I really suggest you downloading this:

https://visualstudio.microsoft.com/de/vs/mac/

once you downloaded and installed it, you will have to create your first file.

We will learn how to make projects by combining HTML + CSS + JAVASCRIPT

HTML for the buttons, text etc.

CSS for the looks

JavaScript for the functionality

So let’s start!

On whatever folder you want, create a new .html file and inside of it write this super simple template

<html>

<head>

<style>

</style>

<body>

</body>

<script>

</script>

<html>

As you should know, the:

style is for the css

Body is for the html

script is for the JavaScript

But what does JavaScript do?

Basically it lets you change the contents of the html, for example, the text in a box, the colour of a button etc.

Let’s try to do something very basic, a button that says "hello world!"

inside the html you will have to add the button itself, you do it this way:

    <button>Click me!</button>

if you add this and click it, it does absolutely nothing, that's why you have to add something called "event listener" which basically does something when something happens, for example, we want to make something happen when we press it, this is called "onclick",

    <button onclick="speak()">Click me!</button>

the "speak ()" is a function , functions can be "called", when we say called, we mean that the code inside that function is executed.

if you were now to click on that button, nothing will happen because we haven't created the function itself, so lets do that.

inside of the <script></script> we will add our function, we do it like this

function speak(){

}

this i just wrote is an empty function that does nothing, that's why we add some code to it.

A way to make the program "speak" to the user is by using this > alert ("text"), so let's do that

function speak(){

alert("Hello world!")

}

If you open the .html file and click the button, a message should appear saying Hello world!

Now that you learnt how to make a function, let's start with variables!

Variables are things that contain data in them, which can be text, number, true/false, etc...

to create a variable you have to do like this:

var nameOfTheVariable

you can now change its value!

the main type or variables contain either text or numbers, so let's see how we can do that:

for text:

var thisIsText = "Hello World!"

remember to **ALWAYS** use the ""

for numbers:

var thisIsNumber = 18

so now if we were to use the variables in that speak() we used before, it would be like this:

function speak(){

var thisIsText="Hello world!"

alert(thisIsText)

}

we can also add one variable to another, this works differently for text and numbers, remember.

function speak(){

var text1 = "Hello "

var text2 = "world!"

var textCombined = text1+text2

alert(textCombined)

}

this will say "Hello world!".

for numbers we have also the mathematical signs which are

+ plus

- minus

\* multiplication

/ division

so let's do some simple math.

function calculate(){

var n1 = 5

var n2 = 2

var addition = n1+n2

//this will be 7

var substraction = n1-n2

//this is 3

var multiplication = n1\*n2

//this will be 10

var division= n1/n2

//this will be 2.5

}

Now let’s try custom messages, in the html put this:

    <textarea id="text"></textarea>

    <button onclick="speak()">Custom text!</button>

The “id” is something that **id**entifies the element, in our code we can then handle this element.

var textarea = document.getElementById("text")

Now let’s make the function to speak:

function speak(){

var textarea = document.getElementById("text")

alert(textarea.value)

}

The .value means the text that is inside the textarea

With that code, you will display the text that you wrote inside of the textarea.

Now let’s make a calculator!

The html is this:

    <textarea id="number1"></textarea> \* <textarea id="number2"></textarea>

    <button onclick="calculate()">Calculate!</button>

The script is:

function calculate(){

var n1=document.getElementById("number1")

var n2=document.getElementById("number1")

var multiplication = n1\*n2

alert(multiplication)

}

there it is, a super simple calculator

Introduction to conditions!

Conditions will do something if it’s correct, or do something else if it is wrong.

The condition is placed inside an if(), which will do something if the condition is true, and something else if it’s false.

Those are the “logic operators” that check if conditions are correct or not

== is equals to

< less than

> more than

!= not equal

This is an example of a condition

if (something == somethingElse) {

alert("correct!")

} else {

alert("wrong!")

}

Let’s make a real case example:

var n1=10

var n2=20

if(n1>n2) {

alert("it’s bigger")

}else{

alert("it’s smaller")

}

This will say “it’s bigger”, since the first number is bigger than the second.

Loops!

Let’s talk about loops, loops are made to execute a part of code a certain amount of times, it’s called “for” it’s divided in 3 parts,

for(start;end;increment){

}

So let’s make something that will repeat for 5 times

for(var i=0 ; i<5 ; i=i+1){

    alert("Number "+i)

}

This will say  
Number 0

Number 1

Number 2

Now, just how you can read the text inside a textarea, you can also write it, like this

This is the html:

    <textarea id="text"></textarea>

    <button onclick="changeText()">Change text</button>

This is the javascript:

function changeText(){

var textarea = document.getElementById("text")

textarea.value = "I wrote this!"

}

LETS MAKE AN EXAMPLE

Just a super simple calculator that does divisions.

This is the whole program:

<html>

<head>

<style>

</style>

<body>

<textarea id="n1"></textarea> / <textarea id="n2"></textarea><br>

<button onclick="calculate()">Calculate!</button><br>

<textarea id="result">result</textarea>

</body>

<script>

function calculate(){

var n1=document.getElementById("n1")

var n2=document.getElementById("n2")

var result = document.getElementById("result")

if(n2.value == 0){

    result.value = "The second number can’t be a 0!"

}else{

    result.value = "The result is: "+(n1.value/n2.value)

//if u add a text to a number, it wont calculate them but just make the number a text and add

//it to the text you wrote

}

}

</script>

<html>