

Other ways of setting off text

Preformatted text

If you have text for which you want to retain line breaks and spacing within lines, use the HTML preformatted text tags:

```
<pre>preformatted text</pre>
```

Preformatted text is useful if you want to include a poem where spacing is an important element, a computer program, directions for using commands, etc.

Preformatted text appears in fixed-width characters (typewriter text) with lines and spaces as you typed them. Below is an example of how preformatted text would appear in your text file:

```
<pre>
There was an old woman who lived in a shoe.
She had so many children, she didn't know what to do.
She gave them some broth without any bread.
She spanked them all soundly and put them to bed.
</pre>
```

Here's how it would appear on your Web page:

```
There was an old woman who lived in a shoe.
She had so many children, she didn't know what to do.
She gave them some broth without any bread.
She spanked them all soundly and put them to bed.
```

Long quotations

To indicate long quotations in HTML, use the “blockquote” tag:

```
<blockquote><p>This is for long quotations.</p></blockquote>
```

Within the blockquote tags, include the tags you would usually use for formatting text (<p></p>, , <i></i>). How the blockquote appears depends upon the browser with which it is viewed. Some browsers indent the quote while others italicize it. You can use multiple paragraphs within the blockquote tags.

Horizontal rules

To separate major sections of your HTML page or to divide text from graphics, use a horizontal rule tag:

```
<hr />
```

This tag has no text associated with it and stands alone. It will insert a rule completely across your HTML page.

You can add attributes to the `<hr />` tag to change its appearance and increase the graphic interest of your page.

The “width” attribute defines the width of the rule in pixels. You can also define the width as a percentage of your screen. The “size” attribute defines the height of the rule in pixels. The tags look like this:

```
<hr width="n" /> where "n" is the number of pixels.  
<hr width="n%" /> where "n" is the percentage of the screen you want  
your rule to occupy.  
<hr size="n" /> where "n" is the number of pixels high your rule should be.
```

Note: The pixel is a very small unit. Try this exercise to get an idea of how large to make your measurements:

Exercise 6: Adding a horizontal rule

1. Just above the `</body>` tag in your document, type the following:

```
<hr width="640" size="10" />
```

2. Save and reload your document.
-

Including images in an HTML file

One of the most exciting features of the Web is that it allows you to include images in your document. Images that are viewed within the browser page are called “inline images.” To create an inline image:

- Convert your photograph or other image to “gif” or “jpg” format. Scanning software and other software programs allow you to do this easily.
- It is possible to include images located anywhere on the Web in your documents; however, it is easiest to store the images in the same directory or folder as your text file.
- Filenames for images are case-sensitive. This means that “sunset.gif” is not the same as “SUNSET.gif.”

- The tag for inline images is

```
 or  

```

In this tag, “img” indicates that you are including an image, and “src=” identifies the image (“filename.gif” or “filename.jpg”). Be sure to include the quotes around the filename.

The “alt” tag is used to include text that describes the image. Alternate text makes Web content accessible to people with disabilities and to those whose browsers do not display graphics.

- You can place graphics either on their own lines on your Web page or include them right in your text.

To include a graphic on a line by itself (for example, before or after a heading), type the image tag in the appropriate place.

If the image occurs in the middle of text and you want extra space around the image, include paragraph `<p></p>` tags before and after the image tag.

You can place images right in your text by typing the image tag as part of a paragraph. Suppose in the text you’ve already typed, you want to put a spider web next to your first heading, “Preparing a Document for the World Wide Web.” In your HTML file, immediately after the `<h1>` tag, you would type

```

```

The entire line would look like this:

```
<h1>Preparing a Document for  
the World Wide Web</h1>
```

In the next exercise, you will include an inline image on your Web page.

