

WebX CA

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Title: NotesApp

INTRODUCTION

This is a full-stack Notes App using **React** for the frontend and **Flask** on the backend, with **MongoDB** as the database. The app supports **user authentication**, allowing users to securely create, view, update, and delete their personal notes. A key feature of the app is the ability to **upload files** such as images or documents, with the uploaded files being stored and their **metadata saved in the database** for easy retrieval. The app is designed with scalability in mind, offering a clean and functional interface for managing notes efficiently, and could be extended in the future with features like tags, search, or collaboration support.

SYSTEM REQUIREMENTS

1. Hardware Requirements

- **Processor:** Intel Core i5 or higher
- **RAM:** Minimum 8GB (Recommended: 16GB)
- **Storage:** At least 10GB free disk space
- **Operating System:** Windows 10/11, macOS, or Linux

2. Software Requirements

- **Node.js** (v18.16.1 or later) – Required for React frontend
- **npm** (v9.5.1 or later) – For managing frontend dependencies
- **Python** (3.11.9 or later) – Required for Flask backend
- **MongoDB Atlas** – Cloud-based NoSQL database
- **VS Code** – Recommended IDE for development
- **Postman** – For testing backend APIs

TECHNOLOGY STACK

1. Frontend

- **React.js** (JavaScript library for UI)
- **Tailwind CSS** (for styling)
- **Framer Motion** (for smooth and awesome animations)
- **Axios** (for making HTTP requests)

2. Backend

- **Flask** (Python-based micro web framework)
- **Flask-CORS** (To handle cross-origin requests)
- **Flask-PyMongo** (For connecting to MongoDB)
- **Flask-Mail** (For sending email verification mails)

3. Database

- **MongoDB Atlas** (Cloud NoSQL DB for storing user profiles, donations, and requests)

SETUP INSTRUCTIONS

1. Install Node.js and NPM

Download from

<https://nodejs.org/> node -v

npm -v

2. Install Python and Flask

Download from <https://www.python.org/>

python -- version

pip --version

3. Install required dependencies

pip install flask flask-cors flask-pymongo

4. Setup MongoDB

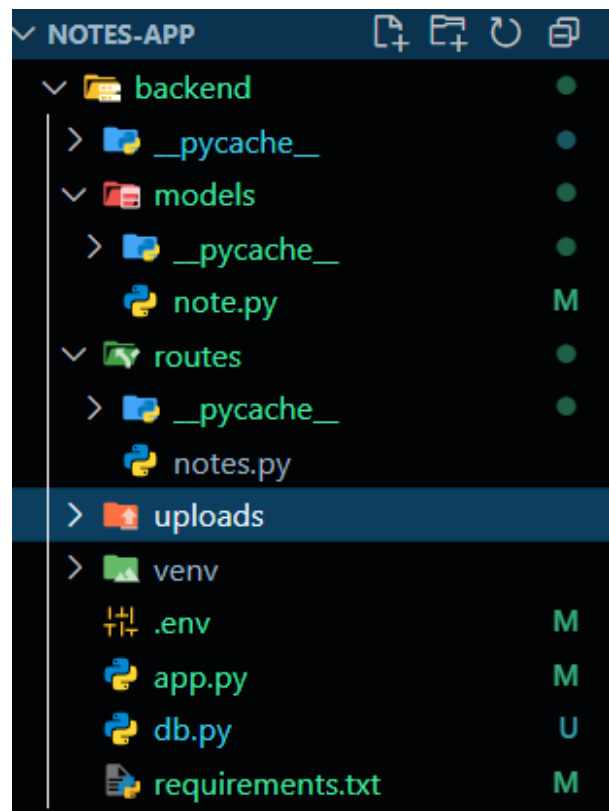
Use **MongoDB Atlas** (recommended) or install MongoDB locally: <https://www.mongodb.com/>

PROJECT STRUCTURE

Frontend



Backend



CONCLUSION

In conclusion, the Notes App is a secure and scalable platform for managing personal notes, built with a modern full-stack architecture.