

HTML, or Hypertext Markup Language, is the computer language used to create web pages for the Internet and the World Wide Web. HTML is relatively simple to learn, which means that almost anyone can create a personal web site, show-casing their hobby, pets, children or whatever.

One of the best ways to learn HTML is to go to a page you like, and then view and/or copy that code, and dissect it to look at the parts you would like to use, and then integrate that code into your own web page.

To view the source code of a page while using Netscape, go to View and then Page Source, and then a separate browser page will open giving you all the code for that page. In order to copy that code, you need to select all the pertinent code with your mouse, and then use Ctrl+C, the keyboard command for copy. You can then past the code into Notepad or your HTML editor. Please note that with frames, this will only give you the code for the main frame. To view the code of each individual frame, right click in the frame you want to see, and then choose View Source.

Although WordPad and Notepad can be used to create web pages, I would suggest using a free HTML editor, such as Arachnophilia (<http://www.arachnoid.com/arachnophilia/>), for editing, since it can greatly assist in troubleshooting, as well as reducing the amount of typing you will need to do.

HTML Basics

HTML code is contained within greater than/less than, or angle, brackets (< >), and the combination of code + brackets is called a tag. HTML code can be written in either upper or lowercase, but the latest conventions prefer using lowercase, since this will not interfere with XML. Every page contains the same basic information and will, when all the details are pared away, look pretty much like this:

```
<html>
<head>
<title>Web Page Title</title>
</head>

<body background="Money.jpg" bgcolor="#ffffff" text="#000000" link="#0000ff"
vlink="#800080" alink="#ff0000">

</body>
</html>
```

The **<html></html>** tags tell the browser that all the information contained between the opening **<html>** tag and the closing **</html>** tag is a web page. The **<head></head>** tags designate the head section of the document which contains the title information and sometimes other information, such as JavaScript code, some frame code and the meta tags for search engines. The **<title></title>** tags give the browser a name or title the title bar of the browser. (This is the blue bar running across the top of the screen. For this page, the title is "HTML Lesson".) These tags are required for a web page, and both opening and closing tags must be present.

As mentioned, the head section can also provide information for search engines, using the `<meta>` tag. `<meta>`, which does not have a closing tag, has several different attributes that are used by search engines to classify web sites. The attribute `name="keywords" content=""` should contain a concise description of what is discussed on the page, with each heading word separated by a comma. The attribute `name="description" content=""` gives a description or summary of your page for search engines to use. Each of these attributes belongs in its own meta tag. For example:

```
<meta name="keywords" content="HTML Code, HTML Lessons">
<meta name="description" content="HTML Basics for beginners.">
```

The `<body></body>` tags designate what information is placed upon the viewer's screen, and contain information to modify some elements of the page. The `<body>` tag has several attributes, which define the elements of the page. The `bgcolor` attribute determines the color of the background, the `text` attribute sets the color for the text of the page, while the `link`, `vlink` and `alink` attributes set the color for the various hyperlinks. The `link` attribute sets the color for a normal clickable hyperlink, `vlink` designates the color of links to pages that have already been viewed by the visitor, and `alink` is for active links, or links after they have been clicked on, as they are being processed. The colors for these attributes can be set using either the sixteen named colors: white, gray, silver, black, red, green, purple, blue, yellow, maroon, lime, fuchsia, olive, navy, teal, and aqua; or a hexadecimal code, placed in quotation marks. Most HTML editors use hexadecimal codes, since this allows for a wider variety of colors within the page and allows for selection using a color chart. (In the above example, #ffffff is white, #000000 is black, #0000ff is blue, #800080 is purple and #ff0000 is red.) Be careful with text and background colors; some color schemes may be attractive, but they make text extremely difficult to read.

Another attribute of the body tag is `background`. This attribute is used to set up a background image (wallpaper) for the page. Please note that only jpg (Joint Photographic Experts Group) and gif (Graphics Information File) images should be used. Also note that the HTML file and the image file should be located within the same folder, unless the code specifies that the image is in another folder. Be careful when using a background; although any image can be used as a web page background, most images are not suitable for use as such. In general, small, tiling images are best, because they will load quickly onto the page. It is also important to make sure that the background is not an image that detracts from the page. The object of a background is to be just that--in the background. Washed out images in muted colors work best as backgrounds. Even though it is not required, it is a good idea to use a background color in combination with a background image. This way, if the image used as the background fails to load, or if the image loads slowly, the scheme of the page is still maintained and text is still legible. White or yellow text against a white background is almost impossible to read.

