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Week 4 Research Assignment

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

In JavaScript, var, let, and const are used for declaring variables, but they differ in terms of scope, reassignment, and hoisting. The var keyword has function scope and can be reassigned, but it can also be hoisted, which can lead to unexpected behavior. On the other hand, let and const have block scope, which means they are only accessible within the block they are declared in, and cannot be hoisted. While let can be reassigned, const is used for values that are meant to remain constant throughout the program and cannot be reassigned. It is best practice to use let and const instead of var to avoid hoisting issues and to ensure that the code is easier to read and maintain.

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

JavaScript ES6 introduced several new features that improved the language's functionality and made coding easier. Some of these features include arrow functions, block-scoped variables, template literals, spread and rest operators, default function parameters, destructuring assignment, classes, promises, modules, the for...of loop, symbol data type, sets and maps, and iterators and generators. These additions allow developers to write more concise and readable code, making JavaScript a more powerful language for web development.

<https://developer.mozilla.org/en-US/docs/Web/JavaScript/New_in_JavaScript/ECMAScript_6_features>

<https://exploringjs.com/es6/>

<https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Statements/let>