Week 10:
And more HTML yet

Johan Bollen
Old Dominion University
Department of Computer Science

jbollen@cs.odu.edu
http://www.cs.odu.edu/~jbollen
1. Used to specify font size, face and color
   (a) start and end tag
   (b) Deprecated
2. COLOR
3. SIZE
4. FACE
5. Note: browser can ignore!

http://www.cs.odu.edu/~jbollen/CS312/font.html
HTML comments

1. special code: `<!– The comment –>`

2. anything between tags will be ignored by browser

3. Uses:
   (a) Make code readable
   (b) Instructions to author
   (c) Secret codes!
   (d) Protect HTML code from interpretation by incompatible browser
   (e) Editor specific tags (Xemacs!)
Example structure of HTML page

<HTML>
<HEAD>
<TITLE> Internet Concepts CS312 </TITLE>
</HEAD>
<BODY>
<!-- Internet Concepts - CS312 -->
Another class for which I reused all my slides!
</BODY>
</HTML>
Structural tags

1. Not concerned with looks but nature of page elements
   (a) Rather than font, color, size etc
   (b) What is the text, structure of page

2. Browser:
   (a) Freedom to display as appropriate

3. Book lists 4 types
   (a) \texttt{<P>}: paragraph tag
   (b) \texttt{<Hx>}: headers
   (c) \texttt{<A>}: hyperlinks
   (d) \texttt{<IMG>}: images
Paragraph tag

1. Indicates paragraph elements
2. start <P> and end tag: <P>
3. Optional attribute
   (a) ALIGN=

   (b) RIGHT
   (c) LEFT
   (d) CENTER

http://www.cs.odu.edu/~jbollen/CS312/ptag.html
Example HTML page: \(<P>\) tag

\(<HTML>\n\(<HEAD>\n\(<TITLE>\text{Internet Concepts CS312} \</TITLE>\n\</HEAD>\n\(<BODY>\n\(<!-- \text{Internet Concepts - CS312} -->\n\(<P \text{ALIGN='CENTER'}\>)A \text{paragraph \ element} \</P>\n\(<P>\text{Another \ paragraph \ element}</P>\n\text{What \ happens \ when \ I \ simply \ put} \n\text{one \ paragraph \ tag \ at \ the \ end} \n\text{of \ this \ line}\</P>\n\</BODY>\n\</HTML>\n
But wait! There’s more!

1. Sometimes you don’t want a paragraph, you want a line break
2. use: \texttt{<BR>}
3. no end tag
4. Inserts simple line break
5. Repetition does not pay!
HEADERS

1. Much like titles

2. Indicate an item should be laid out as “header”
   (a) interpretation by browser
   (b) No real enforcement of header matching, structure of document

3. Size or level
   (a) Six levels deep
   (b) Level indicated by tag type: H1, H2, H3, H4, H5, H6
   (c) H6: smallest!

4. ALIGN attribute
   (a) deprecated
   (b) LEFT, CENTER, RIGHT

http://www.cs.odu.edu/~jbollen/CS312/header.html
Example of headers in HTML code

<HTML>
<HEAD>
<TITLE> Internet Concepts CS312 </TITLE>
</HEAD>
<BODY>
<H1> Introduction </H1>
<H2> Some minor points </H2>
<H2> Problem Statement </H2>
<H3> It’s pretty bad </H3>
<H3> A disaster! </H3>
<H1 ALIGN='''RIGHT'''> Background </H1>
</BODY>
</HTML>
HYPERLINKS

1. Link part of one page to another file or part of page
2. Part linked: anchor hence anchor tag
3. Page, part of page or file linked to: target
4. Location of linked-to item: URL
5. Browser indicates present of hyperlink: underline, different color

HTML

1. \(<A>\cdots</A>\)
2. Anchor is located between start and end tag, whatever it may be
3. Attribute: HREF specifies target URL

Example: [http://www.cs.odu.edu/~jbollen/CS312/ahref.html](http://www.cs.odu.edu/~jbollen/CS312/ahref.html)
Example of hyperlinks in HTML code

<html>
<head>
<title>Anchor tag</title>
</head>
<body>

Gallia est omnis divisa in partes tres, quarum unam incolunt Belgae, aliam Aquitani, tertiam qui ipsorum lingua Celtae, nostra Galli appellantur. Hi omnes lingua, institutis, legibus inter se differunt. Gallos ab Aquitanis Garumna flumen, a Belgis Matrona et Sequana dividit. <P>

Horum omnium fortissimi sunt <a href="http://www.beerparadise.be/">Belgae</a>, propterea quod a cultu atque humanitate provinciae longissime absunt, minimeque ad eos mercatores saepe commeant atque ea quae ad effeminandos animos pertinent important ...