Exercise 7: Including an image

1. In your HTML file, immediately after the `<h1>` tag, type the following:

```

```

2. Save the changes you’ve made to the file.
3. In your Web browser, click “Reload current page” to view the image.

If you type the image tag as above, the bottom of the image is aligned with the baseline of your text (this is the default). Your image would look similar to the one below:



Preparing a Document for the World Wide Web

You can align the top of the image with the top of your text by using the following options in your “img” tag:

```
<img align=“top” src=“spid.gif” alt=“spider in a web” />
```

Your page would look similar to this:



Preparing a Document for the World Wide Web

You can align the center of the image with the baseline of your text by using the following options in your “img” tag:

```
<img align=“middle” src=“spid.gif” alt=“spider in a web” />
```

Your page would look similar to this:



Preparing a Document for the World Wide Web

You can also have text flow around images by aligning the image to the left or right of the page. The tags would look like this:

```

  (image on the left; text to the right of it)

  (image on the right; text to the left of it)
```

In the next exercise, you will add an “align” attribute to the “img” tag and see how it changes the look of your document.

Exercise 8: Changing image placement

1. In your HTML file, add align=“left” to the image tag you’ve already created. The tag should look like this:

```

```

2. Save the changes you’ve made to the file.
3. In your Web browser, click “Reload current page” to view the image.

Hypertext links

What makes hypertext “hyper” is its ability to link to other information. This can be information in the same document, in another of your site’s documents, or from documents anywhere in the world. It can be text, graphics, sounds, movies, and more. Links appear on your Web page as highlighted (and sometimes, underlined) text.

To create a link, you use the “anchor” tag. Anchors mark the beginning and end of a hypertext link. The tag looks like the one below:

```
<a href="filename.html">Interesting Web sites</a>
```

- The first part of a link contains the opening anchor tag. In the tag
 - “a” indicates the anchor.
 - “href” (**H**ypertext **R**eference) indicates a link **to** another object (text, an image, etc.).
 - The filename indicates the object being referred to. Instead of a filename, you can include a URL (an Internet address) that names a resource somewhere else on the Internet.

- The text after the opening tag (in the above example, “Interesting Web sites”) will appear highlighted on your page.
- The link ends with the closing anchor tag ``.

Note: Be sure that you don’t leave a space between your text and the closing anchor tag or press ENTER before typing the closing anchor tag. Doing so will cause a blank underlined space after your linked text.

Links to other documents in the same directory (folder)

The easiest hypertext links are to other documents in the same directory (folder) as the document you are creating. For example, suppose you have discovered that certain characters will not work as regular text in your Web documents because they are part of HTML tags (e.g., “<” and “>”).

In your page on preparing documents for the Web, you might want to add a link to a document named “special.html” that shows how you can use special characters in your Web documents. At the appropriate place in your text, you would type

```
<a href="special.html">Special characters</a>
```

On your Web page, “Special characters” will be highlighted and clicking those words will take you to another document about using special characters.

The next exercise will allow you to create a link to another HTML document. In addition, the link will be part of the list of HTML structural elements you have already begun.

Exercise 9: Linking to a document in the same directory

1. In your HTML file, above the `` tag, type

```
<li><a href="special.html">Special characters</a></li>
```

2. Save the changes to your HTML file.
3. In your Web browser, click “Reload” to view the page.
4. Click the “Special characters” link to see the page you have linked to.

Note: You can find many more references for special characters listed at http://www.hotwired.lycos.com/webmonkey/reference/special_characters/.

Links to other Internet resources

You can link to other resources anywhere on the Internet by creating a hypertext reference to a URL (**Uniform Resource Locator**—the Web’s addressing system). For example, suppose you know that there is a site that contains information about creating Web pages as well as tutorials to help you do so. You might want to add the Internet address to your Web page. To do this, you would type

```
<a href="http://hotwired.lycos.com/webmonkey/">Webmonkey: Web  
Developer's Resource</a>
```

Notice that the entire URL for Webmonkey is included between the quotation marks. In your text, “Webmonkey: Web Developer’s Resource” will be highlighted and clicking the text will take you to the Webmonkey home page.

The next exercise will allow you to create a link to an Internet resource.

Exercise 10: Linking to Internet resources

1. In your HTML file, after the `</p>` tag that follows the line, “to indicate navigation on your pages,” type

```
<p>  
The <a href="http://hotwired.lycos.com/webmonkey/">  
Webmonkey: Web Developer's Resource</a> provides  
tutorials for HTML and other Web programs. There is  
plenty of information available to help you become an  
expert spinner of Web documents.</p>
```
2. Save the changes to your HTML file.
3. In your Web browser, choose “Reload current page” to see the link to the Webmonkey site.
4. Click the highlighted “Web Monkey: Web Developer’s Resource” to see what categories of information are offered.
5. Click the “Back” button on the navigation toolbar to return to your page.

