HTML

Read the assigned webpages from the W3Schools website.

I have included a sample webpage in iCollege. This lecture may be easier to understand if you refer to the sample webpage as you read this lecture.

HTML

- Is the language of the web.
- Is a simple, universal language that allows people to view webpages no matter what type of computer they are using.

Writing HTML

Can use a:

1) text editor such as Notepad and manually type the HTML tags
2) web page editor such as MS FrontPage or Macromedia's Dreamweaver

Saving HTML Files

If you are using Notepad, be sure to save the file as a .html or .htm file not a .txt file.

1. Under the File menu, select Save As
2. In the Save as type drop-down menu, select All Files.
3. In the File name box, type the name of your file and the html extension, e.g. file.html or file.htm
4. Click on Save

Saving HTML Files, page 2

- If you are using an editor, the program will automatically save the file as an html file.
- Just be sure to note whether the program uses the .html or .htm extension.
- You need to know the extension if you want to create links between your different html files.

File Names

- You will have to refer to your files several times throughout your website.
- Follow the following tips to avoid typos and frustrations:

  1. Keep file names short.

  2. Use lower case letters only instead of both lower and upper case letters.

  3. Do not use blank spaces in your file names. Web servers do not recognize blanks and will fill in blanks with a special character.

  4. Use the same extension throughout your website. You can use either .htm or .html.

HTML Tags

= commands written between less than (<) and greater than (>) signs

- HTML tags usually travel in pairs. That is, there are usually both opening and closing tags for each command.
- The affected text is contained between the opening and closing tags.

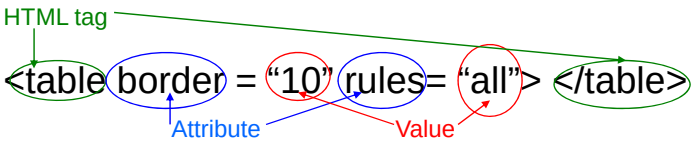
Attributes

- Many HTML tags have attributes that represent a feature of the contained text.
- A single HTML tag can have zero, one or several attributes.
- To write a HTML tag with several attributes, just place a blank space between each of them.
- In some cases, attributes are optional and not required.

Values

- The attributes may also have a value.
- In many cases, values are optional and not required.

Example of a Complex HTML Tag



- table is the html tag - it creates a table.
- border is the attribute - this represents the table’s border.
- 10 is the value of the border attribute - this makes the table have a border that is 10 pixels in width.
- rules is another attribute - it represents the gridlines inside the table.
- all is the value of the rules attribute - it says that the table has all of the gridlines visible.

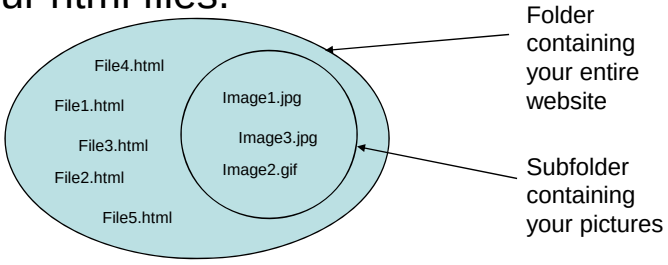
Designing a Website

It is a good idea to do a little planning before writing your HTML.

1. Think about who your audience is. Use appropriate language for your audience. Think about including pictures and media files.
2. Think about how you want to organize your site. In general, it is not a good idea to just have one long page of information. Break up the info into separate pages that link to one another.
3. Sketch out the site and write arrows to represent how the pages should link to one another.
4. Go ahead and give your pages their names.

Organizing Files

- All of your webpages should be organized in a folder.
- You may want to have subfolders to keep your pictures and media files separate from your html files.



Starting a Webpage: The HTML Tag

All html webpages must begin and end with the html tag.

This tag tells the web browser that the page is written in html.

1. Type <html> on the first line of code.
2. Leave extra space for the contents of the page.
3. Type </html> on the last line.

Creating a Head on your Webpage

- You should include a head section which at minimum contains the title of your webpage. You can also include metadata.
- Remember from the Information Searching lecture, we talked about how search engines use metadata to find websites.
- By including metadata, you are making it easier for search engines to find your website.

To Create a Head

1. Type <head> directly after <html>
2. Leave extra space for your head information
3. Type </head>

To Create a Title

1. Type <title> after <head>.
2. Type in the title of your page.
3. Type </title>.

Note: This title is visible only in the title bar of the window. You will have to type it again to be visible in the body of your page.

To Create Metadata

1. Type <meta
2. Type the attributes and values you want to include, like:
   a. name = “description” content = “provides information about the LIST 2005 course at Georgia Perimeter College”
   b. name = “creator” content = “Carmel Chaille”
3. Type the closing >

Note: For more about metadata, go to http://dublincore.org/documents/dcmi-terms/

Creating a Body in your Webpage

Now we are ready to get to the body of the page!

1. Type <body> after </head>.
2. Leave space for your content.
3. Type </body> just before </html>.

Creating Headings

- At the top of your webpage you want to provide a heading (or title) for the page.
- You can also create sub-headings to divide up sections of your page.
- Headings will be in bigger letters than the rest of your text.

