**Assignment For Day 1**

1. **Explain the use of JavaScript ( or What you can do using a JavaScript)**

JavaScript is a programming language used both on the client-side and server-side that allows you to make web pages interactive. JavaScript is mainly used for web-based applications and web browsers. But it can be used beyond the Web. Here are some used cases:

* Incorporating interactive elements into web pages
* Web and mobile application development
* Development of web servers and server applications
* Game creation

1. **What is the difference between client-side and server-side?**

Client-side means that the processing takes place on the user's computer. It requires browsers to run the scripts on the client machine without involving any processing on the server.

Server-side means that the processing takes place on a web server. It allows the server to provide dynamic websites to the user and the server-side script is not visible to the user.

1. **What is Nodejs?**

Node.js is an open-source, back-end JavaScript runtime environment that executes JavaScript outside of a web browser. It is built on Google Chrome's JavaScript Engine (V8 Engine).

1. **Explain Scope in JavaScript**

Scope determines the accessibility of variables.

JavaScript has 3 types of scope:

* **Global scope :**

A variable declared outside a function called "global scope." All scripts and functions can access it.

* **Function scope :**

Variables declared inside a function are not accessible from outside the function.

* **Block scope :**

In 2015, (ES6) introduced keywords: let and const. Both of these keywords provide block scope in JavaScript. Variables declared inside a { } block cannot be accessed from outside the block.

1. **JavaScript is asynchronous or synchronous.**

JavaScript is synchronous.

1. **JavaScript is Single-threaded or Multi-threaded.**

JavaScript is a single-threaded language.

1. **Explain DOM in your own word.**

The Document Object Model (DOM) is a programming interface that comprises the structure and content of web documents. It allows us to create, change, or remove elements from the document or add events to these elements.