**The Knowledge House – Bridge To Tech (Notes)**

**\*Write a journal entry every week about what you learned, what you’re getting/not getting, etc.**

**Intro To Computers**

**Internet- Network of computers interconnected/linked together to share info**

**The internet is a place where you can:**

Store and retrieve data

Run applications

**TCP/IP Protocol- Transfer Control Protocol/Internet Protocol – (common) language computers use to speak to each other**

**Packet-Switching- Computers on the web share data with each other by packet-switching.**

* **Definition:** a mode of data transmission in which a message is broken into a number of parts that are sent independently, over whatever route is optimum for each packet, and reassembled at the destination
* **Any devise that’s connected to the internet can be a packet switch (i.e. mobile phones)**
* **Important for security**

**ARPANET – Military project that connected computers in research facilities throughout US.**

**Other projects included NPL (British), RAND (USA) and CYCLADES (French). These all formed what would become the web.**

**Before the 90s, the internet was limited to scientists and military uses.**

**But in 1991, HTTP protocol replaced IP addresses with site names and HTML language. HTML allowed anyone with a connection to share content with the world.**

**HTML- programming language used to make websites (We’re using HTML5)**

**ADVANCED GOOGLE SEARCH**

**Site: nytimes.com ~college “test scores” -SATs 2008..2010**

**nytimes.com**

**Site: Only searches the pages of that site**

**Tilde Key(~college) Finds all mentions of word or similar terms**

**“test scores” Searches for this exact phrase**

**-SATs Excludes this term from the search**

**2008..2010 Searches for results between these 2 years**

**filetype: pdf swallow Only searches for results with this file type**

**filetype: pdf air speed intitle: velocity Only shows results with this title**

**filetype: pdf air speed intitle: velocity of \*swallow Also searches for common phrases associated with the search term**

**HTML (Hypertext Markup Language)**

* **We’re using HTML5**
* **In Sublime text, choose HTML as your code of choice (bottom, right hand side).**
* **Most text/code is lowercase**

**The Basics + Project 1 in General Assembly**

**Headline & Inputs**

**Basic unit of HTML is the tag. Ex. <head> They tell browsers how to format content and create the skeleton of websites.**

**Opening tag, in this case a heading or header <h1> (First level)**

**Closing tag </h1>**

**All tags need opening and closing tags**

* **<h1>Anna Dowlin</h1>**

**\*It’s good practice to write opening and closing tag before putting code inside it.**

**This will make “Anna Dowlin” the topmost title/header on the page.**

**Title size goes from H1 (largest) to H6 (smallest).**

**\*For example, in Wordpress, the text/font size choices are paragraph (normal) or H1-H6 (largest to smallest).**

**<p></p> creates a normal-sized paragraph**

**Email Form**

**<input> tag**

**There are several types but we’re focusing on “email” and “submit”**

**These tags are useful when you want to get info from people/users**

**<input type=“email”>**

**Attribute = input type**

**Attribute’s Value = “email”**

**\*Don’t use spaces between symbols**

**Attribute values describe what type of attribute**

**Each attribute has a variety of options to choose from**

**Examples: Hair (Curly, straight, wavy), Shoes (Boots, flats, loafers, heels, etc).**

**<input type=”email”> Email form**

**<input type=”submit”> Submit button**

**<input type=”email” placeholder=”your email”>**

**Placeholder – Renames/adds default text to the input (Email form, in this case)**

**In placeholder=”your email”>**

**“placeholder” is the attribute and “your email” is the attribute’s value.**

**“Your email” describes what type of placeholder**

**CSS (Cascading Style Sheet)**

**Project 1 in General Assembly**

**Style the background and texts**

**Boilerplate- Basic foundation of every website.**

**<!DOCTYPE html> Must have this to have a valid HTML document**

**<head></head>**

**<body></body>**

**HTML- Creates the structure of the content (attributes- email forms, submit buttons, texts- paragraph, header) that goes inside tags (Default).**

**CSS- Controls the style of the HTML content. \*Changes colors, fonts, layout and more.**

**One way to control the style of the HTML tag is to use <style> tag**

**<style>**

**h1 {**

**text-align: center**

**}**

**</style>**

**Within the style tag are the elements of HTML we want to add style to. Each of those elements is called a Selector.**

**In the above example, “h1” is The Selector.**

**All styles inside the curly brackets { } will apply to The Selector.**

**\*\*Be sure to include the line-breaks and tabs. These help make your code more readable.**

**text-align: center; is the property (Controls one aspect of an HTML element, such as text-align, color, width, background, etc)**

**center; is the value; Goes with Property. Controls the formatting (?) of The Selector (left, right, center or justify).**

**You can have multiple styles in the same <style> tag.**

**Document Structure**

**<body> tag lets you control the structure of all of the elements in an HTML doc/file/page.**

**To use:**

**1st- Create a <body> tag in your HTML code**

**2nd- Create a body Selector within the <style> tag**

**<head> wraps around <style> and <title> tags.**

“Used to indicate to browsers and search engines important info, such as a description of the page, the title of the page, the author, generator or keywords. The HEAD section is also used to relate other, external files like **JavaScript** and CSS files with the document itself.”~ Answers.com

