**1. Introduction to JavaScript**

* What is JavaScript?

JavaScript is a programming language designed to make web pages interactive. It is one of the three main web technologies:

* 1. HTML defines the structure of web pages.
  2. CSS styles them.
  3. JavaScript adds interactivity and logic.

It is versatile and can run in web browsers (client – side) or on servers using platforms like Node.js (server - side).

* How JavaScript Works in the Browser and Node.js

In the Browser:

* 1. JavaScript runs directly in the browser using its built in JavaScript engine (e.g., V8 in chrome, SpiderMonkey in Firefox).
  2. The browser provides a Document Object Model (DOM) and APIs, enabling JavaScript to manipulate web pages, handle events, and perform tasks like animations or AJAX requests.
  3. Example:

document.querySelector(‘button’).addEventListener(‘click’, () =>{

alert(‘Button Clicked’);

});

The browser interprets this script and executes it when the button is clicked.

In Node.js:

1. Node.js is a runtime that allows JavaScript to run outside the browser.
2. It uses the V8 engine but provides additional libraries for working with files, databases, servers, etc.
3. Example:

const http = require(‘http’);

http.createServer((req, res) => {

res.end(‘Hello, Node.js!’);

}).listen(3000);

This creates a simple server that responds with “Hello Node.js!” when accessed.

* Setting Up the Development Environment

Alredy Done…!!!

* Writing Your First JavaScript Program