Avoid the “click here” trap

When someone looks at your HTML file, the first thing they will notice is the highlighted text that indicates information you have linked to. If readers see five or six occurrences of “click here” on your page, they may not be motivated to read through the text to discover what yet another “click here” refers to. A more

useful practice is to choose one or two key words that will lead your reader to the important information directly. Thus having “Bill of Rights” highlighted (highlighted text indicated here by underlining) on your page is much more useful than “Click here for the Bill of Rights.”

More About Links

In the “Basic HTML 1” class, you created links to a document in your own directory and to an Internet document. But what if you want to link to another location in the same document? You can do this by creating what is called an “anchor.”

Suppose on your Web page, you want to create a link from a table of contents to the list of style tags. The anchor would look like this:

```
<a name=“style”>Style Tags</a>
```

About anchors

1. The anchor is a hidden reference. In your text, “Style Tags” will not be highlighted. The anchor marks the words as a destination for an HTML link.
2. The “name” attribute takes a keyword that will identify the anchor when it becomes the destination of a link. In the above example, the keyword is “style.” You can use any word for the keyword.
3. In the anchor, “Style Tags” is the text readers will jump to when they click the link in the Table of Contents.

Linking to the anchor

When you want to link to an anchor, you use the familiar “href” tag. However, this time, you add the keyword for the anchor to the hypertext reference. For example, to have your readers jump quickly from a table of contents to the list of style tags, you would create a link in the table of contents that looks like this:

```
<a href=“#style”>Style Tags</a>
```

In the “href” tag, the “#” character tells the browser to search the document for the anchor with the keyword “style.” Clicking on the hypertext, “Style Tags,” in the table of contents will take you to the list of Style tags.

Linking to a specific section of a different document

You can also use anchors to enable readers to jump to a specific location in a different document. For example, in the file on special characters that you linked to previously, you might want to have a link back to “Style Tags.” To create this link, in the “special.html” file, you would include the name of the destination document as well as the keyword in your “href” tag:

```
<a href=“index.html#style”>Using Style Tags in Web documents</a>
```

When someone clicks on the hypertext, “Using Style Tags in Web documents,” they will immediately link to the “Style Tags” section in the “index.html” document.

In the next exercise, you will create an anchor in your “index.html” file. Then you will link to that location from another section of the same file and from a different file.

Exercise 2: Linking within a file

1. Start Notepad:
 - A. In Windows XP, click the “Start” button.
 - B. Highlight “All Programs.”
 - C. Highlight “Accessories.”
 - D. Click “Notepad.”
2. From the File menu, select “Open.” In the “Open” dialog box, navigate to the “Scratch” folder. Click the “index.html” file name to select the file; then, click “Open” to open your Web page file.
3. In your “index.html” file, add the tags for an anchor around the ordered list item “Style Tags.” Your file should look like this:

```
<li><a name="style">Style Tags</a></li>
```

4. Immediately after the </h1> tag, type the following:

```
<h2>Table of Contents</h2>  
<a href="#style">Style Tags</a>
```

5. Save the changes you’ve made to your text file.
6. Start Netscape to look at your Web page:

In the Applications folder, double-click the “Netscape” icon.
7. From Netscape’s “File” menu, select “Open File.”

Continued on next page

Exercise, continued

8. Select the scratch folder to locate your HTML file and then select the name of the file you want to open:

index.html

9. Click “Open.”

Your HTML file will appear in the browser’s window.

10. Click the highlighted text in the table of contents. You will jump immediately to the section in your document on style tags.
11. In your Web browser, click the highlighted text “Special characters.” This will take you to the document on using special characters in your Web files. At the bottom of the special characters document, click the highlighted text “Using Style Tags in Web documents.” You will move to the “Style Tags” section in the “index.html” document.

Note: One anchor can be the target of more than one hypertext link.

