**8/21/18 (Class Notes)**

* How the internet works
  + User
    - Living things
    - People using the internet
  + Client
    - Traditionally websites were only made for desktops
    - Then it was designed for laptops
    - Then the iPhone came around and then websites were being designed for smaller phones
    - Then iPads and tablets
    - More and more design platforms means more things are connected
    - These are the things that allow interaction with the internet
  + Network (the cloud)
    - The communication highway between the client and the endnote (where are you trying to reach to)
    - Routes a call to a friend
    - Used to be a physical person making that connection
  + Server
    - At the end of the node (when you reach the person you’re trying to call)
  + Datastore
    - Basically a giant excel sheet that keeps track of all the data on the internet
    - This data is stored away so that when you come back to access something on your phone, the datastore can remember things like what posts you’ve liked, what settings you’ve changed, etc.
* “The cloud”
  + Brings together all the decentralized data that is all over the place so that people can access it
* History
  + The internet stared with the idea of Arpanet
    - It was a network that could send information back and forth
    - Wires connected each of these places
    - It was insanely slow
  + Then came the Ethernet and Domain Name System (DNS)
  + IP address was created to make it easier to find a web page (it’s like the webpage’s phone number)
* WWW vs. the Internet (they are two separate things)
  + The World Wide Web is all the data, all the information, all the posts, and all the stuff that composes our day to day experiences
  + The Internet is all the physical connections, all the hardware, all the background stuff that allows us to post, share, and consume data online
* HTTP
  + Hyper text transfer protocol
  + Structured text that uses logical links between nodes containing text
  + Allows the browser or device to send a message to a server
  + The reason a website looks different on your phone versus your computer is because developers create a different http for each
    - It allows you to send messages to tell what kind of browser you are using
* FTP
  + Allows transfer of a file from a client to a server
* Whenever you do a request on the internet, there is always lots of background work going on to get you there
* URL
  + The address to the server
  + Uniform resource locator

**8/23/18**

* Front-end development
  + The person who sits and writes the html, CSS, or java script
  + Html
    - Organizing of the page, structure
    - Not a programming language, but a mark-up language
  + CSS
    - Makes things look pretty
    - Adds style and presentation
    - Not a programming language
  + Java script
    - Helps with functionality
    - A programming language that was developed to create dynamic websites
    - Helps determine behavior
* These three come together to make the entire website
  + They are combined into a file that makes sense to a regular viewer
* UI and UX Design
  + App design
  + Web design
  + Museums/physical design
* Websites to check out!
  + AWWWARDS
  + 2018 Webby Awards
  + 2017 Awwwards Web Design trends
  + 2018 behance web design trends
* First website
  + Built at CERN
  + First put online in 1991
* Basic tag
  + Open tag and closing tag
    - Sandwich a letter or word that produces a command
    - Opening tag
      * Ex: <p>
    - Closing tag
      * Ex: </p>
  + Usually written with an opening tag, followed by text, followed by a closing tag
* Basic structure
  + We refer to the relationship as parent to child
  + Newest html is html 5
  + Start with naming the html 5
    - < DOCTYPE HTML >
  + Then comes all the html tags (the outermost tags in a document)
    - All other tags live within the html tag
    - Opening🡪 <html> and closing 🡪 </html>
  + One head and one body within each html
    - Children of the html tag
    - They sit on their own level
    - You should never have more than one html tag, one head tag, and one body tag per document
  + Tags within the head preprocess information
    - These things will never be visible to the user (except the title tag)
    - These tags are mainly used within the browser to do things
      * It’s preprocessed inside the browser
  + Tags within the body
    - All the information and content that the user will see and experience
    - Subsequent tags underneath

