



JS Mastery 2024 Web Dev Roadmap

Visit jsmastery.pro for more



Introduction

This roadmap will guide you to start with it in the proper way.

Recommended path:

- Learn HTML & CSS
- Learn JavaScript
- Learn Git & GitHub
- Learn React.js
- Learn Next.js

JavaScript is the fundamental building block of the web. All frontend frameworks (React.js, Next.js, Vue.js) and all backend technologies (Node.js, Express.js) revolve around JavaScript.

HTML



HTML – HyperText Markup Language

Basics

Understand the structure, elements, and attributes of HTML documents

- Structure

`<!DOCTYPE>`

`<html>`

`<head>`

`<body>`

- Elements

- Heading

`<h1>`

to

`<h6>`

- Paragraph

`<p>`

- Lists

``

``

``

- Link

`<a>`

- Image

``

- Input

`<input>`

`<textarea>`

- Button

`<button>`

- Group Elements

`<div>`

- Semantics

Use elements like

`<header>`

`<nav>`

`<main>`

`<section>`

`<aside>`

`<footer>`

CSS



CSS — Cascading Style Sheets

- Structure

- Box Model

Understand how elements are styled using

padding

margin

border

- Selectors

Learn about different types of selectors to target and style specific HTML elements. For example,

Type

Class

Id

Child

Sibling

- Typography

Explore text-related properties like

font

size

weight

alignment

- Colors and Backgrounds

Understand how to set different

colors

gradients

background images

CSS

Layout and Positioning

- Display

Learn the various display values like

`block`

`inline`

`inline-block`

- Position

Explore how to position an element in different ways such as

`relative`

`absolute`

`sticky`

`fixed`

- Flexbox

Master the flexbox layout to create responsive website layouts

- Grid

Dive into CSS grid layout for advanced two-dimensional layouts

Effects

- Transitions

Learn to create smooth transitions using different CSS properties like

`delay`

`timing`

`duration`

`property`

`timing-function`

CSS

- Transformations

Explore 2D and 3D transformations like

scaling

rotating

translating elements

- Animations

Learn how to create animations using keyframes

- Shadows and Gradients

Explore with box shadows and linear or radial gradients

Advanced (Plus)

- Learn how to use CSS processors like sass or frameworks like tailwindcss for more powerful and efficient styling



Build and Deploy a Sushi Website using HTML & CSS

CSS

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Build and Deploy a Sushi Website using HTML & CSS

JS

JavaScript

- **Variables and Data Types**

Declaring variables and understanding different data types such as string, number, boolean, null, undefined, object, array, etc.

- **Operators**

Learn to use different operators such as arithmetic, comparison, logical, and assignment to perform operations on data

- **Control Flow**

Try & test conditional statements such as if else, switch and loops such as for while to control program flow

- **Functions**

Define and learn to create different functions, understand function scope, and work with different parameters and return values

- **DOM Manipulation**

Knowing how to use JavaScript to change and interact with HTML elements on a webpage is an important skill.

JS

Modern JavaScript

- ES6 Features

- Arrow Functions

In JavaScript, there are different kinds of functions. One type that you'll often come across is called the Arrow function. Many prefer using arrow functions because they are shorter & easier to write.

- Destructuring

A helpful concept that will come in handy when we have to extract values from arrays and objects

- Spread Syntax

Allows to expand elements of an array or object into individual elements

- Template Literals

One of the widely used. Using the back sticks ```, we can interpolate strings with placeholders & expressions

- Modules

Learn how to import export code between files to organize the code

JS

- Asynchronous Programming

- Promises

Gain an understanding of the concept of promises and why they are necessary. Learn about resolving and rejecting promises and utilizing **then** and **catch** for handling asynchronous operations.

- Async/Await

Explore the usage of **async/await** to write asynchronous code in a more synchronous way. This convention is widely adopted as an alternative to using **then** and **catch** for handling promises.