</body>
</html>
Intradocument hyperlinks

1. Often necessary to link not from anchor to page but to part of page
2. NAME attribute of anchor tag
3. NAME="label", hyperlink can then point to text label
4. useful for menus, etc.

HTML

1. `<A NAME="LABEL"> · · · </A>`
2. link: `<A HREF="#LABEL"> · · · </A>`
Does it work across pages?

http://www.cs.odu.edu/~jbollen/CS312/aextra.html
Mail-to hyperlinks

Need to have links that point to someone’s email address

1. Same use of anchor tag as discussed

before

2. URL: mailto: jbollen@cs.odu.edu

3. Browser invokes email client
Example of MAILTO URLs

<html>
<head>
<title>Anchor tag</title>
</head>
<body>
<a href='mailto:jbollen@cs.odu.edu'> Send an e-mail ! </a>
</body>
</html>
General principles of hyperlink

Good style:

1. Descriptive and succinct anchors
   (a) no “click here”s
   (b) keep it short

2. hyperlink is fun but
   (a) WWW is about interplay of content and structure
   (b) nothing more annoying than long lists of links

3. Check URLs: no dead links

4. Link coloring
   (a) adhere to standard: no wacky colors
   (b) if not blue: shades of main theme color

5. Legal issues in hyperlinking?
   (a) Can you be held liable for linking to illegal material?
   (b) Is it the linker or the poster?
   (c) http://thewhir.com/find/articlecentral/story.asp?recordid=535
   (d) http://www.cs.odu.edu/~jbollen/CS312/article.html

6. Personal pet peeve:
   (a) Links generated by Javascripts and other methods
   (b) Impossible to find where certain files really live
Image Tag

1. HTML is multimedia format
2. Requires inclusion of images in web pages
3. Image formats
   (a) JPG
   (b) GIF
   (c) PNG
   (d) BMP
4. All can be included that most browsers accept
5. `<IMG>`
6. Attributes:
   (a) SRC="filename"
   (b) ALT: important!
   (c) HEIGHT (pixels and percentages)
   (d) WIDTH (pixels and percentages)

Example: [http://www.cs.odu.edu/~jbollen/CS312/img.html](http://www.cs.odu.edu/~jbollen/CS312/img.html)
Example of IMG tag

<html>
    <head>
        <title>Anchor tag</title>
    </head>
    <body>

        <IMG SRC='''homer_simpson.jpg'''
        ALT='''Homer Sapiens'''>

    </body>
</html>
Image Tag as anchor

Can we link from images, i.e. use images as anchors: yes!
More IMG magic

Commonly used attributes for the IMG tag

1. ALIGN: vertical
   (a) TOP, MIDDLE, BOTTOM
   (b) Relative to position of text
   (c) Example: http://www.cs.odu.edu/~jbollen/CS312/imgalign.html

2. ALIGN: horizontal
   (a) LEFT, RIGHT
   (b) Again relative to text

3. HSPACE, VSPACE
   (a) padding horizontal and vertical text spacing
   (b) http://www.cs.odu.edu/~jbollen/CS312/imgpadding.html

4. Centering
   (a) DIV
   (b) CENTER
   (c) PARAGRAPH

5. BORDER?
IMG MAPS

Image can serve as anchor - however, can parts of an image linked to different locations?

