all bases, add the attribute to the second **<TD>** tag as well):

```
<TABLE BORDER="0" WIDTH="100%"
CELLPADDING="16" CELLSPACING="0">
<TR>
<TD BGCOLOR="#CCCCCC" VALIGN="top">
<FONT FACE="arial" SIZE="-1">
Richmond
<P>
Williamsburg
<P>
Charleston
</FONT>
</TD>
<TD VALIGN="top">
<FONT FACE="verdana" SIZE="+3"><B>Traveling
South</B></FONT>
<P>
<IMG SRC="graphics/uva.gif">
<P>
<FONT FACE="arial" SIZE="-1">If you've got a
couple of weeks for vacation, you might want
to visit the South. Richmond, Williamsburg,
and Charleston are all beautiful
cities.</FONT>
</TD>
</TR>
</TABLE>
```

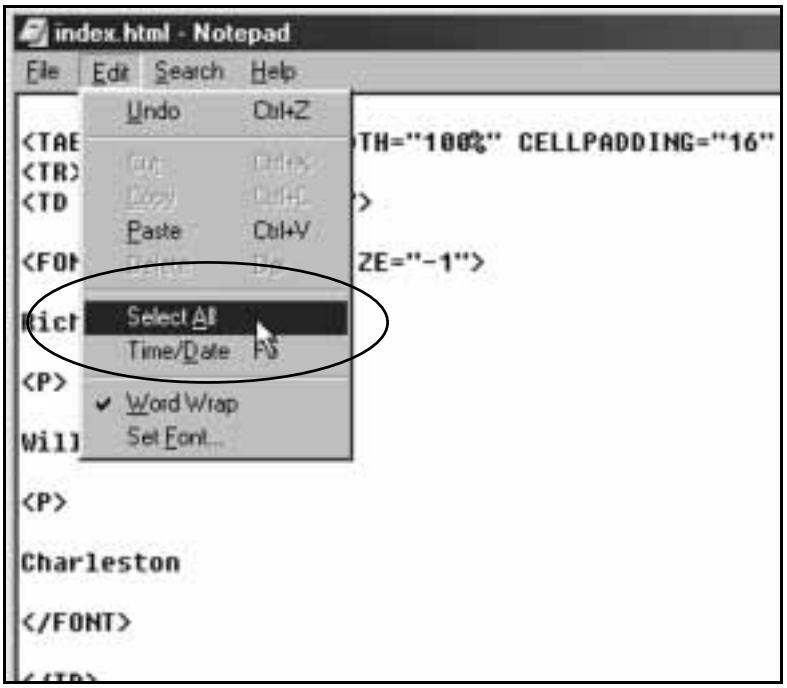
9. To control the widths of the table cells, add the attribute **WIDTH="20%"** to the first **<TD>** tag, and the attribute **WIDTH="80%"** to the second:

```
<TABLE BORDER="0" WIDTH="100%"
CELLPADDING="16" CELLSPACING="0">
<TR>
<TD BGCOLOR="#CCCCCC" VALIGN="top">
<FONT FACE="arial" SIZE="-1" WIDTH="20%">
Richmond
<P>
Williamsburg
<P>
Charleston
</FONT>
</TD>
<TD VALIGN="top" WIDTH="80%">
<FONT FACE="verdana" SIZE="+3"><B>Traveling
South</B></FONT>
<P>
<IMG SRC="graphics/uva.gif">
<P>
<FONT FACE="arial" SIZE="-1">If you've got a
couple of weeks for vacation, you might want
to visit the South. Richmond, Williamsburg,
and Charleston are all beautiful
cities.</FONT>
</TD>
</TR>
</TABLE>
```

10. Save the page and view it in the browser. It should now look like this:

Create new table-based pages

1. On the Notepad menu bar, click Edit, then Select All.



2. Once all the code on the page is selected, click Edit, then Copy.

3. On the menu bar, click File, then New.

4. When a new blank page comes up, click Edit, then Paste.

5. Save the new page at C:\Travel with the file name richmond.html.

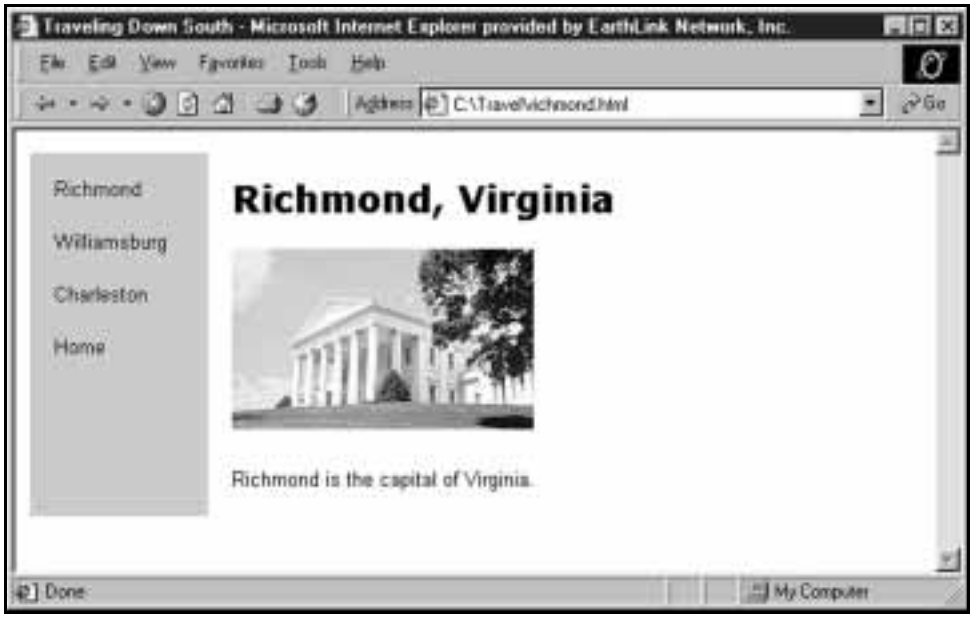
6. Title the new page "Richmond, VA."

7. Open a browser and go to www.visibooks.com/travelpic/richpic. Capture the Richmond, Virginia graphic there (capitol.jpg) and place it in the graphics folder.

8. Replace the "**Traveling South**" heading with one that reads "**Richmond, Virginia**." Give it a size of +2.

9. Replace the home page graphic with the Richmond graphic. Beneath the graphic, in a new paragraph, type the sentence, "Richmond is the capital of Virginia."

10. Add the word "Home" below the words in the left-hand cell. When you're done, the page should look like this:



Create navigation bars

Create a navigation bar for a home page

1. Create a folder called "Travel West" on your hard drive at C:\Travel West.

2. Create a home page titled "Traveling West for Vacation." Save it in the Travel West folder.

3. Between the **<BODY>** and **</BODY>** tags, create a table with one row and 3 cells in the row:

```
<TABLE>
<TR>
<TD> </TD>
<TD> </TD>
<TD> </TD>
</TR>
</TABLE>
```

4. Give the **<TABLE>** tag these attributes:

```
WIDTH="100%"
Border="0"
CELLPADDING="4"
CELLSPACING="0"
```

5. In the table's first cell, enter the word "`California`." In the second cell, "`The Rockies`," and in the third cell, "`The Midwest`."

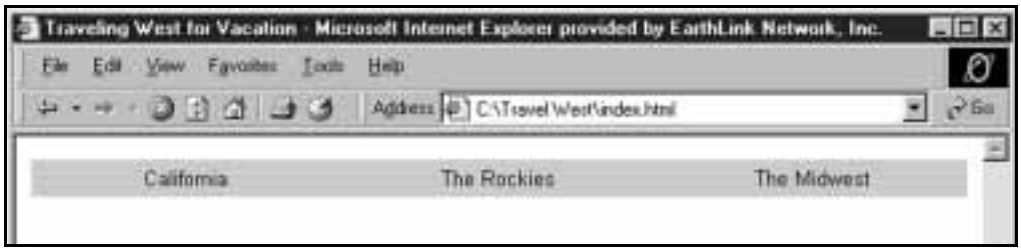
6. Make each cell 33% wide (except for the middle one, which has to be 34%: their sum must equal the table width of 100%).

7. Center the words in each cell with **<CENTER>** tags:

```
<TD WIDTH="33%">
<CENTER>
California
</CENTER>
</TD>
<TD WIDTH="34%">
<CENTER>
The Rockies
</CENTER>
</TD>
<TD WIDTH="33%">
<CENTER>
The Midwest
</CENTER>
</TD>
```

8. Change the text in each cell to arial, size -1, and change the background color of all cells to light grey (#cccccc).

9. When you're done, preview the page in the browser. The table should look like this:



10. Below the table, in a new paragraph, enter the heading "`Traveling West`." Make it arial, size +4, bold.

11. Below that, add a new paragraph with this text:

```
When you go West, be sure to visit the
sights of California, the natural wonders of
the Rockies, and the cities of the Midwest.
```

12. Make the new paragraph verdana, size -1 and save the page.

13. View the page in the browser. It should look like this:

Create a navigation bar for a main section page

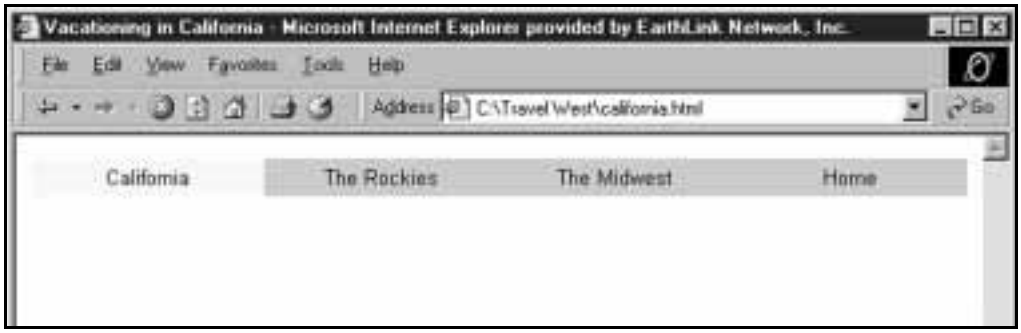
1. Create a new page with file name california.html. Title it "Vacationing in California."

2. Make the table just like the one on the home page, except with 4 cells instead of 3.

   Tip: *Don't forget to change the cell widths. There are now four cells, and their widths must add up to 100%. That means 25% per cell.*

3. Format the table and text just like on the home page, but make the California cell bright yellow (**`BGCOLOR="#ffff00"`**) to show "You are here."