**8/28/18**

* All tags we talk about from here on out with either go in the head or the body
* <head>
  + Can include tags for CSS, javascript, keywords
* <body>
  + Defines the document’s content
* <h1>
  + Header tag (go within the body tag)
  + Bolder and bigger than paragraph
  + Has a hard RETURN after it no matter what tag follows (so that the header is on its own line)
  + As you go on (h1, h2, h3, h4…) the headers get smaller and smaller
    - Only goes to h6 cause the h7 tag doesn’t exist
      * If you write an h7 tag, it puts the text in regular paragraph tag style
* <p>
  + Paragraph tag (go within the body tag)
  + Share the same paragraph style as header tag (left aligned, same type of font)
  + This is the automatic default style if you write a tag that doesn’t exist
* In line tags
  + Might have character or paragraph styles but in line with text
  + <br>
    - Creates a break in text within a paragraph tag
    - Basically like hitting the enter key or return key on a keyboard
* <i>
  + Italics tag
  + Wrap directly around the text you want to italicize
  + Visually there is no difference between this and the <em> tag for emphasize
    - But it operates differently
    - This is used for people who are visually impaired
    - This tag is preferred over the <i> tag because it serves as a double duty (styling and a point of reference for a screen reader)
* <b>
  + Bold tag
  + Wrap directly around the text you want to make bold
  + Visually there is no difference between this and the <strong> tag
    - Used for people who are visually impaired
    - This is preferred over the <b> tag
* <ol>
  + Ordered list tag
  + <li>
    - List tag that goes within it
  + Indented from the side with numbers based on the order it’s typed
* <ul>
  + Unordered list tag
  + Style with the list tag is a glyph (big bullet)
  + Still puts in the order you write it
* You can nest lists within lists (ordered and unordered)
  + Like indenting bullets underneath each other
* <address>
  + A specific tag for addresses
  + Don’t use this in place of an italics tag even though it adds the italics style to it
* <blockquote>
  + Sort of like a pull out quote
  + Indented and in italics
  + If you add something inside the tag like <blockquote cite= “Wikipedia.com”>
    - This is to cite a reference but does not show to the viewer (done behind the screen)

**8/30/18**

* <table>
  + Table tag
  + Good for organization in multiple rows and columns
  + <tr>
    - Table row
  + <td>
    - Table column
  + <th>
    - Table head
    - Gives a title to the columns
    - Have to write them in the order you want them labeled from left right
* <a>
  + Absolute link tag
  + Needs an href tag inside
    - (href=“<http://www.google.com>”>Click here to visit google.com)
  + this is how you tag an image from the internet
  + Unless you add a break between a tags, they will all always be in line together
* The index.html is always the first reference page for building a website cause the server can recognize that name universally
  + The server can find the file and load it into the browser
* Multi page documents always need to be able to return to the home page
* Always get pictures from Creative Commons
* <img>
  + Image tag
  + This is how you link an image within your computer (something you have saved in a folder or on your desktop, etc.)
  + Doesn’t have an end
  + Has to have src within it to link the picture
  + <img src=“<http://c5.lion.jpg>”>
  + Images tend to be in line tags
  + You have to add a break tag above the image if you want it to sit under text
  + Add width=“200” after the link to the image inside the img tag to change the size or you can add height=”200” after the link to change the height
    - Either way, if you just use width or height, the ratio of the image is constant
    - If you use both at the same time, then it forces the image to be a certain size and it will distort the image

**9/6/18**

* Meta tag
  + Attributes are the name, key words, and description
  + When you want to add it, you add the name attribute, and then you also give what you want the meta tag to be characterized by
  + Two parts
    - Name
      * Author
      * Description
      * Keywords
    - Content
  + Can also do <meta=“charset”>
  + Don’t need a close to them
  + These are not tags that are outward facing
    - The browser uses it to get more content for the page
* Comments
  + Useful for writing notes
    - You can little pieces of info about a section
  + <!—This is a comment 🡪
  + This comment doesn’t actually show up on the page itself
    - More used for editing or personal notes while using html

