



GeeksforGeeks

MASTER JAVASCRIPT

Complete Beginner to Advanced



Detailed
Course Syllabus

CONTENTS

Basics of JavaScript

- Course Introduction
- Setup IDE - VS Code Installation
- First program - Hello Geeks
- JavaScript Variables
- Difference between var let and const
- Variable Naming Convention
- Data Types
- Concatenation and Template Literal
- Arithmetic Operators
- Type conversion
- ReadlineSync

JavaScript Fundamentals

- Comparison Operators
- Conditional Statements
- Nested Conditional Statement
- Ternary Operator - Part 1
- Ternary Operator - Part 2
- Logical Operator Part 1
- Conditional Statement Exercise
- Logical Operator Part 2
- Logical Operator Part 3
- Nullish Coalescing
- Exercise - For Loop
- Nested For Loop
- Loops - for loop
- Loops - while loop
- Exercise - While Loop
- Error Handling - try and catch

Functional Programming

- Function declaration
- Anonymous Function & Function Expression
- Return and undefined
- Arrow Function
- Function Exercise

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String Methods

- Iterating over String
- String Method - charAt & charCodeAt
- String Method - indexOf
- String Method - includes
- String Method - toUpperCase & toLowerCase
- String Method - substring
- String Method - trim

Arrays

- Iterating Over Array
- Copy By Reference
- Array Method - Push & Concat
- Array Method - pop, splice
- Array Method - includes
- Array Method - sort
- split and join
- Spread Array
- Destructuring Array

Objects

- Object Properties
- Functions as Property
- Computed Properties
- Property Shorthand
- for in
- Object Reference & Shallow Copy
- Optional Chaining
- Destructuring Object
- Keys values & entries
- 'this' keyword
- Function Borrowing - Call and Apply
- Function Borrowing - Bind
- Constructor "new"
- 'this' keyword - exercise

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How JS Works - Behind the Scenes

- Execution Context
- How JS Executes Code
- Call Stack
- Hoisting - var & function
- Hoisting - let, const and TDZ

More About Functions

- Pure Functions
- First Class Functions
- Higher Order Function
- Map
- Filter
- Reduce
- Argument Object
- Rest Parameter
- Variable Scope - Global, Local and Block Scope
- Scope and Scope Chain
- Recursion
- Closure

Coding Drills - 1

- Palindrome String
- Remove Vowels from String
- Mask Characters
- Encoded Characters
- Sub String
- Convert Odd to Even & Vice Versa
- Find Sum of Numbers Less Than 40
- Return Array of Names From An Object - Chaining Methods
- Generate an Object with Sum of Even and Odd Numbers From an Array of Numbers
- Find Average Age of Family Members
- Count Distinct Elements

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Document Object Model - DOM

- What is DOM?
- Searching the DOM
- Event Listener Part 1
- Event Listener Part 2
- Event Listener Part 3
- Bubbling & Capturing
- Event Delegation
- Creating HTML with Javascript
- Async and Defer

Projects

- Quizify - CLI Quiz App
- Wishlist App
- Form Validation using Regex
- Notes App

Capstone: Flash Ecommerce Project

- Product Listing Page
- Navbar
- Cart Page
- Horizontal Card
- Price Component
- Filters

Polyfills

- Polyfills for Map
- Polyfills for Filter
- Polyfills for Reduce
- Polyfills for flatten
- Polyfills for Call & Apply
- Polyfills for Bind

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Coding Drills - 2

- Arrange Words In Ascending Order of Length
- Reverse words of a string without changing their order
- Count the frequency of elements in an Array

Interview Problems - Machine Coding

- Stop Watch Timer
- Debouncing
- Throttling
- Modal
- Carousel
- Deep Copy
- Drop Down

Advanced Projects

- Movie App
- Recipe App
- Quiz App

Classes

- Prototype
- Basics of Classes
- Classes Inheritance
- Static properties and methods
- Private properties

Assignments

- Assignments to summarize your Learning