

Zetlan Technologies



JAVASCRIPT & JQUERY

e-Learning Course

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COURSE MODULES



Module 1: Introduction to JavaScript

- What is JavaScript?
- Role of JavaScript in Web Development
- Setting Up the Development Environment
- JavaScript Basics: Variables, Data Types, Operators
- Writing and Executing JavaScript Code
- Comments in JavaScript

Module 2: Control Structures and Functions

- Conditional Statements (if, else if, else, switch)
- Loops (for, while, do-while)
- Functions: Declaration, Expression, Arrow Functions
- Function Parameters & Return Values
- Scope (Local & Global Variables)
- Hoisting and Closures

Module 3: JavaScript Objects & Arrays

- Understanding Objects in JavaScript
- Object Properties and Methods
- Prototypes and Inheritance
- Arrays: Creation, Methods (map, filter, reduce, etc.)
- Iterating Over Arrays

JSON Handling

Module 4: DOM Manipulation

- What is the DOM?
- Selecting Elements (getElementById, querySelector, etc.)
- Modifying HTML and CSS via JavaScript
- Event Handling (click, keypress, change, etc.)
- Event Bubbling & Delegation
- Creating and Removing Elements

Module 5: ES6+ Features

- Let, Const vs. Var
- Template Literals
- Destructuring Objects and Arrays
- Spread and Rest Operators
- Modules (import/export)
- Promises & Async/Await

Module 6: Introduction to jQuery

- What is jQuery?
- Setting Up jQuery in a Project
- jQuery Syntax and Selectors
- jQuery Event Handling
- DOM Manipulation with jQuery
- CSS Manipulation in jQuery

Module 7: jQuery Effects & Animations

- Show, Hide, Toggle
- Fade In/Out, Slide Up/Down
- Animate Method
- Chaining Effects

Module 8: jQuery AJAX & API Handling

- Introduction to AJAX
- Making GET & POST Requests
- Handling JSON Data
- Error Handling in AJAX
- Fetch API vs jQuery AJAX

Module 9: Advanced JavaScript & jQuery

- Regular Expressions in JavaScript
- Form Validations using JavaScript & jQuery
- jQuery Plugins & UI Components
- Introduction to JavaScript Frameworks (React/Vue)

Module 10: Project Work & Best Practices

- JavaScript & jQuery Mini-Project
- Debugging JavaScript Code
- Performance Optimization Techniques