**9/11/18**

* CSS
  + Cascading style sheets
  + Defines a web page’s appearance
  + It separates style and content
  + Consists of a plain text file with rules for the display of HTML elements
    - If the HTML isn’t written properly, then the CSS won’t be able to render it properly
  + Three ways to apply CSS
    - In an external .css file
    - In the <head> section of an HTML document using the <style> tag
  + Works with this idea of selectors
    - Specific elements
      * You can target this elements within the style tag
    - Id
      * Unique identification
      * You can write styles for specific tags
      * Meant to be used only once on a page
    - Class
      * Used multiple times throughout the page
      * Ex: You want color to be sprinkled throughout the page
* Structure of CSS
  + Starting with a selector (element, ID, class)
  + Curly braces
    - The beginning and end designate an area of code/style
  + Declaration
    - Property: value;
* You can designate multiple selectors and multiple declarations
* A # in front of a word, designates an ID
* A dot followed by a word designates a class
* Understanding why CSS is called cascading
  + The principle of the cascade is applied by style rules are in conflict
  + If you put a style attached to something, it might cascade down to other things because of the way the html is structured like a tree with branches
  + Three primary factors determine which style rule wins out
    - Inheritance
    - Specificity
    - Location
* CSS3
  + The latest standard for CSS
  + CSS2 is the most supported (since it’s been around the longest)
  + There’s a lot of particular things in CSS3 that are not widely supported on different browsers
    - Like animation effects
    - There was a big enough jump between CSS2 and CSS3 that it made it difficult to adapt right away
* Box model
  + Analogy of the castle
    - When you write an h1 tag, that is the castle
      * It’s the immediate area that the king and queen live in
    - The padding is the area around the castle
      * Inside the padding might be some farms and animals
      * In CSS, you can adjust the padding to make the area around your castle grow or you can make it shrink
    - The castle wall is the border of the padding (moat)
      * You can set the moat as wide as you want
    - Margins are the space around the box (border) in relation to the next castle
      * This can be adjusted through CSS too
  + Every html tag is governed by the box model
    - Every tag starts with the castle (whether that’s a paragraph tag or a header tag)
      * The space around the tag is what CSS does (padding around the castle)
* CSS is written within HTML in the style tag
  + Can also be written in an external program

**9/18/18**

* Quiz review
  + No historical stuff for quiz
  + Know the parts of a url
    - Be able to decipher http is the protocol, www is worldwide web, domain name goes after www., the .com part is the top level domain, followed by a /word which means it’s a folder or file name if html follows
  + Be able to decipher what tags look like and what they do (like what’s on the resume)
    - Does the b tag look italicized? No
  + Understand the anatomy of a tag (open vs close tag)
    - The attribute tag (width attribute is the width=”300”)
      * Know what the attribute does
        + Width=300 (is it 300 pixels tall or 300 pixels wide)

If you just use width=300, it keeps the same ratio

If you use both height and width, then it may squish the image

* + Be able to decipher a table
    - How many columns and rows from the tag
  + Ordered vs. unordered list
    - Ordered (numbers)
    - Unordered (dots)
  + Know what the meta tag is used for
    - The main option is to be able to communicate with the web browser
    - Gives Google more information about the web page
  + Know what comments are and how to write them
  + Know the difference between relative and absolute links
    - Relative is naming the file and finding it within folders
    - Absolute is linking the site from the internet
  + The Index.html is the first file that a server serves to you, it’s the default
    - Know why we use it instead of some other name
  + No CSS will be on the quiz
  + Multiple choice, 25 questions
  + Structural tags just set up structure (sort of like a table of contents)
    - Designates what an area is going to be sectioned off as
  + Make sure to read about sections and articles on the class website (website)
* From now on, when you go into putting together a web page, we’re going to have more structure to the tree
* In the main
  + General
  + Article
  + Aside
* The main variable is the navigation
  + The nav tag (good practice is to put this in your header)
* The main difference between an article and a section
  + An article is set up for a section of information, mainly a collection of information
    - It can be syndicated
    - If you post a blog and there are comments underneath, both the blog post and each individual comment under it is a different article
    - An article has a headline of text with stuff under it
    - Articles can be broken up into sections
* Aside
  + A tangential element
  + If you have a section and you are talking about something that is sort of related but not directly related, that’s an aside (like a side bar)
* Always need a header and a footer
  + The header is the top most section of a page
  + The footer would be something like copyright or links to more information, contact us, etc.
* Look at ResumeCSS for examples of header, footer, section

**9/25/18**