Live Cohort

DAY-1

JavaScript Basics

JavaScript Basics

Welcome to **JavaScript Beginning!**
In this file, we'll understand some **fundamental concepts of JavaScript** in simple terms with examples.

1. Introduction to JavaScript

JavaScript (JS) is a **programming language** used to make websites **interactive and dynamic**

🧩 Example:

```
<h1> Hello World!</h1>
<script>
    alert("Welcome to JavaScript!");
</script>
```

2. Why It Is Important?

- It helps add **interactivity** (buttons, animations, sliders).
- Works on **both frontend and backend** (Node.js).
- Makes the web **alive**!

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3. What Can It Do for You?

JavaScript can:
- Validate forms
- Create animations
- Fetch data from APIs
- Build full-stack apps

🧩 Example:

```
document.querySelector("h1").style.color = "blue";
```

4. Script Tag Use Karke Attach Karna Hai JS Ko

To connect JS with HTML, use the `**<script>**` tag.

🧩 Example:

```
<script src="script.js"></script>
```

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5. JS Ko Browser Mein Run Karna

You can open the HTML file in any browser and use **Inspect → Console** to see JS outputs.

🧩 Example:

```
console.log("JavaScript is running!");
```

6. var, let, const

These are used to declare variables.

Keyword	Scope	Can Reassign?	Hoisting
var	Function	✅ Yes	✅ Yes
let	Block	✅ Yes	❌ No
const	Block	❌ No	❌ No

🧩 Example:

```
var name = "Ritik";
let age = 21;
const country = "India";

console.log(name, age, country);
```

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7. console, prompt, alert

Function	Description
console.log()	Prints message to console
alert()	Shows pop-up message
prompt()	Takes input from user

✳ Example:

```javascript
console.log("Hello Developer!");
alert("Welcome!");
let user = prompt("Enter your name:");
console.log("Hi " + user);
```

8. Strings Kya Hoti Hai?

A **string** is a sequence of characters inside quotes.

✳ Example:

```javascript
let message = "Hello JavaScript";
console.log(message);
```

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9. slice, template strings, split, replace, includes

◆ **slice()**

Extracts part of a string.

🧩 **Example:**

```
let str = "JavaScript";
console.log(str.slice(0, 4));
```

◆ **Template Strings**

Use backticks (` `` `) to include variables easily.

🧩 **Example:**

```
let name = "Ritik";
console.log(`Hello, ${name}!`);
```

◆ **split()**

Splits a string into an array.

🧩 **Example:**

```
let fruits = "apple,banana,grapes";
console.log(fruits.split(",")); // ["apple", "banana", "grapes"]
```

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9. slice, template strings, split, replace, includes

◆ replace()

Replaces part of a string.

❋ Example:

```
let text = "I love HTML";
console.log(text.replace("HTML", "JavaScript")); // I love JavaScript
```

◆ includes()

Checks if a word exists in the string.

❋ Example:

```
let sentence = "JavaScript is fun!";
console.log(sentence.includes("fun")); // true
```

Conclusion:

Now you know how to connect JavaScript to your webpage, use variables, and play with strings.

These basics are the foundation for learning **advanced JS concepts** later.