Your Own Web Page; Quick and Dirty Via Mashup

Reminder:
Next Quiz on 4/15
A Special Language for the Web

• In the early 1990’s web pages were mostly described using a special purpose language, called Hyper-Text Markup Language, HTML

• HTML provides markup tags to provide hints of how a document should be rendered

• HTML also provides tags for structuring documents and provides a container for web content
Marking Up with HTML

• Tags describe how a web page should look

• Formatting with Tags:
  – Words or abbreviations enclosed in angle brackets < >
  – Come in pairs (beginning and end):
    <title> </title>
  – Tags are not case-sensitive, but the actual text between the tags is
Text Formatting

- **Bold**: `<b> </b>`
- **Italic**: `<i> </i>`
- Tag pair surrounds the text to be formatted
- You can apply more than one kind of formatting at a time
- `<b><i>Go Tarheels!</i></b>` produces: *Go Tarheels!*
- Tags can be in any order, but have to be nested correctly
- Some tags do not surround anything, so they don't have an ending form:
  - `<hr>` inserts horizontal line
  - `<br>` inserts a line break
HTML Web Page Structure

Begins with <html> and ends with </html>

<html>
<head>
   <title>Preliminary Data Goes Here</title>
</head>
<body>
   The Page’s main content go here
</body>
</html>
Structuring Documents

• Headings:
  – Choice of eight levels of heading tags to produce headings, subheadings, etc.
  – Headings display material in large font on a new line
    <h1>Pope</h1>
    <h2>Cardinal</h2>
    <h3>Archbishop</h3>

Produces:

  Pope
  Cardinal
  Archbishop
HTML Format vs. Display Format

• HTML does not preserve your formatting as typed
  – Successive lines may be joined
  – Unexpected breaks may be introduced

• HTML source tells the browser how to produce the formatted image based on tags, not on how it is formatted in the file (The `<pre>` `</pre>` “preformatted” tag allows you to get around this rule somewhat).

• Human-written HTML is usually formatted to make it easier for people to understand

• However, most modern HTML is machine generated
Special Symbols in HTML

• If a web page needed to show a math relationship like
  \[ 0 < p > r \]

• The browser would interpret \( < p > \) as a paragraph tag, and would not display it

• HTML provides an escape mechanism for specifying reserved and difficult to type “character entities”:
  \&descriptive\_name;
  see http://www.intuitive.com/coolweb/entities.html for a list

• Ex: To show angle brackets, use escape symbol ampersand (&), then an abbreviation, then a semicolon (;)
  \&lt; displays as <
Attributes in HTML

• Text alignment can also be described in HTML
• For text alignment, one can specify left, right, or center
• Attributes appear inside the angle brackets, after tag word and equal sign, in double quotes
  
  \[
  \text{<p align="center">}
  \]
  
  (default justification is left)

• Horizontal rule attribute: width and size (thickness) can be specified or left to default
Marking Links With Anchor Tags

Hyperlinks are one of key innovations of Web documents, in comparison to other Rich Text formatting languages, that predated the web. They allow one document to link to another in response to being selected.

There are two parts of a hyperlink:

1. Anchor text (the text in the current document that is highlighted)
2. Hyperlink reference (the address of the other Web page)

Begin with <a followed by a space

Give the link reference using href="filename"

Close tag with </a>
Including Pictures With Image Tags

• Image Tag Format:
  <img src="filename">
  – src stands for source

• GIF, PNG, and JPEG Images are the most widely supported
  – GIF: Graphic Interchange Format
  – JPEG: Joint Photographic Experts Group
  – Image format is implied by the filename extension (.gif, .jpg)

• Pictures can be used as links by surrounding them with an anchor tag
Modern Web Authoring

• HTML was designed in a era when people generated most Web content
• Today PROGRAMS generate most web content
• Moreover, many are dynamic
• Let’s see how easy it is generate amazing web content using today’s tools …

Goto: html://www.popfly.com
Preliminaries

- You may need to register first (Popfly is currently in Beta)
- Eventually, you should get to the option: Create a Webpage
A WYSIWYG Web Editor

- You can follow the on-line tutorial
- Customize and save it
- It’s cool, but no competition to Facebook
- Could we do something like that?
Mashup

- Mashup is a new web technology that allows a web page author to easily generate dynamic content.
- Basically, it allows you to “reconnect” web content in unique ways.
- This is done via a program, but the program is generated rather painlessly.
Example

- There are online step-by-step instructions at http://www.unc.edu/courses/2008spring/comp/101/001/Mashup
- The online demo assumes that you have a Facebook page, if you do not, there are still other interesting alternatives to try using the online popfly tutorials
Next Time

• We will look in more detail about how media is represented (pictures, sounds, movies) in computers