Hidden Text or Comments

The tags `<!--` (left bracket, exclamation point, dash, dash) and `-->` (dash, dash, right bracket) are used to place comments within the page that are hidden from the viewer. These comments can be placed within the head or the body of the document, although comments in the head of the document are commonly for JavaScript or frames. Words, lines or paragraphs of text can be placed within the hidden text tags.

```
<!-- This is how hidden text is added to the code -->
```

Hidden text is helpful if there are multiple people working on a page, since it can serve as an explanation of what sections of code are supposed to do. It is also used to hide JavaScript from older browsers that do not read JavaScript, and hidden text can be used as a marker in the code, making a specific section easier to find.

Breaks and Rules

HTML automatically wraps sentences to the size of the browser window, and does not normally follow any text formatting; manual breaks must be added to the code. There are two types of breaks: A line break `
`, which is akin to hitting the enter key once and the end of a line, and a paragraph break `<p>`, which is equivalent to hitting the enter key twice at the end of a line. Neither break has a closing tag. A line break will always add a space. 15 line breaks will create 15 blank lines. A paragraph break only places space between two lines of text. If space is needed between images, stick with using the line break.

Another element without a closing tag, is the horizontal rule `<hr>`. This simply inserts a line that runs across the page that separates one section of the page from the following section of the page.

Exercise:

Create a basic web page and use an image (any image) as the background.

Formatting text

Although the color of the text is set within the head of the document, there is much more that can be done to change the way letters look in a web page. Text formatting within the page is done using the `` tags. The `` tag is placed at the beginning of the text to be formatted and then the `` tag is placed at the end of the line of text. The font for an entire page can be set by placing the `` tag directly beneath the `<body>` tag and the `` tag directly above the `</body>` tag.

There are several attributes of the font tag. The **face** attribute sets the font face for all text between the tags. A primary and secondary (or even a tertiary) font can be set, which allows you to use a more obscure font, while having a more common font as the secondary or backup font. If the first font does not exist on the viewer's computer, the second font will be used. If that second font also does not exist, then a third font will be attempted. If a web page specifies a font that a user's computer does not have, then the default font, typically Courier is used.

Another font attribute is **size**, where the size can be set to + or - 1, 2 *or* the font can be set with a size of 1 through 7. 3 is the default font size, so 1 and 2 are smaller than the default size, while 4 through 7 are larger than the default size. The color can be set, again using either hexadecimal code or a color name, with the **color** attribute.

```
<font face="Creepy, Arial" size="5" color="red"> ... </font>
```

Font Size One
Font Size Three

Font Size Seven

Styles, such as bold, italicized, or underlined text, are easily set using HTML code. The tags are:

`` for **bold**
`<i></i>` for *italic*
`<u></u>` for underline
`<s></s>` for ~~strikethrough~~.

Headings are text that is larger or smaller than normal text, and offset with space preceding and following the heading. Although there are similarities to the headings used in word processing, there are some major differences. There are six heading tags:

`<h1></h1>`, `<h2></h2>` and `<h3></h3>` are larger than normal text and `<h4></h4>`, `<h5></h5>` and `<h6></h6>` are smaller than normal text with **h1** being the largest and **h6** being the smallest.

Heading One

Heading Six

HTML Code Characters

HTML code characters are simply codes for letters that have specific designations within HTML, or for accented and non-keyboard characters. For example, the characters `<` and `>` will not show up in a web page, and attempting to use them can cause errors, so HTML character codes must be used. The problem with HTML Character Codes is that they are difficult to remember, so a code list has to be referenced when a character is needed.