Hypergraphics

You can extend the flexibility of your Web page by transforming images into hypertext links. When you do this, you can click an image to go to another image or to another HTML document. Two common uses of hypergraphics are

- to provide navigation buttons that users can click to move back and forth in your document.
- to use “thumbnail” images as buttons that users can click to see a larger representation of the image. (This reduces loading time but still allows you to provide large images with your Web pages.)

To create a hypergraphic, put the tag for the inline image within the tag for the link. Suppose you want to add a navigation button that would take users to the University of Delaware’s home page. Your HTML tag would look like this:

```
<a href="http://www.udel.edu"></a>
<a href="http://www.udel.edu">University of Delaware</a> home page
```

Note: If you don’t include the border=“0” attribute in your “img” tag, you will have a blue border around the image.

This tag produces the following on your Web page:



University of Delaware home page

The user can click either the button or the highlighted text to go to the University's home page.

A few observations about tags for hypergraphics:

- Begin with an anchor tag. The above example shows a URL (``) to link to the University of Delaware's home page. You could also link to another HTML file or to another graphic.
- Next include the tag for the image (also a URL in this case): (``).
- You can also include text next to the image that the user can click to go to the desired Web information.
- Be sure to include the closing anchor tag (``) at the end of the link.

In the next exercise, you will create a link for a navigation button.

Exercise 3: Creating a link for a navigation button

1. In your "index.html" file, type the following just above the `</body>` tag:

```
<a href="http://www.udel.edu">
</a>
<a href="http://www.udel.edu">University of Delaware</a>
home page
```

Be sure to add a space between the image tag and the anchor tag for the text "University...."

2. Save the changes to your file.
3. In your Web browser, click "Reload current page."
4. Click the UD logo at the bottom of the page. You will jump to the University of Delaware home page.

Thumbnail images

Thumbnail images are smaller versions of a picture or other image you want on your Web page. You create the small image with your graphics program (e.g., Adobe Photoshop) by scaling down the larger image. You can then make the thumbnail image a hypergraphic that links to a larger version of the image. The HTML tags would look like this:

```
<a href="large.gif"></a>
```

Adding a color background

You can control the following five aspects of color in a Web document:

Aspect	HTML attribute
the background	bgcolor
regular text	text
unvisited links	link
visited links	vlink
the currently active link	alink

Each of the attributes can be used within the “<body>” tag to change the document’s appearance.

The color codes for the Web are in hexadecimal notation. They are made up of 3 sets of 2-digit codes with each 2-digit code representing the amount of red, green, or blue that makes up the color. For example, a color that starts with 00 has no red and a color that ends in 00 has no blue. A color that starts with FF has full red and a color with FF as its middle pair of digits has full green.

Note: There are 216 colors that are shared by Macintosh and Windows computers. These are known as “web-safe colors” because they will display alike on either type of computer. You can find a list of web-safe colors online (http://hotwired.lycos.com/webmonkey/reference/color_codes/). If you use colors that are not web-safe, you cannot predict how the color will appear on a particular type of computer.

Below is a list of 10 colors with their hexadecimal equivalents:

White	#FFFFFF
Red	#FF0000
Green	#00FF00
Blue	#0000FF
Magenta	#FF00FF
Cyan	#00FFFF

Yellow	#FFFF00
Black	#000000
Brown	#996600
Orange	#FF6600

To use a color as a background, insert the “bgcolor” attribute into the “<body>” tag’s brackets at the top of your page. Then assign the color value for the background. The HTML tag for setting the background color is

```
<body bgcolor="#xxxxxx">
```

where *xxxxxx* represents the hexadecimal color code.

Note: In the following exercises, what you have already typed is in plain text—you do not need to retype it. The text you need to type is in **bold**.

Exercise 4: Adding a background color

1. In your “index.html” file, you will add a background color by adding the “bgcolor” attribute to the “<body>” tag. (In this example, we use a light blue.)

```
<body bgcolor="#99CCFF">
```

2. From the “File” menu, select “Save.”
3. Return to the browser by clicking its name in the Taskbar.
4. Click the “Reload current page” button on the Netscape toolbar to see the change.

Note: A change in background color may require a corresponding change in text color to keep your page readable.

