***TALK TO DB***

🚀 **Full Local Setup Guide: React + FastAPI + MySQL +**

**OpenAI**

✅ **Step 1: Create project folder and Python virtual environment**

mkdir saasproject

cd saasproject

python -m venv venv

On Windows:

Set-ExecutionPolicy -ExecutionPolicy RemoteSigned -Scope Process

.\venv\Scripts\Activate

✅ **Step 2: Create and install backend dependencies**

Prerequsite :

Install visualstudio

Add c++ --->to compile toml file error

pip install fastapi uvicorn sqlalchemy pymysql openai==0.28

Then create a file:

📄 app.py

Paste your full FastAPI backend code there

✅ **Step 3: Set up your local MySQL database**

Make sure you have **MySQL installed** locally

Open mysql workbench

Type password

Query 1

CREATE DATABASE test;

show databases;

USE test;

CREATE TABLE users (

id INT PRIMARY KEY,

name VARCHAR(100),

email VARCHAR(100)

);

Sql1:

INSERT INTO users (id, name, email) VALUES

(1, 'Alice', 'alice@example.com'),

(2, 'Bob', 'bob@example.com'),

(3, 'Charlie', 'charlie@example.com'),

(4, 'David', 'david@example.com'),

(5, 'Eva', 'eva@example.com'),

(6, 'Frank', 'frank@example.com'),

(7, 'Grace', 'grace@example.com'),

(8, 'Henry', 'henry@example.com'),

(9, 'Ivy', 'ivy@example.com'),

(10, 'Jake', ['jake@example.com');](mailto:'jake@example.com');)

Sql 2:

CREATE TABLE transactions (

id INT PRIMARY KEY,

user\_id INT,

amount DECIMAL(10,2),

status VARCHAR(50)

);

Sql3:

INSERT INTO transactions (id, user\_id, amount, status) VALUES

(1, 1, 250.00, 'completed'),

(2, 2, 130.50, 'refunded'),

(3, 3, 90.00, 'pending'),

(4, 4, 400.00, 'completed'),

(5, 5, 50.00, 'cancelled'),

(6, 6, 180.75, 'completed'),

(7, 7, 600.00, 'completed'),

(8, 8, 30.00, 'failed'),

(9, 9, 120.00, 'pending'),

(10, 10, 200.00, 'completed');

to check using:

select \* from transactions

✅ **Step 4: Create frontend (React) project**

<https://nodejs.org/en/download> install node.ja

node -v

npm -v

npm create vite@latest nl\_sql\_ui\_app -- --template react

cd nl\_sql\_ui\_app

npm install

✅ **Step 5: Setup React frontend**

● Go to src/App.jsx

● Paste the updated frontend code you’ve been using (with the disclaimer, Gowtham SB

credit, prompt validation, etc.)

✅ **Step 6: Build & serve React (optional for prod-like feel)**

If you want to build and serve like production:

Go to cd ./nl\_sql\_ui\_app

npm run build

npx serve -s dist -l 5173

✅ **Step 7: Run FastAPI backend**

**Open new therminal:**

Back in the backend terminal:

Set-ExecutionPolicy -ExecutionPolicy RemoteSigned -Scope Process

>> .\venv\Scripts\Activate

Then enter

python -m uvicorn app:app --host 0.0.0.0 --port 8000

*Some additional steps:*

*deactivate*

*Remove-Item -Recurse -Force .\venv*

*python -m venv venv*

*>> .\venv\Scripts\Activate.ps1*

*pip install fastapi uvicorn openai sqlalchemy pymysql*

*python -m uvicorn app:app --host 0.0.0.0 --port 8000*