**<title></title> controls what title comes up in browser tab.**

**But Wait, There’s More…**

**Change background color by adding it within Selector brackets.**

**background: black;**

**Remember that “background” is the property**

**“black” is the value**

**Change text color**

**color: white;**

**\*Remember to use lowercase letters\***

**Change font type**

**font-family: helvetica;**

**Add background image, logo and style email input form**

**Project 1 in General Assembly**

**Add An Image With <img> Tag**

**<img src=”/assets/anna.png”>**

**Remember that img src is the attribute**

**The URL is the attribute’s value**

**There are 2 types of URLS:**

* **Absolute: http:// + full domain before the directory (/assets/logo.png).**
* **Relative: /assets/logo.png This shortcut allows you to skip the domain. File must be on same domain as current page.**

**\*\*Use Absolute URL if image is not located on same domain as current page\*\***

**Background Image**

**Goes within the <style> tag**

**background: url(“insert url”);**

**Prevent Background From Appearing “Tiled”**

**Goes within the <style> tag**

**background-size: cover;**

**background-position: center;**

**Form Styles**

**Change Paragraph Font-Size**

**font-size: 22px;**

**Set Input Border To Zero**

**Applies to all inputs (email forms, submit buttons, etc)**

**border: 0;**

**Padding**

**Amount of space between element and stuff (like texts) inside it**

**padding: 10px;**

**Create a <style> tag for an input**

**Change CSS of an input**

**Input[type=”submit] {**

**Input[type=”email”] {**

**Input[placeholder=”your email”] {**

**color: white;**

**background: red;**

**Build Your Own Personal Website**

**Project 1 in General Assembly**

**Cheat: In Google Chrome, right click + Inspect to see code on the website you’re on.**

**Open angle bracket <**

**Indentation is important (\*Tab\* button to indent)**

**Whenever you put new elements inside a tag, press enter and make sure it’s indented**

**Create opening/closing tag first and then put text inside it**

**Create a link around text <a>awesome</a>**

**<a href=”website”>text </a>**

**<a href=”**<mailto:nadia.prysmmagazine@gmail.com>**”> text </a>**

**<br> is a line break**

**HTML attributes go in the opening tag.**

**Id= Gives the item a name/reference**

**Hello World Exercise**

**<html>**

**<head>**

**<title>Hello world!</title>**

**</head>**

**<body>**

**<h1>Hello world!!!</h1>**

**<p>This is an <a target="\_blank" href="https://www.sublimetext.com/3">awesome</a> paragraph!!!!!</p>**

**<h1>Click <a href="#Bottom">HERE</a> to go to the bottom</h1>**

**<br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br>**

**<h2 id="Bottom">This is our text two</h2>**

**</body>**

**</html>**

**<a target=”\_blank” href=”url”>insert word(s)</a> Makes selected word a hypertext link that redirects to chosen URL**

**Review- What is the highest hierarchy in HTML? Answer: The <html> tag**

**In Sublime, <HTML> + Enter will give you the entire bare essentials of the HTML file (HTML, head, title and body tags)**