4. When you're done, save the page and view it in the browser. The table should look like this:



5. Link the word Home to the home page (**`<A HREF="index.html">`**`Home`**`</A>`**), then save the page.

6. Open the home page in Notepad.

7. Link the word California to the California page.

8. Save the page.

Complete the site

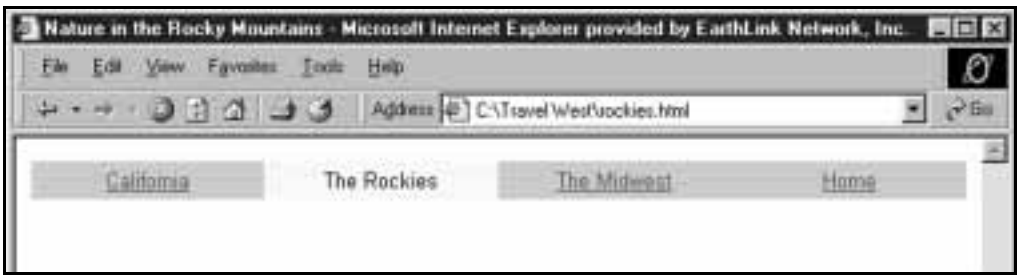
1. Create a new blank page and save it with the file name midwest.html. It will be The Midwest page, but leave it blank for right now.

2. Create a new page with file name rockies.html. This is The Rockies page. Title it "Nature in the Rocky Mountains." Make its navigation bar table exactly like that of the California page.

3. Change the "You are here" yellow background color from the California cell to The Rockies cell.

4. Link California, The Midwest and Home to their respective pages.

5. When you're done, preview the page in the browser. It should look like this:



6. Repeat this process with the California and Midwest pages so they've got functioning navigation bars that show "you are here."

7. Go to the home page and in the navigation bar, link The Rockies and The Midwest to their respective pages.

8. Make all text that corresponds to the current page bold. (Example: make "**The Rockies**" bold on The Rockies page.)

9. When you're done, preview the site in the browser. It should look like the site at www.visibooks.com/travelwest.

Add subsections to site

Insert a table for content and subsection links

1. In Notepad, open the California page in the Traveling West Web site.

2. Below the navigation bar table, add another table that has one row and two cells in the row. Give the table the attributes:

   WIDTH="100%"
   BORDER="0"
   CELLPADDING="16"
   CELLSPACING="0"

3. Make the first cell 25% wide and the second cell 75% wide.

```
<TABLE BORDER="0" WIDTH="100%" CELLPADDING="16" CELLSPACING="0">
<TR>
<TD WIDTH="25%"> </TD>
<TD WIDTH="75%"> </TD>
</TR>
</TABLE>

</BODY>
</HTML>
```

4. In the left-hand cell, put the subsections for the main California section:

   The Golden Gate Bridge
   <P>
   Highway 101
   <P>
   Big Sur

5. In the right-hand cell, put the heading "`Places to visit in California`." Below the heading, in a new paragraph, type the sentence :

   ```
   When in California, be sure to see the
   Golden Gate bridge, Highway 101, and Big Sur.
   ```

6. Align the contents of both cells to the top of each.

7. Make the text in the left-hand navigation cell arial, size -1.

8. Make the heading in the right-hand cell bold, arial, size +3. Make the paragraph beneath the heading verdana, size -1.

9. When you're done, save the page and preview it in the browser. The page should look like this:

Create subsection pages

1. Create new blank pages for subsections The Golden Gate Bridge, Highway 101 and Big Sur:

Page	Title	File Name
The Golden Gate Bridge	Seeing the Golden Gate Bridge	goldengate.html
Highway 101	Driving Highway 101	highway101.html
Big Sur	Staying in Big Sur	bigsur.html

2. Copy the tables from the California page and paste them into the Golden Gate Bridge page.

3. On the Golden Gate Bridge page, change the heading to read "Seeing the Golden Gate Bridge." Make it size +2.

4. Below the heading, change the paragraph to read:

   The Golden Gate Bridge isn't golden--it's actually orange.

5. Make it verdana, size -1.

6. Link the words California, Highway 101, and Big Sur to their respective pages. Leave The Golden Gate Bridge as plain text to show "you are here."

7. When you're done, save the page and view it in the browser. It should look like this:

Consistent page layout

Copying tables from one page and pasting them into new pages ensures that all pages share the same layout.

This consistency makes site navigation easier: no matter which page in the site is being viewed, a person knows where the page's links and content will be.

Place tables within tables

1. In Notepad, open the Golden Gate Bridge page (goldengate.html).

2. In front of the paragraph below the main heading, begin a new table with:

   2 rows
   1 cell in each row
   WIDTH="200"
   CELLPADDING="8"

   Tip: *To create a table with more than one row, just begin a new row after ending the one above it:*

   ```
   <TR>
   <TD> </TD>
   </TR>
   <TR>
   <TD> </TD>
   </TR>
   ```

   Note: the width is a number—200—which renders the width in pixels rather than as a percentage.

3. Color the top cell blue (**#0000ff**) and the bottom cell grey (**#cccccc**).

4. In the top cell, put the words, "A Whole Lot of Paint." Center the words and make them bold.

5. In the bottom cell, type the sentence:

   The Golden Gate bridge is covered with enough paint to coat four battleships.

6. Make the text arial, size -1.

7. Save the page and view it in the browser. When you're done, it should look like this:

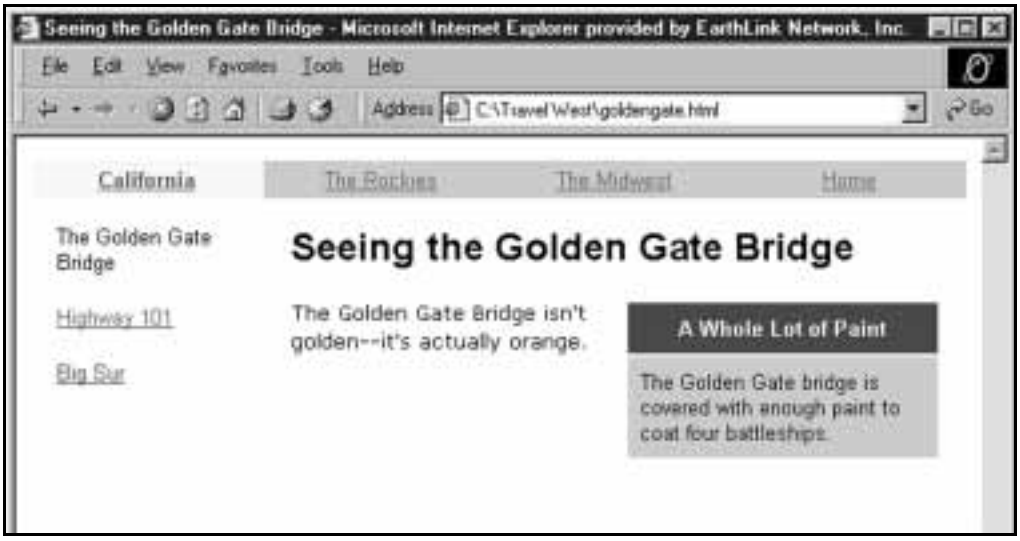
8. Make the text in the top cell white. Do this by adding the **COLOR="#ffffff"** attribute to the **<FONT>** tag:

```
<FONT FACE="arial" SIZE="-1"
COLOR="#ffffff">
<B>A Whole Lot of Paint</B>
</FONT>
```

9. Add the **ALIGN="right"** attribute to the **<TABLE>** tag:

```
<TABLE WIDTH="200" BORDER="0"
CELLPADDING="8" ALIGN="right">
```

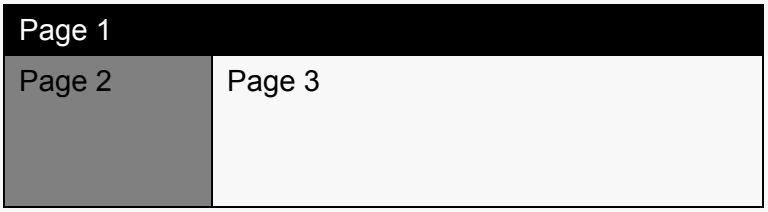
10. Save the page and preview it in the browser. The page should look like this:



Link to an external site using frames

How to use frames

"Frames" are a way to put more than one Web page at a time on a computer's screen:



A live example of frames can be seen at **www.visibooks.com/frames**.

Many sites that used frames have now eliminated them, returning to single-page layouts. That's because frames have serious drawbacks:

- Frames are difficult to update. Every screen involves three or more pages to keep track of: the frameset itself, and at least two others to go in the frames.
- Frame navigation is tricky. Links require special "targets" that go from page to frame.
- Frames often require people to scroll annoyingly in more than one place.

However, frames are useful for one thing: they allow a user to get back to a site with one click while clicking through other sites linked to it. An example of this can be seen in the external links at **www.charuhas.com/sites.html**.

The following exercise demonstrates how to use frames to provide convenient links to external sites.

1. On the Golden Gate Bridge page, in a new paragraph below the first one, type:

   Visit the Web site for the Golden Gate bridge at www.goldengate.org.

   www.goldengate.org will be linked to the frameset page.

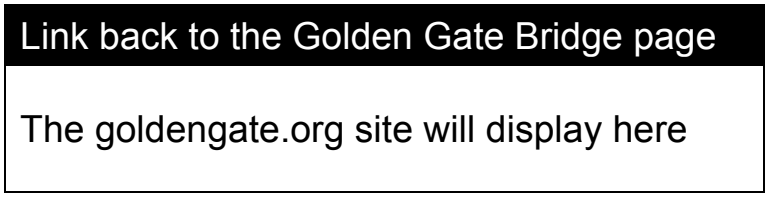
2. Create a new blank page with file name framesetgg.html. This will be the "frameset" page that holds two other pages.

3. Insert this HTML code into the new blank page:

```
<HTML>

<HEAD></HEAD>

<TITLE>Golden Gate Frameset</TITLE>

<FRAMESET ROWS="50,*">

<FRAME NAME="topframe" SRC="backtogg.html">

<FRAME NAME="bottomframe"
SRC="http://www.goldengate.org">

</FRAMESET>

</HTML>
```

Tip: *The* **ROWS="50,*"** *attribute in the* **<FRAMESET>** *tag tells the frameset to make the top frame 50 pixels high, and to allow the bottom frame to fill in the rest of the available space beneath it.*

The top frame will contain the link back to the Golden Gate Bridge page. The bottom frame will contain an external site: www.goldengate.org.



