

Node.js Development Course

Course Overview

The **Node.js Development Course** is a comprehensive, job-oriented program designed to help students build fast, scalable, and secure backend applications using Node.js. This course covers JavaScript runtime concepts, Express.js, REST APIs, MongoDB integration, authentication, file handling, JWT, deployment, and real-world backend projects. By the end of the course, students will be able to develop complete backend applications and RESTful APIs for modern web and mobile applications.

Course Duration

- **Duration:** 2.5 Months
 - **Mode:** Online / Offline
 - **Classes:** 5 Days per Week
 - **Live Projects:** 8+
 - **Assignments:** 50+
 - **Certificate:** Included
 - **Placement Assistance:** Included
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Course Fee

₹8,500/- Only

Course Modules

Module	Topics Covered
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Module 1	Node.js Fundamentals
Module 2	Express.js Framework
Module 3	MongoDB & Mongoose
Module 4	REST API Development
Module 5	Authentication & Authorization
Module 6	Advanced Node.js
Module 7	Deployment & Live Projects

Detailed Course Content

Module 1: Node.js Fundamentals

- Introduction to Node.js
 - Installing Node.js & npm
 - Node.js Architecture
 - Event Loop
 - Modules
 - Package Management (npm)
 - File System (FS Module)
 - Path Module
 - OS Module
 - Events Module
 - Streams & Buffers
 - Creating a Simple HTTP Server
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Module 2: Express.js Framework

- Introduction to Express.js
- Express Application Structure
- Routing
- Route Parameters



- Middleware
 - Request & Response Objects
 - Static Files
 - Express Router
 - Error Handling Middleware
 - MVC Project Structure
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Module 3: MongoDB & Mongoose

- Introduction to MongoDB
 - Installing MongoDB
 - CRUD Operations
 - MongoDB Compass
 - Mongoose ODM
 - Schemas & Models
 - Relationships
 - Validation
 - Indexing
 - Aggregation Basics
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Module 4: REST API Development

- REST Architecture
 - HTTP Methods
 - CRUD API Development
 - API Testing with Postman
 - Query Parameters
 - Pagination
 - Filtering
 - Searching
 - API Versioning
 - Error Handling
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Module 5: Authentication & Authorization



- User Registration
 - Login System
 - Password Hashing (bcrypt)
 - JWT Authentication
 - Protected Routes
 - Role-Based Authorization
 - Refresh Tokens
 - Session Management
 - Security Best Practices
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Module 7: Advanced Node.js

- Async Programming
 - Promises
 - Async/Await
 - Event Emitter
 - Streams
 - Error Handling
 - Logging
 - CORS
 - Security with Helmet
 - Performance Optimization
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Module 8: Deployment & Live Projects

- Environment Configuration
 - Git & GitHub
 - Render Deployment
 - Railway Deployment
 - API Documentation (Swagger)
 - Project Structure
 - Best Practices
 - Interview Preparation
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Technologies Covered

- Node.js
 - Express.js
 - JavaScript (ES6+)
 - MongoDB
 - Mongoose
 - REST API
 - JWT
 - bcrypt
 - Multer
 - Nodemailer
 - Postman
 - Swagger
 - npm
 - Git & GitHub
 - Render
 - Railway
 - Cloudinary
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Live Projects

- Student Management System API
 - Employee Management System
 - E-Commerce Backend API
 - Authentication System
 - Blog Management API
 - Inventory Management System
 - Task Management API
 - URL Shortener API
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Career Opportunities

After completing this course, students can apply for roles such as:



- Node.js Developer
 - Backend Developer
 - Express.js Developer
 - API Developer
 - JavaScript Backend Developer
 - Full Stack Developer (MERN)
 - Software Developer
 - Backend Engineer
 - Web Application Developer
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Prerequisites

- Basic HTML & CSS Knowledge
 - Basic JavaScript Knowledge (ES6 Preferred)
 - Basic Database Knowledge (Optional)
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Certification

Upon successful completion of the course, students will receive:

- Node.js Development Course Completion Certificate
- Live Project Certificate
- Internship Certificate (*if applicable*)
- Placement Assistance & Interview Preparation Support