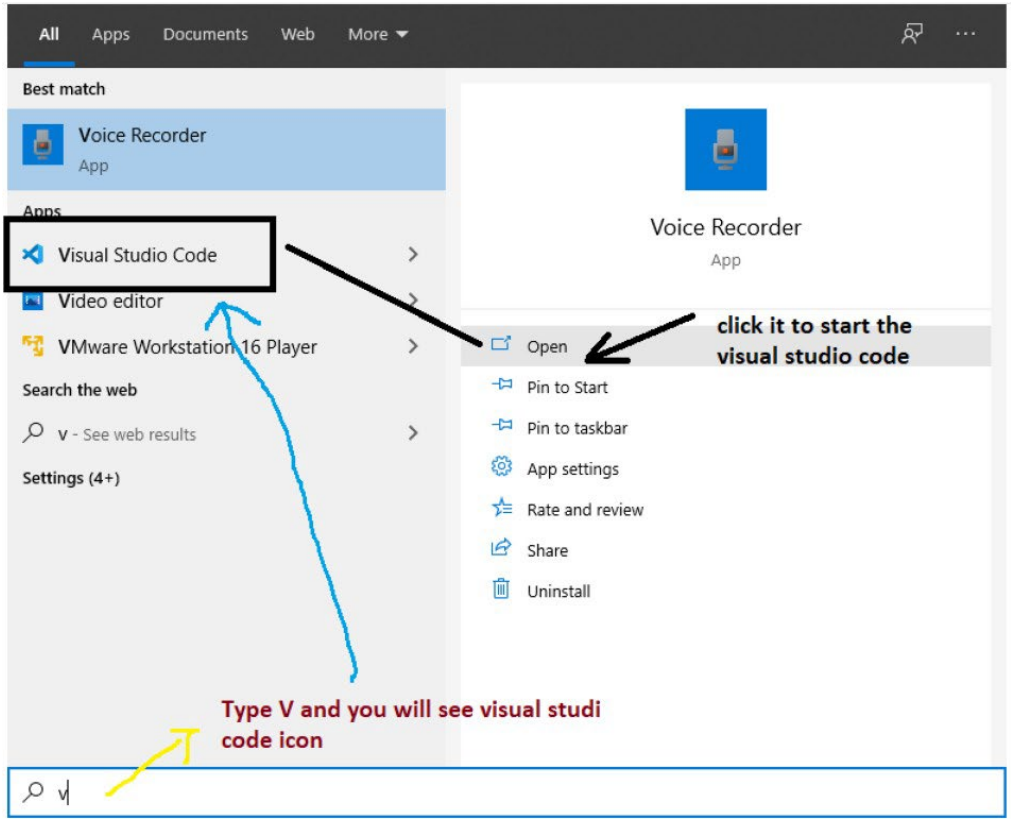
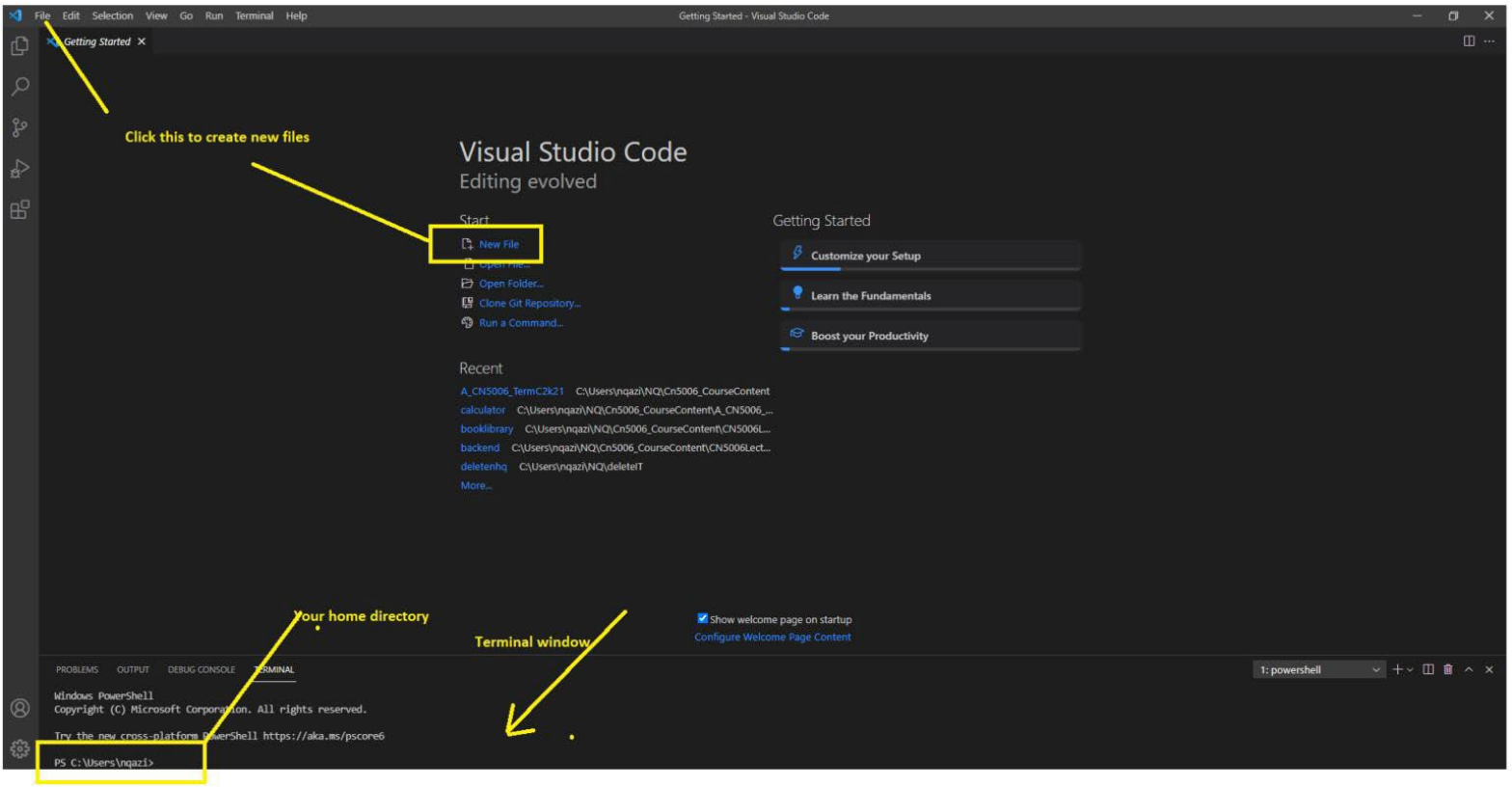
Week 1 Lab: Writing your First program using Visual Studio Code
Dr.Nadeem Qazi