4. Save framesetgg.html.

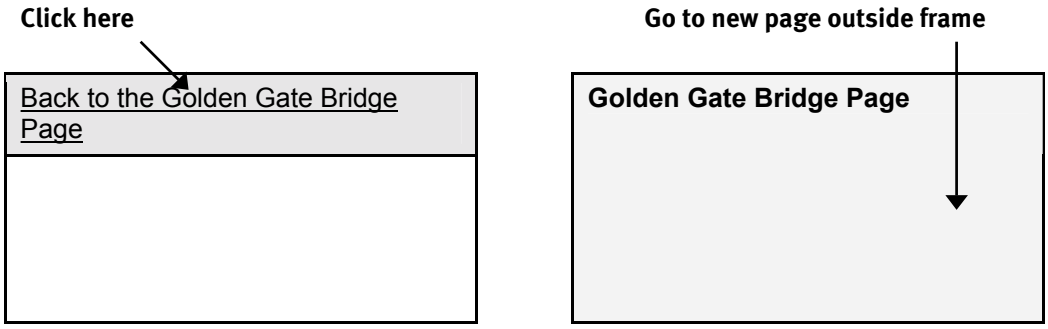
5. Create a new page with file name backtogg.html. This is the page that will contain a link back to the Golden Gate Bridge page.

6. Give the new page a light grey background, and a single link on it: Back to the Golden Gate Bridge page.

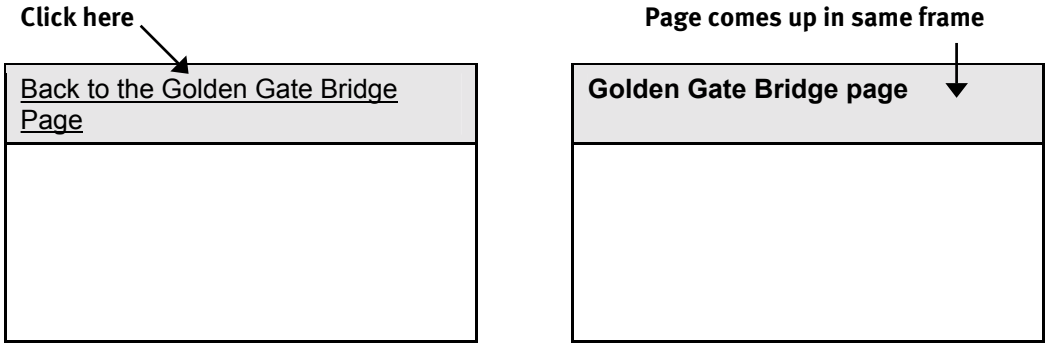
7. Use an anchor tag with the **TARGET="_top"** attribute to link back to the Golden Gate Bridge page:

```
<A HREF="goldengate.html" TARGET="_top">Back
to the Golden Gate Bridge page</A>
```

Tip: *The* **`TARGET="_top"`** *attribute enables linking to a page outside of the current frame…*



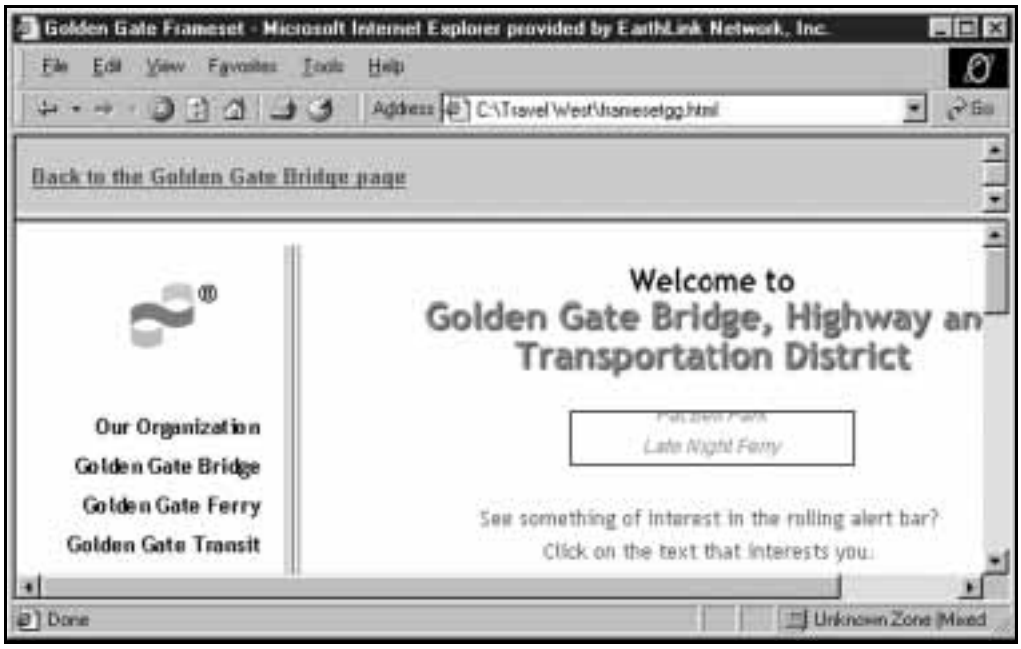
…which avoids clicking on the link and having the page come up in the same frame:



8. Make the link arial, size -1, and bold.

9. Save the page.

10. Open framesetgg.html in the browser. It should look like this:



11. Click on the **Back to the Golden Gate Bridge page** link. It should take you back to the Golden Gate Bridge page.

Tip: *To make the frameset look more crisp and clean, try using the following attributes in* framesetgg.html*:*

```
<HTML>

<HEAD>
</HEAD>

<TITLE>Golden Gate Frameset</TITLE>

<FRAMESET ROWS="28,*" FRAMEBORDER=”0”>

<FRAME NAME="topframe" SRC="backtogg.html"
MARGINWIDTH=”12” MARGINHEIGHT=”4”
SCROLLING=”NO” NORESIZE>

<FRAME NAME="bottomframe"
SRC="http://www.goldengate.org”
MARGINWIDTH="12" MARGINHEIGHT="12"
SCROLLING=”AUTO” NORESIZE>

</FRAMESET>

</HTML>
```

Interactivity

In this section, you'll learn how to:

- **Insert META tags**
- **Create forms**
- **Format text with style sheets**
- **Employ templates**
- **Upload sites to a Web server**

You'll build a site that looks like this:

Insert META tags

META tags

META tags are HTML tags that can include a description of the page, as well as "keywords that provide clues to its content. META tags make a page easier to find and index by search engines.

META tags don't show up on a Web page. Rather, they reside unseen in its HTML code.

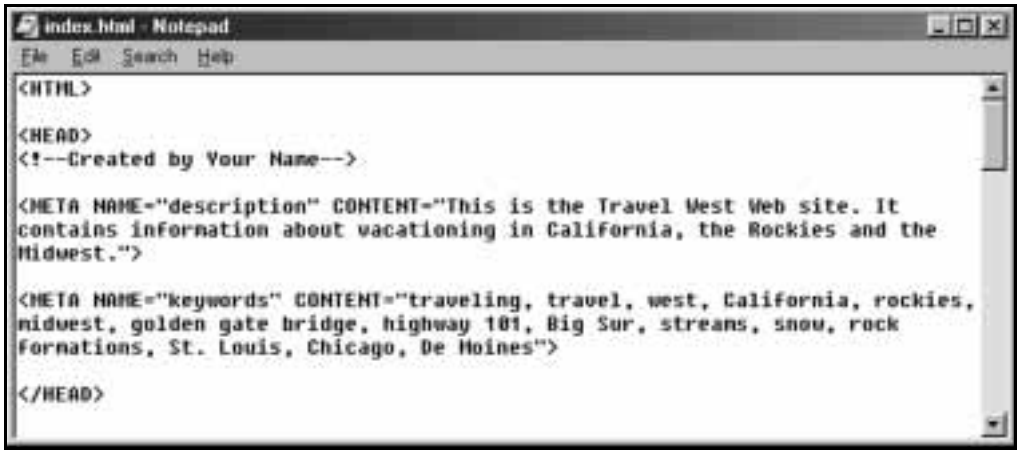
1. In Notepad, open up the home page of the Travel West Web site.

2. Beneath the **<HEAD>** and signature (**<!--your name-->**) tags, insert the first **<META>** tag for describing the site's contents:

```
<HEAD>
<!--Created by Your Name-->
<META NAME="description" CONTENT="This is
the Travel West Web site. It contains
information about vacationing in California,
the Rockies and the Midwest.">
</HEAD>
```

3. Beneath the "description" meta tag, insert a new **<META>** tag for its search keywords:

```
<HEAD>
<!--Created by Your Name-->
<META NAME="description" CONTENT="This is
the Travel West Web site. It contains
information about vacationing in California,
the Rockies and the Midwest.">
<META NAME="keywords" CONTENT="traveling,
travel, west, California, rockies, midwest,
golden gate bridge, highway 101, Big Sur,
streams, snow, rock formations, St. Louis,
Chicago, De Moines">
</HEAD>
```



Create forms

1. Create a new page with file name infoform.html.

2. Title the page "Request for Information" and save it in the Travel West folder on your hard drive.

3. Below the **<BODY>** tag, type the sentence:

   ```
   Fill out the following form to get more
   information about traveling West:
   ```

4. Below the sentence, insert a **<P>** tag, then insert a **<FORM>** tag:

   <BODY>

   ```
   Fill out the following form to get more
   information about traveling West:
   ```

   <P>

   <FORM>

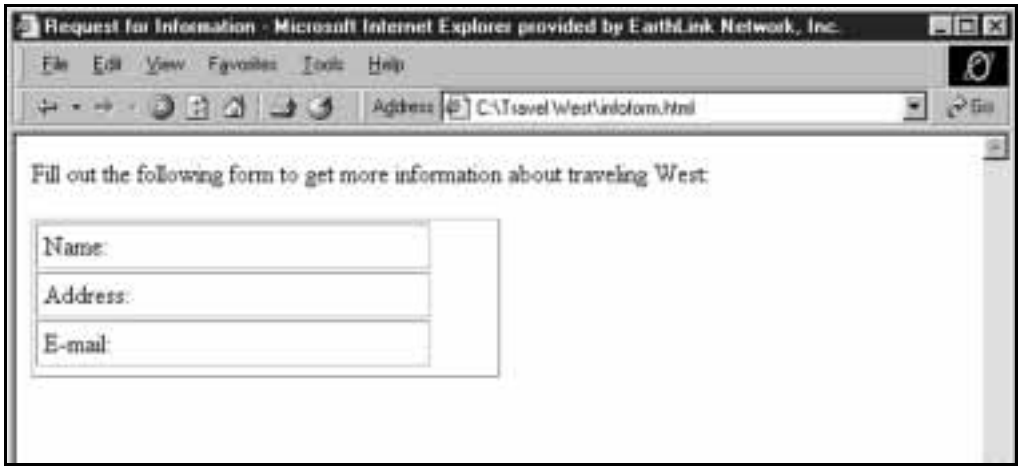
   </BODY>

5. Below the **<FORM>** tag, create a table with 4 rows and 2 cells in each row. Make the width 50%, give it cellpadding of 4, and a border of 1.

