Where does JavaScript code run?

Originally designed to run on the browser using what we call JavaScript Engine

Firefox: SpiderMonkey

Chrome: V8

In 2009 Ryan Dahl took the opensource V8 engine which was available as Open Source and embedded it within a C++ program and name it Node.

With Node we can run JavaScript code outside the browser

So now we can build front-end and back-end code for our web or mobile application.

JavaScript vs ECMAScript

ECMA Script is the specification developed by an Organisation called ECMA and JavaScript is the programming language that conforms to this specifications

Task1: Inspect Element and Console

Open Chrome

Right click any area on the browser

Inspect Element to access Developer Tools and go to the Console where you will see the output of the JavaScript code execution

* Console.log(‘Hello World’);
* 2 +2

Task 2:

Using VSCode

Install Node (We can run the code on the browser or outside the browser specially if we need to use some external libraries)

Create a new folder to write your code within that folder (Main Project Folder):

* js-demo
* Create a new html file (index.html) using Emmet (!)
* Install the LIveServer Extension and Reload the Project

Where to place your <script>

* If you place it in the <head>, the browser may spend too much time parsing and executing the code specially if it is a complex one with multiple function and long coding statements. This may end up with bad user experience.
* Most of the time the script will talk to elements withint he html page so it need to know those elements and identify their names when rendered to the browser in order to execute properly. So it is good to place the <script> towards the end of the html code or use the type=”module” in the header of the <script>
* Separation of Concerns
  + Separation of HTML code (Content) from JS Code (Behaviour/Actions)
  + <script type=”module” src=”scripts/index.js”></script>