

Intro

The FastAPI Lead Management Application is a web-based system designed to manage leads effectively. It allows users to create, retrieve, and update lead information via a RESTful API. The application is built using the FastAPI framework, PostgreSQL database, and incorporates basic HTTP authentication for secure access.

System Architecture

- FastAPI Server: Handles incoming HTTP requests, performs data processing, and sends responses.
- PostgreSQL Database: Stores lead information

Database Schema

Lead Table:

- id: Integer (Primary Key, Auto-increment)
- first_name: String
- last_name: String
- email: String
- resume: String (File path)
- state: String (Lead state, e.g., PENDING, REACHED_OUT)

API Endpoints

POST /leads/: Create a new lead.

GET /leads/: Retrieve leads by person (first name and last name).

PUT /leads/{lead_id}: Update lead information.

Authentication

The application implements basic HTTP authentication to protect certain endpoints (GET /leads/ and PUT /leads/{lead_id}). Users are required to provide a username and password to access these endpoints.

Future Enhancements

Due to the limited time of this development, here are some improvements I would do if I have more time:

- Enhance authentication with OAuth2 for improved security.
- Add support for file uploads directly through the API.
- Finish email util setup