README FILE

**# 🎓 Student Academic Report (SAR) System**

**## 📌 Overview**

The \*\*Student Academic Report (SAR)\*\* system is a web-based application built with \*\*Flask\*\* for managing and analyzing student academic data.

It allows faculty and administrators to:

- Upload and manage student records

- Track attendance and performance

- Visualize academic trends with charts

- Provide insights to identify top and at-risk students

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**## 🛠️ Features**

- 🔑 \*\*User Authentication\*\* (Login/Register)

- 📊 \*\*Dashboard\*\* with performance insights

- 👩‍🎓 \*\*Student Records\*\* (view all, single student details)

- 📈 \*\*Data Visualization\*\* (charts for student performance)

- 📂 \*\*File Uploads\*\* for datasets

- 🗄️ SQLite Database Integration

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**## 🗂️ Project Structure**

sar/

├── app.py # Main Flask application

├── students.csv # Example student dataset

├── students.db # Student database

├── users.db # User authentication database

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├── static/ # CSS, images, charts

│ ├── style.css

│ ├── charts/top10\_students.png

│ └── images/oip.png

│

├── templates/ # HTML templates (Flask Jinja2)

│ ├── dashboard.html

│ ├── login.html

│ ├── register.html

│ ├── all\_students.html

│ ├── single\_student.html

│ ├── top\_students.html

│ └── visualize.html

│

├── uploads/ # Uploaded datasets

│ ├── dataset.csv

│ ├── students.csv

│ ├── student\_performance\_dataset\_int\_rollno.csv

│ └── student\_performance\_dataset\_real\_names.csv

**### 1️⃣ Clone the Repository**

```bash

git clone https://github.com/raviteja038 /sar-project.git

cd sar/sar

**2️⃣ Create Virtual Environment**

bash

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python -m venv venv

source venv/bin/activate # On Linux/Mac

venv\Scripts\activate # On Windows

**3️⃣ Install Dependencies**

bash

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pip install -r requirements.txt

(You may need to create a requirements.txt using pip freeze > requirements.txt)

**4️⃣ Run the Application**

bash

Copy code

python app.py

**5️⃣ Open in Browser**

Navigate to:

👉 http://127.0.0.1:5000/

**📊 Tech Stack**

Backend: Python (Flask)

Frontend: HTML, CSS (Jinja2 Templates)

Database: SQLite

Visualization: Matplotlib / Pandas