1. Type <h1>, <h2>, <h3>, <h4>, <h5>, or <h6>
2. Type in the heading
3. Type </h1>, </h2>, </h3>, </h4>, </h5>, or </h6>

- The numbers after the h represent the size of the heading text. h1 is the largest and h6 is the smallest.

Spacing in HTML

- Any extra white space created by using the enter key is ignored by the web browser.
- To create spacing in your webpage, you can use:
  1. the paragraph tag <p>
  2. the line break tag

Paragraph Tag,

- the tag creates a blank line before a block of text.
- It is not necessary to close off the tag with a , but you can include the closing tag if you want to.
- A paragraph tag in HTML would produce text that looks like:

  This is the end of a paragraph.

  This is the beginning of a new paragraph.

Line Break Tag,

- When you want to end a line of text and start a new one immediately below (with no blank line in between), insert a line break, using the
 tag.
- There is no closing tag for
 tag.
- A line break tag in html would produce text that looks like:

  This is the end of a line.
  This is the beginning of the next line.

Links

- add links (aka hyperlinks) that connect your page to any other accessible site on the web.
- To build a link in HTML
  1. Get the URL or address of the webpage you want to link to.
  2. Decide what word(s) in your webpage will act as the link. Please, do not use click here as your link. Try to be more informative.
  3. Use the <a href> tag to create the link. The correct HTML code would be:
     words for link

Absolute URLs

- gives the entire path to a webpage.
- example: http://www.gpc.edu/
- use when referring to any outside webpage
- So, if you were using an absolute URL to create a hyperlink the code would be:

  <a href = "http://www.gpc.edu">

Relative URLs

- gives the path to a webpage relative to the current webpage
- examples:

  1) LIST2005.html - a file in the same directory that you are currently in

  2) folder/instructions.html - a file in a subfolder of the directory
- use when referring to any webpage within your own website
- So, if you were using a relative URL, the code would be: <a href = “folder/instructions.html”>

Why Use Relative URLs?

- If you move your website from one server to a new one, you do not have to change any links you have. They have not moved relative to one another. If you used absolute URLs, you would have to change the links in your website.
- So, if you had a website at gpc.edu and then graduated, you would lose your gpc webspace. You could move all of your files to a new server and not have to change links in your HTML code.

Using Images in Your Webpage

- First, you must know the name of the image (or picture).
- And, you must know where the image is located.
- Like webpages, images have extensions. Common extensions for images are: .jpg or .gif
- If you were putting your webpage up on a server (so that others can see your page on the web), you would need to upload both the html file plus any images that were added to the webpage.
- For the purposes of this class, just be sure to submit any images you used in your webpage along with your html file.

Adding Images

- The html tag to add an image is:
  <img src = “folder/image.jpg”>
- img src is the html tag (image source)
- folder is the name of the folder in which you placed the image
- **Note**: If the html page and the image are in the same folder, you would not need to include a folder name in your code.
- image.jpg is the name of the image.

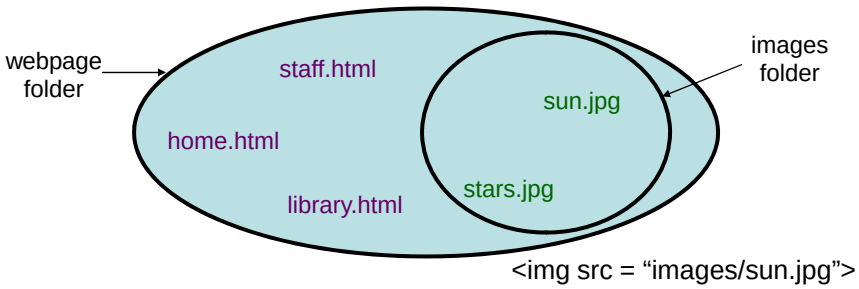
First Example of Image Tags

- Suppose you had an HTML file in folder called webpage. Inside your webpage folder, you had another folder named images. In the images folder, you placed a image called sun.jpg.
- The correct html tag would be:

  <img src = “images/sun.jpg”>

Understanding Hierarchy and Folders: Example 1

- For a graphical view: you have two folders
  1) webpage – contains all of your html files
  2) images (inside webpage folder) – contains all of your images



<img src = “images/sun.jpg”>

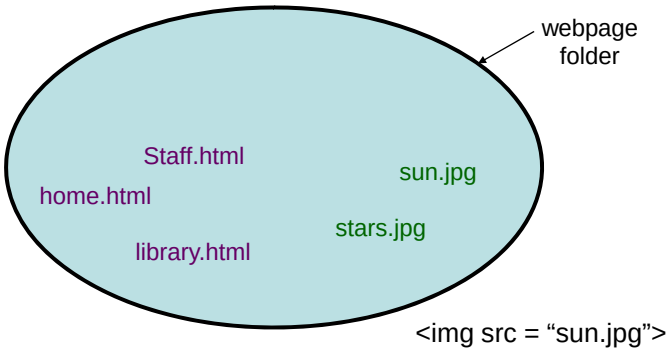
Another Example of Image Tag

- Suppose you had a folder called webpage. Inside that folder, you had several html files and several image files. The image you want to add to your webpage is named sun.jpg. In this case, your html file and image file are in the same folder.
- The correct html tag would be:

  <img src = “sun.jpg”>

Understanding Heirarchy and Folders: Example 2

- Now, in this second example, you have only one folder - webpage



<img src = “sun.jpg”>

Aligning Images

- Suppose that you want to move your image around on the page.
- If you do not include a tag specifying the alignment, your image will appear on the left hand side of the webpage.
- By specifying the alignment, a picture can appear to the left, right, or center of the webpage.

