Week 2: 28-July-2020

L1: JavaScript (ES 6): programming language

Helps us build interactions between us as users and HTML

JS knows your time zone, where you are, the language, what computer you have, browser, has access to camera, GPS,

When coding with JS, open console

When you build a webpage, you have to use HTML, CSS

There is a JavaScript everywhere helping me to interact with a page

When something happens without reloading the page, it’s because of JavaScript

# L2: JavaScript in the browser

JavaScript console: communicating to a JS engine, not where we code, however

# L3: JavaScript variables:

JS, Phyton, Ruby they use variable to move data around.

Variable = empty box where you put content and label so that people understand is your box with shoes

To create a new variable/ box 🡪 use “ > let” = let the browser to create a new variable

Wrap the piece of text between quotation mark: “Shecodes”

E.g.: > let course = “SheCodes”;

Course = label of the box = variable name

I want to put inside the box “SheCodes” – piece of text

How do I see what’s in the box? Type “> course”

If what’s in the box is a number, don’t add “”

Manipulation:

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You cannot create a variable that has the same name than a previously one used.

How to update what’s in the box:

* Just add “> course = SheCodes+”

How to output a sentence with JS:

**JavaScript** | **Output**. **JavaScript Output** defines the ways to display the **output** of a given code. The **output** can be display by using four different ways which are listed below: innerHTML: It is used to access an element. It defines the HTML content.

**JavaScript can "display" data in different ways:**

1. **Writing** into an HTML element, using innerHTML .
2. **Writing** into the HTML **output** using document.**write**() .
3. **Writing** into an alert box, using window.alert() .
4. **Writing** into the browser console, using console.log() .

# L4: JavaScript in HTML

How to inject JS in HTML.

JavaScript: at the bottom of the page, right before closing body </body>

Anything between <script> JavaScript </script>

Function: Alert (“ “); anything that we want to show/ pop up to the user 🡪 alert (“SheCodes”);

How to set the alert the actual name:

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Give variables a clear and precise name.

The code is read line by line from top to bottom.

Console tells how many mistakes and the lines where they can be found in VS code.

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Function: Prompt function.

W2L5: JavaScript & IF Statements

Everything that you add in “12” is seen as text.

If something is equal to (mandatory 3 equal signs)

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If something is different than something else (mandatory “! = =” = not equal)

Age:

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# W2L6: If Else Statements

# If / Else statement syntax

**let** age = prompt("How old are you?");

**if** (age < 18) {

alert("You cannot apply");

} **else** {

alert("You can apply");

}

# Multiple If / Else statements

**if** (age < 18) {

alert("you can't apply");

} **else** {

**if** (age > 90) {

alert("you can't apply, you're too old");

} **else** {

alert("you can apply");

}

}

“Else statements” replace the redundant statements.

Second If statement can be replaced by “Else” statement.

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We can have a lot of code inside IF and Else statements

Can have IF statement inside Else Statement, however the Else statement will only run if the prior IF statement is false.

# W2L7: JavaScript Logical operators

AND vs OR

**if** (age < 18 || gender === "male") {

alert("You can't apply to SheCodes 👩‍💻");

}

**if** (continent === "Europe" && language === "Portuguese") {

alert("You are from Portugal 🇵🇹");

} **else** {

alert("You are not from Portugal");

}

AND = &&

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OR = || + ELSE

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I need to get back to redo the exercise

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W2L8:JS Functions

Piece of code that does one or more actions

**function** **getTemperature**() {

alert(24);

}

getTemperature();

getTemperature();

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Can ask for the same function as many times as you want without repeating the code.

You can have more control over your code, you can decide whenever you want to call a function (when pressing a button, when you’re with the mouse somewhere on the page, etc.,)

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## Parameters

**function** **getTemperature**(city) {

**if** (city === "Lisbon") {

alert(24);

} **else** {

alert(-12.5);

}

}

getTemperature("Paris");

getTemperature("Lisbon");

**let** hometown = prompt("What is your hometown?");

getTemperature(hometown);

# Return

**function** **getTemperature**(city) {

**if** (city === 'Lisbon') {

**return** 18;

} **else** {

**return** 15;

}

}

**let** lisbonTemperature = getTemperature("Lisbon");

**let** parisTemperature = getTemperature("paris");

# Multiple Arguments

**function** **getTemperature**(city, unit) {

**if** (city === "Lisbon") {

**if** (unit == "metric") {

**return** 18;

}

} **else** {

**return** 0;

}

}

**let** lisbonTemperature = getTemperature('Lisbon', 'metric');

**let** parisTemperature = getTemperature('paris', 'imperial');

# W2L9: JS Selectors

**let** element = document.querySelector("#special");

element.addEventListener("click", **function**() {

alert("hi");

});

# Event types

click

mouseenter

mouseleave

mousedown

mouseup

mousemove

keydown

keyup

# Use a defined function

**function** **showWeather**() {

alert("It is 18 degrees");

}

**let** element = document.querySelector("li");

element.addEventListener("click", showWeather);

# Event

**function** **showWeather**(event) {

event.target.innerHTML = "The weather is currently 19 degrees";

}

**let** element = document.querySelector("li");

element.addEventListener("click", showWeather);

# Get attribute

**let** link = document.querySelector("a").getAttribute("href");

# getAttribute

<li **class**="day" temperature="19">Monday</li>

**function** **showWeather**() {

console.log(this.getAttribute("temperature"));

}

**let** elements = document.querySelectorAll(".day");

elements.forEach(**function**(element, index) {

element.addEventListener("click", showWeather);

});

# QuerySelectorAll

**function** **showWeather**() {

this.innerHTML = "The weather is currently 19 degrees";

}

**let** elements = document.querySelectorAll(".day");

elements.forEach(**function**(element, index) {

element.addEventListener("click", showWeather);

});

document

**let** city = document.querySelector(".city");

**let** cities = document.querySelectorAll(".city");

W2L10 JavaScript Events

**function** **signUp**() {

**let** name = prompt("What's your first name?");

alert("You are now signed up " + name);

}

**let** signUpButton = document.querySelector(".sign-up-button");

signUpButton.addEventListener("click", signUp);

# Event types

mouseenter mouseover mousemove mouseleave mousedown mouseup click dblclick mouseout

# Replacing content with JS

<body>

<h1>Hello World</h1>

<button>

Speak Portuguese, please

</button>

<script>

**function** **translate**() {

**let** h1 = document.querySelector("h1");

h1.innerHTML = "Olá Mundo!";

}

**let** button = document.querySelector("button");

button.addEventListener("click", translate);

</script>

</body>

How to make a button work i.e., ask for information only when you click on it.

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Changed H1: SheCodes after inserting email to “Thank you, ABC, we’ll be in touch”

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Better/ simpler way of writing code to improve readability and stability with less bugs.

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# W3: Project HTML