This tutorial will guide you in writing your first JavaScript program. Be sure to also watch the video to learn how to use Visual Studio Code for coding: **How to use Visual Studio Code**.

- Step 1 Make sure you have installed Visual Studio Code and NodeJS.
- Step 2: Open Visual Studio code by typing V as shown in the figure below .



Once the visual studio code is started you will see the following window :



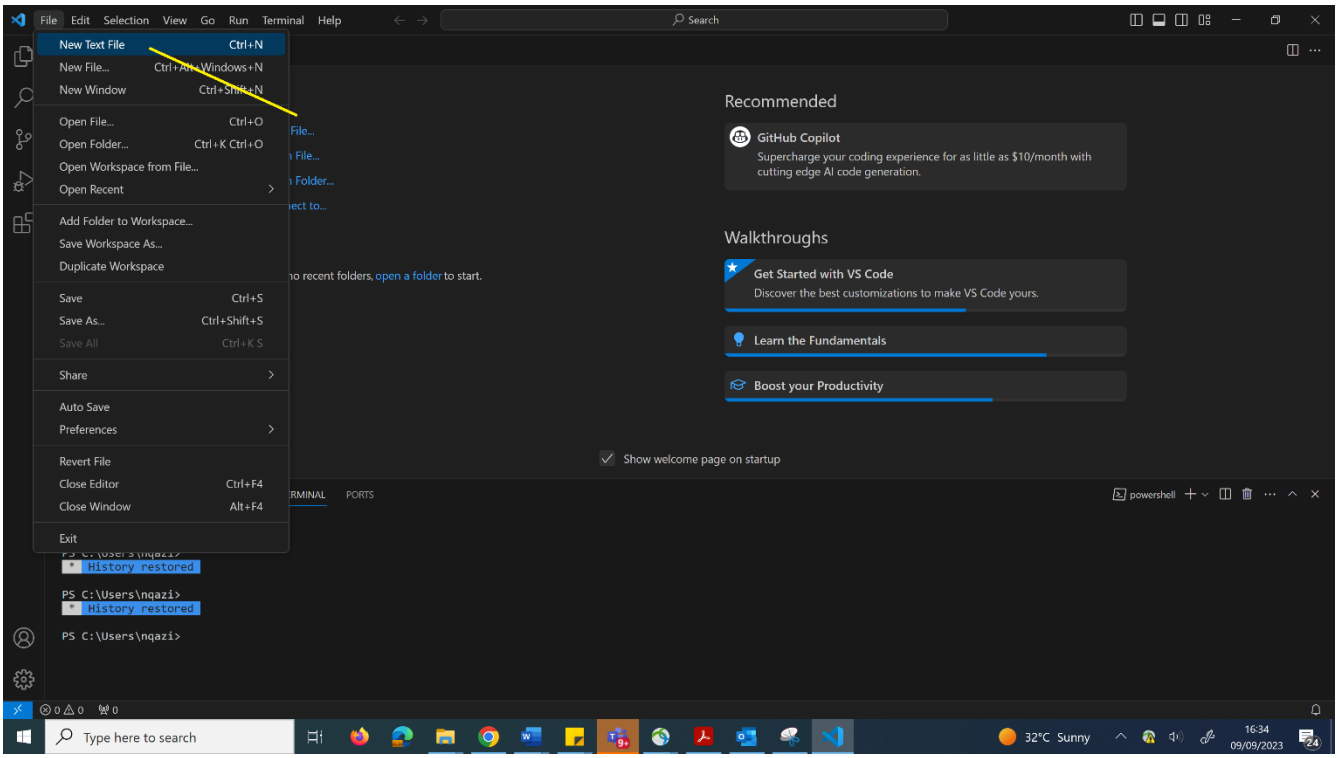
Step 3 check if node JS is installed. In the terminal window, on the prompt write the following line :**node -v**

you should see the version number of the nodeJS running on your system as shown in the figure below, however, you may have a different version of nodeJS running

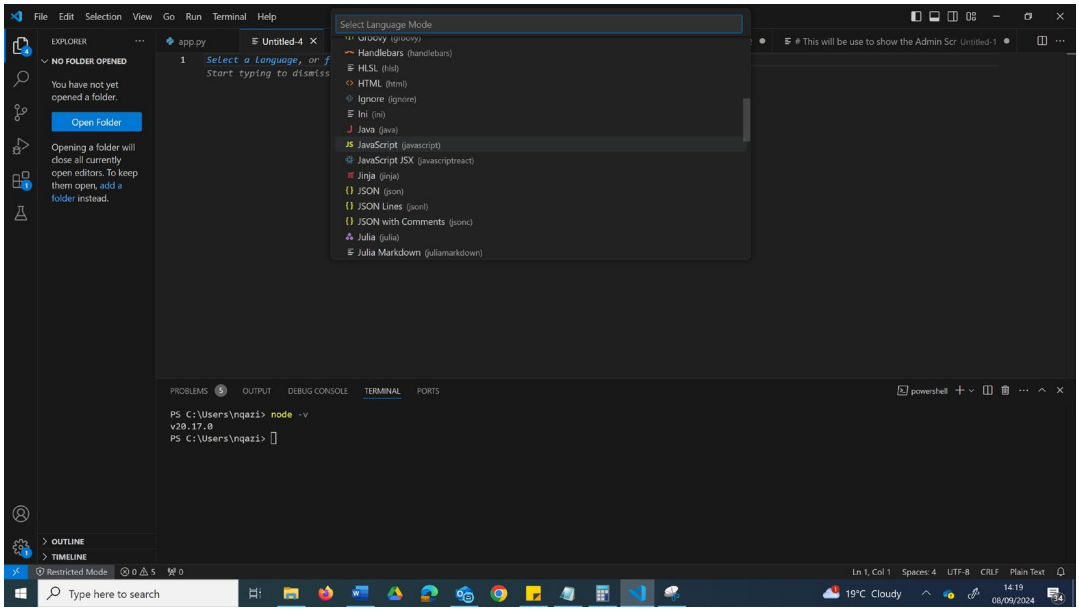
```
PS C:\Users\nqazi> node -v
v20.17.0
PS C:\Users\nqazi>
```