Some commonly used character codes are:

<code>&#233;</code>	or <code>&eacute;</code>	for é (such as in the word <i>résumé</i>)
<code>&#60;</code>	or <code>&lt;</code>	for < (less than symbol)
<code>&#62;</code>	or <code>&gt;</code>	for > (greater than symbol)
<code>&#38;</code>	or <code>&amp;</code>	for & (ampersand)
<code>&#35;</code>		for # (pound sign)
<code>&#181;</code>	or <code>&micro;</code>	for μ (micro sign)
<code>&#162;</code>	or <code>&nbsp;</code>	for a space ()
<code>&#160;</code>	or <code>&cent;</code>	for ¢ (cent sign)

Exercise:

Add to your web page information you would like to share with the world, such as your name, name of your significant other, tell a little about your job or make a page to tell about your pet(s). Use formatted text and a character code somewhere (such as an ampersand).

Hyperlinks

A Hyperlink is simply a word or image in a hypertext document that links to a file, another web page, or a different part of the same page. All links are made in a similar manner. The basic tag is `` or hyperlink reference anchor tag, where the address of the link goes between the quotation marks, and the image or words are the clickable link, and are placed between the tags.

You may also want to place links back to your main page, from your "sub-pages" or internal pages. There are two reasons to do this: first is that if someone links to a page within your web site, you will want visitors to be able to work their way back to your main page, instead of only getting the information from that one internal page. The second reason is that search engines might pick up information from one page within your web site, and again, you will want visitors to be able to get back to your main site. Not that visitors typically will, but it is always good to give them options.

External Link

An external link is the basic link, upon which all other links can be seen as variants. The basic format is simply to tell the browser that when a user clicks upon the hyperlink, the browser should look for the designated address, and then go to that address. The address must go between the quotation marks, and should be the full address, including the `http://` part of the address. The easiest way to do this is simply to copy and paste addresses from the browser location bar into the web page. This will ensure not only that the web site is still active, but that a colon or slash are not forgotten. The space between the opening and closing tags can contain either words or an image, which then becomes the clickable link.

`Connect to WVU`

Internal Link

Internal links are set up slightly differently, and require an anchor link `` and an anchor target ``, in separate areas of the page. An internal link would be used in something like an alphabetical listing, where pressing on the hyperlinked "S" would take the browser down to the first name starting with "S" located halfway through the page, where the `` tag is located. Another use would be to have the target `` at the top of the page, and throughout the page have hyperlinks that would be `Go to the Top of the Page`. The anchor name target does NOT require anything between the opening and closing tags, but the anchor hyperlink reference tag does.

``This tag is placed throughout the document, and creates a link to the top of the current page.

``This tag is placed at the top of the document, and it is for this like that the browser looks.

E-mail Link

An e-mail link can be placed upon the page. When this anchored hyperlink reference tag, ``, is clicked, it tells the browser to bring up either the e-mail program, or the e-mail client within Netscape, depending upon to default settings for that computer. The e-mail address is placed between the mailto: and the closing quotation mark.

`Send mail to John Doe`

File Link

A file link allows a viewer to download a file from the web site. It is simply a regular anchored hyperlink reference tag `` where a file name and location are given instead of a web page address. Make sure that the document is located in the same folder as the webpage.

`Word Document`

Exercise:

Place various hyperlinks within your web page: a link to your favorite pages, an e-mail link, internal links, etc.

File Organization

First things first, you should probably create a folder specifically for your web page files; this will make things much easier in the long run. If there are to be multiple pages within a web site, file organization is extremely important. Different sections of the web site can be saved in different folders, thus reducing the number of files in any directory. Although a web site consisting of only one or two pages may not need this level of organization, if frames are used organization will become necessary, since one page with two frames, requires three separate HTML files, as well as any associated images. Some web authors will place all their images in one folder, but my personal preference is to keep each section or page of the web site in its own folder, so that all the files needed for each page are all in one place. To reference a file in sub-folder, name that sub-folder, type a slash, and then name the file being linked to, within that folder.

``

The previous example references the HTML file "Fiction" that is located within the sub-folder Books.

To access a file that is in the main directory, from a file within a sub-directory, type two periods, a slash, and then the name of the file that is within the main directory.

```
<a href='../index.html'></a>
```

This example references the file index.html that is located within the main directory, when the current file is located in a sub-directory, such as Books. These conventions are the same as were used in DOS.

