JSS SCIENCE AND TECHNOLOGY UNIVERSITY, MYSURU.

SUBJECT: PYTHON

PROJECT TITLE:

STUDENT ATTENDANCE MANAGEMENT SYSTEM

Submitted By:

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CHAPTER 1 : INTRODUCTION

A student attendance management system is a software application that helps educational institutions to manage and monitor the attendance of their students. The system is designed to simplify the process of taking attendance, which eliminates the need for manual recording, thereby reducing the chances of errors and increasing efficiency.

- In addition to tracking attendance, the system can generate reports and statistics on the attendance of individual students or groups of students.
- The benefits of using a student attendance management system are numerous. It eliminates the need for paper-based attendance registers.

The effective management of student attendance is a crucial aspect of educational institutions. Accurate and efficient tracking of attendance not only ensures compliance with attendance policies but also provides valuable insights into student engagement and academic performance. To streamline this process and enhance administrative efficiency, the development of a student attendance management system becomes essential. This system aims to automate attendance recording, simplify data management, and enable real-time access to attendance information for students, faculty, and administrators. By leveraging modern technologies and software solutions, such as Python, we can create a robust and user-friendly system that improves attendance management processes and contributes to a more productive learning environment. In this project, we will explore the design, development, and implementation of a student attendance management system using Python, aiming to revolutionize the way attendance is managed in educational institutions.

PRESENT SYSTEM:

The present system of student attendance management can involves a manual process of taking attendance using pen and paper. The teacher takes attendance at the beginning of each class or session, marking the students present, absent. The attendance record is then compiled into a paper-based register, which is typically kept in the teacher's or institution's office.

Disadvantages :

- ❖ Works are done Manually.
- ❖ Time-consuming
- ❖ Difficulty in tracking attendance history
- ❖ Limited reporting

PROPOSED SYSTEM:

The proposed system is a software application where students can easily known their eligibility status, and total attendance. Where as teachers can insert new students, give daily attendance and can access all the records of the students.

Advantages :

- ❖ Automation and efficiency in attendance recording.
- ❖ Accurate and reliable attendance tracking.
- ❖ Real-time access to attendance information.
- ❖ Comprehensive reporting and analytics for attendance patterns and trends.
- ❖ Enhanced communication and automated notifications.
- ❖ Integration with existing systems for seamless data sharing.
- ❖ Scalability and customization to meet institutional requirements.

CHAPTER 2 : MODULES

Admin module :

Admin refers to teachers in this case, where the teacher has control to manage the students attendance, moreover teachers can retrieve necessary information from this software application technology.

User module :

User refers to students, where they can get their eligibility status, and can see their attendance records by logging into software application.

Total pages :

There are 7 pages in this software application

1) **Login page** : Where users or admin can login in a single interface

2) **User page** : Where a student can login and check is attendance status.

3) **Admin page**: Here Admin can insert new students, give daily attendance, and retrieve the information using the options.

4) **Student page** : Students(user) can view the attendance status in this field.

5) **Insert page** : Where teacher can insert new students.

6) **Attendance page** : where teacher can give daily attendance

7) **Retrieve page** : where teacher can retrieve students attendance history

CHAPTER 3 : REQUIREMENTS

1) Software Requirements :

Front-End	**Python(tkInter)**
Back-End	My Sql
Server	Local server

2) Hardware Requirements :

Processor	**RYZEN 3/Inter 3**
RAM	4GB
Operating System	Windows 11
HDD	5GB

CHAPTER 4 : TABLES

1) Students

FIELD NAME	DATA TYPE	KEY
USN	varchar	PRI
NAME	varchar	-
SEC	varchar	-

2) Attendance

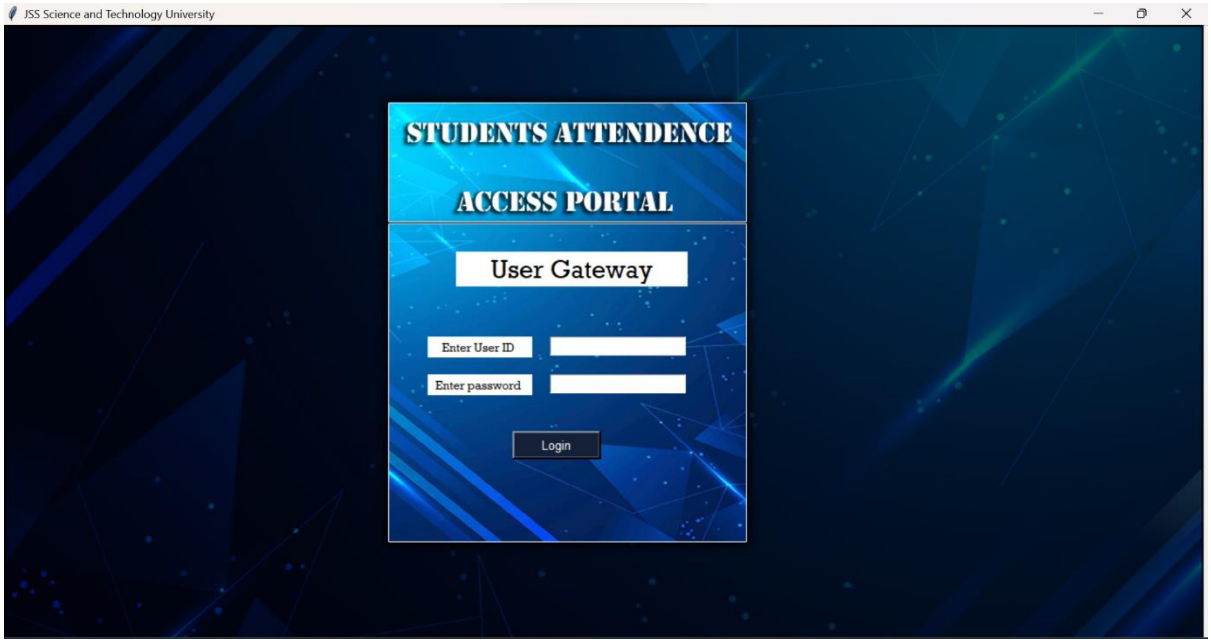
FIELD NAME	DATA TYPE	KEY
USN	varchar	MUL
date	timestamp	-

