Brief Intro to HTML

This presentation introduces HTML, which we will cover more fully in another PDF file

Markup Languages

```
<?xml version="1.0"?>
<quiz>
 <question>
  Who was the forty-second
  president of the U.S.A.?
 </question>
 <answer>
  William Jefferson Clinton
 </answer>
 <!-- Note: We need to add
  more questions later.-->
</quiz>
```

XML

- A **markup language** is a modern system for annotating a document in a way that is syntactically distinguishable from the text. (Wikipedia)
- The markup may refer to visual things like formatting, emphasis, typeface, etc., or type of content like question and answer.

Markup Languages

- Markup languages are used for a lot of functions now, including:
  - Microsoft Office files (.docx)
  - Google Earth files (.kml, .kmz)
  - Everything on the web (HTML)
  - Input files for a number of programs (XML in general).
- A program reading the file can easily separate the text content from the structure of the file or the formatting, and can decide what it knows how to interpret.

Markup Languages

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  more questions later.-->
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```

- This is an example of XML (eXtensible Markup Language), the most general of the markup family.
- If you added more questions and answers, you could store everything needed for a quiz show in this file.

Markup Languages

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```

- Markup languages use pairs of ***tags*** to separate elements of text. There are opening and closing tags:
  - <question>
  - </question>
- In XML, all tags must come in pairs.
- In HTML, most tags come in pairs.

HTML

- HTML was devised as a way to describe the content and basic formatting of a page so that it can be displayed on a computer.
- A browser program reads the HTML code, parses the file and displays it in (theoretically) a standard way.
- All of the code used to display any given web page is plain text and you can look at it in most browsers with the "`View Source`" option.

(X)HTML

- (eXtensible) HyperText Markup Language: Links were the truly innovative idea!
  - hyper- + text; coined by Ted Nelson circa 1965 (source: wiktionary.org): A hypertext system, then, is a memex-like device for creating and manipulating hypertexts, both for on-line browsing, and for reducing selected portions of such texts . . .S. Carmody, W. Gross, T. Nelson, D. Rice, and A. van Dam "A Hypertext Editing System for the / 360" (1969)
  - Links allow you to specify many different ways that a reader can browse the text.
- Different versions exist – XHTML (call it HTML anyway) is a markup language, not a programming language
- Tags are used to describe web sites: <TAGNAME attribute="value"> ...</TAGNAME>

There are a lot of Resources on the Web

- You can find reference material, tutorials, etc.
- http://www.google.com/#q=html+tutorial
- http://www.google.com/#q=css+tutorial
- http://www.w3schools.com

- There are also plenty of useful books out there.