Images

It seems that one of the primary reasons personal web sites are created, is to show-off pictures of kids/pets/spouses/gardens/whatever. One of the most important things to remember is that no image should be larger than the size of the screen--and that not all screens are the same size! In other words, it is better to make small images than large ones. The second thing to remember is that if an image is only going to be viewed online, the resolution does not need to be larger than 96 dots per inch (dpi), and frequently 72 dpi is sufficient. The larger the image resolution, the larger the file size, and the longer it will take for the page to load. Reducing the resolution of an image will also reduce the size of the image.

Use the image source tag `` to insert a picture into the web page. An important attribute of this tag is **alt**, which gives text-based browsers a description of the image. The main users of such browsers tend to be the visually impaired, so they need a description of what each image is, in order to appreciate the entire page. There are programs, such as Bobby, that can check a site to make sure it is fully accessible and making complete use of the **alt** attribute.

The **height** and **width** attributes can be set with either percentages, or with the actual numbers of pixels. Telling a browser the image size in pixels speeds the loading of a page, because it allows the browser to designate space for that image, which then allows the browser to continue loading the rest of the page. This can give the viewer text to read, while large images load. The height and width can be found in most photo editing programs, usually under image properties. Be careful when making any changes using these attributes, since changing the height while leaving the width the same can lead to distortion of the image.

The border around an image can be given a specific size in pixels, or the **border** attribute can be set to zero if no border is desired. The default is for an image to have no border, so the primary reason for using the border attribute is to keep a border from appearing, such as when an image is used as part of a hyperlink.

The horizontal space and vertical space tags designate the space, in pixels, between an image and any surrounding text. Horizontal space, or **hspace**, is space to the left and the right of an image. Vertical space, or **vspace**, is the space on the top and the bottom of the image. The space given is the total space, which means that half of the space will go to the left or top of an image, and the other half of the designated space will go to the right or bottom of an image.

```
<img src ="picture.jpg" height="130" width="140" border="0" hspace="2" vspace="2">
```

This image picture.jpg has a height of 130 pixels, a width of 140 pixels, has no border, and the space horizontally and vertically surrounding the image is two pixels.

Alignment

The `<center></center>` tag can be used with text as well as with images and other page elements. Placed around the text or object, these tags center that text (or image, or table) in the middle of the page, and will re-center if the browser window is resized.

`<center>Text goes between the tags.</center>`

The **align** attribute can be used within the heading, image and table tags.

When align is used within the heading tags, it places the text contained within the tags to one side of the screen. The options are **left**, **right** and **center**.

To wrap text around an image, the align attribute goes within the image tag, and designates the placement of the *image*. The following tag will align the image to the left of the page and the text will wrap around the right of the image. Used with images the options are left, right and center, as well as top, bottom, and middle. Although left, right and center describe the alignment of the image within the page, top, bottom and middle describe the alignment of the text to the image.

``

One way to indent text is to use the `<blockquote></blockquote>` tags. All the text that is contained within the tags, will be indented, much like long quotations in books and magazines are. The blockquote command automatically places space between the preceding text and the quote and the quote and the following text.

A second way to align text is to use the `<dd>` or indented definition tag. This will indent the first line of text, although subsequent lines will be flush with the margin.

A third way to align text, is to use Pre-formatted text. The pre-formatted text `<pre></pre>` tag allows for designation of exactly where the spaces and breaks will be, but it uses a monospaced font, usually Courier. Pre-formatted text should be set up in Notepad, or WordPad. The text in the browser will look exactly as the text typed in Notepad or WordPad does. This is not the most attractive way to align text.

Exercise:

Create a folder for storage of your images, and then place images in your web page, preferably related to the subject matter. Go back and align previous text. Create a link using an image.

Lists

List elements are similar to numbering and bullets in word processing programs. An Ordered List `` is simply a numbered list, an Unordered List `` is a bulleted list, and a Definition

List `<dl></dl>` has the first line of text indented and all subsequent lines of text normal. The list item `` tag is for ordered and unordered lists and the indented definition `<dd>` tag is a subset of the definition list. Neither `` nor `<dd>` needs a closing tag.

The setups go as follows:

Unordered List	Ordered List	Definition List
<code></code>	<code></code>	<code><dl></code>
<code></code>	<code></code>	<code><dd></code>
<code></code>	<code></code>	<code><dd></code>
<code></code>	<code></code>	<code></dl></code>

Unordered and ordered lists can be combined within one list:

<pre> Football AFC NFC Baseball National League American League <p></pre>	<pre>1. Football o AFC o NFC 2. Baseball o National League o American League</pre>
---	--

Notice that both the ordered and unordered lists have automatic indents, and that the secondary list is indented further than the primary list.

