2024 Backend Roadmap

By Web Dev Simplified https://courses.webdevsimplified.com

Each section, and all the items listed in each section, of this roadmap are listed in the order that you should learn them.

Each section also includes projects that you can complete in any order that require only the skills learned in that section and the sections prior.

Backend Language - (Choose Any)

JavaScript (Recommended If Also Learning Frontend)

Python (Recommended If Also Learning AI)

PHP (Recommended If Also Learning Wordpress)

C#

Rust (Difficult To Learn)

Ruby (Easier To Learn But Not Used As Much)

Backend Framework - (Choose Any)

JavaScript

Node.js With Express (Recommended)
Deno (Newer So Not As Popular)

PHP

Laravel (Recommended)
Wordpress (Also Recommended)
CodeIgniter

Python

Django (Recommended)
Flask

C#

.NET (Recommended)

Rust

Rocket (Recommended)

Ruby

Rails (Recommended)

Node.js/Express - [JavaScript Course Node.js Course](#)

Var vs Let vs Const - [Video](#) [Article](#)

Function Basics - [Video](#)

Callbacks - [Video](#) [Article](#)

Arrow Functions - [Video](#) [Article](#)

Hoisting - [Video](#) [Article](#)

Scoping - [Article](#)

Closures - [Video](#)

Strict Equality - [Video](#) [Article](#)

Objects/Arrays - [Array Video](#)

Reference Vs Value - [Video](#) [Article](#)

Control Flow (If, Loops, etc.)

Promises - [Video](#) [Article](#)

Async Await - [Video](#) [Article](#)

Callbacks - [Article](#) [Related Video](#)

Promises - [Video](#)

Async Await - [Video](#)

Common Modules - [Article](#)

Null Vs Undefined - [Video](#) [Article](#)

Recursion - [Video](#) [Article](#)

Array Methods - [Video](#) [Advanced Video](#)

Template Literals - [Video](#) [Advanced Video](#) [Article](#)

Destructoring/Spread Operator - [Video](#) [Article](#)

Node.js File System Libary

Express Middleware - [Video](#) [Article](#)

Express Routing - [Video](#)

Templating Language (EJS, Handlebars, Pug, etc.)

Projects (May Require A Database)

Easy

Basic Node.js Server - [Video](#)
Basic REST API - [Video](#)
URL Shortener - [Video](#)
Hastebin Clone - [Video](#)
Paginated API - [Video](#)
Discord Bot - [Video](#)
Basic Chrome Extension - [Video](#)

Medium

Amazon Web Scraper - [Video](#)
JSON Web Token Auth - [Video](#)
User Permission Role - [Video](#)
Passport Auth - [Video](#)
Custom Auth - [Video](#)
Stripe Payments - [Video](#) [Article](#)
PayPal Payments - [Video](#)
Google Docs Clone - [Video](#)
Password Protected File Sharing - [Video](#)

Hard

Markdown Blog - [Video](#)
Reddit Clone - [Video](#)
Realtime Chat App - [Video 1](#) [Video 2](#)

Databases - [SQL vs NoSQL Video](#)

SQL

PostgreSQL (Recommended)
MySQL (Also Recommended) - [Install Video](#) [Tutorial Video](#)
SQLite

NoSQL

MongoDB (Recommended) - [Tutorial Video](#) [Cheat Sheet](#)
Redis (Recommended For Caching)
Cassandra
DynamoDB (Recommended If Working With AWS)

TypeScript - [Course](#)

TSConfig

Type Inference

Array Type

Any/Unknown Type - [Video](#)

Type vs Interfaces - [Video](#)

Functions

Unions/Intersections

readonly/keyof/typeof

As Const/Enums

Tuples

Generics - [Video](#)

Built In Types (Pick, Omit, etc.)

Type Guards

Satisfies

Discriminated Union - [Video](#)

Function Overloads

Type Predicate - [Video](#)

Declaration Files

Projects

Easy

Image Slider - [Video](#)
Todo List - [Video](#)
Typing Effect Animation - [Video](#)
Hangman Clone - [Video](#)

Medium

Custom Select Component - [Video](#)
Advanced Note Taking App - [Video](#)
Multistep Form - [Video](#)
Shopping Cart - [Video](#)

Hard

Facebook Messenger Clone - [Video](#)
YouTube Home Page Clone - [Video](#)
Twitter Clone - [Video](#)

Next.js - (Optional) - [Course](#)

App Router

Folder Based Routing

Metadata/SEO

Server vs Client Components - [Article](#)

Data Fetching

Loading/Error Pages

Dynamic Routes

Data Cache/Request Memoization/Full Route Cache/Router Cache

Dynamic vs Static Pages

Dynamic Functions

Server Actions - [Video](#)

useOptimistic/useFormState/useFormStatus

Parallel Routes/Intercepting Routes - [Parallel Routes Video](#)

Route Handlers

Pages Directory

Page Based Routing

CSR vs SSR vs SSG vs ISR - [Video](#)

getServerSideProps/getStaticProps/getStaticPaths/getInitialProps

API Routes

Projects

App Router
Todo List - [Video](#)
Pages Directory
Twitter Clone - [Video](#)

Other Important Topics

Version Control (Learn As Soon As Possible) - [Video](#) [Advanced Video](#) [Advanced Article](#)

JSON (Learn Alongside JavaScript) - [Video](#)

Regular Expressions (Optional) - [Video](#)

How To Deploy

Basic Security - [What Is JWT Video](#)

Authentication - [Basic Auth Video](#) [Password Auth Video](#) [JWT Auth Video](#) [Email Only Auth Video](#)

Testing - [Video](#) [Test Driven Development Video](#) [Vitest Video](#)