JavaScript In One Video Notes By Tekneikos

What is JavaScript and what are it's features ?

JavaScript is a high-level, interpreted programming language widely used for web development to create interactive and dynamic web applications. It plays a crucial role in modern web technologies alongside HTML and CSS.

Key Features of JavaScript

✅ High-Level Language:
JavaScript abstracts complex details of the computer's hardware, making it easier for developers to write and understand code.

✅ Interpreted Language:
Instead of being compiled into machine code beforehand, JavaScript executes code line by line in

real-time through an interpreter, typically in web browsers or Node.js.

✅ Dynamically Typed:

Unlike statically typed languages, JavaScript determines variable types at runtime, allowing for flexibility but requiring careful handling to avoid type-related errors.

✅ Enables Interactive Web Pages:

JavaScript is responsible for manipulating the DOM (Document Object Model), enabling features like real-time updates, animations, and event handling on websites.

✅ Supports Asynchronous Programming:

JavaScript handles operations without blocking the main execution thread, thanks to features like callbacks, promises, and async/await, which enhance performance in handling APIs, databases, and user interactions.

Asynchronous Programming in JavaScript

Asynchronous programming allows tasks to run in the background while the main program continues executing. This ensures smooth performance, particularly for:

Fetching data from APIs

Handling user input

Running timers and animations