**Project Details: User Management API** 

Project Id: B45YUHMI89B

**Project Overview:** 

You are tasked with developing a User Management API that includes features such as user

registration, login, user profile management, and OTP-based login. This API will serve as the backend

for a web application. Additionally, after a user successfully signs up, an email confirmation will be

sent.

Tech Stack:

Backend: Node.js (Express.js)

• Frontend: React.js/Next.js

• Database: MongoDB (or any database of your choice)

• Email Service: Node-mailer (or any other suitable library)

**Project Tasks:** 

1.Backend Development:

• Use Node.js with Express.js to create the backend server.

Design the database schema for users.

Implement CRUD operations and endpoints for user management.

Include secure user registration and login functionality.

2. User Registration:

 Implement a signup endpoint that accepts user details and stores them securely in the database

• Generate and send an OTP (One-Time Password) to the user's email for verification.

3. OTP-Based Login:

Create an endpoint for OTP-based login.

• Validate the received OTP and authenticate the user.

4. User Profile Management:

• Implement endpoints for fetching and updating user profiles.

#### 5. Email Confirmation:

- Send a confirmation email to the user after successful signup.
- Include a link or OTP for the user to confirm their email address.

# 6. Frontend Integration:

- Create a React.js application that interacts with the backend API.
- Implement user interfaces for signup, login, profile management, etc.
- Ensure smooth integration with the backend endpoints.

## 7. GitHub Repository:

- Push your code to a GitHub repository.
- Keep your repository well-organized with clear folder structures.

# **Documentation: (Optional)**

### 1. Code Documentation:

- Add inline comments explaining your code logic.
- Use descriptive variable and function names.
- Consider generating API documentation using tools like Swagger.

### 2.Setup Instructions:

- Provide clear instructions on setting up the development environment.
- Include details on installing dependencies and running the application.

### 3.API Usage Guide:

- Document the available endpoints and their functionalities.
- Include examples of API requests and responses.

### 4. Frontend Integration Guide:

- Guide on how to integrate the frontend with the backend API.
- Include details on how to handle authentication in the frontend.

### Submission:

- Share the link to your GitHub repository.
- Provide documentation in a separate document or within the repository.

### Timeline:

- Planning and Analysis: 3 days

- Design and Concept Development: 5 days

- Implementation: 12 days

- Testing and Optimization: 3 days

- Documentation (Optional): 2 days

Note: The timeline is adjusted to complete the project within 25 days.

Feel free to let me know if you need further clarification or assistance with any aspect of the project! <a href="mailto:internship.innobyteservices@gmail.com">internship.innobyteservices@gmail.com</a>

Task Submission Link: <a href="https://forms.gle/KBqjYVUqG8zXX9zy8">https://forms.gle/KBqjYVUqG8zXX9zy8</a>