

Backend Development Program



Duration: 4 Months (16 Weeks)

Mode: Physical & Virtual

Summary

Master how to build, secure, and deploy powerful server-side applications that keep the web running — from APIs to databases and everything in between

Course Overview

The **Cirvee Backend Development Program** takes you behind the scenes of the web — where logic, performance, and data power every digital experience. You'll learn to design and manage the core systems that make apps work, from building APIs to handling authentication, databases, and real-time features.

Using tools like Node.js, Express, PostgreSQL, and MongoDB, you'll gain the skills needed to create scalable applications for real businesses. Each module blends theory with projects, helping you write clean, secure, and production-ready code.

You'll also explore CI/CD pipelines, caching, and deployment workflows that reflect what top tech teams do globally.

By the end of the 16 weeks, you'll have deployed multiple backend projects, built a professional portfolio, and become confident enough to work as an API engineer or backend developer anywhere in the world.

Modules Overview

01. Introduction to Backend & Web Foundations

Understand how backend systems work and how they connect with the frontend.

02. Environment Setup & Version Control

Set up Node.js, Git, and GitHub for real-world collaboration.

03. JavaScript for Backend (Core Concepts)

Master asynchronous programming, loops, and modules for backend logic.

04. Node.js Fundamentals

Build servers and manage files using Node.js core modules.

05. Express.js Essentials

Develop scalable APIs with Express and middleware configuration.

06. API Design & Validation

Learn RESTful design patterns and validate data securely.

07. Databases I – Relational (PostgreSQL)

Design and query SQL databases for structured applications.

08. Databases II – NoSQL (MongoDB)

Use MongoDB for flexible, document-based data storage.

09. Authentication & Authorization

Implement JWT authentication and role-based access control.

10. Testing & Documentation

Write unit tests and generate API documentation using Swagger.

11. Deployment & CI/CD

Deploy apps using Render or Railway and automate workflows with GitHub Actions.

12. Performance & Scalability

Improve app speed with Redis caching and query optimization.

13. Real-Time & Background Processing

Create real-time notifications and background jobs with Socket.io.

Modules Overview

14. Architecture & Patterns

Organize code using the MVC pattern and clean architecture principles.

15. Capstone Project – Planning & Design

Plan and design your final project with real client-style requirements.

16. Capstone Project – Build & Presentation

Build, deploy, and present your live backend application.

Career Opportunities

After this program, you can work as a:

Backend Developer

API Engineer

DevOps/Infrastructure Trainee

Full Stack Developer
(with frontend extension)

Software Engineer

Cloud Deployment Associate



Stay Cirvee Tip

“Don’t just write code that works — write code that makes sense. That’s what separates a beginner from a Cirveefied engineer.”

Contact Us

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 “Cirvee” on google map

 www.cirvee.com

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