- Fetch API

Discover how to use the Fetch API in the browser to send HTTP requests and handle the resulting responses.

- Axios (Plus)

Explore the popular third-party library, Axios, which simplifies the process of making HTTP requests compared to the standard Fetch API.

JS

- Additional JavaScript Concepts

- Array Methods

Familiarize yourself with different widely used array methods to simplify the development process. For example,

`map`

`slice`

`includes`

`filter`

`splice`

`join`

`reduce`

`forEach`

`reverse`

and few others

- Error Handling

One of the crucial part of web development is to catch and display the errors properly. No user will like to see the complete red screen with a text — “Error on line 35”. Not even us.

Therefore, it is essential for every developer to cultivate the skill of error handling. Familiarize yourself with the try-catch-finally block, which enables you to capture errors and present them on the user interface using user-friendly and easily understandable language.

Master JavaScript



[What is JavaScript?](#)



[Get started with JavaScript](#)



[What is ECMAScript?](#)



[Easy Guide to Object Rest/Spread Properties in JavaScript](#)



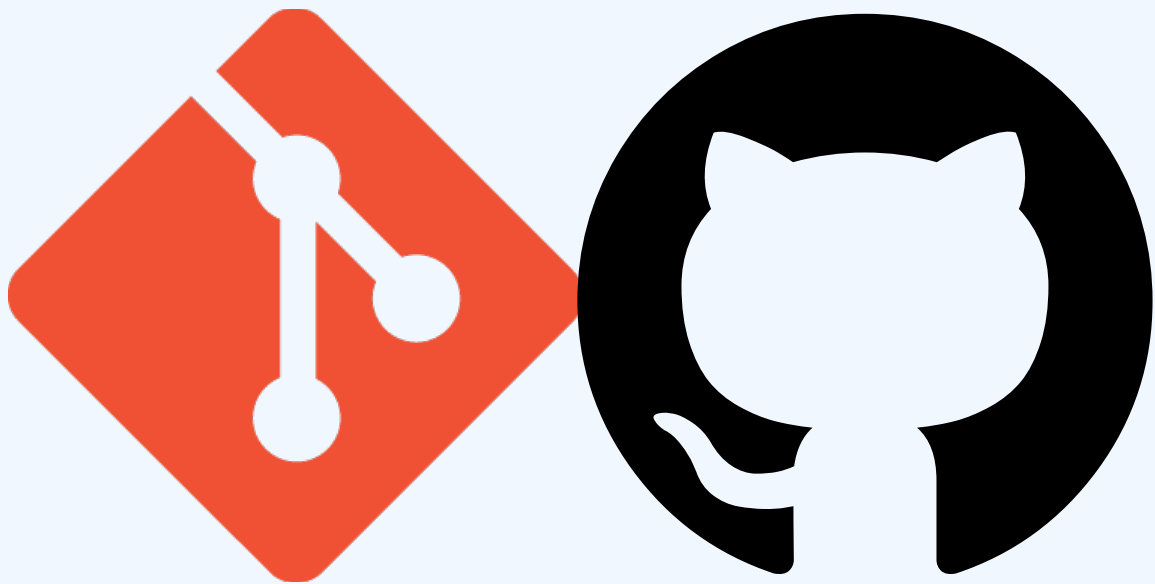
[Learn JavaScript Async/Await](#)



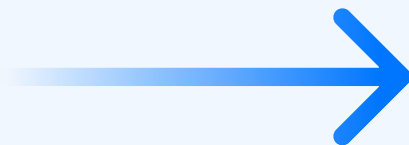
[The Ultimate JavaScript CheatSheet](#)



[JS Projects for Beginners](#)



Git & GitHub Roadmap



Git & GitHub Roadmap

Start from the top and work your way down to more advanced topics:



[What is Git?](#)



[Git in few words](#)



[Learn Git in 15 minutes](#)



[Learn Github in 15 minutes](#)



[Git- The Simple Guide](#)



[Git Commands for beginners](#)



