

Basic Styling with CSS (and a bit more XHTML)

CSE 190 M (Web Programming), Spring 2008
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Reading: Chapter 1, sections 1.3 - 1.5

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Recall: Basic CSS rule syntax

```
selector {  
  property: value;  
  property: value;  
  ...  
  property: value;  
}
```

CSS

```
p {  
  font-family: sans-serif;  
  color: red;  
}
```

-
- a CSS file consists of one or more **rules**
 - each rule starts with a **selector** that specifies an HTML element(s) and then applies style **properties** to them

Attaching a CSS file: <link>

```
<head>
  ...
  <link rel="stylesheet" type="text/css" href="filename" />
  ...
</head>
```

HTML

```
<link rel="stylesheet" type="text/css" href="style.css" />
```

```
<link rel="stylesheet" type="text/css"
href="http://www.google.com/uds/css/gsearch.css" />
```

-
- a page can link to multiple style sheet files
 - in case of a conflict (two sheets define a style for the same HTML element), the latter sheet's properties will be used

CSS properties for colors

```
p {
  color: red;
  background-color: yellow;
}
```

CSS

This paragraph uses the style above.

-
- color: color of the element's text
 - background-color: color that will appear behind the element

Specifying colors

```
p { color: red; }
h2 { color: rgb(128, 0, 196); }
h4 { color: #FF8800; }
```

CSS

This paragraph uses the first style above.

This heading uses the second style above.

This heading uses the third style above.

-
- color names: aqua, black, blue, fuchsia, gray, green, lime, maroon, navy, olive, purple, red, silver, teal, (white), yellow
 - RGB codes: red, green, and blue values from 0 (none) to 255 (full)
 - hex codes: RGB values in base-16 from 00 (0, none) to FF (255, full)

Grouping styles

```
p, h1, h2 {
  color: blue;
}
h2 {
  background-color: yellow;
}
```

CSS

This paragraph uses the above style.

This heading uses the above style.

-
- a style can select multiple elements separated by commas
 - the individual elements can also have their own styles (like h2 above)

CSS properties for fonts

- font-family: which font will be used
- font-size: how large the letters will be drawn
- font-style: used to enable/disable italic style
- font-weight: used to enable/disable bold style
- Complete list of font properties

font-family

```
p {  
  font-family: "Georgia";  
}  
h2 {  
  font-family: "Arial Narrow";  
}
```

CSS

This paragraph uses the first style above.

This heading uses the second style above.

-
- enclose multi-word font names in quotes

More about font-family

```
p {  
  font-family: "Garamond", "Times New Roman", serif;  
}
```

CSS

This paragraph uses the above style.

-
- can specify multiple fonts from highest to lowest priority
 - **generic font names:**
serif, sans-serif, cursive, fantasy, monospace
 - if the first font is not found on the user's computer, the next is tried
 - generally should specify similar fonts
 - placing a generic font name at the end of your font-family value ensures that every computer will use a valid font

font-size

```
p {  
  font-size: 14pt;  
}
```

CSS

This paragraph uses the style above.

- units: pixels (px) vs. point (pt) vs. m-size (em)
16px, 16pt, 1.16em
- vague font sizes: `xx-small`, `x-small`, `small`, `medium`, `large`, `x-large`, `xx-large`, `smaller`, `larger`
- percentage font sizes, e.g.: 90%, 120%
- pt specifies number of *point*, where a point is 1/72 of an inch onscreen
- px specifies a number of pixels on the screen
- em specifies number of *m-widths*, where 1 em is equal to the font's current size