Exercise:

Elaborate upon your web page using lists: a list of things you like/dislike about your spouse or your pet, your top ten favorite movies/books/TV shows, etc.

Tables

The use of tables goes far beyond organization of numbers and data in spreadsheet or word processing programs, although they can certainly be used in that manner. Because HTML can be restrictive in the way it aligns items, tables are frequently used to achieve greater flexibility on web page design. Be careful when using tables, to use all opening and closing tags, since forgetting a tag will lead to no table appearing in the browser. If you have errors in a table it is due to tag problems.

The primary elements of a table are the table `<table></table>` tags, the table row `<tr></tr>` tags, and the table cell, or table data, `<td></td>` tags. When setting up a table, the table tags are primary, the row tags are secondary and the data tags are tertiary. All three elements should be used in every table. A simple two row, four cell table would be set up so:

```
<table border=2>
<tr>
<td>cell 1</td>
<td>cell 2</td>
</tr>
<tr>
<td>cell 3</td>
<td>cell 4</td>
</tr>
</table>
```

cell 1	cell 2
cell 3	cell 4

Table Attributes

Tables have several attributes that can be modified to change the way a table looks, including making it look nothing like a table. The table **border** attribute gives border size in pixels, with the typical border size being 1 pixel. Setting **border="0"** will create a table with no border, which is frequently the setting when creating a table to arrange a page, or part of a page.

Another common attribute is table **width**, where the width can be set either in pixels or as a percentage. The table width would be set if a table needed to be a specific size, or to be set to the size of an object within that table--for instance if the table was to be set to the width of an image.

Different types of table attributes are **cellpadding** and **cellspacing**. Cells spacing determines the width of the inner cell walls. Cell padding is the amount of space, in pixels, between the cell contents and the cell walls.

Table with cellpadding=10 Table with cellspacing=10

cell 1	cell 2
cell 3	cell 4

cell 1	cell 2
cell 3	cell 4

Tables can also use colors and images as their backgrounds, with the same commands as are used within the body elements: **b bgcolor=""** and **background=""**. This can be applied to an entire table, a row, or to a single cell, but placing the background attributes within the **table**, **tr** or **td** tags.

To put this all together:

```
<table border="2" width="75%" cellspacing="5" cellpadding="10">
<tr>
<td background="image.jpg">Cell 1</td>
<td>Cell 2</td>
</tr>
<tr>
<td bgcolor="blue">Cell 3</td>
<td>Cell 4</td>
</tr>
</table>
```

In the above example, the table has a border of 2 and takes of 75% of the width of the screen. Cell 1 has a background image while the background color for cell three is blue. There are 10 pixels of space between the words and the inner walls of the cells, and inner width of the cell walls is 5 pixels.

Row and Column Span

There will be occasion when one cell will need to be twice (or more) as big as another cell, so the **colspan** and **rowspan** attributes are used with the `<tr>` and `<td>` tags. The **rowspan** attribute is used to span down multiple rows, while **colspan** goes across multiple columns. This can be confusing to keep straight, and sometimes requires a diagram of how the final table should look to keep things clear.

Table Miscellany

Table Headers

Table headers are simply headings within tables. The table header `<th>` tag automatically centers and makes bold, text within that cell.

Text within Tables

Regardless of any text formatting within a document, the text within a table is the default font (typically Courier). Changing the way that text looks within a table requires that the font be set within each and every cell of the table. This is time consuming and tedious, but does make a table look better. Also note that unless the size of a table or row or cell is specified, a cell will expand to the width of the text within that cell, which is why it is useful to specify width.

Images in Tables

Images can be easily inserted into tables, simply placing the image source `` tag between the table cell `<td></td>` tags. If text will be in the cell beneath an image, it can be helpful to set the width of the cell to the width of the image, to restrict the size of the text-containing cell.

Wrapping Text Around a Table

Wrapping text around a table allows text to flow around a table in a similar manner to how it wraps around images. The align attribute moves the table to one side and the text flows to the other. The align attribute is contained within the table tag.

```
<table align=right>...</table>
```

The preceding code causes the table to shift to the right of the screen and the text will flow along the left of the table. To stop text from flowing around a table, the **<br clear=left>**, **<br clear=right>** or **<br clear=all>** tags are used.