[Git Lab](#)



[Learn Git Branching](#)

Git & GitHub Roadmap

Free courses that will help you learn Git & GitHub:



[Git Tower](#)

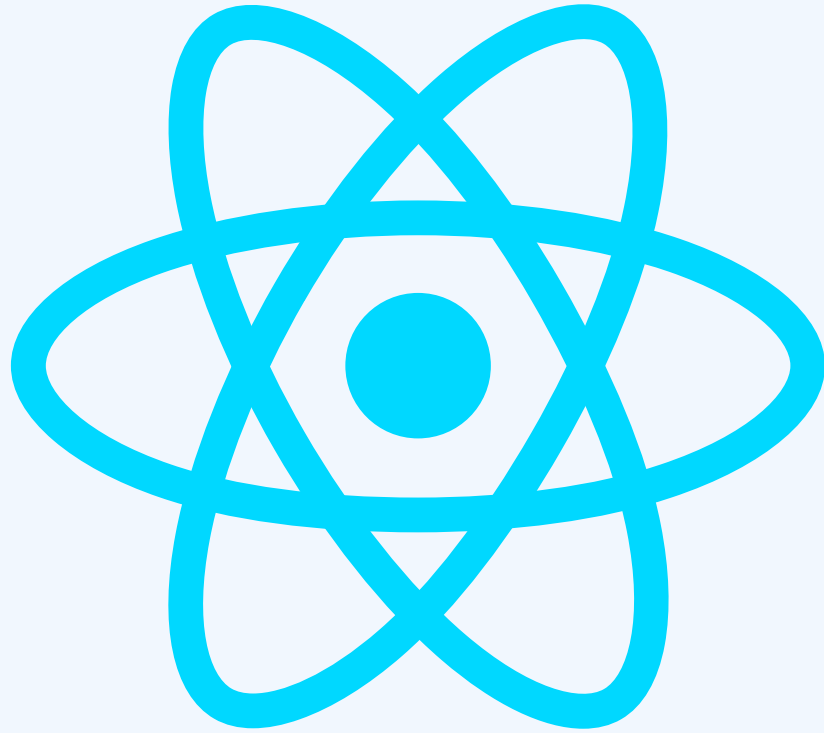


[Introduction to Git & Github](#)

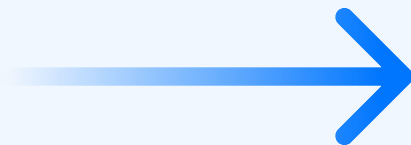
Compilation of commonly asked git questions:



[First Aid Git](#)



React Roadmap



Master React.js



What are the Main Benefits of ReactJS over Plain JavaScript?



8 reasons Why you need to use React.js?



React vs Vue vs Angular: Which is the best framework for your project?



Vite Vs create-react-app: Which is the best tool for your project?



Build an App and Master React.js

Master React.js



[Build and Deploy a Modern GPT-3 Website in React.js](#)



[React Hooks Guide](#)



[React Component Lifecycle methods with Hooks](#)



[Learn Custom Hooks and Build a Project](#)



[Complete guide to Refs in React](#)



[Build and Deploy a Modern Restaurant website in React.js](#)

Master React.js



[Build and Deploy a Modern Fitness Exercises website in React.js](#)



[Build and Deploy Google Search 2.0 with Tailwind CSS](#)



[React State Management Tools: Redux vs Mobx vs Recoil](#)



[A deep dive into React Context API with examples](#)



[Brain-friendly guide to Redux](#)



[Redux Vs React Context: Which should you use?](#)

Master React.js



[Build and Deploy a Full stack Social Media App with React & Sanity.io](#)



[Build and Deploy a Full stack Portfolio](#)



[Build and Deploy a Modern Website](#)



[Build and Deploy a Real-time React Admin Dashboard](#)



[Build and Deploy a Full Stack Social Media App | React JS, Appwrite](#)



[Build and Deploy an Amazing 3D Developer Portfolio with Three.js](#)

React Resources



React Resources

Keep up with the growing React ecosystem! It cover the latest learning resources, libraries...