1. client side image maps:
   (a) IMG used as map
   (b) map file: specifies which section of IMG links where

2. map file is most crucial
   (a) has name: different maps can be used
   (b) contains a list of specifications of image sections:

i. shapes (parts of images have shapes): circles, rectangles, polygon
ii. bounding image coordinates for shapes
iii. URL that section points to

3. IMG tag
   (a) Calls map by name
   (b) Client then know how to respond to mouseclicks in certain regions of image
<html>
  <head>
    <title>Anatomy of a cutie</title>
  </head>
  <body>
    <MAP NAME="andrea">
      <AREA SHAPE="circle" COORDS="293,200,15" HREF="nose.html">
      <AREA SHAPE="rect" COORDS="210,150,352,185" HREF="eyes.html">
      <AREA SHAPE="poly" COORDS="273,247,338,231,307,268" HREF="mouth.html">
      <AREA SHAPE="rect" COORDS="0,0,635,478" HREF="http://www.andreabollen.net"/>
    </MAP>
    <IMG SRC="andreamap.jpg" USEMAP="#andrea">
  </body>
</html>
Before we go into tables and list: some more markup

We can control font size, face and color by FONT tag: there are other ways

1. <B> ... < /B>: BOLD
2. <I> ... < /I>: ITALICS
3. <U> ... < /U>: UNDERLINED
4. <EM> ... < /EM>: EMPHASIS
   (similar to bold)
5. <BLINK> ... < /BLINK>: OH NO!!
SOME RENEGADE TAGS

<html>
<head>
<title>bold, etc</title>
</head>

<body>

<P><B>This is bold text</B></P>

<P><I>This is italics text</I></P>

<P><U>Some underlined text</U></P>

<P><EM>Emphasis, yes, but how?</EM></P>

<P><BLINK>You can’t spell failure without U,R,A!</BLINK></P>

</body>

</html>
Introduction to lists!

Often we want to organize text in lists

1. Three types: ordered, unordered, definition

2. Ordered:
   (a) `<OL> ... </OL>`
   (b) Individual item: `<LI> ... </LI>`
   (c) Attributes: TYPE=, START=
   (d) [http://www.cs.odu.edu/~jbollen/CS312/ol.html](http://www.cs.odu.edu/~jbollen/CS312/ol.html)

3. Unordered:
   (a) `<UL> ... </UL>`
   (b) Individual item: `<LI> ... </LI>`

4. Definition Lists
   (a) `<DL> ... </DL>`
   (b) `<DT> ... definition term`
   (c) `<DD> ... definition`

5. Nested:
   (a) List within list
   (b) Example: [http://www.cs.odu.edu/~jbollen/CS312/nestedli.html](http://www.cs.odu.edu/~jbollen/CS312/nestedli.html)
<html>
    <head>
        <title>lists etc</title>
    </head>

    <body>
        <h2>UK TOP 40</h2>
        <ol>
            <li>Kylie Minogue - Slow</li>
            <li>Flip Reverse - Blazin’ Squad</li>
            <li>Be Faithful - Fatman Scoop</li>
            <li>Turn Me On - Kevin Lyttle</li>
            <li>Where Is The Love - Black Eyed Peas</li>
        </ol>
    </body>
</html>
UL

<html>
<head>
  <title>UL</title>
</head>

<body>
  <h2>UL</h2>

  <ul>
    <li>Purchase new Kylie Minogue album</li>
    <li>Listen</li>
    <li>Grow bored with track</li>
    <li>Sell album on Ebay</li>
  </ul>

</body>

</html>
DL

<html>
<head>
<title>DL</title>
</head>

<body>
<h2>DL</h2>
<dl>
<dt> <b>Resolution</b>
<dd> Never waste time on UK top 40 again
<dt> <b>Evaluation</b>
<dd> Top of the pops music is trite
<dt> <b>Better:</b>
</dl>
</body>
</html>
Homework

1. Add your personal top 40 (list) to homepage built for previous homework
2. Add full details on artists, year, and record label
3. At least 15 artists from 4 different labels
4. Use of ordered, unordered and definition lists
5. Provide links to artist home pages, labels etc
6. Grading on
   (a) Technical quality (HTML code validity and structure): 3pts
   (b) Content (see above): 3pts
   (c) Style (layout, design): 4pts
7. Due: start next class
8. Submission:
   (a) send URL (has to be odu.edu or cs.odu.edu address)
   (b) subject of e-mail: homework 4 - your name - CS312