# Student Information System (SIS) - Complete Guide

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## 1. Introduction  
This guide provides a complete explanation of the Student Information System (SIS) project. The system is designed to help beginners understand how to develop a Python-based project with data persistence, GUI, and error handling. It provides functionalities for student management, attendance tracking, fee management, and generating reports.  
  
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## 2. Project Overview  
The SIS project uses Python as its core programming language. It leverages GUI components for user interaction and stores data in CSV/JSON files for persistence. Users can add, update, delete, and view student data, record attendance, and manage fees through a simple and intuitive interface.  
  
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## 6. Setting Up the Environment  
1. Install Python:  
 ```bash  
 sudo apt install python3  
 ```  
2. Install required libraries:  
 ```bash  
 pip install pandas  
 ```  
3. Unzip the project folder.  
4. Navigate to the project directory:  
 ```bash  
 cd SIS\_Project  
 ```  
5. Install dependencies using the `setup.py` file:  
 ```bash  
 python setup.py install  
 ```  
6. Run the main script to start the application:  
 ```bash  
 python main.py  
 ```  
  
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## 14. Role of setup.py File  
The `setup.py` file is a configuration script used for packaging and distributing the project. It defines metadata, dependencies, and instructions for installing the project. This is especially useful if you plan to share the project with others or upload it to repositories like \*\*PyPI\*\*.  
  
### Key Functions of setup.py:  
1. Defines Metadata:  
 - Project name, version, author, description, and license information.  
2. Specifies Dependencies:  
 - Lists libraries required for the project (e.g., Pandas, Tkinter).  
3. Handles Distribution:  
 - Packages the project into a distributable format like `.tar.gz` or `.whl`.  
4. Installation Script:  
 - Allows installing the project using:  
 ```bash  
 python setup.py install  
 ```  
  
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## 17. Conclusion  
This guide helps in setting up and understanding the Student Information System step-by-step. With features like GUI and data persistence, this project demonstrates modular programming concepts and error handling, making it ideal for beginners and intermediate learners.