Week 1

HTML is for structure and meaning (semantics), CSS is for styling and layout, Javascript is for controlling dynamic behaviour.

Basic page structure:

<DOCTYPE html> <html>

<head>

</head>

<body>

<p>

<p>

</body>

</html>

Client (computer, phone, etc.) connects to a server and requests info. The server then responds with the requested information. Servers are computers that store webpages, sites, and apps. When a client device wants to access a webpage, a copy of the webpage is downloaded from the server onto the client machine to be displayed in the user’s web browser.

TCP and IP: transmission control protocol and internet protocol. Transport mechanisms that define how data should travel across the internet.

DNS: Domain name system: address book for websites

HTTP: hypertext transfer protocol is an application protocol that defines a language for clients and servers to speak to each other. (HTTPS is a secure version.)

Code files are websites built primarily from HTML, CSS, and Javascript. Assets: a collective name for all the other stuff that makes up a website, such as images, music, PDFs, etc.

When you type a web address into a browser:

1. The browser goes to the DNS server, and finds the real address of the server that the website lives on
2. He browser sends an HTTP request message to the server, asking it to send a copy of the website to the client. This message, and all other data sent between the client and server, is sent across your internet connection using TCP/IP.
3. If the server approves the client’s request, the server sends the client a 200 OK message which means “of course you can look and that website, here it is.” and then starts sending the websites files to the browser as a series of small chunks called data packets.
4. The browser assembles the small chunks into a complete web page and displays it to you

The browser parses (analyzes) the HTML file first, and that leads to the browser recognizing any <link> element references to external CSS stylesheets and any <script> element references to scripts. As the browser parses the HTML, it sends requests back to the server for any CSS files it has found from <link> elements, and any Javascript files it has found from <script> elements, and from those, then parses the CSS and Javascript. The browser generates and in-memory DOM tree from the parsed HTML, generates an in-memory CSSOM structure from the parsed CSS, and compiles and executes the parsed Javascript. As the browser builds the DOM tree and applies the styles from the CSSOM tree and executes the Javascript, a visual representation of the page is painted to the screen, and the user sees the page content and can begin to interact with it.

DNS: Domain Name System

Packets: data that is being sent is broken into smaller packages for faster transport.

HTML is a markup language that defines the structure of the content. Tags (<>) can be used to make it appear a certain way. Opening tag <p> closing tag </p>. The content is what is in the tags, the element is the content plus the tags.

Attributes contain extra information about the element that you don’t want to appear in the actual content. <p class=”editor-note” is an attribute example.

Nesting is when there is an element within another element. Void elements have to content.