

Intermediate JavaScript

This Intermediate JavaScript training prepares you to confidently read and write JavaScript, making server-side applications and website customizations approachable. Learn how to process user data, run computations, and enhance website functionality behind the scenes. Perfect for developers looking to level up their skills, onboard new team members, or use as a JavaScript reference resource.

[CBT Nuggets course material](#) →

WEEK 1

Functional Programming: Basic Concepts

151 min.

Introduction	1
Functional Programming Basics	11
Immutability	11
Enforcing Immutability with ESLint	11
First-Class Functions and Pure Functions	12

Functional Programming: First-Class Functions

Overview	1
Introduction	1
First-Class Functions Basics	1
Example 1: Changing Strategies	1
Example 2: Sale Price Calculator	1
Example 3: Testing Function Performance	1

Functional Programming: Higher-Order Functions

Overview	1
Introduction	1
What are Higher-Order Functions?	1
Example 1: Value or Array?	1
Example 2: Automatically Tracking Functions	1
Example 3: Checking Arguments	1

Functional Programming: Basic Partial Application & Currying

Overview	1
Introduction	1
What are Partial Application and Currying?	1
Example 1: Getting Object Properties	1

Partial Application with Function.bind	1
Example 2: URL Builder	1

Functional Programming: Advanced Higher-Order Functions

Overview	1
Introduction	1
Argument Checking Review & Improvements	1
Argument Checking with Different Criteria	1
Combining Argument Check Logic	1
Custom Argument Checking Messages	1

Functional Programming: Advanced Partial Application & Currying

Overview	1
Introduction	1
What Does Automatic Partial Application Look Like?	1
Implementing Automatic Partial Application	1
Implementing Automatic Currying	1
Partial Application with Object Destructuring	1

Functional Programming: Introduction to Memoization

Overview	1
Introduction	1
Why Do We Need Memoization?	1
Basics of Memoization	1
Memoizing the Fibonacci Sequence	1
Memoizing Other Functions	1

Understanding Regular Expressions in JavaScript

Overview	1
Introduction to Regular Expressions and Useful Tools	1
Creating Your First JavaScript Regular Expression	1
Special Characters in Regular Expressions	1
Using Quantifiers to Determine Match Length	1
Global Options for Regular Expressions	1
Positional and Named Capture Groups	1
Look-Ahead and Look-Behind	1

Functional Programming: Advanced Memoization

Overview	1
Introduction	1
Memoizing with Higher-Order Functions	1
Memoizing Multiple Arguments	1
Memoizing Array and Object Arguments	1

Functional Programming: Function Composition

Overview	1
Introduction	1
Basics of Function Composition	1
Composing JavaScript Functions	1
Composition Using Arrays	1
Composition Using Higher-Order Functions	1

Functional Programming: Introduction to Recursion

Overview	1
Introduction	1
Basics of Recursion	1

Building a Recursive For-Loop	1
Recreating For-Each with Recursion	1
Recursive Strategies for Dealing with Arrays	1

Functional Programming: Recursion with Arrays

Overview	1
Introduction	1
Mapping with Recursion	1
Another Strategy for Array Recursion	1
Filtering with Recursion	1
Reducing with Recursion	1

Functional Programming: Working with Trees in JavaScript

Overview	1
Introduction	1
What Are Trees?	1
Representing Trees Using Nested Arrays	1
Representing Trees Using Objects	1
Representing Trees Using Combined Objects and Arrays	1

Functional Programming: Basic Recursive Tree Algorithms

Overview	1
Introduction	1
Object And Array Equality with Recursion	1
Searching Trees Recursively	1
Mapping Trees Recursively	1

Functional Programming: Recursive Tree Algorithms In-Depth

Overview	1
Introduction	1
Printing Trees Recursively	1
Depth-First vs. Breadth-First Tree Traversal	1
Abstracting Tree Structure	1

JavaScript Sorting Algorithms: The Basics

Overview	1
Introduction	1
Sorting Algorithm Basics	1
The Selection Sort Algorithm	1
Implementing Selection Sort In-Place	1
Implementing Selection Sort Using Maximums	1

WEEK 2

JavaScript Sorting Algorithms: Easy Algorithms 20 min.

Overview	1
Introduction	1
The Bubble Sort Algorithm	1
The Insertion Sort Algorithm	1
Implementing Non-Numerical Comparisons	1

JavaScript Sorting Algorithms: Merge Sort

Overview	1
Introduction	1
The Merge Sort Algorithm	1
Implementing the "Merge" and "Split" Functions	1
Implementing Merge Sort Recursively	1

Implementing Merge Sort Iteratively 1

JavaScript Sorting Algorithms: Quick Sort

Overview 1

Introduction 1

The Quick Sort Algorithm 1

Implementing the Partition Functions 1

Implementing Quick Sort Recursively 1

The Importance of Choosing a Pivot 1