6. In the top three left-hand cells, put:

```
Name:
Address:
E-Mail:
```

7. Save the page and view it in the browser. It should look like this:

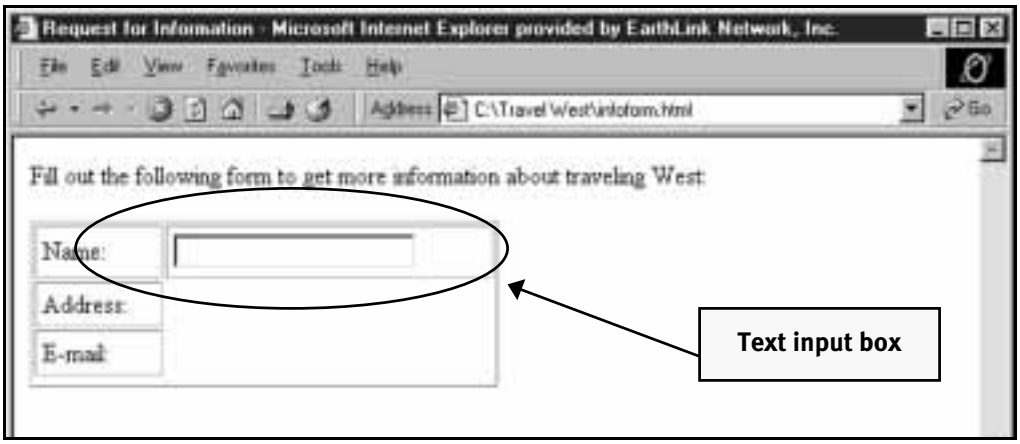


8. In the top right-hand cell, insert a text input field. Do this with an **<INPUT>** tag:

```
<TR>
<TD>Name:</TD>
<TD><INPUT TYPE="text" NAME="name"
SIZE="20"></TD>
</TR>
```

Tip: *The* **TYPE** *of this input is "***text***," which makes it a textbox. The* **NAME** *of this input is "***name***," which is how the server knows that it's where people enter their name. The* **SIZE** *is* **20** *characters—the length of the textbox.*

9. Save the page and view it in a browser. It should now look like this:



10. Insert textboxes in the cells next to `Address` and `E-mail` as well. Name the input textbox next to `Address` "**`address`**," and name the input textbox next to `E-mail` "**`email`**."

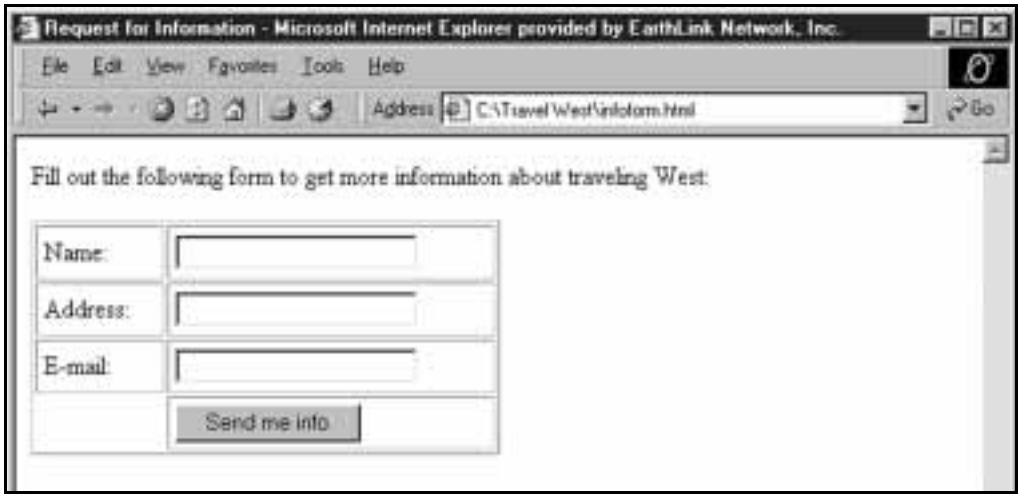
```
<INPUT TYPE="text" NAME="address" SIZE="20">
```

11. Save the page and view it in the browser. It should now look like this:

12. In the last row's right-hand cell, insert a submit button, **<INPUT TYPE="submit">**. Use the **VALUE** attribute to specify the text displayed on the button:

```
<TR>
<TD>E-mail:</TD>
<TD><INPUT TYPE="text" NAME="email"
SIZE="20"></TD>
</TR>
<TR>
<TD></TD>
<TD><INPUT TYPE="submit" VALUE="Send me
info"> </TD>
</TR>
</TABLE>
```

13. Save the page and view it in the browser. When you're done, the page should look like this:



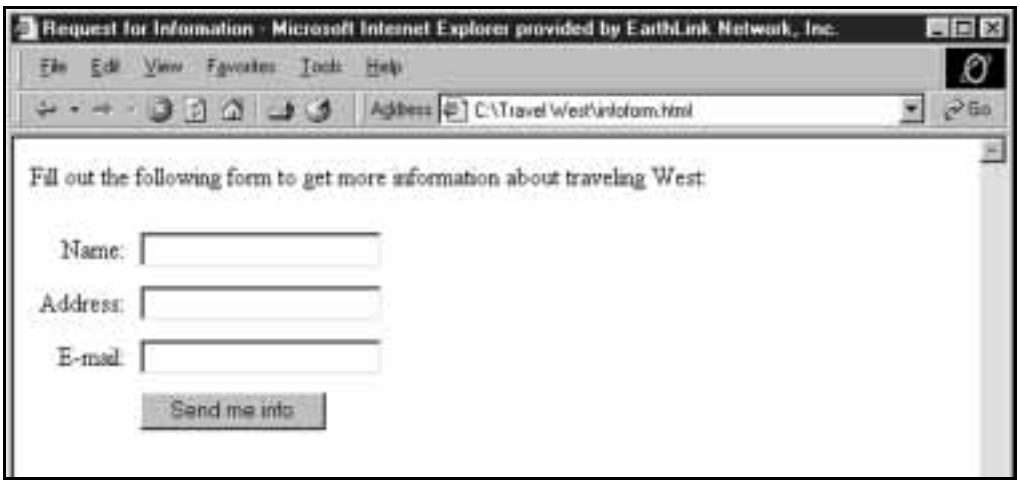
14. Remove the border from the table and align the text in the left-hand cells to the right.

```
<TD><P ALIGN="right">Name:</TD>
```

15. Make the left-hand cell in the first row 5% wide, and the right-hand cell in the first row 45% wide.

Tip: *By specifying the width of cells in the first row, the cells in the rows beneath will assume the same widths.*

16. Save the page, view it in the browser, and it should look like this:



17. Open the home page in Notepad and add a new paragraph:

```
Get more information about Western Travel
mailed to you
```

18. Link this sentence to infoform.html.

19. Save the page and view it in the browser. It should look like this:

20. Click on the link sentence. It should bring up the page with the form.

Making a form work

To make a form work, an action must be assigned to it. To add an action to your form, add the **ACTION** attribute to the **<FORM>** tag.

Consult with your Web server administrator to specify what action you should assign. For example, an action for a form might look something like this:

```
<FORM METHOD="POST"
ACTION="http://www.yourdomain.com/cgi-
bin/formmail.pl">
```

This tells the form to post its data to a program called formmail.pl on at yourdomain.com. This program might take the form data and e-mail it to whomever you choose.

Use style sheets

The pros and cons of style sheets

Style sheets are a flexible, powerful tool for laying out and formatting Web pages. They allow every page in a site to get display instructions from just one style sheet.

For instance, if you created a 1,000 page Web site using style sheets, and you wanted to change the link color on every page, you'd only need to change the link color on one style sheet. Without style sheets, you'd have to change 1,000 individual pages.

Style sheets can also create display effects. An example of this is at www.visibooks.com. When you roll your cursor over links, they become underlined—if you're viewing the page with the Internet Explorer browser.

That's the disadvantage of using style sheets: they're interpreted differently by each browser. A style sheet-based page viewed in Internet Explorer may look different than it does in Netscape Navigator or other browsers.

Create a style sheet

1. Create a new page with file name format.css.

2. Save it in a new folder on the C:\ drive called CSS Site.

   Tip: *This is a style sheet, not a Web page. It's a file that gives Web pages formatting instructions, but isn't ever seen. It contains no HTML, and has a different file extension:* .css *rather than* .html.

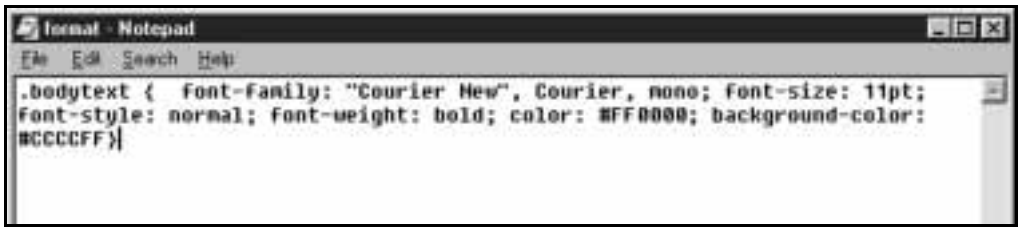
3. On the blank format.css page, insert the following instruction:

```
.bodytext {font-family:"Courier New",
Courier, mono; font-size:11pt; font-
weight:bold; color:"#ff0000"; background-
color:#ccccff"}
```

   Here are the component parts of the formatting instructions for the **.bodytext** style:

.bodytext	→	The type of text to be formatted.
font-family	→	The fonts in which the text should be displayed. First the computer looks for Courier New, then Courier, then a monospaced font. *The quotes in "Courier New" allow the computer to read font names with spaces.*
font-size	→	The size of the text. Unlike in HTML, style sheets allow specific point sizes to be used.
font-weight	→	Bold or plain text.
color	→	The color of the text.
background-color	→	Changes the color of the page area directly behind the text.

