**HTML Tutorial**

**COEN 10 -- Prof. Silvia Figueira**

HTML is a markup language, in which tags are used to tell the browser how to format the text to form a webpage.   
Tags are enclosed in angle brackets and text is surrounded by a start (or opening) and an end (or closing) tags.

Creating a simple webpage is very easy! All you need is some very basic tags. The tags will define the format of the page.   
The content of the page will be in a .html file, which you edit with a text editor, such as vi.   
If the html is correct, when you open the .html file with a browser, it will process the tags and show the text formatted into a webpage.

**HTML Elements**

An HTML page is formed by HTML elements, which start with a start tag, end with an end tag, and include the content, tags and/or text, in between. Some HTML elements have no content, and they are closed in the start tag. Most HTML elements can have attributes.

HTML elements may be nested, i.e., they may enclose other HTML elements. In fact, HTML documents consist basically of nested HTML elements.

**Main Tags**

* <html> and </html> ==> start and close a webpage
* <head> and </head> ==> start and end a webpage header
* <body> and </body> ==> start and close the body (which will be shown) of the page

Note that tags are nested, and the html tags enclose the body tags, which enclose the other formatting tags in your page.

**Formatting Text**

* <Hn> and </Hn> ==> start and end a heading in level n, which is a number from 1 to 6
* <p> and </p> ==> start and end a paragraph
* <br /> ==> breaks a line
* <hr /> ==> prints a horizontal line
* <!-- and --> ==> start and end a comment, which will be hidden from the browser

Example <html>   
<body>   
<hr />   
<H1> Heading 1 </H1>   
<H2> Heading 2 </H2>   
<p> This is a paragraph. </p>   
<!-- This text will be hidden. -->   
<hr />   
</body>   
</html>

This code will result in the following webpage:

**Heading 1**

**Heading 2**

This is a paragraph.

**HTML Attributes**

Attributes provide additional information about the element. They may be specified in the start tag and come in name/value pairs (as in name="value"). The example below show an attribute being used to change the color of one of the paragraphs.

Example:

<html>

<body>

<p>Regular Paragraph</p>

<p style="color:magenta">Magenta Paragraph</p>

</body>

</html>

This code will result in the following webpage:

Regular Paragraph

Magenta Paragraph

**HTML Formatting Tags**

The following pairs of tags will have the corresponding effect on their content:

* <b> and </b> ==> bold
* <i> and </i> ==> italic
* <u> and </u> ==> underline
* <center> and </center> ==> centered
* <big> and </big> ==> increase size
* <small> and </small> ==> decrease size

**HTML Styles**

Style attributes and style sheets (CSS files) provide ways of changing the style of elements. Style attributes should be used along the tag for which the effect is intended. Style sheets is byond the scope of this tutorial.

Examples:

* style="background-color:red"
* style="color:white"
* style="font-family:helvetica"
* style="text-align:center"

Adding styles to elements:

Background Color

<body style="background-color:red ; color:white">

Header

<h1 style="text-align:center">

Paragraph

<p style="font-family:helvetica; color:blue">

**HTML Links**

You can create links to other pages.

* <a> - start of the link
* </a> - end of the link

Attribute href is used to specify the url for the link, and should be in double quotes. The content, i.e., the text between the tags, will be the clickable.

Example:

<a href="http://www.cse.scu.edu/~sfigueira"> Dr. Figueira </a>

Creates a clickable link:   
[Dr. Figueira](http://www.cse.scu.edu/~sfigueira)

**HTML Images**

You can include images in your page. The tag is <img />, which does not have any content. The information for the picture is given by an attribute, src. Attributes width and height specify the size of the picture. Note that the values for the attributes are specified in double quotes.

Example:

<img src="http://www.cse.scu.edu/~sfigueira/india.jpeg" ; width="200" ; height="150" />

The example above shows the picture in the file www.cse.scu.edu/~sfigueira/india.jpeg. 

**Lists**

You can create bulleted lists, numbered lists, and definition lists.

* <UL> and </UL> ==> start and end a bulleted list.
* <OL> and </OL> ==> start and end a numbered list.
* <LI> and </LI> ==> start and end an item in a bulleted or numbered list.
* <DL> and </DL> ==> start and end a definition list.
* <DT> and </DT> ==> start and end a definition term in a definition list.
* <DD> and </DD> ==> start and end a definition description in a definition list.

**Example 1**

<HR>   
Bulleted list   
<UL>   
<LI> item 1</LI>   
<LI> item 2</LI>   
<LI> item 3</LI>   
</UL>   
<HR> 

This code will result in the following webpage:

Bulleted list

* item 1
* item 2
* item 3

**Example 2**

<HR>   
Numbered list   
<OL>   
<LI> item 1 </LI>   
<LI> item 2 </LI>   
<LI> item 3 </LI>   
</OL>   
<HR> 

This code will result in the following webpage:

Numbered list

1. item 1
2. item 2
3. item 3

**Example 3**

<HR>   
Definition list   
<DL>   
<dt> item 1 </dt>   
<dd> This is the first item. </dd>   
<dt> item 2 </dt>   
<dd> This is the second item. </dd>   
<dt> item 3 </dt>   
<dd> This is the third item. </dd>   
</DL>   
<HR> 

This code will result in the following webpage:

Definition list

item 1

This is the first item.

item 2

This is the second item.

item 3

This is the third item.