Class 3 Recap

Please refer to the **“class3.js”** file posted in the **#class3** Discord channel

We learned that JS (Javascript) is a complementary programming language alongside HTML and CSS (which is what we have been building our website with)

We learned how to assigned variables to values by using the var or let keyword.

var x = 1;

var y = 2;

We learned how to print to console (which can be opened by right-clicking anywhere on your page and hit **Inspect -> Elements**)

console.log(x+y)

console.log("hello")

We learned the existence of **functions** which is a concept in coding which takes in input values and outputs a result. Below is an example of a simple add function that adds two numbers. Note that we need to use the **return** keyword to indicate what the function is supposed to give back.

function add(num1, num2){

    return num1 + num2;

}

We learned how to **call a function** which just means to run the function, we can even print the result of the function to console.

console.log(add(5,4))

**CONDITIONALS**

Conditionals uses **if, else if,** and **else** keywords and are used in coding when you have to make a logical decision. Be careful of using the curvy and the curly brackets.

function between10And20(num1){

    if(num1 < 10) { // checks if num1 < 12

    return num1 + 1

  } else if (num1 < 20) {

    return num1 + 2

  } else {

    return num1 + 3

  }

}

We learned that there are various **data types** in coding which are the building blocks to writing any type of code, the main ones being:

**Integer/numbers:** 0, 1.3, 190

**Strings:** “hello”

**Boolean:** True or False

**List:** *to be covered next class*

**Function:** see examples in the class3.js on functions we have covered in class

We also covered the reportCard function which uses various conditions to produce the right letter grade for a given number percentage grade.

function reportCardBetter(score) {

    if(score > 90) {

    return "A";

  } else if (score > 80) {

    return "B";

  } else if (score > 70) {

    return "C";

  } else if (score >= 60) {

    return "D";

  } else {

    return "F";

  }

}

**Code testing** which is the act of testing functions to ensure our code behaves exactly as it should and produce the right results can be done just by calling a function and console logging the answer.

// Test cases for reportCardBetter function

console.log(reportCardBetter(86)) // B

console.log(reportCardBetter(80)) // C

console.log(reportCardBetter(60)) // D

console.log(reportCardBetter(72)) // C

console.log(reportCardBetter(100)) // A

console.log(reportCardBetter(0)) // F

**CHALLENGE TASK:**

A reminder that challenge tasks are optional and available for those that want to practice more coding.

Given the reportCard function, add checks (if statements) to ensure invalid inputs are detected and rejected. For example, feeding the number 120 should result in it being rejected since in school you cannot get above 100 in exams or homework. Likewise, inputting the function negative numbers like -5 should not work either because the lowest a student can get in school is a 0 not negative numbers.

Create another check to reject letters (i.e. “hello”) and symbols (i.e. $ % # @ )