‘Advanced’ CSS

Abridged version of slides to accompany
*Internet & WWW: How To Program* (1st ed.)
by Dietel, Dietel, & Nieto,
Published by Prentice-Hall.

1 Introduction
• Cascading Style Sheets (CSS)
  – Specify the style of your page elements
  – Spacing, margins, etc.
• Separate from the structure of your document
  – Section headers, body text, links, etc.
• Separation of structure from content
  – Greater manageability
  – Easier to change style of document

2 Inline Styles
• Inline styles
  – Individual element’s style declared using the **STYLE** attribute
  – Each CSS property followed by a colon and the value of that attribute
  – Multiple properties separated by semicolons
    ```html
    <P STYLE = "font-size: 20 pt; color: #0000FF" >
    ```
  – Inline styles override any other styles
  • Not suitable for site maintenance
    – Only really useful for
      – Quick and dirty effect testing
      – Sizes of images
Outline

1. STYLE attribute
   1.1 Separate multiple styles with a semicolon

---

Inline styles

Here is some text

Even more text

---

3 Creating Style Sheets with the STYLE Element

- Style sheet in header section
  - Begins with `<STYLE TYPE = "text/css">`
    - Styles placed here apply to the whole document
      - `TYPE` attribute specifies the MIME type
        - MIME is a standard for specifying the format of content
          - Other MIME types include `text/html`, `image/gif` and `text/javascript`
  - Without style sheets
    - Browser completely controls the look and feel of Web pages
  - With style sheets
    - Designer can specify the look and feel of Web pages
3 Creating Style Sheets with the STYLE Element (II)

• Declare CSS rules within STYLE element
  – Each rule body begins and ends with a curly brace ({ and })
  – Class declarations are preceded with a period and applied to elements only of that specific class
  – Each property is followed by a colon and the value of the property
  – Multiple properties are separated by semicolons

3 Creating Style Sheets with the STYLE Element (III)

• Generic font families
  – Allow you to specify a type of font instead of a specific font
• Font-size property
  – Relative sizes: xx-small, x-small, small, smaller, medium, large, larger, x-large and xx-large
• Styles applied to an element (the parent element)
  – Also apply to the elements inside that element (child elements)
4 Conflicting Styles

- Inheritance and specificity
- *text-decoration property*
  - Applies decorations to text within an element
  - none
  - overline
  - line-through
  - blink
    - Browsers are not required to support blink
- *Pseudo-classes*
  - Give the author access to content not specifically declared in the document
  - Ex. :hover pseudo-class

4 Conflicting Styles (II)

- *px*: pixel is a relative-length measurement
  - Varies in size based on screen resolution
- Other relative-lengths
  - *em*: the size of the font
  - *ex*: the “x-height” of the font, usually set to the height of a lowercase x
  - Percentages
    - E.g. margin-left: 10%
- Absolute-length measurements
  - *in*: inches
  - *cm*: centimeters
  - *mm*: millimeters
  - *pt*: points (1 pt = 1/72 in)
  - *pc*: picas (1 pc = 12 pt)
- Use relative length over absolute
4 Conflicting Styles (III)

• Three possible sources for style sheets
  – Browser defaults
  – Preset user styles
  – Author styles

• Author styles have a greater precedence than preset user styles
  – But !important rules can change priority
  – User’s !important rules have priority
5 Linking External Style Sheets

- External linking
  - Separate pages can all use same style sheet
  - Only modify a single file to change styles across your site
- **LINK** element
  - Specifies a relationship (REL attribute) between current document and another document
  ```html
  <LINK REL = "stylesheet" TYPE = "text/css"
  HREF = "styles.css">
  ```
  - **LINK** element can only be placed in header
  - Other REL values:
    - next, previous allow you to link a series of documents
    - Print all linked documents option
- Style sheets are reusable
Linking an external style sheet

6 Positioning Elements

- **CSS position property**
  - **Absolute positioning**
    - Specifying an element’s `position` as `absolute` removes it from the normal flow of elements on the page
    - Position the element according to distance from `top`, `left`, `right`, or `bottom` margins of parent element
  - **z-index attribute**
    - Allows you to properly layer overlapping elements
    - Elements with higher `z-index` are displayed in front of elements with lower `z-index`
Positioning elements with CSS

