Week One: An Introduction to HTML

What is HTML?

- All pages are written with some form of HTML (Hyper Text Markup Language)
- HTML lets you, the author, format text, display graphics, sound and video
- HTML is saved as a Text Only or ASCII file that any computer can read
- The key to HTML is that it is written with specific tags – keywords enclosed within (<) & (>) signs
- Learning to hand write HTML means that you won't limit yourself to authoring web pages strictly thru a piece of software – Dreamweaver, GoLive, etc.

The History of the Web

The Vision

- HTML was originally developed so that scientist could share documents with one another in an easy to format and read method
- Tim Bernes-Lee envisioned that the web would work like a person's brain and less like a static and linear source of material – such as a book
- Thus, Hyper Text was born to use a system of links that would enable the viewer to jump to the information that the wanted to see

Browsers Wars

- Browsers are the piece of software developed to display HTML in the finished (or published) form on your personal computer
- In 1994 Netscape developed their browser to use a set of extensions that only their browser could read – colored text, photos, etc.
- In 1996 Microsoft fought back against Netscape's market share and developed extensions that only Internet Explorer could read, thus fueling the so called *Browser War*

Browser Standards

- According the Web Standards Project, web designers wasted 25% of their time devising workarounds to their code as to be viewed properly in both Netscape and Internet Explorer – if that was indeed possible
- Tim Bernes-Lee started a push for standards and the World Wide Web Consortium was born
- The W3C as it has now become known, pushed for standardization between the browsers and their proprietary extensions to ensure compatibility and a better experience for the designers and the end users

Code Standards

- The result was the development of standardized (X)HTML – HTML written with XML syntax – and that the formatting of a page's look would be taken care of by Cascading Style Sheets
- Since then it has taken the browsers a bit of time to catch up and implement the W3C standards into their browser software

The Building Blocks of Markup

- Markup (code) is the underlying instructions that describe how content should be structured and displayed
- Markup may include formatting instructions, using sets of tags, as well as detail of the relationships between parts of the document

Elements

- Elements are the labels that HTML uses to identify the different parts of a web page and it's instructions
- Elements can contain text and/or be empty
- Elements are called out by using an opening and a closing *tag*:

```
<p>This is a text element in a paragraph tag.</p>
```

where `<p>` is the *opening tag* of the *element* and `</p>` is the *closing tag* of the *element*

Attributes & Values

- Attributes contain information about the data in the document
- An attribute's Value must always be enclosed in quotation marks:

```
<img src="picture.gif" />
```

where `src` is the *attribute* and `picture.gif` is it's *value* of the element

- Depending on the attribute the value may be numerical or predefined

Block vs. Inline (Elements)

- Elements can either be *block-level* or *inline* – ***p.28, fig. 1.7***
- *Block-level* elements will display on a new line – like a paragraph return in a book
- Where as *inline* elements will be displayed in the current line

Parents & Children (Elements)

- When one element contains another it is considered to be the *parent* of the enclosed *child* element:

```
<p>This is a text element in a paragraph tag that has a <em>child</em>
element inside it.</p>
```

where the `<p>` element is the *parent* element and contains the `<em>` or *child* element

- When using parent and child elements the must be properly nested with corresponding closing tags – meaning the child element must be completely inside of the parent element

Textual Content

- The text that is contained within elements is a basic ingredient of most web pages
- Written text that you want to appear on the screen will get written in between an opening and a closing tag:

```
<p>This is text written inside an opening and closing tag.</p>
```

- HTML used to be restricted to only *ASCII* characters, numerals and a few symbols, however today HTML accepts most *Unicode* – most symbols, like quotation marks and apostrophes
- The only textual symbol you need to avoid is the "&" (ampersand) as this is a special character
- Special characters, such as the copyright symbol, can and should be written as *character entity references*:

```
<p>&copy; 2006 Premium Design Works</p>
```

where `&copy;` is the *character entity reference* for the copyright symbol

Images

- When you want to place an image on your page you will call out the *source* of that image to be displayed

```
<img src="images/www_barbacoa.jpg" />
```

where `images/www_barbacoa.jpg` is the *source* file of the image to be displayed

Links

- Links are another basic ingredient that will let you move from page to page and access media
- Links are written as a *reference* to another page or piece of media:

```
<a href="portfolio.html">Portfolio</a>
```

where the word `Portfolio` gets assigned a *reference* to the page `portfolio.html`

File Names

- Like most computer documents, HTML documents have their own *extension* that identifies them as the proper document format:

```
index.html
```

where `.html` is the proper *extension* for the file named `index`

URLs

- When you want to find a website through the inter-web you need to type in the proper address or Uniform Resource Locator (*URL*):

```
http://www.premiumdw.com/portfolio/portfolio.html
```

where `http://www.premiumdw.com/portfolio/portfolio.html` is the *URL* for this web page, `http://` is the *scheme*, `www.premiumdw.com` is the *server,* `/portfolio/` *Is the path* and `portfolio.html` is the *file name*

- URLs can also be either *absolute* – which shows the entire path to the file server and all, or *relative* – which shows just the path starting from the server

where `http://www.premiumdw.com/portfolio.html` is an *absolute* URL and `/portfolio/portfolio.html` is a *relative* URL

DOCTYPES

- Doctypes are the web authors way of declaring to the browser what standards they are adhering to
- Doctypes are placed at the top of an HTML page:

For HTML **strict**: (Use this doctype if your document is in HTML and contains no deprecated tags.)

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
        "http://www.w3.org/TR/html4/strict.dtd">
```

For HTML **transitional (or loose)**: (Use this doctype if your document is in HTML but contains one or more deprecated tags.)

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
        "http://www.w3.org/TR/html4/loose.dtd">
```

For HTML **frameset**: (Use this doctype if your document is in HTML and contains frameset tags and/or deprecated tags.)

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN"
        "http://www.w3.org/TR/html4/frameset.dtd">
```

Reading: Introduction & Chapter 1 & 2
Assignment: Plan your “Page”