

## SYLLABUS JAVA SCRIPT - 5 DAYS

### KALVI EDUCATION KARUR

#### **Day 1: JavaScript Fundamentals**

- **Introduction to JavaScript:**

What is JavaScript, its role in web development, setting up the development environment.

- **Variables and Data Types:**

`var, let, const`, primitive data types (numbers, strings, booleans, null, undefined, symbol), and non-primitive data types (objects).

- **Operators:**

Arithmetic, assignment, comparison, logical, and ternary operators.

- **Control Flow:**

Conditional statements (`if, else if, else, switch`) and loops (`for, while, do-while, for...in, for...of`).

#### **Day 2: Functions and Arrays**

- **Functions:**

Function declaration, expression, arrow functions, parameters, return values, scope (global, local, block).

- **Arrays:**

Creating, accessing, modifying, and common array methods (e.g., `push, pop, shift, unshift, splice, slice, map, filter, reduce`).

#### **Day 3: Objects and the DOM**

- **Objects:**

Creating objects, accessing properties, methods, `this` keyword, object destructuring.

- **Document Object Model (DOM) Manipulation:**

Understanding the DOM tree, selecting elements, modifying content, attributes, and styles, creating and appending elements.

- **Events:**

Event listeners, common events (click, submit, keyup), event bubbling and capturing.

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### Day 4: Asynchronous JavaScript and ES6+ Features

- **Asynchronous JavaScript:** Callbacks, Promises (resolve, reject, chaining), `async/await`.
- **Error Handling:** `try...catch...finally` blocks.
- **ES6+ Features:** Template literals, spread/rest operators, modules (`import/export`), classes (basics of object-oriented programming in JavaScript).

### Day 5: Advanced Topics and Best Practices

- **JSON:** Working with JSON data (parsing, stringifying).
- **Introduction to APIs (e.g., Fetch API):** Making HTTP requests to external APIs.
- **Debugging:** Using browser developer tools.
- **Best Practices:** Code organization, naming conventions, performance considerations.

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