

Announcements

- Class Web Site:
 - <http://www.cs.umd.edu/projects/passport/Classes/Spring2008/>
 - You can find this link at the end of the main passport site
 - <http://www.cs.umd.edu/projects/passport/webPage/>
- E-mail Account
 - Get your own e-mail account if you don't have one
- Announcements' section in web site
- Rules regarding Forum Use
- Academic Integrity
- Reminder to your parents
- Be on time
- Slides

Zip Files For Examples

- Notice that we are posting examples using zip files. Let's go over how to extract the files.
- Steps to follow in Windows XP
 - Download the zip file
 - Right-click on the file and select "Open With" Compressed (Zipped) Folders
 - Drag the folder you see to a new folder or the Desktop
- **IMPORTANT:** If you don't drag the folder to a new folder (or the Desktop) and try to view the examples they will not work.
- In the Mac
 - Download the file
 - Double-click on the file. If you cannot open it it could be because you don't have Stuffit Expander. You can download it for free
 - <http://www.stuffitsoftware.com/stuffit-mac.html#expander>

Firefox (Browser to Use)

- Free
- It will not damage your computer
- Download from:
 - <http://www.mozilla.com/en-US/firefox/>
- Let's use Firefox rather than IE 😊

Let's do XHTML

- There are many kinds of HTML
- We will write XHTML (the most updated version of HTML)
- To write XHTML we need to change our definition of an HTML file.
- The next slide shows how we will be writing HTML files from now on.
- Each time you want to write an HTML file just copy the **templateFile.html** file, change the name to something you like and then put your code in the body section.
- Let's take a look at this file (next slide please 😊)

XHTML Basic Skeleton

- ❖ An html document has two main parts.
 - ❖ **Header** – provides information about the document
 - ❖ **Body** – contents of the page
- ❖ **Example 1 (templateFile.html)**

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en">
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1" />
    <title>Put a title for your page here</title>
  </head>

  <body>
    <!-- YOUR HTML CODE HERE (REMOVE THESE TWO LINES AND PUT
    YOUR HTML)-->
    <!-- YOU WILL SEE NOTHING IF YOU DISPLAY THIS PAGE -->
  </body>
</html>
```

Links

- Link – connection between web resources
- Hypertext links are created using the <a> (anchor) tag
- The link can be text :
`Pacman`
- You **need to** specify http://
 - If you forget http:// and put www... it will not work.
- **Example: link.html**
- The link can be an image:
- **Example: imageLink.html**
- Notice how we have specified the image (in particular the />)

Validation

- Is there a way to know if your HTML is correct?
- Yes!
- You can use W3C Markup Validation Service (<http://validator.w3.org/>) to validate your html.
- Let's validate one of our examples.
- Validate each time you add a little bit to your code. It will help you to learn a lot!

Tables

- To define a table we use the <table> tag
 - Border attribute controls table's border
 - By default borders are not visible
- The following tags are associated with tables
 - <tr> - defines a row
 - <td> - defines a data element
 - <th> - define a header data element
 - <caption> - provides a caption for the table
 - Must appear after the <table> tag
 - Must be used only once
- **Example: table.html**

Character Entity References

- Special Characters can be specified by
 - Name specification - *&name*
 - Numeric specification - *&#xxx*
- Commonly used characters

Copyright

©

Registered Trademark

®

&

&

<

<

>

>

Non break space

* *

- **Example: CharacterReferences.html**
- Complete list at: <http://www.w3.org/TR/html4/sgml/entities.html>

Googles Page Creator

- <http://pages.google.com/>
- You need a gmail account
- Provides free hosting
- Your address will be:
 - <http://YOURGMAILID/googlepages.com>
- Example:
<http://nelson.padua.perez.googlepages.com/>

Block Elements/Inline Elements

- Comparison
 - Block elements begin on new lines whereas inline elements don't
 - Block elements create larger structures (allow you to define the large structure of your document) whereas inline elements don't
- Block Elements Examples
 - Paragraphs (<p>), Headings, Lists, Tables, Division (<div>), Block Quotations, Preformatted Text (<pre>)
- Inline Elements Examples
 - Anchors (<a>), Images (), Line Breaks (
)
- Block elements may contain other block elements, inline elements, and data. Some block elements may not contain other block elements.
- Inline elements may contain inline elements and data.

Inline Elements in Block Elements

- Why the following example does not validate?
- Example: `validationProblem.html`

Suggestions for Writing HTML Code

- Add the corresponding end tag immediately
- Use indentation
- Have a consistent style
- Use comments to separate sections of your code.
- Validate your code as you develop it.

CSS (Cascading Style Sheets)

- Official W3C standard for controlling presentation
- Specification: <http://www.w3.org/TR/CSS21/>
- Style Sheets
 - Text file with rules. It includes no html.
 - Style sheets files use a .css extension
 - Allows you to apply typographic styles (font size, line spacing, etc.)
 - Allows you to apply spacing instructions
 - Allows you to have page layout control
 - Allows you to generate smaller html files by avoiding redundancy in style specification
 - Allows you to easily update a collection of pages by updating only a single file
- Why CSS? Demo

Rules

- Rule - Basic element of a style sheet
- Rule - describes the formatting associated with a page element
- Rule format

selector declaration

selector – identifies what should be styled in a web document (e.g., h1, p)

declaration – what and how that portion of the web document should be modified.

- declaration - consists of *property: value* pair(s) enclosed in { }
- Examples:

```
h1 {color: green}
p {font-size: 10px,
  color: red;
}
```

- Notice there is a space after the colon (;)
- Popular properties – color, font-family, font-size, text-decoration
- HTML Dog CSS Properties –
- <http://www.htmldog.com/reference/cssproperties/>

Types of Style Sheets

■ **Inline**

- Style information applied to specific tag (e.g., <p style=...”)
- Avoid if possible.

■ **Internal**

- Using the <style> tag in the header of the html document
- Convenient to provide own style to a specific page
- Example: internalStyle.html

■ **External**

- External style sheet which web pages link to
- Preferred approach
- Example: externalFile.html and externalFile.css

CSS

- Why cascading?
 - Rules can come from different sources (inline, external file, etc.). The final set of rules that apply to a document comes from cascading all the sources.
- Rule Conflict Resolution
 - To resolve conflicts, styles defined at a specific level override those set at a higher level
Example: you can set the color of body text to be blue but you can override to red the text in a list
 - When multiple style files are linked or imported the last will take precedence
- A child element inherits the same properties of its parent element (unless otherwise specified).

CSS Validator

- <http://jigsaw.w3.org/css-validator/>
- Notice you have three choices
 - by URI
 - by File Upload
 - by direct input

Colors

- You can specify colors using one of the following predefined colors:

yellow, white, teal, silver, red, purple, orange, olive, navy, maroon, lime, green, gray, fuchsia, blue, black, aqua

- Source for colors

http://www.w3schools.com/html/html_colors.asp

- You can specify a color by indicating the red, green and blue components. For example, all the following are equivalent:

- red
- rgb(255,0,0)
- #ff0000

Kinds of Selectors

- **Type Selectors** – Those based on the name of an HTML tag
 - `p { color: red; }`
- **Pseudo-classes** – attached to selectors to specify a state. Four popular pseudo-classes are
 - `a:link` – initial color of a link
 - `a:visited` – color for a visited link
 - `a:hover` – color when mouse hover over link
 - `a:active` – color during the clicking of the link
- **Example:** `selectors.html`, `selectors.css`

Kinds of Selectors

- **Class Selectors** – Allow us to apply the same CSS rule to different elements
 - Use when you need to apply a style to many times in your document
 - Created with a period (also known as full stop)
 - Example: selectors.html, selectors.css
- **ID Selectors** – Like class selectors but appear only once in the document
 - Used when you need to apply a style only once in your document
 - Created using #
 - Example: selectors.html, selectors.css
- **Others**
 - Descendant Selectors, child selectors, attribute selectors, universal selectors
- **Example:** selectors.html, selectors.css