

## Internship Report – Week 4 – 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.

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