Model

The **model** in this project is a **machine learning classification model**.

- It learns patterns from past student data

- Based on inputs like:

    - Attendance percentage

    - Internal marks

    - Assignment score

- It predicts student performance as:

    - **Pass**

    - **Fail**

    - **Good**

The model is trained using labeled data, where the outcome (performance) is already known. After training, the model can predict results for new students.

Python

Python is used for:

- Reading and preprocessing student data

- Training the machine learning model

- Making predictions

- Connecting with the SQL database

Python libraries help in:

- Data handling

- Model training

- Result processing

Python acts as the **main controller** of the entire system.

SQL

SQL is used to:

- Store student details

- Store predicted performance results

- Maintain history for analysis

Using a database allows:

- Easy retrieval of past predictions

- Tracking student performance over time

- Structured and secure data storage

What Work Does This Project Do?

This project **predicts a student's performance** (Pass / Fail / Good) based on their academic details such as attendance, internal marks, and assignment scores.

Instead of manually analyzing student data, the system uses **machine learning** to make predictions automatically and **stores results in a database** for future reference.