## Week 4 Research Assignment

## 1. What are the differences between var, let, and const?

All three of the variable declaration options are different in different ways. Var, the oldest of the three, can be reassigned at any point. Although, they are scoped globally as long as they are not declared inside a function. This can cause bugs when not using unique variable names. Let is the same in terms that it can be resigned. Although, the scope is sectioned off to its declaration location. So inside or outside of specific functions. As for const, it's scoped the same way as let, but it can not be changed after its assignment.

https://www.freecodecamp.org/news/var-let-and-const-whats-the-difference/https://codeburst.io/javascript-var-let-or-const-which-one-should-you-use-2fd521b050fa

## 3. What are some features that are new with ES6?

There are a handful of new features in ES6. One of which is arrow functions, a cleaner and more concise version of regular functions. There is also the map function added, which assigns a key to a specific variable. Some new math functions were added, along with some ways to dissect and analyze strings with an easy function. Personally, I was really excited to learn that classes were something that was added. It was something I personally remember using quite a bit in C++. It can be handy to have an easy template for objects, making the primary body of the code a bit cleaner and easier to read.

https://www.w3schools.com/js/js\_es6.asp https://www.tutorialrepublic.com/javascript-tutorial/javascript-es6-features.php https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Classes