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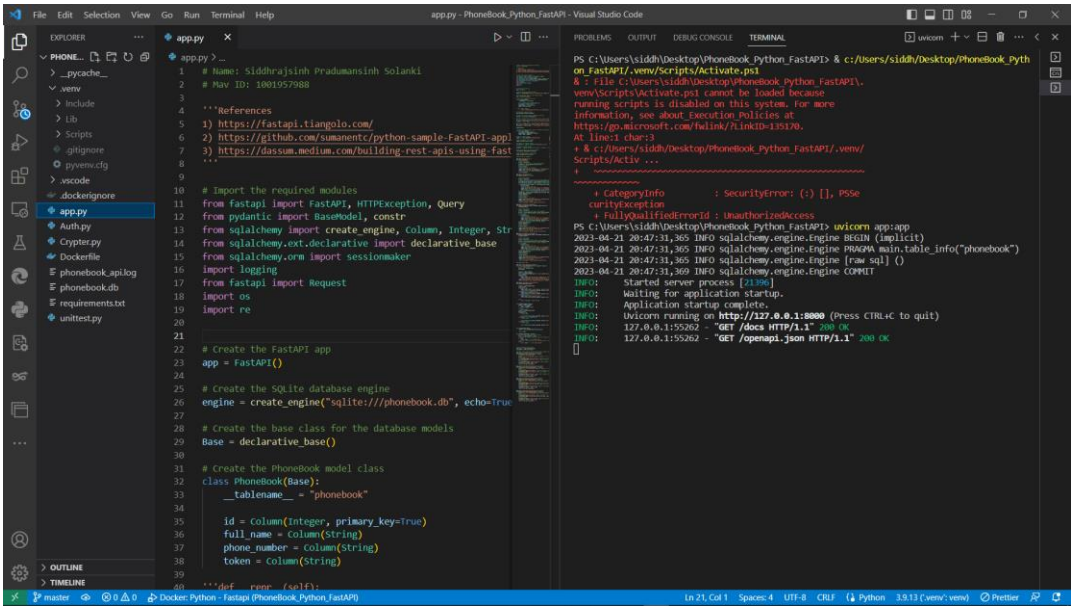
PHONEBOOK STARTER

- ## Description of project:
  - This is a Python code for a RESTful API built with FastAPI that interacts with a SQLite database. The API allows users to add and retrieve and delete phonebook entries, which consist of a person's full name and phone number.
  - It uses Pydantic for data validation and SQLAlchemy as the ORM.
  - The application uses FastAPI, a Python web framework, for creating the REST API.
  - The SQLite database is used for storing the phone book data.
- ## Stack Used:
  - Python:Multipurpose programming language with rich library collection
  - fastapi: FastAPI is a modern, fast (high-performance) web framework for building APIs with Python 3.7+ based on standard Python type hints.
  - uvicorn: Uvicorn is a lightning-fast ASGI server implementation, using uvloop and httptools.
  - sqlalchemy: SQLAlchemy is a popular SQL toolkit and ORM for Python. It provides a set of high-level API to work with relational databases.
  - pydantic: Pydantic is a data validation and settings management library, which uses Python type annotations to validate and parse data.
  - Postman: It is a collaboration platform for API development that allows users to design, test, and document APIs.

- ## Instructions for building and running software and unit tests:
  - **Running the code:**
    - Open Visual Studio.
    - Click on "File" in the top left corner and select "Open Folder".
    - Navigate to the folder where your Python code is located and select it.
    - If your code requires any dependencies, make sure they are installed in your Python environment.
    - Open the "Terminal" tab in Visual Studio by clicking on "View" and then "Terminal".
    - Install libraries by using command in terminal: **pip install -r requirements.txt**
    - In the terminal, navigate to the folder containing your Python code.
    - In our case keep the app.py tab open.
    - To run the app, type the command in terminal: **uvicorn app:app –reload**
    - Following is output when you run code successfully.



- **Creating Docker image:**
  - Docker files are created and setup.
  - Build it using command: docker build -t phonebook .
  - Run image: docker run -p 8000:8000 phonebook
  - Once build and run finishes, open browser window.
  - Navigate to: http://127.0.0.1:8000/docs