<https://reactresources.com/>



React Bits

A compilation of React Patterns, techniques, tips and tricks.



<https://vasanthk.gitbooks.io/react-bits>



Reactjs Official Website

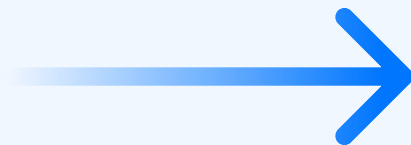
React documentation and related resources.



<https://reactjs.org/>



Next.js Roadmap



Master Next.js

 Next.js 14 Full Course 2024 | Build and Deploy a Full Stack App Using Next.js

 React Foundations

 Learn about the Next.js architecture and how it works under the hood.

 File Based Routing

 Styling in Next.js

 Data Fetching

 SEO and Metadata

 Build and Deploy a Car Rental App

Master Next.js



[Build and Deploy a Dribbble Clone](#)



[How to implement authentication](#)



[API Routes in Next.js](#)



[Build and Deploy a Threads Clone](#)



[Server Actions in Next.js 14](#)



[Build and Deploy an E-Commerce App](#)



[Fetching data faster with the Next.js App Router](#)



[When to use Server and Client Components](#)

Master Next.js



Build and Deploy a Full Stack Next 14 Events App with Next.js 14 & Stripe



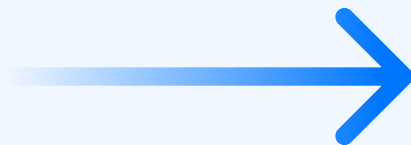
Build and Deploy a Figma Clone



Build and Deploy a Full Stack AI SaaS Platform with Next js 14, TS, Stripe



More Resources



Challenges

It might also be a good idea to do a little practicing before moving on.

If you want something fresh to work on, now would be a fine time to do some coding exercises from across the net.

The following sites are all great places to look:



LeetCode



<https://leetcode.com/>



Coderbyte



<https://coderbyte.com/>

Challenges



Exercism



<https://exercism.org/>



Codewars



<https://codewars.com/>



CodeChef



<https://www.codechef.com/>



Hacker Rank



<https://www.hackerrank.com/>

Challenges

The developer's life is a life of challenges (& bugs, haha). To keep up with trends, we have to challenge ourselves constantly. For that, use:

CSS Battle

Battleground to improve, tighten CSS skills

 <https://cssbattle.dev/>

Frontend Mentor

Develop, practice & compete to code a frontend website from its design file.

 <https://frontendmentor.io/>

Guides

Covers valuable cheat sheets, guides and great tutorials on tech stuff.



DevDocs

Pragmatic information on almost every language.

 <https://devdocs.io/>



DevHints

Beautiful cheatsheets comprising many languages.

 <https://devhints.io/>

Guides



GitSheets

A dead simple git cheatsheet.

<https://gitsheet.wtf/>



30secondsofcode

Provides short code snippet mainly featuring JavaScript.

<https://30secondsofcode.org/>



OverAPI

A site collecting all the cheatsheets, all!

<https://overapi.com/>

Useful GitHub Repos



[Freely available programming books](#)



[A collection of tips to improve CSS skills](#)



[Lists about all kinds of interesting topics](#)



[A collective list of free APIs](#)



[Short JavaScript code snippets](#)