Adding Space Around a Table (Netscape only)

Netscape allows space to be added around a table, separating it from the surrounding text, using the hspace and vspace commands within the table tag. Hspace adds space in pixels to the right and the left of the table, and Vspace adds space in pixels to the top and bottom of the table.

```
<table hspace="10" vspace="20">...</table>
```

This example adds 5 pixels of space to the right of the table and 5 pixels of space to the left of the table with the hspace command, and then 10 pixels of space to the top of the table and 10 pixels of space to the bottom of the table with the vspace command.

NOTE: Internet Explorer will ignore this command completely and run the text right up against the image.

Exercise:

Using tables, arrange the images on your webpage, and place captions under the images, that are no wider than the images.

Frames

Frames are used to create webpages where multiple pages of code are viewed on a single page, with each page in a separate area, or frame, on the screen. A typical page with frames is set up with a small frame at the top, or left side of the window, and the rest of the page is the second frame. Multiple frames can be used, but it is not be a good idea to use more than three frames in one page. Frames can be created vertically or horizontally, depending upon the style of web page desired.

Frames are primarily used to make navigation of a web site easier. Used as a navigation tool, a small frame, usually to the top or the left of the page, will contain links to different areas within a web site or page. This smaller frame remains unchanged while the content of the larger frame changes.

Creating a Frameset

The first step in creating a page with frames is to make the frame definition page. The elements of the page are the `<frameset rows=""></frameset>` or the `<frameset cols=""></frameset>` tags, which provide the the height of each frame.

```
<frameset rows="100,* >
```

The rows attribute sets the height of the frames, in order of top frame to bottom frame, with the height for each frame given as numbers in pixels, and the heights for each frame separated by a comma. The cols attribute sets the width of the columns, in order of left frame to right frame, again with the widths for each frame given in pixels and separated by commas. An asterisk (*) designates that a frame uses the remainder of the window.

```
<frame src="frame1.html">
```

The frame source tag, `<frame src="">`, is similar to the image source tag. The frame source tag tells the browser the location of each page and designates which pages go into which frames. The first frame source tag will place the designated page in either the top frame or the left frame, and the amount of space it takes is the first number given in the frameset tag. The remaining tags will fill in from either top to bottom or left to right.

```
<noframes> If your browser does not support frames, please go <a href="NoFrame.html">here</a> </noframes>
```

The no frames tags, `<noframes></noframes>`, provide information or a link to users with browsers that do not support frames. If frames are used, it is a good idea to create a "no frames" version of the page, and within that page include a link to a frameless version of that page.

```
<frameset rows="70,*,55>  
<frame src="frame1.html">  
<frame src="frame2.html">  
<frame src="frame3.html">  
</frameset>  
<noframes>  
If your browser does not support frames, please go <a href="NoFrame.html">here</a>  
</noframes>
```

In this set up, the top frame, frame1.html, has a height 70 pixels, the bottom frame, frame3.html, has a height of 55 pixels, and the middle frame, frame2.html fills the remaining screen area. The no frames tag contains a link taking users to a frameless version of the page. To make this web page, four different pages needed to be created, frame1.html, frame2.html, frame3.html and the main page where the frameset is located.

Showing/Hiding Scroll Bars and Borders

Sometimes scroll bars and frame borders are unnecessary or can detract from the page. The **border="0"** attribute in the frameset tag can be used to set up the page without borders. The scroll bars can be hidden using the **scrolling="no"** attribute within the **frame src** tag. Be very careful when using the no scroll attribute, because if the frame is not large enough, some users may be unable to view all the information within that frame. An example of a page set without borders and with non-scrolling frames would be:

```
<frameset rows="70*,55" border="0">
<frame src="frame1.html" scrolling=no>
<frame src="frame2.html">
<frame src="frame3.html" scrolling=no>
</frameset>
<noframes>
If your browser does not support frames, please go <a href="NoFrame.html">here</a>
</noframes>
```

This page has no borders between the frames, and no scroll bars in the top and bottom frames. The middle frame will still have scroll bars.