A simple HTML file

- HTML files are divided into two parts: a header and a body. Here is a blank page:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN”
"http://www.w3.org/TR/html4/strict.dtd">
<html>
  <!-- header part -->
  <head>
    <meta http-equiv="content-type”
          content="text/html; charset=ISO-8859-1">
    <title>EMPTY FILE</title>
  </head>
  <body>
  <!-- YOUR CONTENT GOES HERE-->
  </body>
</html>
```

Hello World

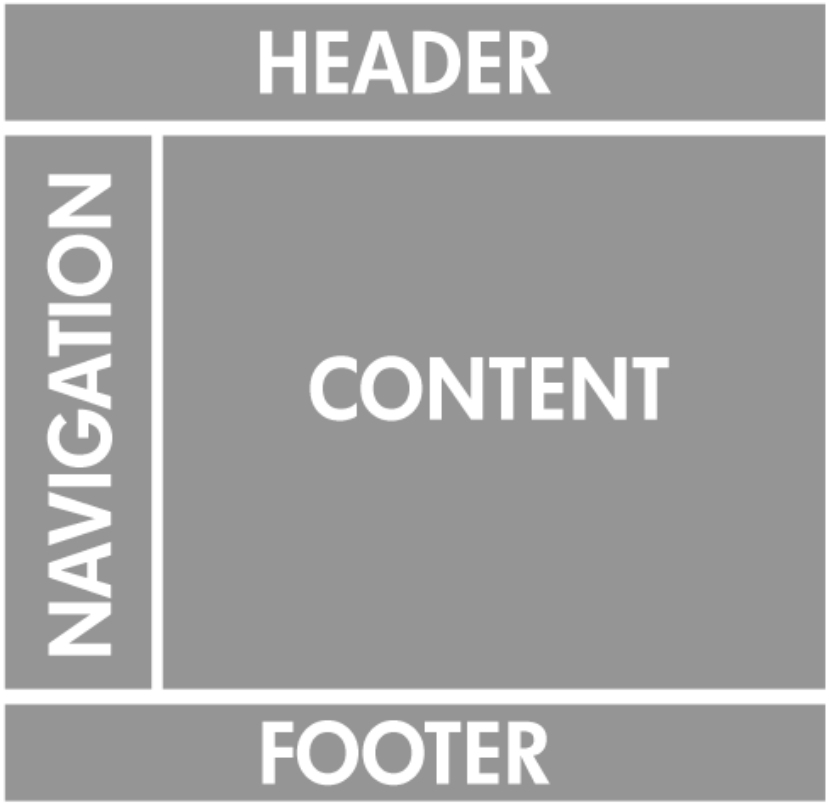
```
<!DOCTYPE html>
<html>
 <head>
   <title>
     Hello HTML
   </title>
 </head>
 <body>
  <p>
    Hello World!
  </p>
 </body>
</html>
```

- This HTML file skips some of the overhead, but at least displays something: Hello World!
- If you added more to the body of the file, more would be displayed.

HTML and CSS

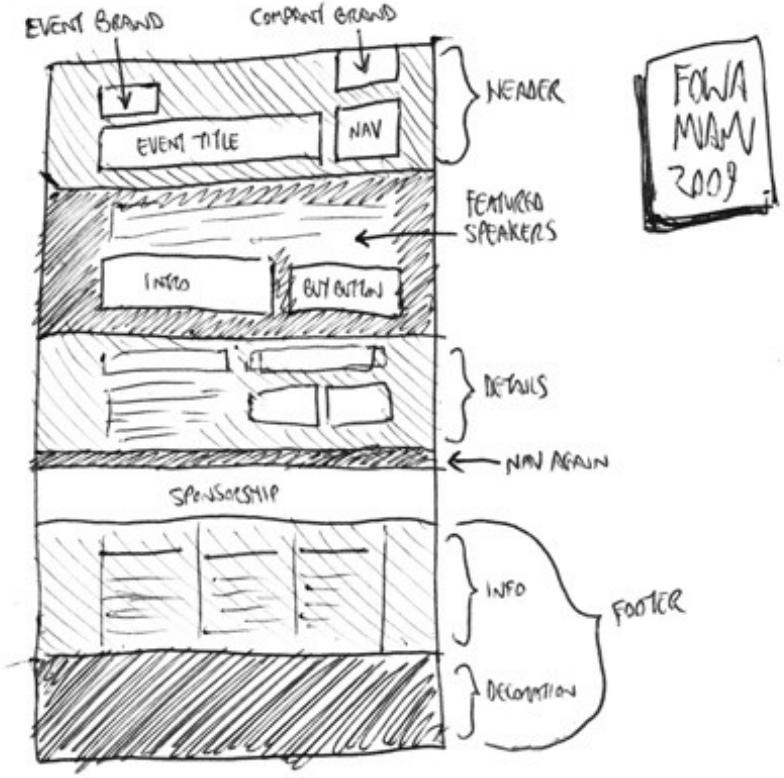
- CSS stands for “Cascading Style Sheets”
- Website = content + structure + formatting
- Website = content + **HTML** + **CSS**
- Early (last century) websites did not use CSS, and you can still find plenty of examples (especially Professors’ websites) that only use simple HTML.

A common Website Layout



- Most websites use one of a small number of basic layouts, like the one at left.
- Before you think about what you will put in your website, you should think about how you want it to look.

A common Website Layout



- Before you think about what you will put in your website, you should think about how you want it to look.
- You can go for a simple or complex layout.
  - The more complex the layout, the more advance thought and the more important it is to separate content from formatting

Use “View Source” To Look at some HTML code

- Don’t try to look at code for commercial websites – they are very hard to read.
- Try something simple like these student project websites from the past:
  - http://ffden-2.phys.uaf.edu/631_fall_2008_web.htm
- For homework, look at these and/or other simple websites, and take a look at one of the tutorials online (see slide 8).