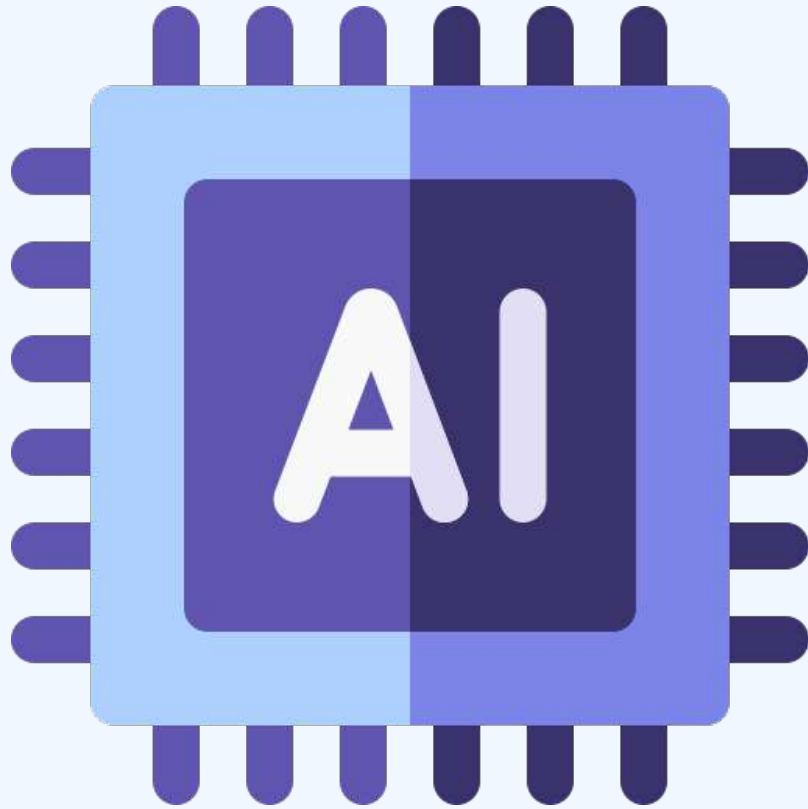
[A Collection of app ideas to improve](#)



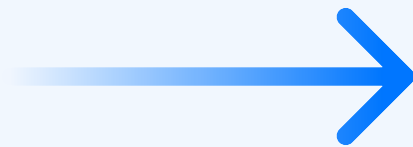
[33 JavaScript concepts every developer should know.](#)



[Algorithms and DS implemented in JavaScript with explanations](#)



Best AI tools



AI Tools

AI tools that can streamline your web development process.



GPT-4 by OpenAI

It's a valuable tool for content creation, helping developers and writers create high-quality content for their websites.



<https://openai.com/gpt-4>



GitHub Copilot

It's one of the best AI tools for bug fixing, learning new languages, and accelerating the coding process overall.



<https://github.com/features/copilot>

AI Tools

CopyAI

Useful to generate high-quality content that is optimized for search results.

 <http://copy.ai/>

Wordlift

It help web developers improve the visibility and SEO performance of their website content

 <https://wordlift.io/>

AI Tools



Mintlify

It scans code and generates documentation to explain it. Since it uses AI, its work is pretty good

<https://mintlify.com/>

✖ Testim – Tricentis

It optimizes & accelerates end-to-end testing. It covers a range of capabilities, including risk-based testing, GUI, design testing and more.

<https://tricentis.com>

AI Tools



ClickUp

ClickUp is a game-changer for software teams, offering a range of innovative tools to enhance work efficiency

<https://clickup.com/>



Stepsize

It's a collaborative tool designed to help you stay updated on your product engineering team's activities and achievements. It serves as a project historian and task manager

<https://stepsize.com/>

AI Tools



Synk

It's a code analysis tool that can help devs find security vulnerabilities and open-source licence compliance issues in their code.

<https://snyk.io/>

Otter AI

It's an AI-powered meeting transcription tool that can help developers transcribe their meetings and collaborate more effectively.

<https://otter.ai/>

...before you go

Ready to take your web development skills to the next level? Dive into our exclusive Next.js course to turn your roadmap into hands-on expertise.

If you're eager to dive deep into something this specific and build substantial projects, our [special course on Next.js](#) has got you covered.

The Ultimate Next 14 Course



It teaches everything from the ground up, providing a hands-on experience that goes beyond this.

Check it out and take your skills to the next level 🚀