**Javascript Notes**

Javascript allows us to write client-side code that is rendered on the clients web browser

**Adding js file to html**

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**Statements**

A picture containing text, outdoor

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When separated by semicolons, multiple statements on one line are allowed. The two codes above are the same.

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**Variables**

There are 3 ways to declare a JavaScript variable:

Using var

var declarations are globally scoped or function/locally scoped. This means that any variable that is declared with var outside a function block is available for use in the whole window.

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var variables can be re-declared and updated

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Hoisting of var. Hoisting is a JavaScript mechanism where variables and function declarations are moved to the top of their scope before code execution

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Using let

let is now preferred for variable declaration

let is blocked scope. a block is anything with {}

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let can be updated but not re-declared

Graphical user interface, text

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Text

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When using let, you don't have to bother if you have used a name for a variable before as a variable exists only within its scope. This fact makes let a better choice than var

Hoisting of let. Just like var, let declarations are hoisted to the top. Unlike var which is initialized as undefined, the let keyword is not initialized. So if you try to use a let variable before declaration, you'll get a Reference Error

Using const

It does not define a constant value. It defines a constant reference to a value.

Because of this you can NOT:

Reassign a constant value

Reassign a constant array

Reassign a constant object



But you CAN:

Change a constant array

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Change a constant object

Declaring a variable with const is similar to let when it comes to Block Scope. The x declared in the block, in this example, is not the same as the x declared outside the block

Redeclaring a variable with const, in another scope, or in another block, is allowed

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Hoisting

using a const variable before it is declared will result in a ReferenceError:

Graphical user interface, text

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**Operators**

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JavaScript evaluates expressions from left to right. Different sequences can produce different results:



Graphical user interface

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Graphical user interface, application

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**Events**

- an event is when a user does anything like click a button, select something from dropdown, submit a form

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Graphical user interface, text, application

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browsers read from top to bottom so if we have inline scripts in the head that says document.querySelector(‘button’), it will return null since it can’t find the button in our html since it hasn’t loaded yet. To solve this issue, we can put the style in the end of the body or we can add an event listener to the entire document and put any code that we want to run after the html has been loaded inside the document event listener

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**Query Selector**

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**Dataset**

data-something represents a piece of data that is associated with an element

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we do data-randomName to declare a dataset

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querySelectorAll returns an array of all the objects with a tag of button

=> creates a function

dataset.randomName gets the dataset and access the randomName value

**Creating Elements**

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below creates an new li element along with its inner html and adds it within the element with id tasks

Graphical user interface, text, application, chat or text message

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**Disable Buttons**

A screenshot of a computer

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**Local Storage**

local storage is data that can be stored on a browser and accessed even after refresh

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first command retrieves an item from storage,

the other sets the value of an item into storage, hence why we need the value parameter

below checks if there is not an item called counter in local storage and if there is not an item, make an item with value of 0

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below gets the value of the item with key counter into the variable counter, updates it, updates the html, then adds the updated counter variable into the local storge

A picture containing graphical user interface

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**Arrow Functions**

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