**CSS (Continued)**

**Display has 3 properties:**

**Display:block;**

**Text/content is on its own line with a block around it**

**Custom width, height, margins and paddings can be applied**

**Div is a block-level element**

**Div{**

**Background-color: #**

**Width: 60%;**

**Padding: 30px;**

**Font-size: 212%;**

**Color: #FFF;**

**Display:inline;**

**Inline text is on same line as rest of text/content but highlighted**

**Can’t add custom width, height, padding, or margins**

**<span></span> is an inline element**

**Images are by default inline elements, as well**

**Span{**

**display: inline;**

**color: orange;**

**background-color: yellow;**

**}**

**Display:inline-block;**

**Uses custom settings to create block around content or element but remains inline**

**Span {**

**Display: inline-block;**

**}**

**Tables**

**<table></table>**

**<tr> table row**

**Use to create an actual row on a table**

**But this doesn’t work without data/headers to go within**

**<th> table header/title**

**<td> table data**

**Info that goes within the <th>**

**Main Head**

**Head 1 Head 2**

**Data 1 Data 2**

**<td colspan=”2”>**

**Spans 2 columns**

**Or change value in quotes to change how many columns should be spanned**

**List**

**Ordered**

**<ol>**

**<ol type=”1”>**

**Other types: 1, A, a, I, I (I and I are Roman numerals)**

**Unordered**

**<ul>**

**Orders list with shapes instead of numerals or letters**

**<ul style="list-style-type: circle;">**

**Other types: disc, square, circle, none**

**Images**

**<img src=”TKH.png” alt=”The Knowledge House”/>**

**Input Type**

**Input elements are use to get users’ info**

**Usually placed in a <form> element**

**<input type=”text”>**

**Other types: password, button, submit, radio, checkbox**

**<Div>**

**<Div></div> tag used to divide html document into sections**

**Sections can then be styled with CSS**

**\*Remember that <Divs> are block-level elements\***

**I.e. Display: block;**

**Text/content is on its own line with a block around it**

**Naming <Div> classes:**

**HTML <div class=”mainsection”><</html>**

**CSS .mainsection {float:right; width:500px;}**

**Div id=”section”, “article” “sidecolumn” “footer” “header”**

**<div class=”mainsection”>**

**You can create classes for <nav>, <section>, <aside>, <header>, <article> and**

**<footer>.**

**Things to remember: HTML is pretty static. It’s CSS that gives HTML its unlimited potential with regards to style.**

**Different Methods of Applying CSS**

**In Line Style- Applying style to the HTML tag of that specific element .**

**<h1 style="color:blue;">Page 1</h1>**

**Internal (Aka Embedded)**

**Within the <head> <style></style></head> section of the CSS.**

**External**

**Create an external/new file and link to current document via**

**<link rel=”stylesheet” type=”text”**

**H1 {color: blue; font-size; 12 px}**

**H1 The Selector- which determine which values get the styles**

**Color/font-size are properties**

**Blue and 12 px are values**

**Bolding and Italicizing Font**

**Explicit**

**Bold <b>**

**Italic <i>**

**Semantic**

**Strong <strong>, like Bold**

**Emphasized <em>, like Italic**

**Use font-style to change in CSS**

**Font-style: italic**

**(Bold) Font-weight: 500;**

**Units of Size in CSS**

**Absolute**

**Pixels (1px = 1/96th of 1 inch)**

**Points (1pt = 1/72 of 1 inch)**

**Relative**

**Em – Relative to the font-size of the element**

**2em, for example, means 2 times the size of the current font**

**Percentage-**

**font-size: 5em;**

**\*\*Learning coding hack: Right click + Inspect. Choose cell phone view\*\***

**Colors (For HTML & CSS)**

**#RRGGBB**

**RGB color**

**H1{color: red;}**

**H2(color: rgb(255, 0, 255);}**

**Hexadecimal values: H3(color: #FF0000;}**

**margin: 10px;**

**<head> + fenter**

**p a{**

**color: green;**

**}**

**Know when to use commas and when not to use commas**

**Manipulating Images**

**Keep image justified to the left while texts wraps around it**

**<p><img src=”TKH.png” style=”float:left”/>enter text</p>**

**Padding VS Border VS Margin**

**Padding – space between border and content. Use this to clear area around content. Padding is transparent.**

**Border- The border that goes around the padding and content**

**Margin- Space outside the border**

**Content 🡪 padding 🡪 border 🡪 margin**

**Tables**

**More CSS**

**Position**

**Div**

**Class**

**IDs**

**Remember any text editor can be used to create HTML (But not a word processor program)**

**\*\*Re: Your biography website- Remember that hierarchy in Sublime is important\*\***

**Intro to Github**

**Github.com**

**Username:** [Nadia.prysmmagazine@gmail.com](mailto:Nadia.prysmmagazine@gmail.com)

**Password: Usual**

**Basic Commands**

Git/Gitbash – Refers to the terminal installed on your computer

Github- Refers to the company

**Pwd –** “Print working directory” – Shows what folder you’re currently in.

**Ls –** “Lists” – Lists every file and folder inside current directory.

**Cd <path>** Changes directory to desired path

Paths are either relative or absolute **depending** on your current directory in Git

Relative – cd Desktop

Absolute- C:/Users/Tom/Desktop

In order to use **relative pathing**, you must be in the folder that contains that file.

**Drag and Drop –** Change working directory by writing **cd** in terminal and then **dragging** **and dropping** the file into the program

**Cd .** current directory

**Cd ..** previous directory

**~** Root folder

**Clone** - Clone a repository that someone else created on Github (So that you can work on it without changing

Ex. **Git clone** url

**Forking –** Copying from one GH to another

**Clone VS Fork**

Use forking when you’re contributing to someone else’s project

Use cloning when you want to work on their project on your own

**Clear –** Clears current texts in Git (Except the last one).

**Creating New Repository Using Git**

1. **Git init** Initialize folder as an empty Git repository
2. **Git status** Status of folder and contents within
3. **Git add .** Adds everything in current working directory
4. **Git commit -m “ “** Add text message
5. Add new repository on Githhub with **exact name** as folder created. **Do not click** “initialize this repository”.
6. Copy link from Github
7. **Git add remote origin** [https:// insert link without brackets]
8. **Git push origin master**

**Twitter Chats**

**Code Newbies – Every Weds at 9 EST https://twitter.com/CodeNewbies?lang=en**

**Resources**

**Share your projects on your Instagram**

**W3schools.com**

**Codeacademy**

**Coursera – Press “Audit” at enroll stage to take the class for free. You will not be able to take tests or get a certificate, however. To get option, go to Google and search for course.**

**StackOverflow.com**

**Meetup.com (For tech events)**

**General Assembly (Dash)**

**Dataquest**

**FreeCodeCamp**

**React Training**

**Team Treehouse**

**Udemy**