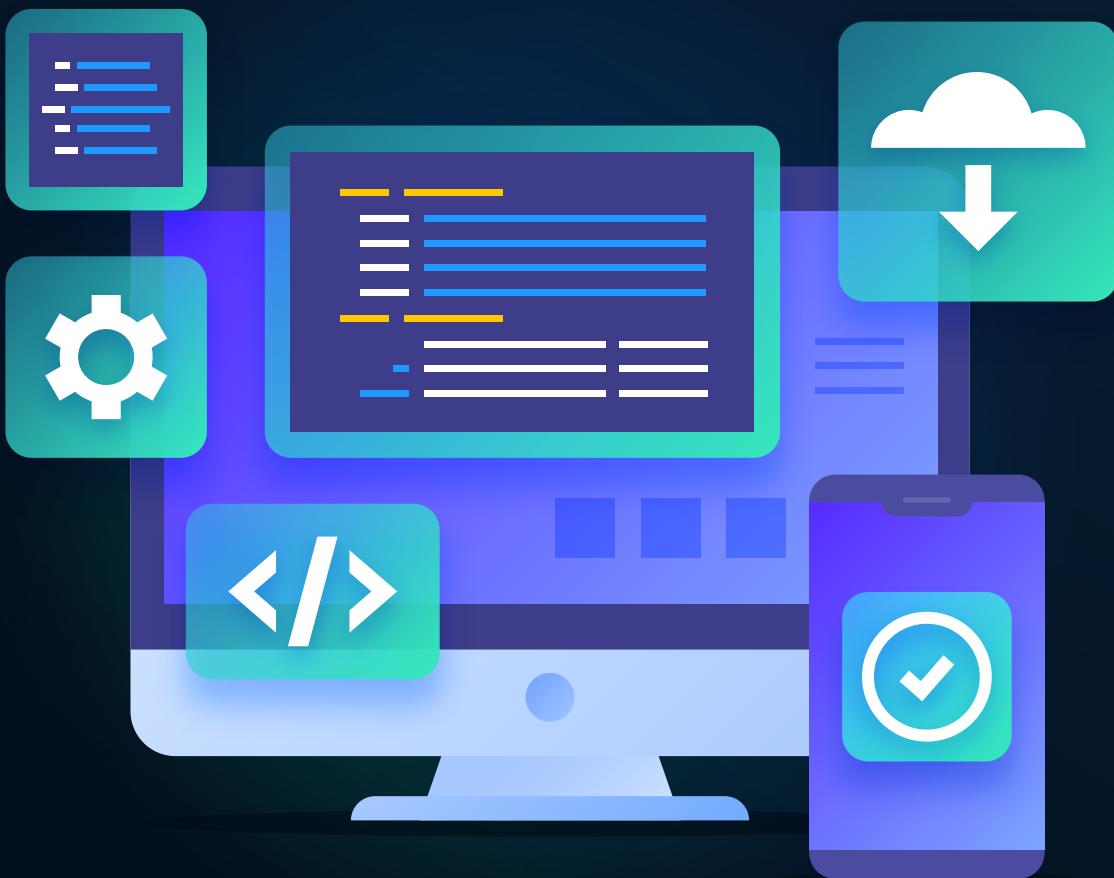




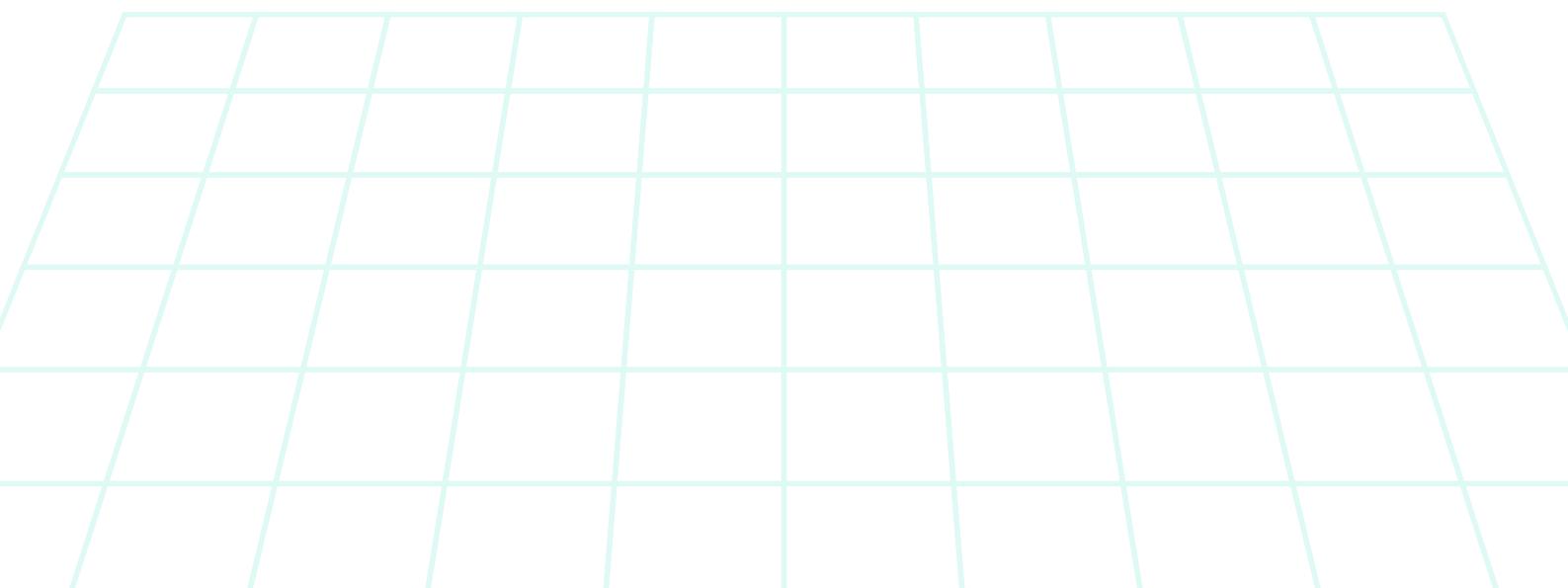
Backend Dev Roadmap

Visit softyeducation.com to elevate your skills with live training.



CREATED BY SOFTY EDUCATION

Starting with **backend development** can be overwhelming. This roadmap will guide you through the key concepts and technologies to become a skilled backend developer, covering databases, backend languages, API design, and more.



CHOOSE A BACKEND LANGUAGE

Pick a language to build backend services:

- ▶ **JavaScript (Node.js)**



- ▶ **Python (Django, Flask)**



- ▶ **Java (Spring Boot)**



- ▶ **Go (Gin, Fiber)**



- ▶ **C# (.Net)**



LEARN VERSION CONTROL & PACKAGE MANAGEMENT

- ▶ Git & Github
- ▶ NPM / Yarn



MASTER DATABASES & SQL

Essential for backend development:

- ▶ **SQL Databases: PostgreSQL, MySQL, SQLite**
- ▶ **NoSQL Databases: MongoDB, Redis**
- ▶ **Advanced SQL: Joins, Indexing, Transactions, Optimization**
- ▶ **ORMs & Query Builders**



BUILD RESTful APIs

Learn API design and architecture:

- ▶ **HTTP Methods (GET, POST, PUT, DELETE)**
- ▶ **REST Principles & Best Practices**
- ▶ **Authentication & Authorization (JWT, OAuth)**
- ▶ **Rate Limiting & Caching**
- ▶ **Pagination & Filtering**
- ▶ **API Documentation (Swagger, Postman)**



CLEAN CODE PRINCIPLES

Write maintainable code:

- ▶ Follow SOLID principles
- ▶ Keep functions small
- ▶ Avoid duplication (DRY)
- ▶ Use meaningful names
- ▶ Write clear comments
- ▶ Refactor regularly

TESTING & DEBUGGING

Ensure reliability:

- ▶ Unit & Integration Testing (Jest, Mocha, PyTest)



- ▶ API Testing (Postman, Supertest)



- ▶ Debugging Tools & Logging

LEARN DEVOPS & DEPLOYMENT BASICS

Deploy and manage applications:

- ▶ Version Control: Git, GitHub/GitLab   
- ▶ Containerization: Docker, Kubernetes  
