Exercise 1: Hello JavaScript!

WDDM 113 – Applied Web Programming

Semantic Website

# Description

Welcome to the first exercise in this course! For this exercise, we will be introduced to the JavaScript (JS) programming language. JS is a programming language that is one of the core technologies of the World Wide Web, alongside HTML and CSS. As of 2022, 98% of websites use JavaScript on the client side for webpage behavior, often incorporating third-party libraries.

In this exercise, we will add a JavaScript (JS) file to the project. This will allow us to create some interactivity on our web page! We will link the JS file to the script element in the HTML file and explore some of the capabilities of programming with JavaScript.

As we start to explore JS, we will continue to test and confirm the changes we make to the project. We will start to unlock the capabilities of programming our web application.

You may continue adding to and building on this project in each exercise throughout the semester.

# Tasks

1. Create a new JS file and give it a helpful name such as “MainScript.js”
2. In the index.html file, link the JS file in the <script> tag

    <script src="MainScript.js"></script>

1. Make sure to add comments to your code to make it easier to understand

// This is a comment which can help me understand my code later

/\*

This is a comment block

it can span multiple lines

and then it can be closed like this

\*/

1. Add some variables (values that can change) to your code using “var” for global (publicly accessible) variables, “let” for local variables (only accessible here in the current scope), and “const” for constant read-only values that do not change:

// How to create variables:

var x;

let y;

// How to use variables:

x = 5;

y = 6;

let z = x + y;

//let z = x + x;

// a const variable cannot be reassigned

const PI = 3.141592653589793;

//PI = 10; // this code will not work

console.log("PI: " + PI);

// const variables must be assigned a value

// this code will not work

//const PI2;

//PI2 = 3.14159265359;

// always use const when you know the value should not be changed

1. Combine multiple strings (combinations of characters) and other values into a single string:

// using camelCase is the most common way of naming variables

var firstName = "Dylan";

var lastName = "Ravka";

let fullName = firstName + " " + lastName;

console.log("First Name: " + firstName + " Last Name: " + lastName);

console.log("Full Name " + fullName);

console.log("X: " + x + "\n" + "Y: " + y + "\n" + "Z: " + z);

console.log("this is" + " a " + "combined string with an integer: " + z);

1. Use the “++” operator to increment a number by 1:

let incrementNum = 0;

console.log("the number: " + incrementNum);

incrementNum++;

console.log("the incremented number: " + incrementNum);

1. Run a test to see it the JavaScript code works!
2. Continue exploring JS and adding to the logs!

A screenshot of a computer

Description automatically generated with medium confidence

# Deliverables

Upload the following files to the **Exercise 1** Submission in BlackBoard:

* Screenshot of your Debug Console window (similar to the screenshot above)
* index.html file
* MainScript.js file

# Assessment

This is Exercise 1 out of 4.

This Exercise is worth 10% of the total grade in the course.

Complete the Tasks to score points!

Score Calculation:

0 / 5 – No submission

2.5 / 10 – Missing submission files, minimal effort

5 / 10 – Incomplete tasks

7 / 10 – Complete tasks, some errors

8 / 10 – Complete tasks, no errors

9 / 10 - Exceeds the expectations

10 / 10 – Inspirational work