Targeted Links

Targeting Links to Specific Frames

Links can be created in one frame, and targeted to open in another frame, or window. This is probably the most basic target use. A targeted link requires that each frame be given a name *in the page that will set up the framesets* and that this attribute be located within the frame tag. This is the name that will be referenced by other pages. For example:

```
<frame src="Frame2.html" name="frame2">
```

In the page where the links are located, the target attribute is added within the link. This tells the browser where the link should be opened. For example:

```
<a href="page.html" target="frame2">
```

In these examples, the link located in the navigation frame, will open in another frame, one named frame2.html. Be very careful when naming frames, capitalization counts.

Targeting Links to a New Window

As a general rule of thumb, only internal links should be opened up within a frame. If links to external sites are opened within your frames, then visitors will be unable to bookmark that site, since the location bar is your frame. External links should be opened either in the same window without frames, or opened in a brand new browser window. This will open a second copy of the browser, so the viewer will have

one window open with your site, and a second window open containing the external site. To open a link in a new browser window, use the attribute `_blank` within the hyperlink reference anchor tag. This attribute can also be used with ordinary links.

```
<a href="link" target="_blank"> </a>
```

This tells the browser to go to open a new window and go to the web page "link".

Targeting links to same window without frames

To open the link in the same window without frames, the target within the href tag should be `_top`, again located within the hyperlink reference anchor tag. When this attribute is used, the external page will open in the same window, and all frame will be gone.

```
<a href="link" target="_top"> </a>
```

Setting default the target

A default target can be set, that will send all links to a specific frame. This is much less work than placing the target attribute within each and every link tag, and is probably more accurate, since there is less chance of making an error when typing the target into each hyperlink reference tag. The default target tag is set in the head of the page. This tells the browser that unless otherwise specified, links should always open in the specified frame.

```
<html>
<head>
<title>Page Title</title>
<base target="Frame2">
</head>
```

Targeting internal links to another frame (or page)

If frames are going to be used with an index, you may need to target internal links that are in a separate page. The basic link is the same, only the internal link is added within the hyperlink reference anchor tag, after the address of the new page and a pound sign (#).

```
<a href="page.html#link"></a>
```

This tells the browser to go to the web page `page.html`, and within that page look for the named internal link.

When creating an index, it can be helpful to copy and paste the main information, and then edit each link to the correct reference link. For example, you have created the frame `links.html`, which contains your alphabetical index. The index needs to link to a page such as `direct.html`, which contains your alphabetical directory of names. The page `links.html` will need to reference not only the page `direct.html` but the internal links within `direct.html`. An example could be:

`S`

This will open the page direct.html and then scroll down to the internal link "S".

links.html	<pre><table> <tr> <td> a</td> <td> b</td> <td> c</td> </tr> </table></pre>
direct.html	<pre> Margaret Atwood David Baldacci James Baldwin Steven Brust Pearl S. Buck Caleb Carr</pre>

Notice that the index is in a table, and that the internal links within the page direct.html are linking to empty space.

Exercise:

Create frames within your web page. Good luck.

Setting up a web page

If you have an ISP, or Internet Service Provider, check with them to see if you have space available for a web page. Most ISPs provide space for individual (or commercial) web pages with every account. They usually have available anywhere from two to six megs (megabytes) of space, but this will vary from provider to provider. Also, universities may provide web space to their students and employees, so if you are a university student or employee, you can check into that.

Where else?

If you do not have an ISP (Internet Service Provider), Places such as Geocities.com, Homestead.com and Angelfire.com, provide free web space. The drawback is that they place advertising upon every page, so the look can be less professional. To get a free web page, simply go to any of those sites, sign up, and follow the directions provided.

WVU Employees

WVU faculty, staff and students can check the WVNET site to see if they have space available there: <http://www.wvnet.edu/~helpdesk/ftp> and under **Does this apply to me?** click on **Step 1: Check my account**. The userid is the letters and numbers that come before the @ in a wvu.edu e-mail address, and the password is the e-mail password for that account. A page will then appear telling whether the given userid has web space available or not. If it does, click on **Step 2: Web page creation**, and fill out the form that appears. Then click on Submit Request, and the Browser will automatically open to the web page associated with that userid. This is the address for that site; *Write it down!*
