

# Basic HTML

## First Web Page

HTML stands for HyperText Markup Language and is used to describe formatting for browsers. The most basic HTML file is shown below. Note that most HTML code, at first, will be written in the body section.

```
<!DOCTYPE html>
<html>
<head></head>
<body>
Hello World
</body>
</html>
```

What might look most foreign here is the very first line. This line is *required* for browser to consistently render your pages correctly. You may be able to get away with leaving it out; however, this may also lead some browsers to render your HTML in an old way. It is best to tell the browser your doctype as described.

## Start and End Tags

In HTML elements usually contain a start and end tag. This is shown in the example below which would appear somewhere in the body of an HTML page.

```
<p> This text is part of a paragraph element.
This is used to separate paragraphs.
</p>
```

Notice that the end tag had a forward slash preceding its name. This signifies that the element is over.

```
<p> This page will have a line break now. <br>
This text would appear on a new line.
</p>
```

Notice the “br” tag in the example had no ending tag. This is because it is an empty element which have no content. All this tag does is force a line break. HTML treats all white space (spaces, tabs, newlines) the same so it must be told if you want an explicit break, otherwise it handles when text should wrap to the next line.

## Text Formatting

HTML also provides ways of formatting individual parts of text. These include making headings, italicizing, bold facing, and lots others. These are all elements so you should be careful and be sure to close them (or the page may render incorrectly).

```
<p> Only items between the start and end tags will be <b>bold faced</b> here.  
<em> This text is emphasized</em>, which slants text and suggests importance.  
</p>
```

A short list with some of these elements will be listed below. Note that only the starting tag will be given for each of these examples and that they all require an end tag as well.

Tag	Description
<b>	Bold faces text
<strong>	Makes text bold and suggests importance
<i>	Italicizes text
<em>	Emphasizes text
<h1>	Largest header
<h6>	Smallest header
<mark>	Highlights text
<sub>	Subscript text
<sup>	Superscript text
<code>	Format program code

## Images

The following shows an example of how to use an image in a web page.

```
<p> Below you will see an image of my house! </p>  
  
<p> There are alot of attributes that the img tag can use. </p>
```

In the above example the “src” tag tells the browser where to look for the photo. Note that the path you list is relative to the HTML file that refers to it.

## Permissions

We saw listing an image in the previous example; however, this will only work if the file has the correct permission settings. All files that you wish to have viewed (including HTML ones) should have the permissions 644 (remember what this means). All directories should have the permissions 755 (they need the execute bit which means they can be searched).

Note that you will have to manually change the permissions for every file / directory you wish to include in your webpage.

## Hyperlinks

To navigate between pages, sites, and media files one can use the “a” tag. To create hperlinks the “href” attribute is needed. The syntax is described below.

```
<p> Lots of HTML questions can be answered at  
<a href="www.google.com">Google</a>.</p>
```

Note that whatever occurs between the start and end tag is what becomes the actual link.

## Lists

HTML provides some basic list structures which are the base of forming more complex things, such as navigation bars. Two of the types are ordered lists (<ol>) and unordered list (<ul>).

```
<p> Things to do: </p>  
<ul>  
  <li> Walk the dog </li>  
  <li> Pick up groceries </li>  
  <li> Send mail </li>  
</ul>
```

## Tables

Another basic, and useful, feature of HTML is the table element. Here there is a tag for table itself (<table>), table rows (<tr>), table headings (<th>), and table data cells (<td>).

```
<table border>  
  <tr>  
    <th>Artist</th> <th>Albums</th> <th>Hits</th>  
  </tr>  
  <tr>  
    <td>Cake</td> <td>6</td> <td>9</td>  
  </tr>  
  <tr>  
    <td>Gorillaz</td> <td>4</td> <td>5</td>  
  </tr>  
</table>
```

The border attribute adds the default border. This table would look similar to the following.

Artist	Albums	Hits
Cake	6	9
Gorillaz	4	5