Assessment

General Instructions: Develop a program utilizing JavaScript to solve the problems stated below. All files must be submitted in your github repository and link it to your google classroom.

1. Differentiation of let, const, and var in JavaScript Instructions:
   * Discuss the differences between let, const, and var in JavaScript.
   * Your explanation must contain the most important keywords that could explain the three (let, var, const). Hint: Consider scoping (block scope), reassigning (can be and cannot), and best practices.

// var

var a = 1;

a = 3;

console.log(a); // Output 3

//explanation:

//Var-create a variable

//=- assigns the value to the variable

//console.log()-shows the value in the console

<https://algodaily.com/lessons/intro-to-variables-assignment-js#:~:text=Variables%20can%20be%20reassigned%20in,without%20using%20the%20var%20keyword.&text=1var%20a%20%3D%2010%3B%202,to%20use%20the%20keyword%20again>

// let

let b = 20;

if (b = 22);

let x = 23

console.log(b) // Output 22

// explanation:

// let - creates a value

// scope - where the variable works

// block statement - code inside ()

// global scope - worked everywhere in the code

<https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Statements/let>

// const

const c = 1;

console.log(c); // Output 1

// explanation:

// const-create a variable that cannot be reassigned

// assigned operators(=)-used to assign a value to a variable

https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Statements/const#:~:text=See%20also-,const,-Baseline%20Widely%20available



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1. Concept of Falsy Values in JavaScript Instructions:
   * Discuss the concept of falsy values in JavaScript.
   * Your explanation should be no less than five (5) sentences.
   * Provide three (3) examples of falsy values, explaining why they are considered falsy in JavaScript. Hint: Discuss how falsy values behave in conditional statements.

let x = 0;

if (x)

console.log("Type error.");

else:

console.log("Falsy Values."); // Output Falsy Values

// explanation:

// In JavaScript, falsy values are values that are considered as false when used in conditions, like in and if statement. This means that when you check a falsy value in a condition, JavaScript will consider it as false, and the code inside the if block won’t run.

Here are three examples of falsy values:

1. 0 - Zero is considered falsy because it represents "nothing", so it’s considered as false.

2. "" (empty string) - An empty string has no characters in it, so it is considered falsy and is considered as false in conditions.

3. null - The value null means "no value" or "empty," so it’s considered as false in conditions.

https://stackoverflow.com/questions/7615214/in-javascript-why-is-0-equal-to-false-but-when-tested-by-if-it-is-not-fals



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MODULE



Descriptive Title: DATA STRUCTURES AND ALGORITHMS



Units: 3 Units



Instructor: VJDB/ CO PASCUA