

Cirvee

# 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

📞 07047007055

📍 "Cirvee" on google map

🌐 [www.cirvee.com](http://www.cirvee.com)

## Stay Connected

📷 @cirvee

🎵 @hellocirvee

📺 Cirvee Academy

🌐 Cirvee