Back-End Developer Roadmap

Muddassir Ali Rana

Back-End Developer Roadmap

Starting with web development can be overwhelming. This back-end developer roadmap will guide you to start with it in the proper way. We will cover the most important building blocks of the web. This guide will help you to become a modern back-end developer.

Learn Basic Front-End Dev

You must know basics of front-end development, and how things work in the browser.

HTML

CSS

JavaScript

Once you know basic front-end, you can then jump right into learning a programming language, there are so many options of programming language that you can learn to become a backend developer.

Note: You don't need to know multiple programming languages to become a backend developer.

Choose a Programming language

JS **JavaScript**

Python

php **PHP**

Ruby

Rust

Java

GO Go Lang

Then choose a Framework according to your programming language

<Muddassir />

JS JavaScript

JavaScript Runtime

- Node.js
- Deno

Node.js Popular Framework

ex Express.js

Nest.js

Fastify

Sails

Hapi

Restify

koa Koa

Python Popular Framework

Django

Flask

PHP Popular Framework

Laravel

Symfony

Ruby

Popular Framework

Rails

Sinatra

Java

Popular Framework

Spring

Google Web Toolkit

Rust

Popular Framework

Rocket
Rocket.rs

GO

Popular Framework

Gin

ASP .NET

asp.net is also a popular framework of C#

Backend concepts you should learn

📌 HTTP / HTTPS

📌 REST

📌 GraphQL

📌 Web Sockets

📌 CORS

📌 MVC Architecture

📌 CI / CD

📌 Serverless

Learn about databases

2 Types of Databases

SQL **NoSQL**

MySQL   MongoDB

PostgreSQL   CouchDB

SQL Lite   DynamoDB

Learn Caching

- Redis

- Memcached

ORM / ODM

- Mongoose (MongoDB)

- Prisma (SQL)

- Sequelize (SQL)

Essential things to learn

- Authentication

- OAuth

- Hashing (bcrypt)

- Rate Limiting

- Reverse proxy

- Load balancer

- Documentation (Swagger)

Learn any HTML Templating Engine

⭐ EJS

PUG

Handlebars

doT

Jade

η Eta

Other Important Topics

🐧 Linux

▸_ Terminal (CLI)

◆ Git

🌐 Basic Networking

🛡️ Web Security

💳 Payment Gateways

⚙️ Testing

Learn to deploy and learn any cloud service

⭐ 🔵 Google Cloud

⭐ 🔵 Digital Ocean

⭐ aws AWS

🔷 Azure

🟣 Heroku

🟩 Linode

▲ Vercel

Optional things to learn

Docker

Performance

Scalability

Kubernetes

Tools to learn as a backend developer

NPM   NPM

Yarn   Yarn

Postman   Postman

Insomnia   Insomnia

GitHub   GitHub

Project Ideas

Social Media Web App

Chat App

Video Chat App

REST API

Amazon Scraper API

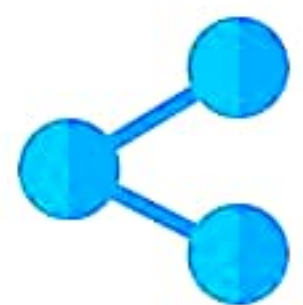Web Scraper

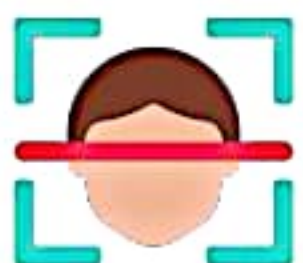URL Shortner

CRUD Blog App

Project Ideas

Discord Clone **with webRTC**

Travel Log App

File Sharing App

Users System

Multiplayer Game

Gist Clone

Weather Logger

Ecommerce API