11.2 Lesson Summary - Intro to GitHub Pages and CSS

HTML can be styled using Cascading Style Sheets (CSS) to produce an attractive user interface for your website. You can share your collection of webpages publicly and freely using GitHub Pages.

Concept: In order for people to be able to access your website it must be hosted on a server and the domain of that server must be listed on a Domain Name System (DNS) server. **GitHub Pages** can both host a webserver and list your domain. Once you have created a GitHub repository with the HTML, JavaScript, and CSS files needed for your website you can make it publicity accessible by browsing to the repo's settings and specifying the Master branch for the GitHub Pages Source option. You can also choose a theme if you wish.

* Activity: 01-Stu\_HTMLBio, 02-Stu\_GithubPagesPersonal, 03-Stu\_GithubPagesProject
* Suppl link: <https://pages.github.com/>

Concept: At its most basic, HTML will display unadorned text straight down your webpage with only the *<h>* heading appearing in a different, larger font. In order to create rich user interfaces, you must style your HTML. It is possible to manually style each HTML element but this would take a significant amount of time and result in a lot of duplicate code. **Cascading Style Sheets (CSS)** allow you to specify the styles of your HTML elements.

* Activity: 04-Ins\_BasicCSS
* Suppl link: <https://www.w3schools.com/css/>

Concept: You can declare the CSS for your webpage by adding ***<style>*** elements to your HTML's header element. For example:

*<style>*

*h1 {*

*font-size: 60px;*

*}*

*</style>*

CSS uses **selectors** to specify which HTML elements to target and then specifies the **properties** and the **values** to set for those properties. In the previous example the CSS selector targets all *<h1>* elements and sets their *font-size* property to 60px.

* Activity: 04-Ins\_BasicCSS

Concept: The most common way of integrating CSS in an HTML webpage is by storing your CSS in a separate file and then referencing that file in a link element in your HTML header. For example, if your CSS file is named style.css your link element would look like:

<link rel="stylesheet" type="text/css" href="style.css">

* Activity: 05-Stu\_DullCorp

Concept: **Class** and **Id** attributes can be added to your HTML in order to apply styles to groups or individual HTML elements. Classes should be applied to groups of elements you wish to style similarly and id's should uniquely identify only one element. For example you could add a *dramatic-element* class and a *main-header* id to a h1 element using the following code:

*<h1 id="main-header" class="dramatic-element">MAIN HEADER</h1>*

In your CSS selector id is denoted using a *#* and class is indicated using a period. To reference the previous header code in your CSS you could use the following code:

*#main-header {*

*color: blue;*

*font-size: 40px;*

*}*

*h1.dramatic-element {*

*font-weight: bold;*

*}*

* Activity: 06-Stu\_TargetedCSS

Concept: You can control the location of your HTML elements in your webpage by editing the ***position*** property. Elements are positioned *static* by default. When position is set to *static* elements will be arranged in no special manner. *relative* position will move the element away from it's usual position by the amount specified in the *right*, *left*, *top*, and *bottom* properties. *fixed* position will anchor the element at the position specified in the *right*, *left*, *top*, and *bottom* properties. *absolute* positions the element in relation to it's nearest positioned ancestor. *sticky* will stick the bottom or top of it's ancestor based on scrolling. To apply a fixed position to all elements with *box* class you could use the following code:

*.box {*

*position: fixed;*

*width: 150px;*

*height: 150px;*

*}*

* Activity: 07-Ins\_CSSPositionedLayout, 08-Stu\_AimedPositioning
* Suppl link: https://www.w3schools.com/css/css\_positioning.asp

Concept: You can experiment with the effect of changing the CSS properties of HTML elements in a webpage by opening the **Developer Tools** of your web browser and manipulating the style CSS.