Adding a tiled-image background

To give your pages a “graphic” background (rather than a solid color background), you can include an image file (which must be in GIF or JPEG format) in the <body> tag. The image will be laid side-by-side across the screen to create a patterned background. This process is called tiling. The number of “tiles” on the page is proportional to the size of the image you use. The HTML tag for using an image as a background is

```
<body background="filename.gif">
```

or

```
<body background="filename.jpg">
```

where “filename” is the name of your image file.

Exercise 5: Adding a background image

1. Return to the text editor (NotePad) by clicking its name in the Taskbar at the bottom of the Windows screen.
2. Add a background image by replacing “bgcolor” in the <body> tag with “background” followed by the filename for the graphic. In this case, the filename is a URL.

```
<body background="http://www.udel.edu/topics/learning/tutorial/spiral.gif">
```

3. From the “File” menu, select “Save.”
4. Return to the browser by clicking its name in the Taskbar.
5. Click the “Reload current page” button on the Netscape menu bar to see the change you’ve made.

CSS files

The organization that sets the standards for all things Web is called the World Wide Web Consortium (W3C; <http://www.w3c.org>). So that all people have access to information on the Web, the W3C urges Web designers to separate the structure of their pages (for example, headings and lists) from the style (for example, bold, italics and color). The W3C has developed a method for separating structure and style called Cascading Style Sheets.

Cascading Style Sheets can be used in three different ways. They can be included in your HTML document to define styles throughout the document, linked as external files, or applied locally (to a single instance) in your HTML file. They are called cascading because of the way they behave: local styles override internal styles which, in turn, override external style sheets.

To see the effect a Style Sheet can have on your Web page, you’ll link an already created external CSS file to the page you’re creating. This Style Sheet will color the text for your H1 tag red and italicize it.

External Style Sheets can have any name and must have the extension .css. Suppose you have a Style Sheet named “style.css.” To link it to your HTML file, you would include the following immediately after the </title> tag in the <head> portion of your file:

```
<link rel=stylesheet type=“text/css” href=“style.css”>
```

In the following exercise, you will link an external CSS file to your HTML file to change the appearance of the h1 tag.

Exercise 6: Adding a CSS file

1. Return to the text editor (NotePad) by clicking its name in the Taskbar at the bottom of the Windows screen.

2. In the <head> portion of your HTML file, link to the external CSS file:

```
<html>
<head>
<title>
Preparing a Document for the World Wide Web
</title>
<link rel=stylesheet type=“text/css” href=“style.css”>
</head>
```

3. From the “File” menu, select “Save.”
4. Return to the browser by clicking its name in the Taskbar.
5. Click the “Reload current page” button on the Netscape toolbar to see the change you’ve made.

You can control many aspects of your Web page design through the use of Style Sheets such as specifying a font family; selecting font size; creating italic, bold, and colored text; setting the line height, spacing, alignment, etc. To learn more about CSS files, read the section on the W3C’s Web page. There are also tutorials and more information at the Webmonkey: WebDeveloper’s Resource (<http://hotwired.lycos.com/webmonkey/authoring/stylesheets/>).

Table tags

To better organize information, you can create a table using the <table> tag. Inside the <table></table> tags, you define the contents of the table. Tables are created row by row, and each row contains definitions of each of the cells in that row. To define a table, you start by defining the top row and each cell in turn;

then you define a second row and its cells, etc. Columns are automatically calculated based on the number of cells in each row. The basic table tags are

<code><table></table></code>	begin and end a table
<code><tr></tr></code>	define a table row
<code><th>table heading</th></code>	label the rows or columns or both
<code><td>data</td></code>	include data in the table
<code><caption>caption text</caption></code>	give the table a caption

In the next exercise, you will create a table. A border does not display around a table automatically. (This feature is useful because it allows you to display information in columns on the Web.) You must add a “border” attribute to have a border displayed.

You can also add a caption to the table to describe its contents. By default, the caption appears centered above the table.

