

Day 10

Today's session introduced the JavaScript programming language, a core technology used in web development alongside HTML and CSS. We explored its syntax, core concepts, and how JavaScript brings interactivity to web pages. This foundational session set the stage for upcoming projects that will utilize JavaScript for dynamic web behavior.

What is JavaScript?

- JavaScript is a high-level, interpreted programming language.
- It is used to add interactivity and logic to web pages (e.g., form validation, animations, dynamic content updates).
- Runs on the client-side (in the browser) but can also be used on the server-side via Node.js.

JavaScript Basics Covered:

1. Variables & Data Types
 - let, const, and var
 - Data types: string, number, boolean, null, undefined, object, array
2. `let name = "Ravjyot";`
3. `const age = 21;`
4. `let isStudent = true;`
5. Operators
 - Arithmetic: `+`, `-`, `*`, `/`, `%`
 - Comparison: `==`, `===`, `!=`, `<`, `>`
 - Logical: `&&`, `||`, `!`
6. Conditional Statements
 - `if`, `else if`, `else`
7. `if (age > 18) {`
8. `console.log("You are an adult");`
9. `} else {`
10. `console.log("You are a minor");`

11. }

12. Loops

- for, while, do...while
- Used for repeating code

13. for (let i = 0; i < 5; i++) {

14. console.log("Count:", i);

15. }

16. Functions

- Function declaration and calling

17. function greet(name) {

18. console.log("Hello, " + name);

19. }

20. greet("Ravjyot");

21. Events and Interactivity (Intro)

- Brief look at onclick, addEventListener, etc.
- Used to respond to user actions (e.g., button clicks)

Summary:

This session was a big leap from static pages to dynamic and logical thinking in web development. Learning JavaScript felt like unlocking the brain of the webpage, now, instead of just displaying content, we can make it *react* to users. I'm excited to use these concepts in interactive projects soon.