font-weight, font-style

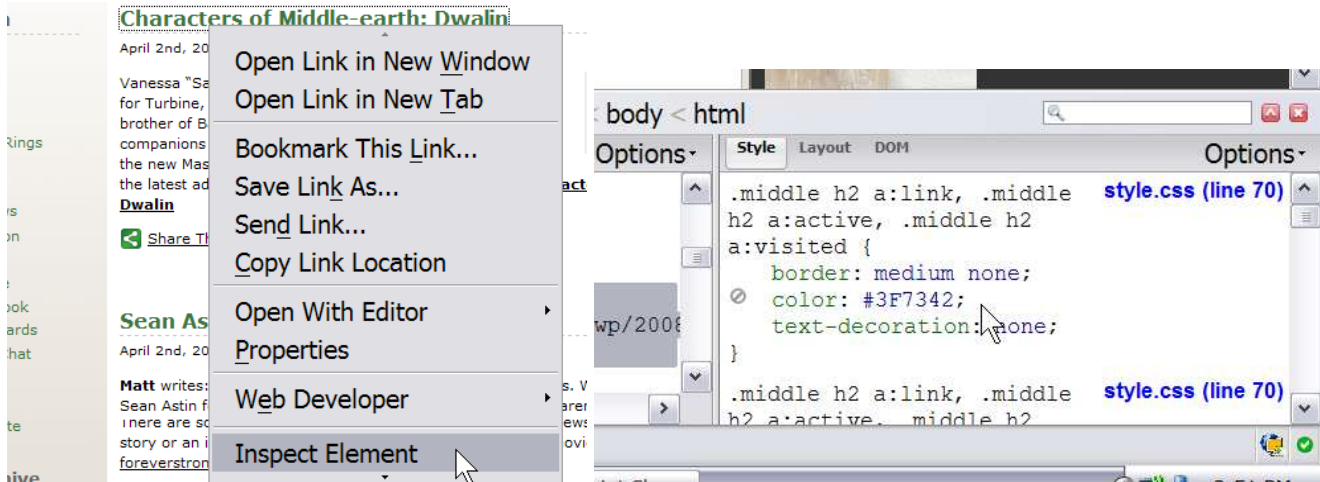
```
p {  
  font-weight: bold;  
  font-style: italic;  
}
```

CSS

This paragraph uses the style above.

- either of the above can be set to `normal` to turn them off (e.g. headings)

Spying on styles with Firebug



- install [Firebug](#) Firefox add-on to inspect XHTML/CSS of any page
- can see what styles apply to which elements, and change them dynamically

Why ``, `` and not ``, `<i>`?

```
strong { font-weight: normal; color: red; }  
em { font-style: normal; background-color: #DDDDDD; }
```

CSS

Now if I want to **strongly emphasize** something or just *emphasize* it, it doesn't necessarily have to be bold or italic.

- `strong` and `em` describe attributes of the content (it is something important in the document that you want to emphasize)
- `b` and `i` describe formatting and presentation ("I want this to be bold.")

CSS properties for text

- `text-align`: alignment of text within its element
- `text-decoration`: decorations such as underlining
- `line-height`, `word-spacing`, `letter-spacing`: gaps between the various portions of the text
- `text-indent`: indents the first letter of each paragraph
- [Complete list of text properties](#)

text-align

```
blockquote { text-align: justify; }  
h2 { text-align: center; }
```

CSS

The Emperor's Quote

[TO LUKE SKYWALKER] The alliance... will die. As will your friends. Good, I can feel your anger. I am unarmed. Take your weapon. Strike me down with all of your hatred and your journey towards the dark side will be complete.

-
- `text-align` can be `left`, `right`, `center`, or `justify` (which widens all full lines of the element so that they occupy its entire width)

text-decoration

```
p {  
  text-decoration: underline;  
}
```

CSS

This paragraph uses the style above.

-
- can also be `overline`, ~~`line-through`~~, `blink`, or `none`
 - effects can be combined:

```
text-decoration: overline underline;
```

CSS comments: `/* ... */`

```
/* This is a comment.  
   It can span many lines in the CSS file. */  
p {  
  color: red; background-color: aqua;  
}
```

CSS

- CSS (like HTML) is usually not commented as rigorously as programming languages such as Java
- the `//` single-line comment style is NOT supported in CSS
- the `<!-- ... -->` HTML comment style is also NOT supported in CSS

Body styles

```
body {  
  font-size: 16px;  
}
```

CSS

- to apply a style to the entire body of your page, write a selector for the body element
- saves you from manually applying a style to each element

W3C CSS Validator

```
<p><a href="http://jigsaw.w3.org/css-validator/check/referer">  
</a></p>
```

CSS



- jigsaw.w3.org/css-validator/
- checks your CSS to make sure it meets the official CSS specifications
- more picky than the web browser, which may render malformed CSS correctly

More XHTML elements

lists, quotations, and source code

Unordered list: ``, ``

`ul` represents a bulleted list of items (block)
`li` represents a single item within the list (block)

```
<ul>
  <li>No shoes</li>
  <li>No shirt</li>
  <li>No problem!</li>
</ul>
```

HTML

- No shoes
- No shirt
- No problem!