Exercise 7: Creating a table

1. Return to your text editor (Notepad) by clicking its name in the Taskbar.
2. Type the following table tags at the bottom of your file, just before the `<hr />` tag. These table tags will define a table that contains 2 rows and 3 columns as well as add a border and a caption to the table.

```
<table border="1">
<caption><b>Here's a Table Caption</b>
</caption>
<tr>
  <td>cell a</td>
  <td>cell b</td>
  <td>cell c</td>
</tr>
<tr>
  <td>cell d</td>
  <td>cell e</td>
  <td>cell f</td>
</tr>
</table>
```

3. From the “File” menu, select “Save.”
4. Return to the browser by clicking its name in the Taskbar.
5. Click the “Reload” button from the Netscape menu bar to see the table you’ve created

Spacing within cells

You can also add attributes to control how much space surrounds the information in the table cells and how much space is left between cells (that is, how wide the lines are between the cells).

Cell padding

You can use the “cellpadding” attribute to control the space around the information in the table cells. By default, Netscape uses spacing of 1 (pixel) between the cell’s borders and contents. You can increase the space by using a number higher than 1.

Cell spacing

You can use the “cellspacing” attribute to control the space between the table cells (increase the width of the lines). By default, Netscape makes the lines 2 (pixels) wide. You can increase the width by using a number higher than 2.

Table headings and alignment

To describe the columns in the table, you can add table headings. Table headings are centered horizontally and vertically in the cells. The default alignment for text in your cells is vertically centered and aligned flush left. You can change the default so that the text in the table cells is centered. To align the text, use the “align” attribute with the <tr> tag.

In the next exercise, you will add generic table headings and change the alignment of the text in the table cells. You will also add the “cellpadding” and “cellspacing” attributes to the <table> tag.

Exercise 8: Adding table headings and alignment

1. Return to the text editor (NotePad) by clicking its name in the Taskbar.
2. Insert the text in bold to add the cellpadding, cellspacing, and table headings to your table and to change alignment.

```
<table border="1" cellpadding="4" cellspacing="7">
<caption><b>Here's a Table Caption</b>
</caption>
<tr>
  <th>Column 1</th>
  <th>Column 2</th>
  <th>Column 3</th>
</tr>
```

Continued on next page

Exercise, continued

```
<tr align="center">
  <td>cell a</td>
  <td>cell b</td>
  <td>cell c</td>
</tr>
<tr align="center">
  <td>cell d</td>
  <td>cell e</td>
  <td>cell f</td>
</tr>
</table>
```

3. From the “File” menu, select “Save.”
 4. Return to the browser by clicking its name in the Taskbar.
 5. Click the “Reload current page” button on the Netscape toolbar to see the change.
-

Spanning cells across rows and columns

To make the layout of your page more interesting, you will probably want to have tables where a cell spans two or more columns or two or more rows. You can create cells like this with the “colspan” and “rowspan” attributes.

Colspan

You can use the “colspan” attribute to have a cell span two or more columns. The “td” tag with a “colspan” attribute looks like this: `<td colspan=n>`, where “*n*” is the number of columns you want the cell to span.

Rowspan

You can use the “rowspan” attribute to have a cell span two or more rows. The “td” tag with a “rowspan” attribute looks like this: `<td rowspan=n>`, where “*n*” is the number of rows you want the cell to span.

In the next exercise, you will add a cell that spans two columns and a cell that spans two rows.

Exercise 9: Continuing the table

1. Return to the text editor (Notepad) by clicking its name in the Taskbar at the bottom of the Windows screen.
2. Just above the `</table>` tag, insert the text in bold to add table rows that include the `colspan` and `rowspan` attributes in the `<td>` tags.

```
<table border="1" cellspacing="4" cellpadding="7">
<caption><b>Here's a Table Caption</b>
</caption>
.
.
<tr align="center">
    <td>cell d</td>
    <td>cell e</td>
    <td>cell f</td>
</tr>

<tr align="center">
    <td colspan="2">cell g</td>
    <td rowspan="2">cell h</td>
</tr>

<tr align="center">
    <td>cell i</td>
    <td>cell j</td>
</tr>
</table>
```

3. From the "File" menu, select "Save."
 4. Return to the browser by clicking its name in the Taskbar.
 5. Click the "Reload current page" button on the Netscape menu bar to see the change.
 6. To close Notepad, click the "X" in the upper right corner.
-