4. Save format.css. It should look like this:



Apply a style sheet

1. In Notepad, create a new home page and put it the CSS Site folder.

2. Title the home page "`Style Sheet Demo Page`."

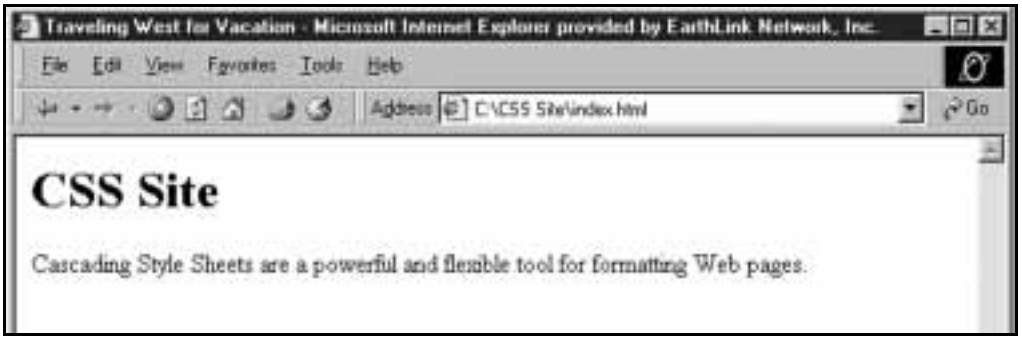
3. Below the **<BODY>** tag, type the text `CSS Site`. Make it a size 1 heading using **<H1>** tags:

```
<BODY>

<H1>CSS Site</H1>
```

4. In a new paragraph beneath it, type the sentence, "Cascading Style Sheets are a powerful and flexible tool for formatting Web pages:"

```
<BODY>

<H1>CSS Site</H1>

<P>Cascading Style Sheets are a powerful and
flexible tool for formatting Web pages</P>
```

5. Save the page and view it in the browser. It should look like this:



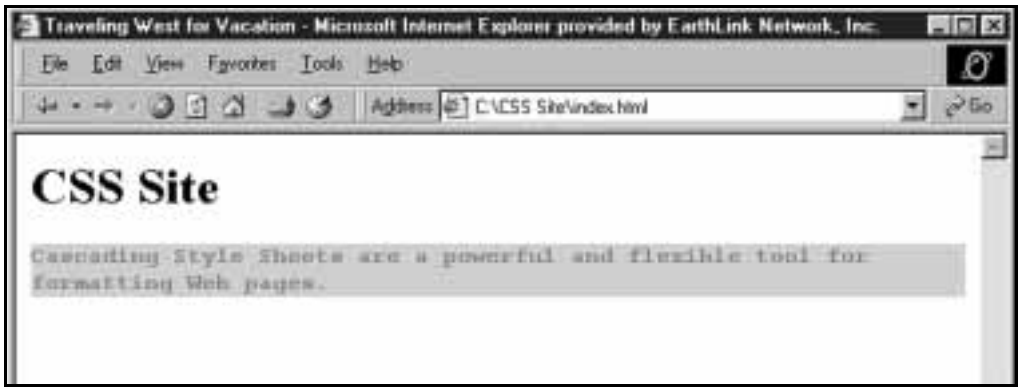
6. Below the **<HEAD>** tag, add a **<LINK>** tag that points to format.css:

```
<HTML>
<HEAD>
<LINK REL="stylesheet" HREF="format.css">
</HEAD>
<TITLE>Style Sheet Demo Page</TITLE>
```

7. In the **<P>** tag, add the **CLASS** attribute that points to the **.bodytext** style:

```
<P CLASS="bodytext">Cascading Style Sheets
are a powerful and flexible tool for
formatting Web pages.</P>
```

8. Save the home page and view it in the browser. It should look like this:



The home page's **<LINK REL="stylesheet" HREF="format.css">** tag referred to format.css for formatting instructions.

The paragraph on the page referred to the **.bodytext** style on format.css for formatting instructions.

Tip: *To use the same stylesheet to format pages throughout a site, just insert the same* **<LINK>** *tag in each Web page. For instance, if there were 100 pages in the* CSS Site*, they could all contain the same* **<LINK REL="stylesheet" HREF="format.css">** *tag and format body text the same way by using the* **<P CLASS="bodytext">** *tag.*

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Create link effects with style sheets

"Cascading" style sheets

Style instructions can be contained within a Web page itself, without referring to a separate style sheet. These instructions will override those of the style sheet, hence the term "Cascading Style Sheets:"

An instruction in a page's text...

```
<FONT
COLOR="#ff0000">
This is red
text.</FONT>
```

...overrides a style instruction for the page...

```
<STYLE
TYPE="text/css">
.greentext { color:
"#00ff00" }
</STYLE>

<BODY>
<P
CLASS="greentext">
This is green text.
```

...which overrides a style instruction for the site.

```
<LINK REL="stylesheet"
HREF="format.css">

</HEAD>

<BODY>

<P CLASS="bodytext">
This is blue text.
```

The following exercise employs an in-page style.

9. In the CSS Site folder, open the home page in Notepad.

10. Below the **<HEAD>** tag, replace this:

```
<LINK REL="stylesheet" HREF="format.css">
```

with this:

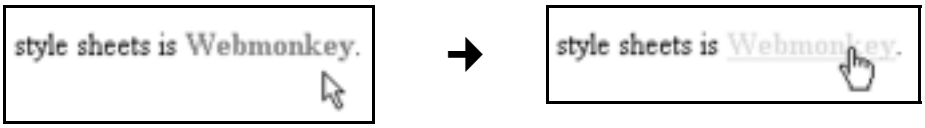
```
<STYLE TYPE="text/css">
<!--
A:link {color:"#ff0000"; text-
decoration:none}
A:visited {color:"#ff0000"; text-decoration:
none}
A:hover {color:"#00ff00"; text-decoration:
underline}
-->
</STYLE>
```

11. Below the present paragraph, add a new paragraph:

```
A good resource for learning more about
style sheets is Webmonkey.
```

12. Link the word "Webmonkey" to the external site http://www.webmonkey.com. Also, make the word Webmonkey bold.

13. Save the page and refresh it in the browser. When you put your cursor on the word **Webmonkey**, it should change from red and plain to green and underlined.



Upload sites to a Web server

FTP

FTP stands for "File Transfer Protocol, a way to transfer files between computers over the Internet. Uploading a site to a Web server requires special FTP software.

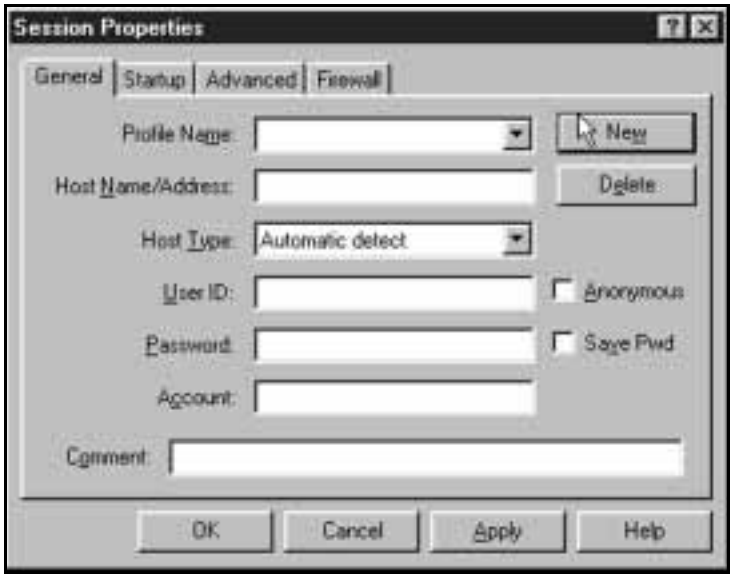
The most popular program used to upload and download Web pages from a server is WS_FTP. The LE version is free and can be downloaded at www.download.com or www.tucows.com.

The Pro version costs $39.95, and can also be found at the Web site of the company that makes it, www.ipswitch.com.

Below are instructions for uploading files using the free LE version.

1. Download WS_FTP LE and install it.

2. Open the program. You should see an initial Session Properties window. It should look like this:



3. Click the New button.

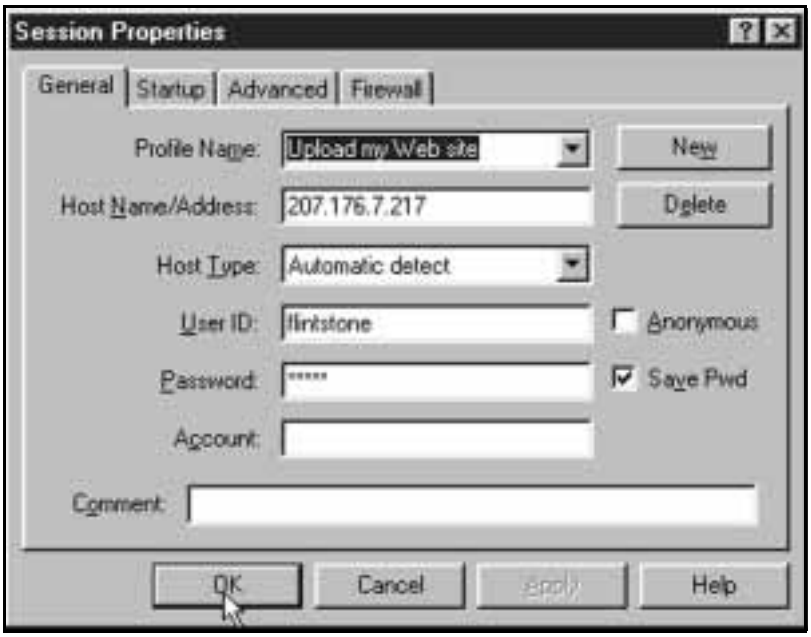
4. In the Profile Name textbox, enter the name of your upload process, such as "Upload my Web site."

5. In the Host Name/Address textbox, enter the name or IP address of your Web server. It can be something like www.visibooks.com, washington.patriot.net, or 207.176.7.217.

