LING 408/508: Programming for Linguists

Lecture 10

September 30th
Experimenting with HTML styles

• HTML files need not reside on a webserver, can save it locally and open the file directly.
• Course webpage: sample.html

Right or control-click (Mac)
Experimenting with HTML styles

- HTML files need not reside on a webservice, can save it locally and open the file directly.
- Course webpage: sample.html
Experimenting with HTML styles

- HTML: webpage content and structure (default style)

A webpage

1. 2. 3. 4. 5. 6. 7. 8. 9.

First paragraph
Some text. Some more text. A lot more text is needed to see word-wrap. A link.

A second paragraph.

1. First things first.
   - One
   - Two
2. Second things second.
3. Third things last.

What difference do you notice?
Experimenting with HTML styles

A webpage

First paragraph
Some text. Some more text. A lot more text is needed to see word-wrap. A link.

Second paragraph
1. First things first.
   - One
   - Two
2. Second things second.
3. Third things last.

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<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML//EN">
<html>
<head>
<title>A webpage</title>
</head>
<body>
<h1>A webpage</h1>
<table style="border: 1px solid blue">
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</table>
<h2>First paragraph</h2>
<p>Some text. Some more text. A lot more text is needed to see word-wrap. A link.</p>
Experimenting with HTML styles

A webpage

First paragraph
Some text. Some more text. A lot more text is needed to see word-wrap. A link.

A second paragraph

<ol>
  <li>First things first.</li>
  <ul>
    <li>One</li>
    <li>Two</li>
  </ul>
  <li>Second things second.</li>
  <li>Third things last.</li>
</ol>

<hr>

<address></address>

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CSS

• **Inline style:**
  - `<table style="border: 1px solid blue">
  - `<p style="font-family: bank gothic; font-size: 60; color:white; background -color:black">

Cascading Style Sheets (CSS): a language for describing the style of html elements

• **Internal style sheet:**
  `<head>
  <style>
    table {
      border:1px solid blue;
    }
  </style>
</head>

• **External style sheet:**
  `<head>
  <link rel="stylesheet" type="text/css" href="style.css">
</head>
CSS

• Cascading order (priority: low to high):
  
  general > ... > specific

  1. browser default
  2. external style sheet
  3. internal style sheet
  4. inline style

• Default font size:
  
  – 1em (different devices)
  – other units:
    
    • in, cm, mm, ex, pt, px, pc
  – pt = 1/72", pc = 12pt, ex = height of x

• Jargon:
  
  selector {
    property: value;
  }

• CSS comments:
  
  /* */
  
  (html: <!-- -->)

• selectors:
  
  – html tag e.g. h1, p
  – #id
    
    e.g. id="abc" in html tag
  – .class
    
    e.g. class="c1" in html tag
CSS

• Font-family:
  
  ```
  h1 {
    font-family: Times, serif
  }
  h2 {
    font-family: Verdana, sans-serif
  }
  h3 {
    font-family: Vivaldi, cursive
  }
  
  • Generic font families:
  – cursive
  – fantasy
  – monospace
  – sans-serif
  – serif
  ```

• Links:
  ```html
  <a href="http://www.google.com">link</a>
  ```
  ```
  a:link {
    color: #0000cc;
    text-decoration: none;
  }
  a:visited {
    color: green;
  }
  a:hover {
    color: red;
  }
  a:active {
    color: yellow;
  }
  ```

• text-decoration:
  ```
  – none|underline|overline|line-through|initial|inherit (from parent)
  ```
CSS

CSS selectors:

- `selector {
  property: value;
}

- selectors:
  - html tag e.g. h1, p
  - `#id`
    - e.g. id="abc" in html tag
  - `.class`
    - e.g. class="c1" in html tag
  - a:hover
  - a:visited
  - a:link (unvisited)
  - `tag:first-child`
    - html tag that is the first child of its parent
  - `tag:nth-child(N)`
    - Nth child of its parent

- selector path:
  - `div > p`
    - a paragraph that is immediately dominated by a div.
  - `div div p`
    - a paragraph that is dominated by a div that is itself dominated by a div.
  - **note:**
    - the more specific selector will apply if two or more match
    - `#id` is most specific
  - `*`
    - least specific: applies to all html elements
CSS

- Shapes with div:
  ```css
div {
    height: 50px;
    width: 100px;
    border: 2px solid black;
    border-radius: 5px;
    background: wheat;
    display: block;
  }

  Note: semicolon (;) is critical!
```

- display:
  1. block      full width *(by itself)*
  2. inline-block allow others on line
  3. inline     shrink wrap
  4. none       invisible
  5. ...

vertical-align: middle *doesn't work*
applies to tables
### CSS

Fix for `vertical-align: middle`

#### Example (css):

```html
1. <style>
2. .outer {
3.     height: 100px;
4.     width: 100px;
5.     border: 2px solid black;
6.     border-radius: 100%;
7.     margin-left: 5px;
8.     margin-top: 5px;
9.     display: inline-table;
10.    text-align: center;
11. }
12. .inner {
13.     display: table-cell;
14.     vertical-align: middle;
15. }
16. </style>
```

#### Example (html):

- `<div class="outer"><div class="inner">Box 1</div></div>`
- `<div class="outer"><div class="inner">Box 2</div></div>`
- `<div class="outer"><div class="inner">Box 3</div></div>`

#### Browser:
• Boxes have:
  – margin
  – border
  – padding
  – (inside content)

• Example:
  ```css
  div {
    width: 320px;
    padding: 10px;
    border: 5px solid gray;
    margin: 0;
  }
  ```

• How to determine sizing:
  – horizontal:
    • width + left padding + right padding + left border + right border + left margin + right margin
  – vertical:
    • height + top padding + bottom padding + top border + bottom border + top margin + bottom margin

margin property (# values):
  - margin: top right bottom left
  - margin: top right/left bottom
  - margin: top/bottom right/left
  - margin: all
  - auto (center) value

margins can have negative values
CSS

• HTML elements can float:
  – float:
    • none    default
    • left    float to left
    • right   float to right
  – clear:
    • none    allow floats
    • left    no floats to left
    • right   no floats to right
    • both    no floats either side

• Example (css):
  span {
    float: left;
    font-size: 275%;
    line-height: 85%
  }

• Example (html):
  <p>
  <span>T</span>his is the very, very first word of this somewhat longish but simple sentence.
  </p>

• another method: use the selector p:first-child:first-letter
• also: play with margin settings
CSS

• Positioning:
  – position:
    • static
takes element out of flow, position relative to last non-static parent (or html)
    • absolute
takes element out of flow, position relative to last non-static parent (or html)
    • relative
    • fixed with respect to browser window (scroll)

• Example (html):
  – <div id="outer">
  –   <div id="inner">Inner Box</div>
  –   Outer Box
  – </div>

• Example (css):
  #inner {
    width: 100px; height: 100px;
    border: 1px solid red;
    top: 100px;
    left: 200px;
    position: absolute;
  }
  #outer {
    width: 200px; height: 200px;
    border: 1px solid blue;
    margin-top: 20px;
    margin-left: 20px;
  }