6 Positioning Elements (II)

• CSS `position` property (cont.)
  – Relative positioning
    • Browser lays out the element on the page
    • Then offsets the element by specified `top`, `bottom`, `left`, or `right` values
    • Keeps elements in the general flow of elements on the page
    • Be careful to avoid unintentionally overlapping text
7 Backgrounds

- **background-image** property
  - Specifies the URL

- **background-position** property
  - Positions the image on the page
  - Ex: background-position: 50% 30px;
    - Position image centered vertically (50% of the distance across the screen) and 30 pixels from the top

- **background-repeat** property
  - no-repeat, repeat, x-repeat, y-repeat

- **background-attachment** property
  - fixed: scrolling the browser window will not move the image
  - scroll: moves the image as the user scrolls the window (default)

- **text-indent** property
  - Indents first line of text by specified amount
### 7 Backgrounds (II)

- **font-weight** property
  - specifies the “boldness” of affected text
    - bold
    - normal
    - bolder
    - lighter
  - Multiples of 100 from 100 to 900

- **font-style** property
  - none
  - italic
  - oblique
  - Will default to *italic* if system does not have separate font file for *oblique*

### 7 Backgrounds (III)

- **SPAN** element: generic grouping element
  - Does not apply any inherent formatting
  - Main use is to apply styles or ID attributes to block of text
  - Inline element

- **DIV** element
  - Similar to SPAN, but block-level element
    - Displayed on own line with margins above and below

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```html
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">

<HTML>

<!-- Fig. 14.8: background.html               -->
<!-- Adding background images and indentation -->

<HEAD>

<TITLE>Background Images</TITLE>

<STYLE TYPE = "text/css">

BODY{
  background-image: url(watermark.gif);
  background-position: bottom right;
  background-repeat: no-repeat;
  background-attachment: fixed;
}

P{
  font-size: 2em;
  color: #AA5588;
  text-indent: 1em;
  font-family: Arial, sans-serif;
}

.dark{
  font-weight: bold;
}

</STYLE>

</HEAD>

<BODY>

<P>
This is some sample text to fill in the page.

This is some sample text to fill in the page.

```

```
8 Element Dimensions

- **width** property
  - Ex `<DIV STYLE = "width: 20%">`

- **height** property
  - Relative and absolute lengths for **width** and **height** properties

- **text-align** property
  - center, left, or right

- **overflow** property
  - scroll adds scrollbars if the text overflows the boundaries
9 Text Flow and the Box Model

- **Floating**
  - Allows you to move an element to one side of the screen
  - Other content in the document flows around the floated element
  - Float to the left or right of a document
- Each block-level element is “boxed”
  - *Box model* allows properties of box to be easily adjusted
    - Padding
    - Border
    - Margins
Outline

1. Floating elements
2. Setting box dimensions

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Floating elements, aligning text and setting box dimensions

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Interrupt flow of text around a floated element by setting the clear property to the same direction the element is floated

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9 Text Flow and the Box Model (II)

- Box model border
  - border-width
  - border-style
    - E.g. border-top-style
    - none
    - hidden
    - dotted
    - dashed
    - solid
    - double
    - groove
    - ridge
    - inset
    - outset
  - border-color
    - E.g. border-left-color
Applying borders to elements

Outline
1. Creating borders with border-style property

Various border-styles
10 User Style Sheets

• Important issue when adding style sheets:
  What kind of users will be using your site?
• Users can define their own user style sheets
• CSS1 specification gave precedence to author styles over user styles but current CSS2 gives user rules precedence
• Use relative measurements
• Add a user style sheet in IE5
  – Tools menu → Internet Options…
    • Accessibility…
      – Check Format documents using my style sheet

Modifying text size with the em measurement
Adding a user style sheet in Internet Explorer 5

Outline
1. A sample user style sheet
2. A Web page with user styles enabled

Thanks for visiting my Web site. I hope you enjoy it.

Please Note: This site will be moving soon. Please check periodically for updates.