
JAVA SCRIPT

1: Introduction to JavaScript

1.1. What is JavaScript?

- 1.1.1. Introduction to JavaScript as a Programming Language

- 1.1.2. Role of JavaScript in Web Development

1.2. History and Evolution

- 1.2.1. ECMAScript Versions

- 1.2.2. JavaScript vs. Java

2: JavaScript Basics

2.1. Variables and Data Types

- 2.1.1. Variables and Declarations

- 2.1.2. Primitive and Reference Data Types

2.2. Operators and Expressions

- 2.2.1. Arithmetic Operators

- 2.2.2. Comparison and Logical Operators

2.3. Control Structures

- 2.3.1. Conditional Statements (if, else, switch)

- 2.3.2. Loops (for, while, do...while)

3: Functions and Scope

3.1. Function Declarations and Expressions

- 3.1.1. Creating Functions

- 3.1.2. Anonymous Functions and Closures

3.2. Scope and Context

- 3.2.1. Global and Local Scope

- 3.2.2. Function Context and this Keyword



4: Working with Objects

4.1.Object-Oriented JavaScript

- 4.1.1. Objects and Properties
- 4.1.2. Object Methods

4.2.Creating and Manipulating Objects

- 4.2.1. Object Constructors
- 4.2.2. Object Prototypes and Inheritance

5: Document Object Model (DOM)

5.1. What is the DOM?

- 5.1.1. Structure of the Document Object Model
- 5.1.2. Relationship between HTML and DOM

5.2.Accessing and Modifying the DOM

- 5.2.1. Selecting DOM Elements
- 5.2.2. Modifying Element Content and Attributes

6: Event Handling

6.1.Understanding Events

- 6.1.1. Types of DOM Events
- 6.1.2. Event Listeners and Event Objects

6.2.Handling Events

- 6.2.1. Event Registration and Event Handlers
- 6.2.2. Event Bubbling and Event Delegation

7: Asynchronous JavaScript

7.1.Introduction to Asynchrony

- 7.1.1. Synchronous vs. Asynchronous Code
- 7.1.2. Callback Functions

7.2.Promises and Fetch API



-
- 7.2.1. Working with Promises
 - 7.2.2. Making HTTP Requests with Fetch

8: JavaScript Frameworks and Libraries

8.1.Introduction to Frameworks

- 8.1.1. Overview of JavaScript Frameworks
- 8.1.2. Popular JavaScript Libraries

8.2.jQuery

- 8.2.1. Getting Started with jQuery
- 8.2.2. DOM Manipulation with jQuery

9: Modern JavaScript (ES6+)

9.1.ES6+ Features

- 9.1.1. Arrow Functions and Template Literals
- 9.1.2. let, const, and Block Scoping

9.2.Modules and Module Systems

- 9.2.1. Export and Import Statements
- 9.2.2. CommonJS and ES6 Modules

10: JavaScript Best Practices

10.1.Code Quality and Style

- 10.1.1. Code Formatting and Linting
- 10.1.2. Coding Conventions and Naming

10.2.Debugging and Performance

- 10.2.1. Debugging Tools and Techniques
- 10.2.2. Optimizing JavaScript Code

11: JavaScript in Real-World Projects

11.1.Enhancing Web Pages



- 11.1.1. Adding Interactivity with JavaScript
- 11.1.2. Form Validation and User Feedback

11.2. Single-Page Applications (SPAs)

- 11.2.1. Building SPAs with JavaScript

