

# 10-Day Node.js Learning Plan

## Day 1: Node.js Basics

- What is Node.js?
- Install Node.js + npm
- Run your first `.js` file
- REPL & basic modules

*Practice: Create a `hello.js` and print a message*

## Day 2: Core Modules

- `fs`, `path`, `os`, `http`, `events`
- Create a simple HTTP server

*Practice: Build a basic server that returns "Welcome to Node"*

## Day 3: Modules & NPM

- `require`, `module.exports`
- `npm init`, install external packages (e.g. `lodash`)

*Practice: Create your own module and import it*

## Day 4: Asynchronous JS

- Callbacks
- Promises
- `async/await`

*Practice: Read/write files with `fs.promises`*

## Day 5: Express.js

- Setup Express
- Routes (GET, POST)
- Middleware basics

*Practice: Build a small app with 3 routes*

## Day 6: REST API

- CRUD operations

- URL params, query params
- Status codes

*Practice: Build a simple student API (add, get, update, delete)*

## **Day 7: MongoDB + Mongoose**

- Setup MongoDB (Compass or Atlas)
- Connect via Mongoose
- Schema & Model

*Practice: Connect student API to MongoDB*

## **Day 8: Authentication**

- JWT basics
- bcrypt for password hashing
- Login/Register routes

*Practice: Build Auth API (register & login)*

## **Day 9: File Uploads & Errors**

- `multer` for uploads
- Error handling middleware
- `try-catch` blocks

*Practice: Upload profile image API + error handler*

## **Day 10: Deployment**

- Use Render/Railway
- `.env` usage
- Deploy your project online

*Practice: Deploy your student API project*