How to create a JS file

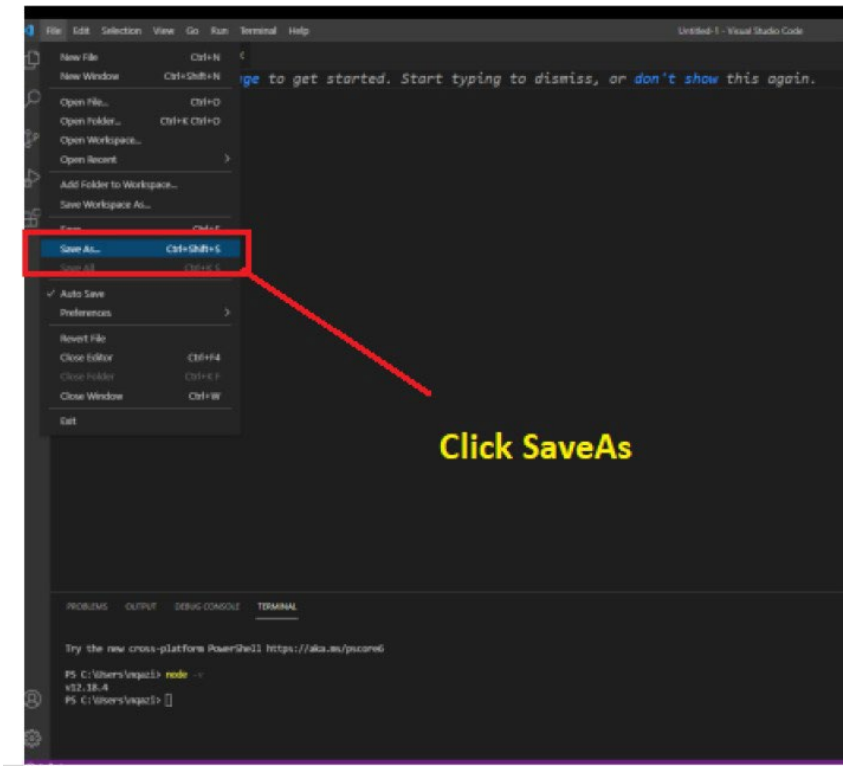
Click New text file



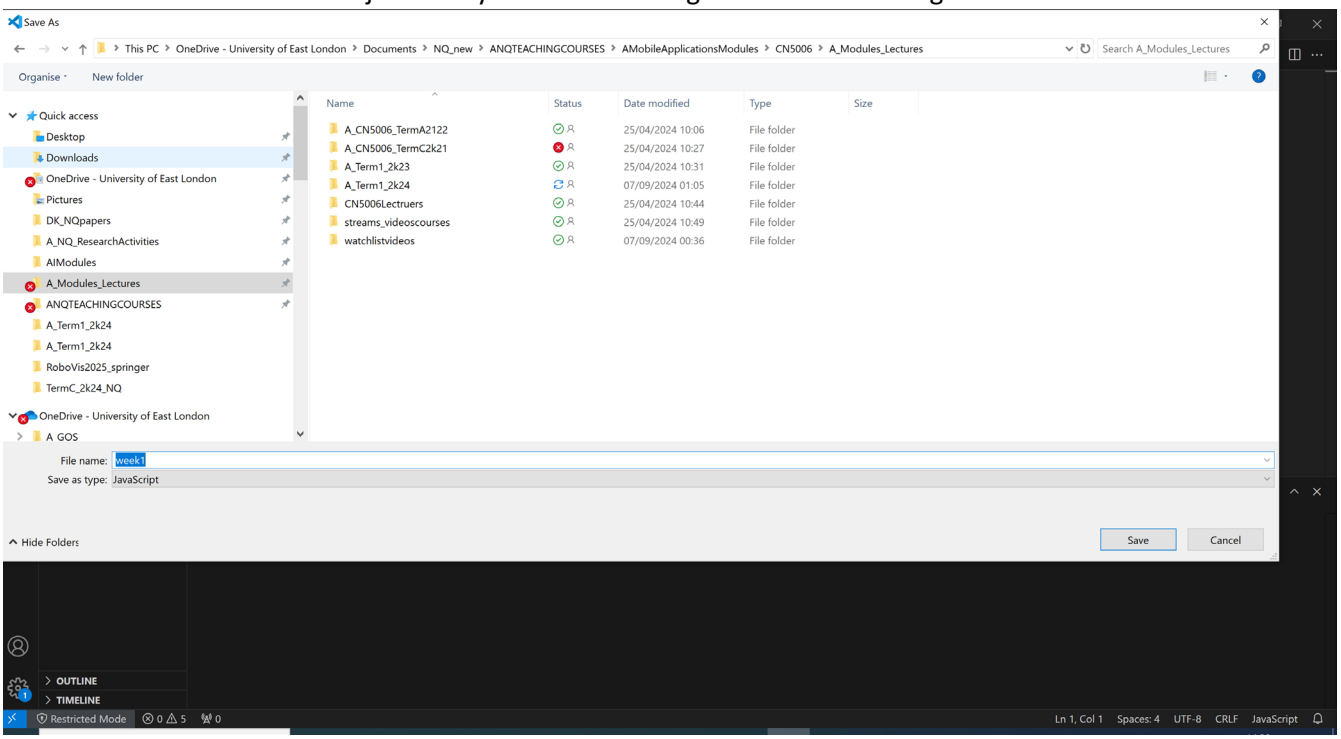
You will see this : Click Select a language and select JS, screen may be slightly different.



