JavaScript Essential Training

JavaScript: An Intro
- JavaScript is the interactive layer of a website. It interacts with the HTML markup and CSS to change what you can do.
- JavaScript is a scripting language that allows you to run small programs that run within the browser to change the CSS within a document, simply put.
- Java and JavaScript are **not** related or the same. Java is used for programming on devices, whereas JavaScript is for the web.
- jQuery is a library of JS functions that simplifies the use of JS in websites.
- AngularJS, React, Vue.js are front-end application frameworks used to simplify the building of advanced interactive web-based applications.
- Node.js is a JS platform built on browser runtime environments and is used to run advanced operations.

The Basics
- It's good to test your javascript on all modern browsers.
- JavaScript is Case Sensitive!!! (except in stringed text)
- camelCase means you can catenate and squish together words by capitalizing each word.
  - Variables start with a lowercase letter
  - Objects and classes start with an uppercase letter
- JavaScript doesn't care about whitespace, but you should so it can be accessible
- Each statement must end with a semicolon
- Use comments liberally

Working with Data
- To avoid global scopes, always define your variables
- **==** means if variable a is the same as variable b (identical values or equality)
- **=** means variable a is variable b
- **!=** is to check if something is not equal to something else
- Ternary operators are shorthand
- **Array** is an 'array' of as few or as many items you'd like to store in one place.

Functions and Objects
- Anonymous functions don't have names, so they must be tied to something to run
- An immediately invoked function is unaffected by code on its first run
- A global scope means the variable can be use anywhere
- A local scope means the variable can only be used within the function it's defined in
- **Const** is useful for constant variables, and is useful for math equations or values that need to stay the same
- **Let** is a block scope variable, smaller than '**var**'