

Mini Project

Technology Stack: FastAPI

Objective:

Develop a FastAPI-based Python project with asynchronous functions for seamless performance. The project involves user registration, authentication using JWT tokens, and integration with OpenAI for streaming question and answering sessions. Additionally, a database (MySQL or MongoDB) will be utilised for persistent user data storage.

Key Features:

1. User Registration and Login:

- Collect user details including name, email, mobile, and about information.

2. User Authentication:

- Implement JWT token-based authentication for secure API access.

3. API Endpoints:

- Get User Info:
 - Fetch user information using the provided JWT token.
- Edit Profile:
 - Allow users to modify their name, email, mobile, and about details.
- OpenAI Integration with Streaming:
 - Establish a connection with OpenAI for streaming question and answering sessions.
 - Create and manage conversations with question and answer sessions.
 - Enable real-time response streaming for a chat-like interaction.

4. Database Integration:

- Choose between MySQL or MongoDB for persistent storage of user data.

5. Deployment:

- Deploy the FastAPI project on a cloud platform such as AWS or Azure for accessibility.
- Ensure the deployment includes necessary configurations for scalability and reliability.

6. Deliverables:

1. Provide access to the GitHub repository containing the project code.
2. Deploy the project on AWS or Azure, and furnish the link for access.
3. Include detailed documentation for setup, configuration, and API usage.

Note to Candidates:

- The project should utilise asynchronous functions for enhanced performance.
- Ensure the project code adheres to best practices and follows FastAPI conventions.
- Emphasise the security of user data through proper authentication mechanisms.
- Document the code comprehensively, providing clear instructions for project setup and usage.

This mini project is designed to assess your proficiency in FastAPI, asynchronous programming, database integration, and cloud deployment, along with your ability to create a well-documented and secure web application. Good luck!