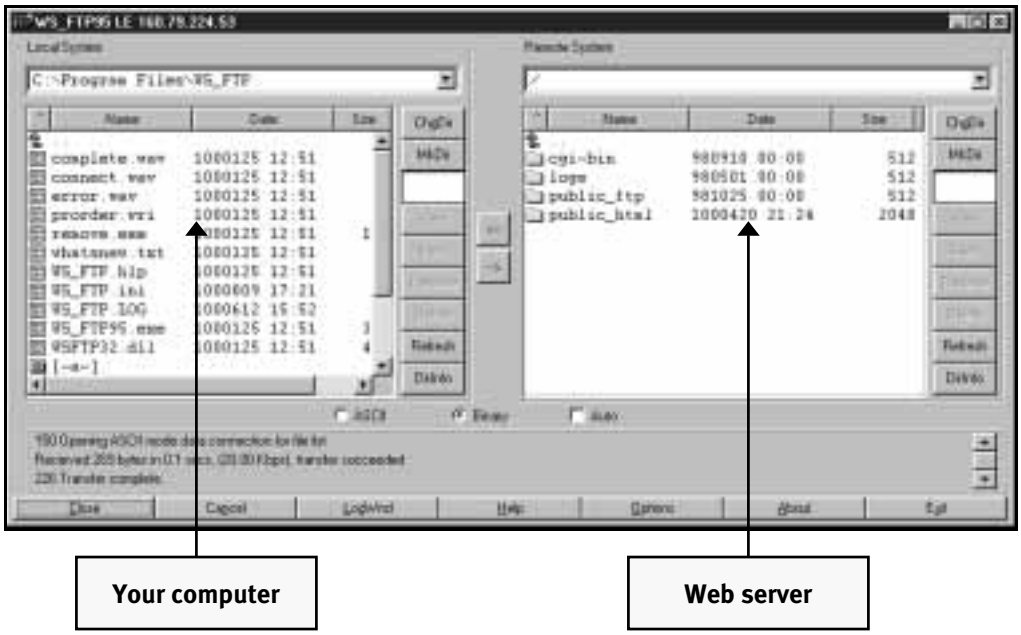
   Tip: *Contact your Web server administrator to find out the Host Name or IP Address of your Web server. The Web server administrator can also supply your User ID and Password.*

6. Leave the Host Type set at Automatic detect, and input your User ID and Password.

7. Check the Save Pwd checkbox, then click the Apply button. The Session Properties window should now look something like this:



8. Click the OK button, and after your Web server is contacted the WS_FTP window will appear. It should look something like this:



9. At the top of the left-hand Local System window, double-click on the green arrow icon to go up in the file hierarchy. Double-click it again to get to the C:\ drive.

10. Double-click on the folder containing your Web site to open it up.

11. In the right-hand Remote System window, double-click on the public_html folder, or the folder that leads to your site on the server.

Practical JavaScript

In this section, you'll learn how to:

- **Enable rollover graphics**
- **Open new windows**
- **Validate form input**

You'll incorporate functions that look like this:

Creating rollover graphic links

Opening new windows

Validating forms

Enable rollover graphics

What is Javascript?

Javascript is a programming language that sits in the HTML code of a Web page. It's not an industrial-strength language like C++, Java, or Perl that's used to program Web servers. Rather, JavaScript is used to perform simple functions within Web pages.

The following section shows you how to employ Javascript's three most useful functions. It won't teach you how to write programs in Javascript. Learning a programming language is just that: learning a new language, which can take months or years to master. Rather, you'll learn how to obtain functioning Javascript scripts and modify them to do what you want.

This approach is fast and effective. There are thousands of Javascript scripts available for free on the Web that perform anything you'd want to do in a Web page—all you have to do is customize them.

Working with source code

Sometimes you'll see a Web page and say to yourself, "I wonder how they did that?" By viewing the page's HTML and Javascript source code, you can find out.

You can also copy source code, paste it into pages you're working on, and modify it. Since that's so easy to do, source code for Web pages isn't usually copyrighted.

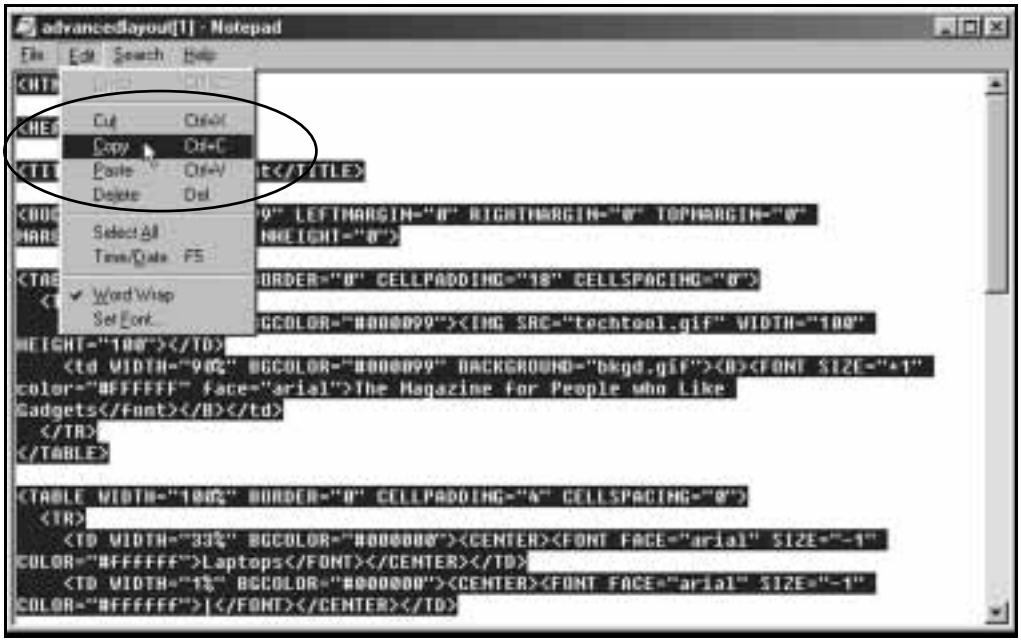
The following exercise shows you how to copy, paste, and modify an existing Javascript to put rollover graphic links on your Web pages.

View source code

1. Create a folder on your hard drive called "rollover," at C:/rollover.
2. Using the browser, go to www.visibooks.com/advancedlayout.
3. View the page's source code by clicking View , then Source.

Copy source code

1. A copy of Notepad with advancedlayout(1) in the title bar will appear. Select all the HTML, then copy it.



2. Create a new blank page in Notepad and paste all the copied HTML code into it.

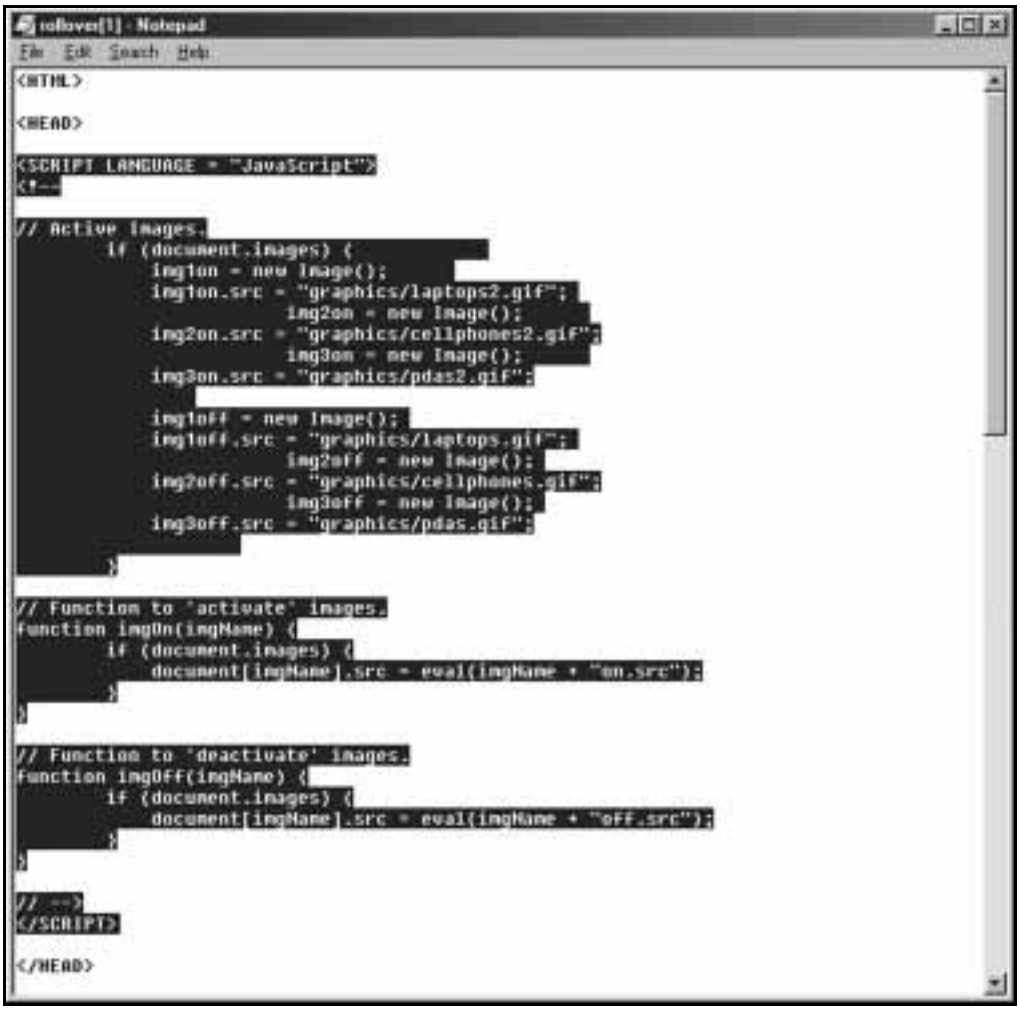
3. Save the page at C:\rollover as index.html.