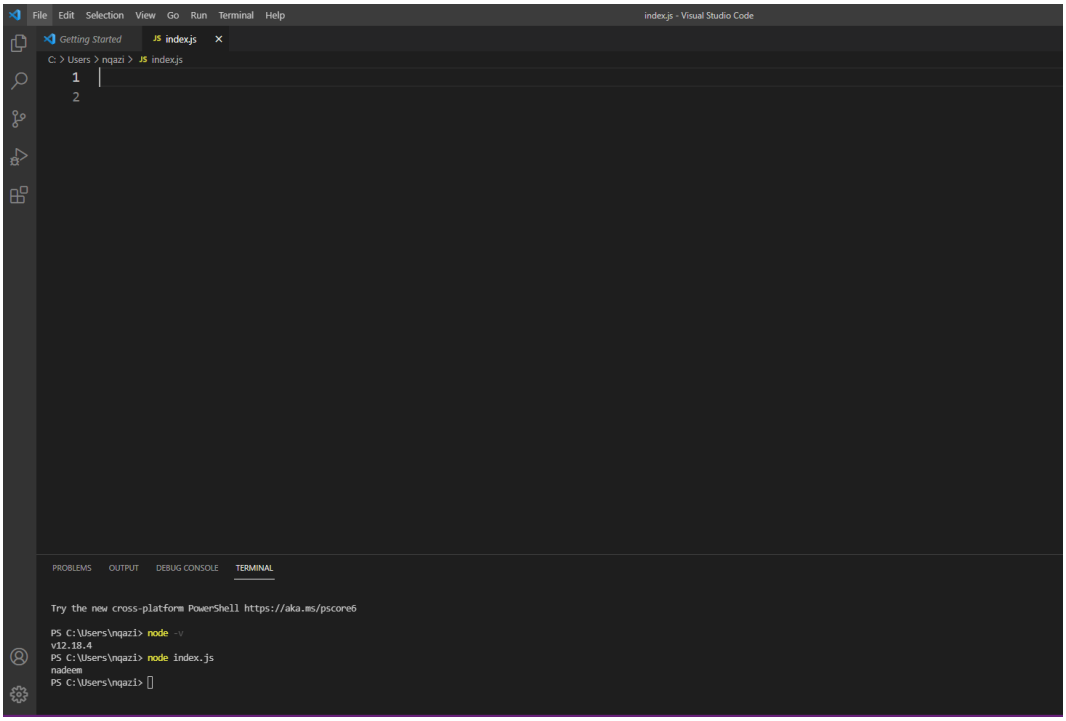
It will open a new blank file,. save this file as a Java script file by clicking SaveAS


