Internship Report – Week 3 – Day 1

Topic: Introduction to JavaScript & How JS Runs in the Browser
Date: 14 July, 2025

Overview:

The session began with a foundational overview of JavaScript (JS), focusing on its role in web development and how it executes within the browser environment.

Key Concepts Covered:

1) **Introduction to JavaScript:**
   JavaScript is a lightweight, interpreted, and client-side scripting language. It adds interactive behavior to static HTML pages and plays a crucial role in building responsive web interfaces.

2) **Why JavaScript:**

   - Widely supported across all modern web browsers

   - Integral for front-end development

   - Used with HTML and CSS to build complete web applications

3) **How JavaScript Runs in the Browser:**

   - JavaScript code is interpreted and executed by the browser's JS engine (e.g., V8 in Chrome).

   - JS can manipulate HTML and CSS via the **DOM (Document Object Model)**.

   - The Developer Console was introduced as a tool to test and debug JS code in real-time.

Learning Outcome:

Gained a conceptual understanding of JavaScript's purpose, its integration in the web development stack, and how browsers process and execute JS code.

Intern: Muzammil Hussain Parvi
Mentor/Supervisor: Ali Hyder