4. Create a folder within the rollover folder called graphics: C:\rollover\graphics.

5. Go to www.visibooks.com/rolloverpics. Capture all six graphics there and save them in the graphics folder.

6. Go to www.visibooks.com/rollover. The graphics in the navigation bar are rollover links:

7. View its source code and highlight all the code between and including the **<SCRIPT>** and **</SCRIPT>** tags. It's between the **<HEAD>** and **</HEAD>** tags:



```
rollover[1] - Notepad
File  Edit  Search  Help
<HTML>

<HEAD>

<SCRIPT LANGUAGE = "JavaScript">
<!--

// Active Images.
        if (document.images) {
            img1on = new Image();
            img1on.src = "graphics/laptops2.gif";
                        img2on = new Image();
            img2on.src = "graphics/cellphones2.gif";
                        img3on = new Image();
            img3on.src = "graphics/pdas2.gif";

            img1off = new Image();
            img1off.src = "graphics/laptops.gif";
                        img2off = new Image();
            img2off.src = "graphics/cellphones.gif";
                        img3off = new Image();
            img3off.src = "graphics/pdas.gif";
        }

// Function to 'activate' images.
function imgOn(imgName) {
        if (document.images) {
            document[imgName].src = eval(imgName + "on.src");
        }
}

// Function to 'deactivate' images.
function imgOff(imgName) {
        if (document.images) {
            document[imgName].src = eval(imgName + "off.src");
        }
}

// -->
</SCRIPT>

</HEAD>
```

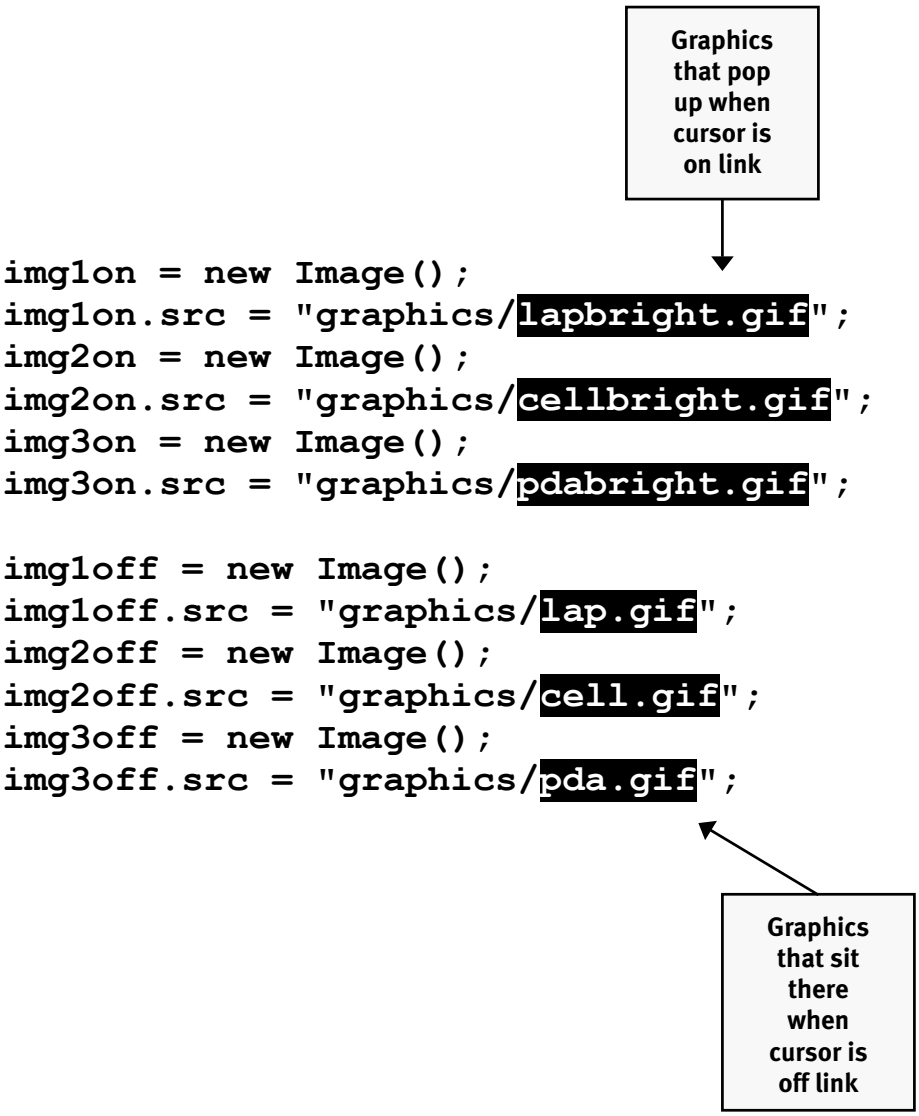
8. Copy this JavaScript code.

9. Paste the JavaScript code between the **<HEAD>** and **</HEAD>** tags in index.html.

Modify source code

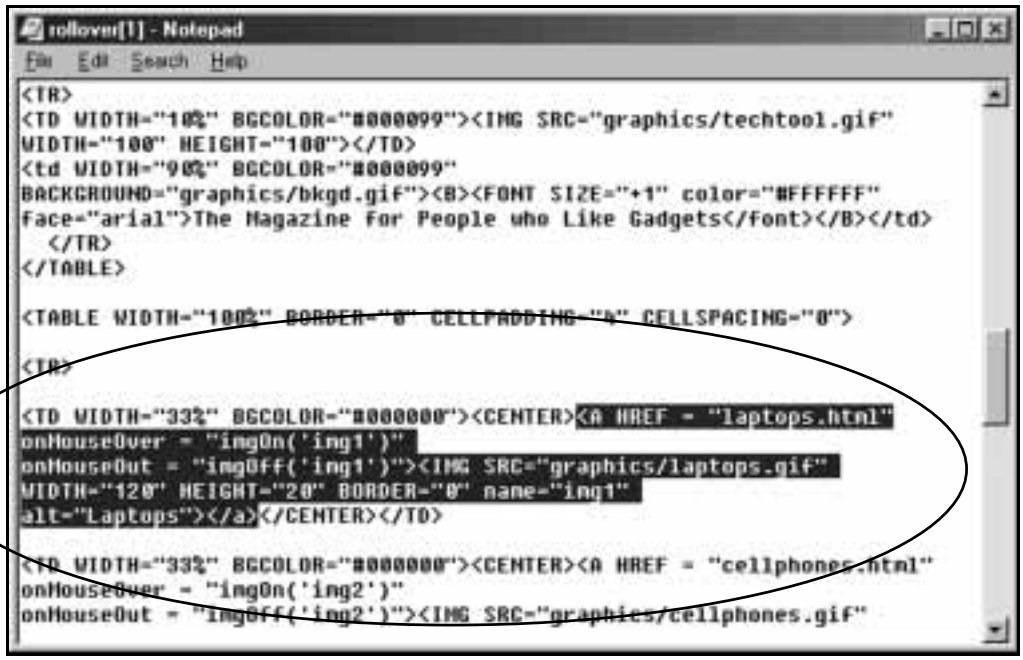
1. You'll notice that the names of the graphics specified in the JavaScript (`laptops2.gif`, `laptops.gif`, `cellphones2.gif`…) don't correspond with the names of the graphics in your graphics folder.

   Modify the source code to specify the correct file names for your graphics:



2. Go back to www.visibooks.com/rollover in the browser, and view the page's source code. Scroll down until you see the code for the second table, the one that defines the black navigation bar.

3. Highlight and copy the anchor tag with the **`onMouseOver`** and **`onMouseOut`** attributes, the closing anchor tag (**`</a>`**), and the image tag inside them. It links to laptops.html:



4. In index.html, get rid of the two cells with the | characters in them.

5. Paste the anchor tags and the image tag they enclose into index.html so they replace the word Laptops:

   From this:

```
<TD WIDTH="33%"
BGCOLOR="#000000"><CENTER><FONT FACE="arial"
SIZE="-1"
COLOR="#ffffff">Laptops</FONT></CENTER></TD>
```

   To this:

```
<TD WIDTH="33%" BGCOLOR="#000000"><CENTER><A
HREF = "laptops.html"
onMouseOver = "imgOn('img1')"
onMouseOut = "imgOff('img1')"><IMG
SRC="graphics/laptops.gif" WIDTH="120"
HEIGHT="20" BORDER="0" name="img1"
alt="Laptops"></a></CENTER></TD>
```

6. Change the file name for the graphic being linked from `laptops.gif` to your graphic: `lap.gif`.

7. Save index.html and view it in the browser. It should work like this:

Practice: Enable rollover graphics

1. In the navigation bar of index.html, replace the words "Cell Phones" and "PDAs" with rollover graphics. Use the graphics cellbright.gif, cell.gif, pdabright.gif and pda.gif.

   Tip: *Modify the anchor tag and image code in the first cell for use in the other two.*

```
<A HREF = "laptops.html"
onMouseOver = "imgOn('img1')"
onMouseOut = "imgOff('img1')"><IMG
SRC="graphics/lap.gif" WIDTH="120"
HEIGHT="20" BORDER="0" name="img1"
alt="Laptops"></A>
```

2. When you're done, save the page and view it in the browser. It should look like this:

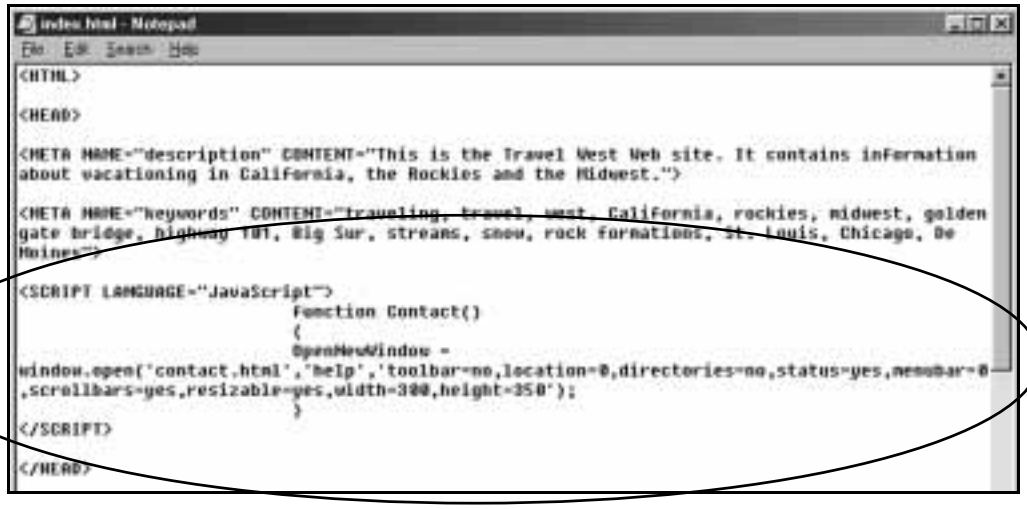
Open new windows

1. In Notepad, open up the home page for the Travel West Web site: index.html at C:\Travel West.

2. In the browser, go to www.visibooks.com/newwindow.

3. View the source code for the page. Highlight and copy the JavaScript code between the **<HEAD>** and **</HEAD>** tags.

