Introduction to Web Programming

January 8, 2014
URLs


- If no filename is specified, a default is assumed.
- Can be index.html, default.htm, index.php, index.asp, depending on how the server is configured.
Hyperlinks

• Can specify an absolute path
• Can specify a relative path (relative to the current directory)
  “../course.css”
• Can specify a named anchor in the current or another page.

  <h1 id="topic1">Topic 1: HTML</h1> give an id
  <a href="#topic1">HTML</a> link in this page
  <a href="intro.html#topic1">HTML</a> link to another page
Anchor elements, cont’d

• Can be text or images
  
  `<a href="http://www.williams.edu">
    <img src="purpleCow.gif" alt="cow image"></a>`

• Text anchor typical defaults:
  – Underlined blue before click
  – Purple after click
Anchor elements, cont’d

• Can open a new window (or tab, depending on browser default)

  <a href="http://www.cs.williams.edu" target="_blank">CS at Williams</a>

• Can reuse the window/tab if you give it a name

  <a href="http://www.cs.williams.edu" target="CSWindow">CS at Williams</a>

• For advertising-style pop-up windows, need JavaScript
Mail and Phone Links

• Can make sending mail easy (though it leaves you open as a target for spam)
  <a href="mailto:me@cs.williams.edu">email me</a>

• Can do something similar for phone numbers
  <a href="tel:+14135551234">Call 413-555-1234</a>
Design Considerations

• Follow W3C HTML and CSS standards as much as possible.
  – Your primary tool for ensuring that your site is as consistent as possible on all standards-compliant browsers.

• Design with progressive enhancement as a guide.
  – Start with a baseline experience that makes your content/functionality available to even the most rudimentary browser.
  – Progressively add enhancements that are nice but not critical.
Design Considerations

• Serve a single HTML document to all devices but apply different style sheets based on the screen size to provide the best layout for each device.
  – See links on Resources page.

• Keep accessibility in mind.
  – Consider vision, mobility, auditory, and cognitive impairment.
Design Considerations

• Site performance is important.
  – Amazon.com showed that reducing page load times by just 100ms resulted in a 1% increase in revenue.
  – A few ways to optimize performance:
    • Make images the smallest size possible
    • Minimize html and css documents by removing extra spaces and line returns. (But still keep them readable.)
    • Keep JavaScript to a minimum
    • Don’t load anything unnecessary
    • Check out code.google.com/speed
Design Considerations

• Forcing new windows/tabs to open up is not a good idea for accessibility.
  – Too many windows/tabs can be confusing to anyone.
  – Can be confusing on small readers.
  – Use sparingly.
Color Matters

• Select a color scheme that makes sense for the product/service at the heart of your website.
  – If it’s a skiing website, reds, oranges, and yellows aren’t the best choice.

• Be sure you know your target audience.

• Overuse of bright colors causes eye fatigue.

• Choose a background color.
  – Distinguish your website from others.
  – “Punches” the body of the page forward.
Color Matters, cont’d

• Don’t make your website a rainbow.
  – Work with a palette of 2-3 colors.

• Make your text black.
  – People are used to reading black text.
Color Choice

• Complementation
  – Colors on “opposite” ends of the color spectrum lead people to consider a design visually appealing
  – Good for general color scheme selection and highlighting, but not as much for text

• Contrast
  – Reduces eyestrain and focuses user attention
  – Good for selecting text color and associated background (black on white/light gray; white on black)
  – When in doubt, use a very light color for the background and a dark color for text
Color Choice

• Vibrancy
  – Vibrancy affects the emotional response to your design
  – Brighter colors: energetic
  – Darker, muted shades: relaxing
• Colors have both positive and negative associations
  – For example, Red
    • Positive: power, strength, action, energy
    • Negative: warning, danger, caution, anger
  – Blue
    • Positive: Cool, tranquil, secure
    • Negative: Cold, passive
  – White
    • Positive: Pure, fresh, clean
    • Negative: Cold