HTML Notes

* going forward, we won't be using java as the presentation layer of our project

Definitions

**Client**: computer that is running/using an application

**Server**: providing data to the client

HTML

* Hyper Text Markup Language
  + this is not a programming language
  + it's a markup language
    - this means that it tells us how a document should be displayed (how it should look when viewed)

**Purpose of html**: to display information and content to a webpage

.html - is the file extension

* this tells our browser to interpret and parse the characters inside the file to create a webpage
* HTML contains/uses a paricular syntax (elements and attributes)

**N.B.**: html defines the structure and content, and NOT the style or dynamic behavior of a webpage

HTML Elements = core building blocks of a webpage

* they define the structure
* they tell us what changes (markup) should be applied to given components/portions of our web page.
* they does this using tags
* the tags denote the type of element and how the browser should read the content inside

syntax: <tagname>Content goes here</tagname>

* some tags are self-closing <img ......./>

**Basic Elements of an HTML page**

<!DOCTYPE html>

<html>

<head></head>

<body>

CONTENT

</body>

</html>

**N.B.**:

* tags should not overlap
* tags should be nested
* tags should always be closed

NO: <h1><b>Incorrect Bold Header</h1></b>  
NO: <h1>Header

Yes: <h1><b>Correctly Bolded Header</b></h1>  
Yes: <h1><b>Also </b>correct bold header</h1>

Block and Inline Elements

* Block Elements for a large structure to contain other elements
  + create a new line by default
  + <html>, <body>, <div>, <p>, <h1>
* Inline Elements contain data or other inline elements
  + and no new line is added by default
  + <button>, <input>, <b>, <i>, <a>, <span>

HTML elements can have Attributes

**Attributes**: are key=value pairs that give metadata about the tag

<img src="PATH/to/get/grumpycat.jpeg" alt="grumpy cat image"/>

**Global attributes**: attributes that can be applied to any element on the page

* title, id, class, lang, style, etc.

<p id="paragraph">This is a paragraph</p>

CSS

Cascading Style Sheets

* language for styling html documents
  + it specifies certains rules for layout and display in key:value pairs.
* helps display html elements
* style things like background color, font color, size, etc.
* highly reusable
* makes webpages more human accessible and user friendly

A CSS consists of a set of rules that define style for a web page - the rules are composed of selectors and decalarations

**Selector**: identifies which areas of our webpage we wish to apply the design changes to

**Declaration**: tells us what changes or modifications to make to the selected areas (elements) - declaration is comprised of a property and a value surround by curly braces.

syntax: selector { declaration(s) }

body {

background-color: blue;

margin: 10px;

font-size:.....

}

Three ways to implement CSS in our HTML

1. Inline CSS

* CSS statements that are inside of an element tag <h1 style="color: red">My Header</h1>

1. Internal CSS

* CSS code inside of a <style> tag inside of the <head> element

<head>

<style>

div {

border: 5em;

}

p {

color: purple;

}

</style>

</head>

1. External CSS

* CSS code that is abstracted out of our html document into a separate stylesheet (.css)
* then we reference that file inside our head element, using a link tag