4. Paste it below the **<META>** tags in index.html:



5. Change the JavaScript code so that it opens infoform.html in the new window:

   From this:

```
<SCRIPT LANGUAGE="JavaScript">
     function Contact()
     {
     OpenNewWindow =
window.open('contact.html','help','toolbar=n
o,location=0,directories=no,status=yes,menub
ar=0,scrollbars=yes,resizable=yes,width=300,
height=350');
     }
</SCRIPT>
```

   To this:

```
<SCRIPT LANGUAGE="JavaScript">
     function Contact()
     {
     OpenNewWindow =
window.open('infoform.html','help','toolbar=
no,location=0,directories=no,status=yes,menu
bar=0,scrollbars=yes,resizable=yes,width=300
,height=350');
     }
</SCRIPT>
```

Tip: *JavaScript is not HTML—it's a programming language. It works better without quotes around values. Also, don't change the case of words in a script that works. JavaScript is, unlike HTML, case-sensitive.*

Download other Visibooks at www.visibooks.com

6. View the source code again at www.visibooks.com/newwindow.

7. Find the anchor tag between the **<BODY>** and **</BODY>** tags that refers to the JavaScript function **Contact()**.

```
<FONT FACE="arial" SIZE="+1"><B><A
HREF="javascript:Contact()">Open new window
with form inside</A></B></FONT>
```

Tip: *A function is a job performed by a program. The one above is named* **Contact()**. *Its job is to open the window that allows people to contact Visibooks.*

8. Copy the anchor tag, then paste it into index.html so it links the second sentence to the

From this:

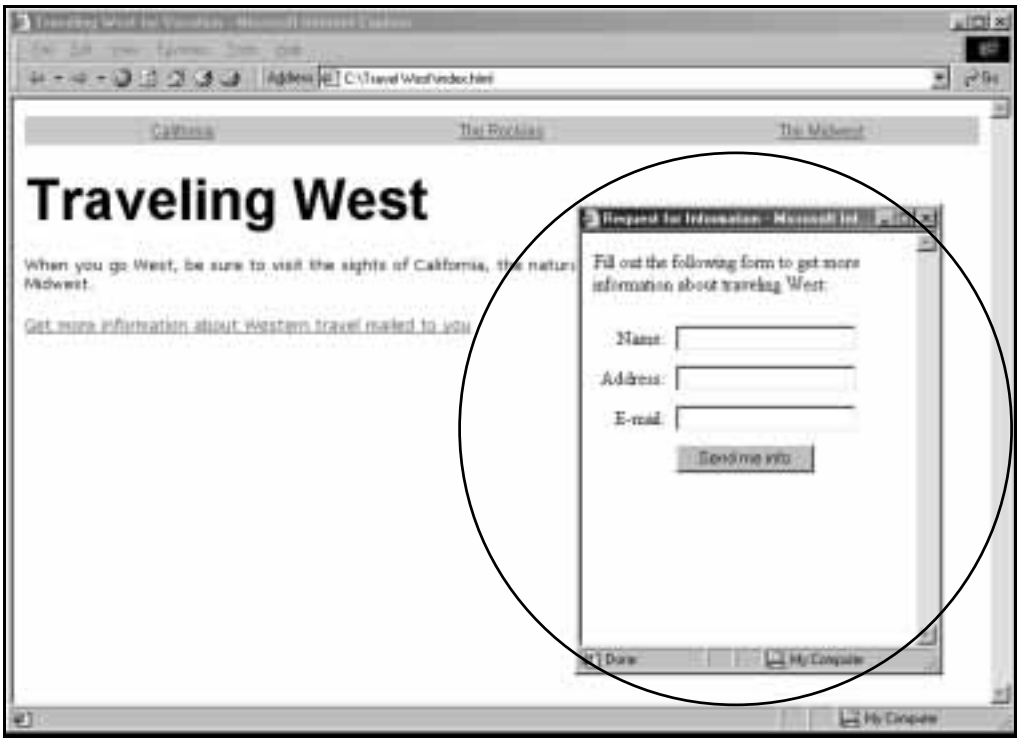
```
<A HREF="infoform.html">Get more information
about Western travel mailed to you</A>
```

To this:

```
<A HREF="javascript:Contact()">Get more
information about Western travel mailed to
you</A>
```

9. Save index.html and view it in the browser.

10. Click on the linked sentence. A new window should pop up with the form inside:



Tip: *To change the size and appearance of the window that pops up, change the values after* **`window.open`**:

```
OpenNewWindow =
window.open('contact.html','help','toolbar=n
o,
location=0,directories=no,status=yes,menubar
=0,
scrollbars=yes,resizable=yes,
width=300,height=350')
```

Change width and height values to change size of window in pixels

Change to status=no to get rid of the status bar at the bottom of the window

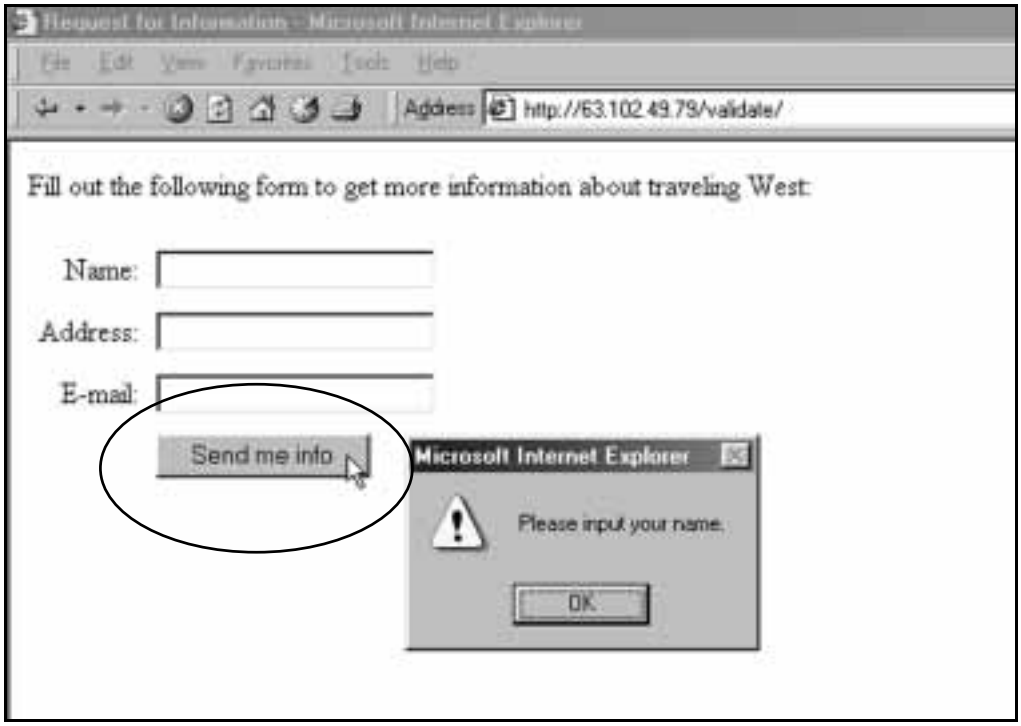
Validate form input

See how it works

1. In Notepad, open infoform.html in the Travel West site.

2. In the browser, go to www.visibooks.com/validate.

3. Click on the Send me info button. When you do, an alert window should appear. When you enter your name and click the button, another alert window should appear that reads, "Please input your address." This also works with the e-mail input.



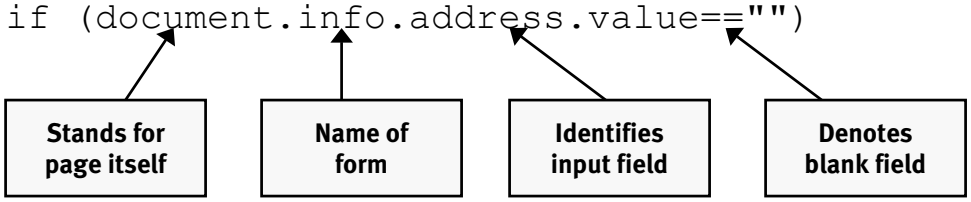
Insert the validation script

1. View the source of the page at www.visibooks.com/validate, and copy the JavaScript between the **<HEAD>** tags:

```
<script>
<!--
function validate()
{
if (document.info.name.value=="")
{
 alert ("Please input your name.")
 return false
}
if (document.info.address.value=="")
{
 alert ("Please input your address.")
 return false
}
if (document.info.email.value=="")
{
 alert ("Please input your e-mail address.")
 return false
}
}
//-->
</script>
```

Comment tags hide the script from older, non-JavaScript capable browsers so they don't display it

Tip: *Here's a diagram that explains the* `if` *statement variables:*



2. Paste it between the **<HEAD>** tags in infoform.html.

Modify the ‹FORM› tag

1. Add a **NAME** attribute to the **<FORM>** tag. Name the form "info:"

```
<FORM NAME="info" METHOD="POST"
action="http://www.yourserver.com/cgi-
bin/formmail.pl">
```

2. Add the attribute **ONSUBMIT** to the **<FORM>** tag. Tell the form that when the submit button is clicked, perform the function **return validate()**:

```
<FORM NAME="info" METHOD="POST"
ONSUBMIT="return validate()"
action="http://www.yourserver.com/cgi-
bin/formmail.pl">
```

3. Save the page. Notice how the JavaScript's if statement input variables have the same name as the form's input fields:

```
‹script›
‹!--
function validate()
{
if (document.info.name.value=="")
{
 alert ("Please input your name.")
 return false
}
if (document.info.address.value=="")
{
 alert ("Please input your address.")
 return false
}
if (document.info.email.value=="")
{
 alert ("Please input your e-mail address.")
 return false
}
}
//--›
‹/script›
```

```
‹TABLE WIDTH="50%"
CELLPADDING="4"
BORDER="0"›‹TR›‹TD
WIDTH="5%"›‹P
ALIGN="right"›Name:‹/TD›
‹TD WIDTH="45%"› ‹INPUT
TYPE="text" NAME="name"
SIZE="20"› ‹/TD›‹/TR›‹TR›
‹TD›‹P ALIGN="right"›Address:‹/TD›
‹TD ‹INPUT TYPE=TEXT
NAME="address" SIZE="20"›
‹/TD›‹/TR›‹TR›
‹TD›‹P ALIGN="right"›E-
mail:‹/TD›‹TD› ‹INPUT TYPE="text"
NAME="email" SIZE="20"›
‹/TD›‹/TR›‹TR›‹TD›‹/TD›‹TD› ‹INPUT
TYPE="submit" VALUE="Send me
info"› ‹/TD›‹/TR›‹/TABLE›
```

4. View infoform.html in the browser. It should look and work like the form at www.visibooks.com/validate.

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Covers both basic and advanced features of one of the easiest to use site-building programs.

FrontPage 2000 for Visual Learners
Teaches people how to build Web sites using FrontPage 2000. Addresses improvements from previous versions.

The Visual Learner's Guide to Managing Web Projects
Goes beyond the nuts-and-bolts of site-building to show people how to plan, organize, build and manage effective Web sites.