15 Days - Fundamentals of Backend Development

Module 1: Introduction to Backend Development (1 Day)

- Role of Backend in Web Development
- Introduction to Server, Client, and APIs
- Overview of Backend Technologies (Node.js, Python, PHP, etc.)

Module 2: Setting up the Environment (2 Days)

- Installing and configuring Node.js
- Introduction to Postman for API Testing

Module 3: Basics of Node.js and JavaScript for Backend (4 Days)

- Core concepts: Modules, Events, and Streams
- Creating a basic server with Node.js

Module 4: Introduction to Databases (3 Days)

- Basics of Databases: SQL vs NoSQL
- Setting up MongoDB and MySQL

Module 5: Building Simple APIs (5 Days)

- Creating RESTful APIs with Node.js and Express.js
- Handling routes and requests

30 Days - Intermediate Backend Development

Includes All 15-Day Modules

Module 6: Advanced Node.js Concepts (5 Days)

- Middleware in Express.js
- Error Handling and Logging

Module 7: Database Operations (5 Days)

- Advanced CRUD operations in MongoDB
- MySQL joins and queries

Module 8: Authentication and Authorization (5 Days)

- Session-based Authentication
- JWT (JSON Web Tokens)

Module 9: Deployment Basics (2 Days)

- Hosting on Platforms like Heroku and AWS
- Environment Variables and Config Management

Module 10: Intermediate Project (5 Days)

• Build an API-based application with a connected database