

Node.js Beginner Tracker (Roadmap + Checklist + Explanation + Projects)

Goal: Backend Developer ban'na ya apne full-stack project ka backend banana

Phase 1: Node.js Basics

- [] What is Node.js? JavaScript ka engine jo browser ke bahar chalta hai (server side)
- [] Installing Node & npm Node and npm setup in your system
- [] Your First Server `http` module se basic server banana
- [] Core Modules fs, path, os, url etc. ka use kaise hota hai
- [] npm & package.json Packages install karna, scripts banana
- [] ES Modules vs CommonJS `import/export` vs `require/module.exports`

Phase 2: Express.js Framework

- [] Installing Express Minimal web framework for Node.js
- [] Middleware Functions between request & response
- [] Routes & Router URL handle karne ke liye routes
- [] Request & Response req.body, req.params, req.query, res.send
- [] Error Handling Try/catch + next()

Phase 3: REST API Development

- [] CRUD Operations Create, Read, Update, Delete APIs
- [] MongoDB with Mongoose Database se connect karna, schema banana
- [] MVC Pattern Code structure maintain karna
- [] Postman Testing API test karna without frontend

Phase 4: Advanced Topics

- [] Authentication with JWT Login/Signup token based

- [] Hashing with bcrypt Password secure karna
- [] File Uploads with Multer Avatar/image upload
- [] Cloudinary Integration Store images online
- [] Environment Variables (.env) Secrets safe rakhna

Phase 5: Production Ready API

- [] Deployment on Render/Vercel Live server deploy karna
- [] CORS, Security Headers Secure APIs
- [] Logging & Debugging Logs banana, errors trace karna

Bonus Tools:

- Nodemon (auto restart server)
- Dotenv (.env file)
- MongoDB Atlas
- Postman
- Git + GitHub

Final Capstone Project:

"Book Store REST API"

Features: Auth (JWT), CRUD books, upload cover image, Cloudinary, role-based access, deploy on Render