File Edit Selection View Go Run Terminal Help
New File Ctrl+N
New Window Ctrl+Shift+N
Open File... Ctrl+O
Open Folder... Ctrl+K Ctrl+O
Open Workspace...
Open Recent
Add Folder to Workspace...
Save Workspace As...
Save As... Ctrl+Shift+S
Auto Save
Preferences
Revert File
Close Editor Ctrl+F4
Close Window Ctrl+W
Exit
to get started. Start typing to dismiss, or don't show this again.
Click SaveAs
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS C:\Users\nqazi> node -v
v12.18.4
PS C:\Users\nqazi>

It will open a dialogue box Choose the name of the file of your choice such as index.js or week1.js which will then create a index.js file for you to start coding . as shown in the figure below



Finally a index.js file is created in your specified folder and you are read to write your first Java script program.



Writing the code: Write the code in Javascript in the file (index.js)

Exercise 1:
Write down the following line of code in the file

console.log("This is my first programe ")
console.log("Well come John your month salary is 500000")

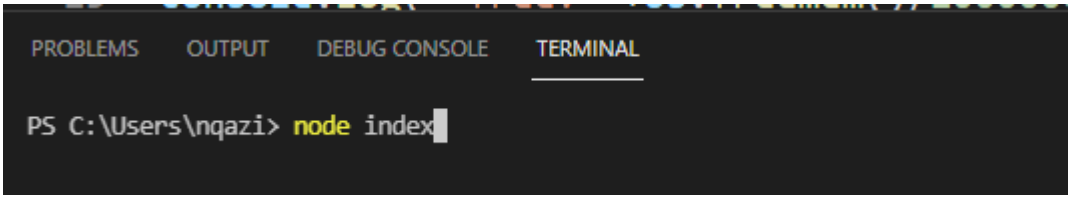
Check if you are in the right Directory:

Before you run your first program make sure the following:

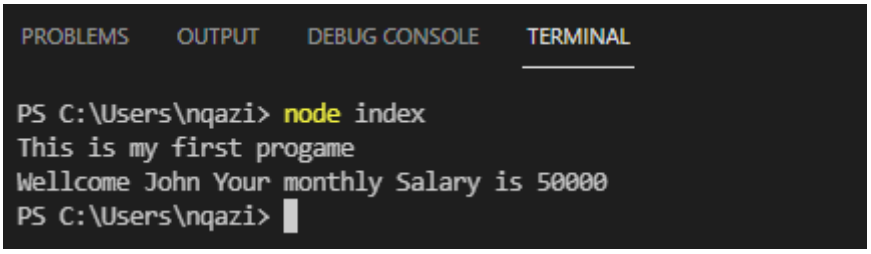
- Verify your current directory by running the command `pwd`. This will display your current working directory.
- If the your index.js file is saved in another directory, you need to navigate to that directory first.
- For example, if you saved the file `index.js` in the directory `CN5006`, enter the command `cd CN5006` and press Enter to move into that directory.

How to Run the Code:

- Once you're in the correct directory, proceed with the following command. In the terminal window type



You will see you code will be executed and following message will appear in the Terminal window.



Example 2:

```
const num1 = 5;
const num2 = 3;
// add two numbers
const sum = num1 + num2;
// display the sum
```

console.log('The sum of ' + num1 + ' and ' + num2 + ' is: ' + sum);

Save and Run the code. Take a screenshot of the the terminal window when you run this program and show it in your portfolio

Example 2:

Javascript Program to Check if a number is Positive, Negative, or Zero

Write the following program in the index.js

```
// program that checks if the number is positive, negative or zero
// input from the user
const number = parseInt(prompt("Enter a number: "));

// check if number is greater than 0
if (number > 0) {
    console.log("The number is positive");
}

// check if number is 0
else if (number == 0) {
  console.log("The number is zero");
}

// if number is less than 0
else {
     console.log("The number is negative");
}
```

Compile and see the result.

Portfolio Exercise

- Write a reflection for this week's Lab exercises to include in your portfolio.
- finally, Create a program that can perform addition, subtraction, multiplication, and division of two or more numbers. Include this program in your portfolio for Week 1 and write a reflection for your experience in understanding and writing the Javascript Code.

• Please remember that your portfolio is due in Week 11 and must be submitted on Moodle, with a total of 15 marks. However, ensure that you have shown your Lab instructor the completed Lab 1 Week exercise beforehand.