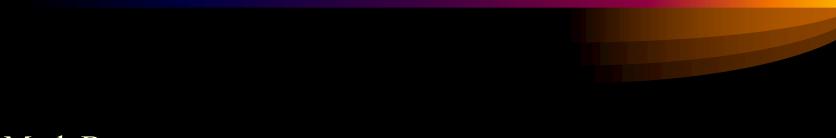# Creating and Building Websites

## Stanford University Continuing Studies CS 21

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Course Web Site:  http://web.stanford.edu/group/csp/cs21/

# *Week 2 Agenda*

- Unfinished business

- Review of Week 1

- Adding Links

- Adding Special Characters

- Adding Fonts and Colors (HTML method – only to be used for e-mail newsletters!)

# *Review - Structural tags*

- These are the basic tags which must be a part of every web page.  They tell the browser that the document is a web page.

```
<!doctype html>
<html>
   <head>
      <title>Title of Webpage</title>
   </head>
   <body>
      This is where the main part of the web page
      would go
   </body>
 </html>
```

# *Review - Breaking Lines*

- `<p> </p>` = paragraph tag
  (blank lines between each paragraph)

- `<br />` = line break tag (carriage return)

| `<p>text a</p>` `<p>text b</p>` | `<br />text a` `<br />text b` |
|---|---|
| text a<br><br>text b | text a<br>text b |

- `<hr />` = horizontal rule tag
  (line across screen)

# *Review - Header Tags*

Header Tags  –  Used for marking sections and subsections in a document.  Using Cascading Style Sheets (CSS), you can change the default meaning for the tags.

`<h1>`  Header 1 – Main section; Giant-sized and bold `</h1>`

`<h2>`  Header 2 – Subsection; Large and bold `</h2>`

`<h3>`  Header 3 – Sub-subsection; Normal-sized and bold `</h3>`

`<h4>`  Header 4 – Sub-subsection; Small and bold `</h4>`

`<h5>`  Header 5 – Sub-subsection; Very Small and bold `</h5>`

`<h6>`  Header 6 – Sub-subsection; Tiny and bold `</h6>`

# *Review - Formatting text*

- Bolding and Italicizing:
  - `<strong>text you want bold (strongly emphasized) </strong>`
    - `<b> The bold tag should not be used. </b>`

  - `<em>text you want in italics (emphasized) </em>`
    - `<i> The italics tag should not be used. </i>`
    - `<cite> The cite tag is used for citations (books, journal articles, etc.) </cite>`
    - `<address> The address tag is used to indicate the main contact for the web site. </address>`

- Aligning text or graphics left/center/right:
  - The CSS style `text-align` has a value of `left`, `center`, `right`, or `justify`.

# *Linking Documents*

- One of the really exciting things webmasters can do is link a web page to another web page.

- To do this, webmasters use a pair of anchor tags:

```
<a href="URL">text to become clickable hotlink</a>
```

A = Anchor

HREF = hypertext reference

URL = Uniform Resource Locator
      (a web address, such as `http://www.stanford.edu/`)

# *More on linking documents*

- Things to know about links:
  - Case counts for the URL
  - The URL must be exact
  - You must have something in the "text to become clickable hotlink" section for the link to work

# *Special Characters*

- Because the source codes for Web pages are created with plain ASCII text only, the characters on the source code are limited to the standard keyboard characters.  To have special characters such as œ, ß, ñ, or © show up on a web page, designers must utilize special HTML codes.

- Example:

  ```
  &copy; =©  &ntilde;=ñ &szlig;=ß  &#156;=œ
  ```

  http://stanford.edu/group/csp/cs22/ascii.html

# *Colors*

- Web colors are specified by HEXADECIMAL code which describes the RGB value. RGB stands for RED GREEN BLUE. These are the primary colors that make up all other colors. The hexadecimal code includes two characters for each color. Hexadecimal codes have the format: #RRGGBB

- Examples: White = #FFFFFF, Black = #000000,
  Red = #FF0000, Green = #00FF00

- There were 16 named colors in the HTML 4.01 specification (white, silver, gray, black, red, maroon, yellow, olive, lime, green, aqua, teal, blue, navy, fuchsia, purple)

- All modern browsers use a modified X11 color chart:
  http://en.wikipedia.org/wiki/X11_color_names
  http://en.wikipedia.org/wiki/Web_colors#X11_color_names

# *Using Colors on Web Pages*

The old, deprecated HTML way to set colors for the entire page is to modify the <BODY> tag (by adding attributes to it):

```
<body bgcolor="red" text="yellow" link="green" alink="black" vlink="purple">


BGCOLOR = modifies background color
TEXT = modifies text color
LINK = modifies link color
VLINK = modifies visited link color (links that have been visited)
ALINK = modifies active link color (color that occurs the split second a user
                                    clicks a link)
```

However, the preferred way to set colors for an entire page is to use Cascading Style Sheets (CSS).  More on CSS next week....

# *Cross-platform color issues*

- Different systems have different color cards & monitors and aren't calibrated to each other
- Even within the same system, color cards and monitors, the user can set their options and change the look of their displays
- Macs tend to be brighter than Windows
- Strive for contrast and value balance

    BAD EXAMPLE:

    http://web.stanford.edu/group/csp/cs21/demos/low.html

    GOOD EXAMPLE:

    http://web.stanford.edu/group/csp/cs21/demos/BonW.html

    http://web.stanford.edu/group/csp/cs21/demos/WonB.html

# *Fonts*

- Designers can also specify the font they wish to use on the page. One way to do this is to use the <font> tag. However, the W3C has recently decided to deprecate both the <font> tag and the use of the bgcolor attribute -- instead, they want us to start using style sheets. More on how to use style sheets next week.

- Not all systems have the same fonts. If you choose a font that isn't on the user's system, the page won't look the way you prefer.

```
<font face="FONTNAME"> [text] </font>
```

- The default font for browsers is Times. This is a SERIF font. Another popular choice is Arial. This is a SANS-SERIF font. Another type of font is MONOSPACE, such as Courier.

- One way to avoid the issue of conflicting or missing fonts is to specify the type of font, rather than the actual font, such as:

```
<font face="sans-serif"> [text] </font>
```

- Another way is to put more than one font into the tag. The browser will check to see if the computer has the font in order:

```
<font face="Palatino, Book Antiqua, serif"> [text] </font>
```

# *Other Font Attributes*

- SIZE = "number": 1 = smallest, 7 = largest

  ```
  <font size="1">Small size</font>
  ```

  Small size

- COLOR - changes text color (use either hexadecimal code or named color)

  ```
  <font color="red">Red</font>
  ```

  Red

Combining Font Attributes:

<font face="comic sans ms" color="yellow" size="7">Comic Sans MS, Yellow, Size 7</font>

Comic Sans MS, Yellow, Size 7

# *Homework/Next Week*

- Start thinking about the color scheme for your web site and create a color chart.

- Next week: Basic CSS!