JavaScript workshop

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Introduction:

* **I will be using vs code but you can use any other wysiwyg editor**
* **Introduce javascript**
* Well what is Javascript
* JavaScript is one of the most popular modern web websitites and is often used with html
* It can add interactivity to a website.
* It is often used to collect and manipulate a video stream from a user's webcam, or generating 3D graphics and **audio samples.**
* **Some of the basics of JavaScript**
* Variables
* Variables are containers that store values.
* To create a variable use the let keyword followed by the variable name
* let myVariable;
* After declaring a variable, you can give it a value:
* let myVariable = ‘Joe’;
* Types of variables
* let myVariable = ‘joe’;
* Number
* let myVariable = 10;
* Array
* let myVariable = [1, 2, 3, 4, 5];
* Object
* let myVariable = document.querySelector('h1');
* Comments
* //comments can be used with the // and /\* this too\*/
* Operations
* The ===  operation is used when compairing items
* The != operator shows not = to
* If statements
* Used to compare
* let name = 'Joe';
* if(name === 'Joe') {  alert('What an excellent name 10/10');}
* else {  alert('that is not a horrible name');}
* Events / functions
* Events or otherwise known as event listeners, are ways for the user to interact with the website that you are adding your js
* One example of an event listener is the on click function.
* document.querySelector('html').onclick = function() {
* alert('click');
* }
* Functions are segments of code that can be reused multiple times by calling on them.
* **Making a Hello World**
* Start off by making a basic html page
* <!DOCTYPE html>   
  <HTML>   
  <HEAD> </HEAD>   
  <BODY> </BODY>   
  </HTML>
* Create a scripts folder
* In that folder make a file called main.js
* If you don’t have an html file, create one and in the body tag add
* <script src="scripts/main.js"></script>
* In the main.js add
* const myHeading = document.querySelector('h1');myHeading.textContent = 'Hello world!';
* Refresh your page and you should see a page with hello world on
* **Making a more advanced website**
* Start with a basic website layout

<!DOCTYPE html>

<html>

<head>  

<meta charset="utf-8">

<title>My page</title>

</head>

<body>

<h1>Some heading </h1>

<p>some paragraph</p>

<button>Change user</button>

<script src="scripts/main.js"></script>

</body>

</html>

* Save it as index.html
* Next add <button>Change user</button> and then  <script src="scripts/main.js"></script> in between the body tags
* Create a new folder called scripts and in that folder create a file called main.js
* In main.js add the following code

// Personalized welcome message using html and javascript

let myButton = document.querySelector('button');

let myHeading = document.querySelector('h1');

function setUserName()

{

    let myName = prompt('Please enter your name.');

    if(!myName)

    {

        setUserName();

    }

    else

    {

        localStorage.setItem('name', myName);

        myHeading.innerHTML = `Welcome ${myName}`;

    }

}

if(!localStorage.getItem('name'))

{

    setUserName();

}

else

{

    let storedName = localStorage.getItem('name');

    myHeading.innerHTML = `Welcome, ${storedName}`;

}

myButton.onclick = function()

{

    setUserName();  

}