# **Backend Developer Task: User Authentication & Task Management System**

## **Objective**

Build a secure and scalable backend API using Node.js that includes:

- 1. User authentication with JWT
- 2. Email OTP verification during registration using nodemailer
- 3. Proper validation (backend-side)
- 4. Task management (CRUD operations)

## **Tech Stack Requirements**

- Node.js
- Express.js
- MongoDB (with Mongoose) or MySQL (with Sequelize or other ORM)
- Nodemailer (for email)
- JWT (for auth)
- bcrypt (for password hashing)
- dotenv (for managing environment variables)
- Optional: Postman collection

#### **Modules to Implement**

- 1. User Module
- Register: name, email, password. Send 6-digit OTP to email. Save as unverified.
- Verify OTP: email + OTP to verify and mark user as verified
- Login: Only allow if verified. Return JWT token
- Resend OTP
- Logout
- 2. Authentication & Middleware
- Use JWT and protect routes
- 3. Task Module (Logged-in Users Only)

# **Backend Developer Task: User Authentication & Task Management System**

- Create Task: title, description, status (pending, in-progress, completed)
- Get All Tasks
- Get Single Task
- Update Task
- Delete Task

#### **Validation**

- Use express-validator or joi
- Validate email format, password strength, and required fields

# **Folder Structure Suggestion**

project/

??? controllers/

??? models/

??? routes/

??? middlewares/

??? utils/

??? config/

??? app.js

??? .env

## **Bonus (Optional)**

- Pagination on task list
- Sorting/filtering tasks
- Forgot password via OTP
- Dockerize the project

## **Submission Requirements**

- GitHub repo with README

# **Backend Developer Task: User Authentication & Task Management System**

- Include Postman collection
- Setup instructions in README