

# Day 15 of Training

## Introduction to JavaScript: The Language of the Web

### Understanding What a Programming Language Is

Today marked our transition into a new, exciting module: JavaScript. The session began by establishing a foundational understanding of what a programming language is and its role in technology. JavaScript was introduced as a high-level language designed to give instructions to computers.

The core analogy presented was particularly effective: just as humans use languages like English or Hindi to communicate with each other, we use programming languages to communicate our logic and commands to machines. It's the bridge that translates our intentions into actions that a computer can execute.

### The Core Workflow: Input, Process, Output

We then explored the fundamental workflow that governs how all code operates. It's a simple, three-step cycle:

- **Input:** This is the code we write—a set of specific instructions given to the computer.
- **Process:** The computer's central processing unit (CPU) reads and executes these instructions sequentially.
- **Output:** This is the result generated by the computer after processing the input. It was fascinating to learn how the complexity of the output is directly tied to the complexity of the input instructions. For example, a simple input might be to calculate  $1 + 2$ ,

yielding an output of 3. A more complex set of instructions could result in the output of a dynamic, interactive website.

This initial session was about building a solid mental model. Understanding *why* a language like JavaScript exists and *how* it fundamentally interacts with a computer makes the prospect of learning its syntax much more intuitive.