💻 1. Development Software

Software	Purpose
Python	Core programming language
Flask	Web framework for building the backend/API
Jupyter Notebook *(optional)*	Used for model training and testing the ML model (before exporting .pkl)
VS Code / PyCharm / Any IDE	Writing and editing code
Command Line / Terminal	Running the Flask app (python app.py)

📦 2. Libraries/Packages (via pip)

Installed using pip from the requirements.txt:

- **Flask** – Web application framework
- **Scikit-learn** – ML model (Decision Tree)
- **NumPy** – Numerical operations (used by scikit-learn)
- **Pandas** – Data handling and conversion to DataFrame
- **Pickle** – Saving/loading ML model
- **SQLite3** – Built-in database (no installation needed)

🗃️ 3. Database

Component	Description
SQLite	Lightweight, file-based relational database (users.db)

Managed using Python's built-in sqlite3 module.

🌐 4. Browser

Used to access the frontend (localhost):

- **Google Chrome / Firefox / Edge**
  → Access your web app at http://localhost:5000

⚙️ 5. System Requirements

Requirement	Description
Operating System	Windows / Linux / macOS
Python Version	Python 3.8 or above recommended
Pip	To install dependencies from requirements.txt
Editor (IDE)	VS Code, Sublime, PyCharm, or even Notepad++

🔁 Optional Tools (used during model creation)

- **Jupyter Notebook** – For initial ML training
- **Google Colab** – If trained online

✅ Summary:

You need the following to run and present the project:

- **Python** (installed)
- **pip** (to install packages)
- **Text editor or IDE** (VS Code, PyCharm)
- **Browser** (to view Flask app)
- **Terminal/Command Prompt** (to run app.py)
- **SQLite (users.db)** (auto-handled by sqlite3)