More about unordered lists

- a list can contain other lists

```
<ul>
  <li>Simpsons:
    <ul>
      <li>Homer</li>
      <li>Marge</li>
    </ul>
  </li>
  <li>Family Guy:
    <ul>
      <li>Peter</li>
      <li>Lois</li>
    </ul>
  </li>
</ul>
```

- Simpsons:
 - Homer
 - Marge
- Family Guy:
 - Peter
 - Lois

Ordered list: ``

`ol` represents a numbered list of items (block)

```
<p>RIAA business model:</p>
<ol>
  <li>Sue customers for copying music</li>
  <li>??</li>
  <li>Profit!</li>
</ol>
```

HTML

RIAA business model:

1. Sue customers for copying music
2. ??
3. Profit!

- we can make lists with letters or Roman numerals using CSS (later)

Common Error: Not closing a list

```
<ul>
  <li>No shoes</li>
  <li>No shirt</li>
  <li>No problem!</li>
<p>Paragraph after list...</p>
```

HTML

- No shoes
- No shirt
- No problem!

Paragraph after list...

-
- if you leave a list open, subsequent contents will be indented

Common Error: Improper nested list placing

```
<ul>
  <li>Simpsons:</li>
    <ul>
      <li>Bart</li>
      <li>Lisa</li>
    </ul>
</li>
<li>Family Guy:
  <ul>
    <li>Peter</li>
    <li>Lois</li>
  </ul>
</ul>
```

HTML

- closing the outer `li` too early (or not at all) will render correctly in most browsers, but it is incorrect XHTML

The list-style-type property

```
ol { list-style-type: lower-roman; }
```

CSS

- Possible values:
 - i. none : No marker
 - ii. disc (default), circle, square
 - iii. decimal : 1, 2, 3, etc.
 - iv. decimal-leading-zero : 01, 02, 03, etc.
 - v. lower-roman : i, ii, iii, iv, v, etc.
 - vi. upper-roman : I, II, III, IV, V, etc.
 - vii. lower-alpha : a, b, c, d, e, etc.
 - viii. upper-alpha : A, B, C, D, E, etc.
 - ix. lower-greek : alpha, beta, gamma, etc.
 - x. others: hebrew, armenian, georgian, cjk-ideographic, hiragana, katakana, hiragana-iroha, katakana-iroha

Quotations: <blockquote>

a lengthy quotation (block)

```
<p>As Lincoln said in his famous Gettysburg Address:</p>
<blockquote>
  <p>
    Fourscore and seven years ago, our fathers brought forth
    on this continent a new nation, conceived in liberty, and
    dedicated to the proposition that all men are created equal.
  </p>
</blockquote>
```

HTML

As Lincoln said in his famous Gettysburg Address:

Fourscore and seven years ago, our fathers brought forth on this continent a new nation, conceived in liberty, and dedicated to the proposition that all men are created equal.

Quotations: <q>

a short quotation (inline)

```
<p>Quoth the Raven, <q>Nevermore.</q></p>
```

HTML

Quoth the Raven, "Nevermore."

- Why not just write the following?
<p>Quoth the Raven, "Nevermore."</p>

We don't use " marks for two reasons:

1. XHTML shouldn't contain literal quotation mark characters; they should be written as " ;
2. using <q> allows us to apply CSS styles to quotations (seen later)

HTML Character Entities

a way of representing any Unicode character within a web page

character(s)	entity
<>	< >
é è ñ	é è ñ
™ ©	™ ©
π δ Δ	π δ Δ

И И
" & " &

- Complete list of HTML entities
- How would you display the text & on a web page?

HTML-encoding text

```
<p>  
  <a href="http://google.com/search?q=marty&ie=utf-8&aq=t">  
    Search Google for Marty  
  </a>  
</p>
```

- To display the above text in a web page, its special characters must be encoded as shown below:

```
&lt;p&gt;&  
  &lt;a href=&quot;http://google.com/search?q=marty&amp;ie=utf-8&amp;aq=t&quot;&gt;&  
    Search Google for Marty  
  &lt;/a&gt;&  
&lt;/p&gt;&
```