CSS: definitions

Lecture #2– Cascading Style Sheets (CSS)

Take-home messages

- CSS is primarily for designers, although we need to know its basics and occasionally "do CSS" (programmatically)

- Several levels/versions, the most recent of which is CSS 3

- Many details (often minuscule) at the heart of it

- Handy references and cheat sheets (and/or help from your editor/IDE) are essential

07/11/16

W3 schools

- The following slides were adopted from materials and contents available at: http://www.w3schools.com/css
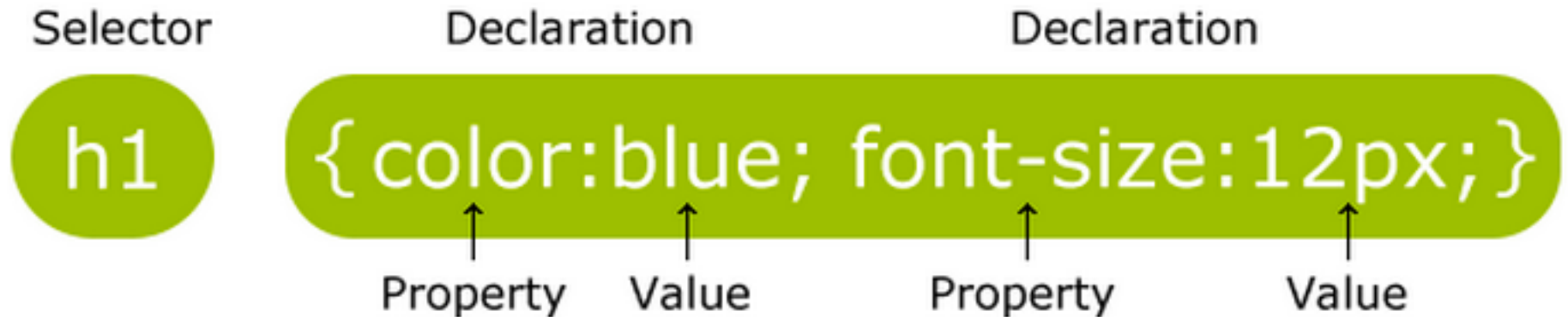
The basics

- CSS stands for Cascading Style Sheets
- Styles define how to display HTML elements
  - Added to HTML 4.0 to solve a problem
- External Style Sheets
  - can save a lot of work
  - are stored in CSS files
- CSS enforces separation between presentation and content!

The basics

- CSS syntax

The basics

- The *id* selector
  - The id selector is used to specify a style for a single, unique element.
  - The id selector uses the id attribute of the HTML element, and is defined with a "#".

07/11/16

The basics

- The *class* selector
  - Used to specify a style for a group of elements.
    - Unlike the id selector, the class selector is most often used on several elements.
  - Allows you to set a particular style for many HTML elements with the same class.
  - Uses the HTML *class* attribute, and is defined with a "."

The basics

- There are three ways of inserting a style sheet:

    - External style sheet (recommended)
    - Internal style sheet
    - Inline style

The basics

- Cascading… the **C** in CSS
  - What style will be used when there is more than one style specified for an HTML element?
  - Generally speaking we can say that all the styles will "cascade" into a new "virtual" style sheet by the following rules, where number four has the highest priority:
    1. Browser default
    2. External style sheet
    3. Internal style sheet (in the head section)
    4. Inline style (inside an HTML element)

CSS styling

- Background

All CSS Background Properties

Property	Description
background	Sets all the background properties in one declaration
background-attachment	Sets whether a background image is fixed or scrolls with the rest of the page
background-color	Sets the background color of an element
background-image	Sets the background image for an element
background-position	Sets the starting position of a background image
background-repeat	Sets how a background image will be repeated

CSS styling

- Text

All CSS Text Properties

Property	Description
color	Sets the color of text
direction	Specifies the text direction/writing direction
letter-spacing	Increases or decreases the space between characters in a text
line-height	Sets the line height
text-align	Specifies the horizontal alignment of text
text-decoration	Specifies the decoration added to text
text-indent	Specifies the indentation of the first line in a text-block
text-shadow	Specifies the shadow effect added to text
text-transform	Controls the capitalization of text
unicode-bidi	
vertical-align	Sets the vertical alignment of an element
white-space	Specifies how white-space inside an element is handled
word-spacing	Increases or decreases the space between words in a text

CSS styling

- Font

Difference Between Serif and Sans-serif Fonts

Sans-serif Serif Serif
(red serifs)

CSS styling

- Font

CSS Font Families

In CSS, there are two types of font family names:

- **generic family** - a group of font families with a similar look (like "Serif" or "Monospace")
- **font family** - a specific font family (like "Times New Roman" or "Arial")

Generic family	Font family	Description
Serif	Times New Roman Georgia	Serif fonts have small lines at the ends on some characters
Sans-serif	Arial Verdana	"Sans" means without - these fonts do not have the lines at the ends of characters
Monospace	Courier New Lucida Console	All monospace characters have the same width

07/11/16

CSS styling

- Font

All CSS Font Properties

Property	Description
font	Sets all the font properties in one declaration
font-family	Specifies the font family for text
font-size	Specifies the font size of text
font-style	Specifies the font style for text
font-variant	Specifies whether or not a text should be displayed in a small-caps font
font-weight	Specifies the weight of a font

CSS styling

- Links
  - Links can be styled with any CSS property (e.g. color, font-family, background, etc.).
  - Special for links are that they can be styled differently depending on what state they are in.
  - The four links states are:
    - a:link - a normal, unvisited link
    - a:visited - a link the user has visited
    - a:hover - a link when the user mouses over it
    - a:active - a link the moment it is clicked

07/11/16

CSS styling

- Lists and tables
  - See http://www.w3schools.com/css/css_list.asp and http://www.w3schools.com/css/css_table.asp

The CSS Box Model

- All HTML elements can be considered as boxes.
  - In CSS, the term "box model" is used when talking about design and layout.
- The CSS box model is essentially a box that wraps around HTML elements.
  - It consists of: margins, borders, padding, and the actual content.
- The box model allows us to place a border around elements and space elements in relation to other elements.

The CSS Box Model

- **Margin -** Clears an area around the border. The margin does not have a background color, it is completely transparent

- **Border -** A border that goes around the padding and content. The border is affected by the background color of the box

- **Padding -** Clears an area around the content. The padding is affected by the background color of the box

- **Content -** The content of the box, where text and images appear