Aligning Images, page 2

- First, I should point out that the easiest way to insert an image is to start a new paragraph.
- This means that you have plenty of space to insert your image without interfering with any surrounding text.
- If you are wanting to create a webpage that contains images inserted in-between text, it is better to use tables (tables are briefly discussed below).

Aligning Images, page 3

Note: The tags listed below are different from the tags listed in the reading (webmonkey site), however both sets of tags will work.

The html tags for aligning images are:

1. To center the image:
   <p align = center><img src = “image.jpg”>
2. To align to the right:
   <p align = right><img src = “image.jpg”>
3. To align to the left:
   <p align = left><img src = “image.jpg”>

Ordered Lists

- Ordered lists are lists that have some sort of numbering or organization. The numbering can be with numbers (1,2,3, etc.), roman numerals (I,II,III, etc.), or letters (A,B,C, etc.)
- The two required tags to create an ordered list are:

1. - starts and ends the “ordered list”

2. - starts and ends the “list item”

(Note: the ending tag is optional)

A Simple Ordered List

```
<ol>
    <li>Item 1</li>
    <li>Item 2</li>
    <li>Item 3</li>
</ol>
```

Note: I used tabs/ indentation to make my code easier to read. You can do this in your html code, too!

Will look like:

1. Item 1
2. Item 2
3. Item 3

Changing the Numbering System in an Ordered List

If you wanted to use roman numerals or letters instead of numbers, you could add the <type> attribute to your <li> tag.

1. For roman numerals:

<li type=I> - uppercase roman numerals (I, II, III)

<li type=i> - lowercase roman numerals (i, ii, iii)

2. For letters:

<li type=A> - uppercase letters (A, B, C)

<li type=a> - lowercase letters (a, b, c)

Unordered Lists

- Unordered lists are very similar to ordered lists. The difference being that instead of having a numbering system, items in an unordered list are labeled with bullets.

The tags for unordered lists are:

1. - start and end the unordered list
2. - start and end the item on the list.

A Simple Unordered List

```
<ul>
    <li> A list item</li>
    <li> Another list item</li>
    <li> Yet another list item</li>
</ul>
```

Will look like:

- A list item
- Another list item
- Yet another list item

Nesting Lists

- You can place both ordered lists and unordered list inside one another.
- This allows you to create complex lists.
- The trick is to remember to close your inner list at the correct place.

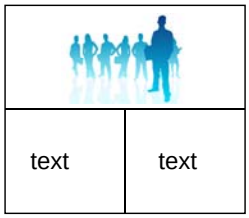
The Basic Table

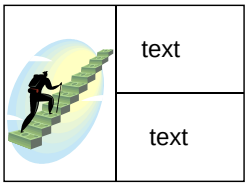
- As stated previously, tables will allow you to place images between text.
- Tables also allow you more control over your webpage. You can force text and images to be where you want them.

Understand Your Limitations

- There are limits to what you can do with tables.
- You can create tables that look like:

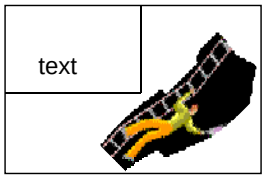
text	text
text	text





Understand Your Limitations, page 2

- However, you can not create a table that looks like:



- You can not have lone cells that are not part of either a complete row or column.

Basic Table Tags

1. <table></table> - starts and ends a table
2. <tr></tr> - starts and ends a row of a table
3. <td></td> - starts and ends each cell of a table (td = table data)

Tip: The <td></td> tags must always be inside the <tr></tr> tags. The <tr></tr> tags must always be inside the <table></table> tags.

Example of a Simple Table

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

Would look like:

Cell 1	Cell 2
Cell 3	Cell 4

Creating a Table

Before you begin to write the tags for a table, it is a good idea to map it out on paper.

1. Figure out how many rows and columns you want.
2. Figure out exactly what information you want to place in each cell of the table.

- HTML creates a table from the top down and from the left to the right.
- You must write the table starting with the top, left cell and finishing with the bottom, right cell.
- HTML requires that you think in terms of rows.

HTML Etiquette

1) Always use closing tags if there is one.
2) Use white space and indentation to make your source code more readable.
3) Use metadata.
4) Be consistent with your capitalization. HTML is not case sensitive so you can use either upper or lower case letters in your source code.
5) Be consistent with your html file extensions - use .htm or .html throughout your website, but don't use both.
6) Do not use click here as a link.
7) Regularly check the links in your website to make sure that they are still active and correct. Don't have "dead links" on your site.