**Javascript zero to hero day 1**

**Q1. Difference between let and var.**

The main difference between let and var is that scope of a variable defined with let is limited to the block in which it is declared while variable declared with var has the global scope. So we can say that var is rather a keyword which defines a variable globally regardless of block scope.

The scope of let not only limited to the block in which it is defined but variable with let also do not get added with global window object even if it get declared outside of any block. But we can access variable with var from window object if it is defined globally.

Due to limited scope let variables are usually used when there is limited use of those variables such as in for loops, while loops or inside the scope of if conditions etc while var variable is used when value of variable need to be less change and used to accessed globally.

Also, one difference between var and let is variable with var can be redeclared to some other value while variable could not be redeclared if it is defined with let.

**Example representing difference between var and let**

let a = 'hello'; // globally scoped

var b = 'world'; // globally scoped

console.log(window.a); // undefined

console.log(window.b); // 'world'

var a = 'hello';

var a = 'world'; // No problem, 'hello' is replaced.

let b = 'hello';

let b = 'world'; // SyntaxError: Identifier 'b' has already been declared

**Q2. Why are null, array printed as object type in console.**

Arrays are objects in Java, so any variable that declares an array holds a reference to an object. If the array hasn't been created yet and you try to print the value of the variable, it will print null (meaning it doesn't reference any object yet). Why is null considered an object in JavaScript?

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