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Week 7 FE240104 Research

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

Var is used to declare a variable that could be used globally throughout the program. It can be called later and changed by other variable controls or reassignments as we choose. Var is best to be used as just a variable and not a function or other declaration. We use Let instead of Var when it is in a block scope we want to contain. Using Let as part of a loop, switch or if statement will have a block scope. Let can be reassigned to other variables but not redeclared. You can’t have Let Number = 10 and then have Let Number = 20. But you can have Let Number = 1- and then later have Number = 20.

Using Const is just what it sounds like, we declare a Constant value to a variable that is not changing. Const number = 10 will always be 10 and give an error if you try to code it to change. Const cannot be changed, cannot be redeclared or reassigned to other values. Identifier already declared will be one of the errors.

FreeCodeCamp recommends only using Let and Const. Using Var is not always necessary.

<https://www.freecodecamp.org/news/differences-between-var-let-const-javascript/>

1. How can objects be used to store and organize data in JavaScript, and what are the advantages of using objects over other data structures like arrays or maps?

Objects are used to store and organize data by associating key-value pairs. This allows data to be grouped together by relation under meaningful names compared to arrays. Objects are better when you need to store data with descriptive labels. You can access and modify properties of an object using dot notation or bracket notation without having to retype and create new code.

In Arrays, keys are just numbers, in objects, an object literal is better than an array. When to know to use an object? Are keys/ID’s important in the terms of meaning? If yes, use the object.

Culy braces are used to define the object literal syntax. Setting key-value pairs and properties is are entered and used to define and initialize the object. This makes understanding your code easier, and simpler to write as you create more complicated functions and processes to provide software solutions.

<https://stackoverflow.com/questions/43723852/storing-things-in-objects-vs-arrays-in-javascript>

<https://www.geeksforgeeks.org/objects-in-javascript/>