- ▶ CI/CD Pipelines: GitHub Actions, GitLab CI/CD, Jenkins 
- ▶ Cloud Services: AWS, Google Cloud,   DigitalOcean 
- ▶ Monitoring & Logging: Prometheus, Grafana, ELK Stack   

ADDITIONAL BACKEND CONCEPTS

- ▶ Microservices & Monolith Architecture
- ▶ Serverless Computing
- ▶ WebSockets & Real-Time Data
- ▶ Background Jobs & Task Scheduling
- ▶ Message Queues
(RabbitMQ, Kafka, Redis Pub/Sub)   

BUILD REAL PROJECTS

Apply your knowledge:

- ▶ Authentication System
- ▶ Blog Platform with Role-Based Access
- ▶ E-commerce API
- ▶ Chat Application
- ▶ URL Shortener

ADVANCE YOUR CAREER

At Softy Education, we guide you to master backend technologies, build real-world projects, and prepare for high-paying roles. Join our courses to gain hands-on experience in modern

Visit **Softy Education** today to start learning!

The screenshot shows the Softy Education website's "Bootcamp Program" section. At the top, there's a navigation bar with links for Welcome, Course, Bootcamps, Resources, About Us, and a blue "Register" button. Below the navigation, the title "Bootcamp Program" is centered, with a subtext "Transform your career with our intensive bootcamp! Designed for those who want to dive deep into the world of technology." A large callout box on the left is titled "Become a Backend Developer". It contains the text "Join our Backend Bootcamp today and start mastering the skills needed to build powerful, scalable server applications!", followed by course details: "3 months", "100 hours", "Certified course", and "Face-to-face / Online". It also features a yellow "Register now!" button and a note about the "Next session: March 1, 2025". To the right of the callout is a photograph of a person's hands typing on a laptop keyboard, with a water bottle and some papers visible on the desk.