3)Login

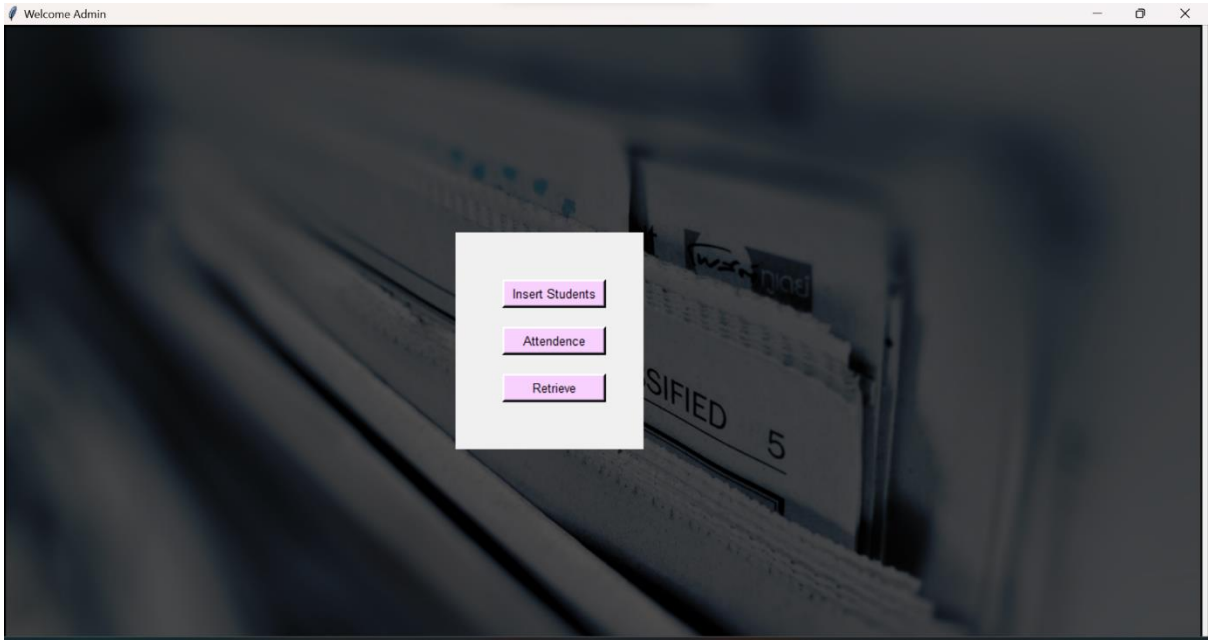
FIELD NAME	DATA TYPE	KEY
Id	varchar	PRI
Password	varchar	-

CHAPTER 5 : SNAPSHOTS

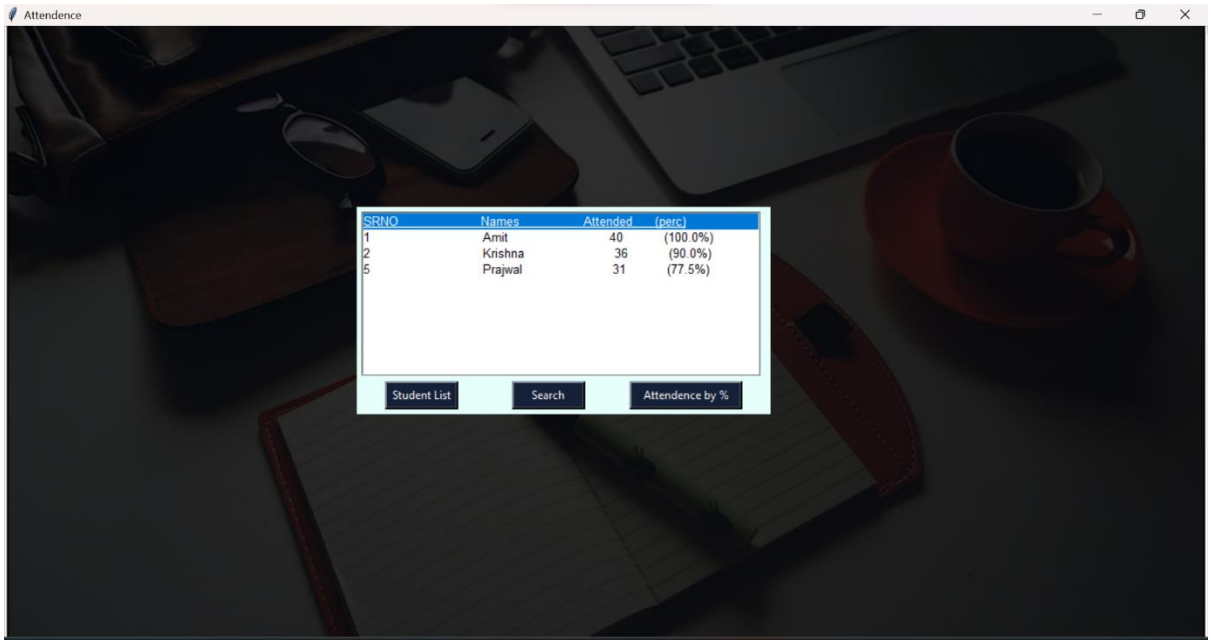
Login page :



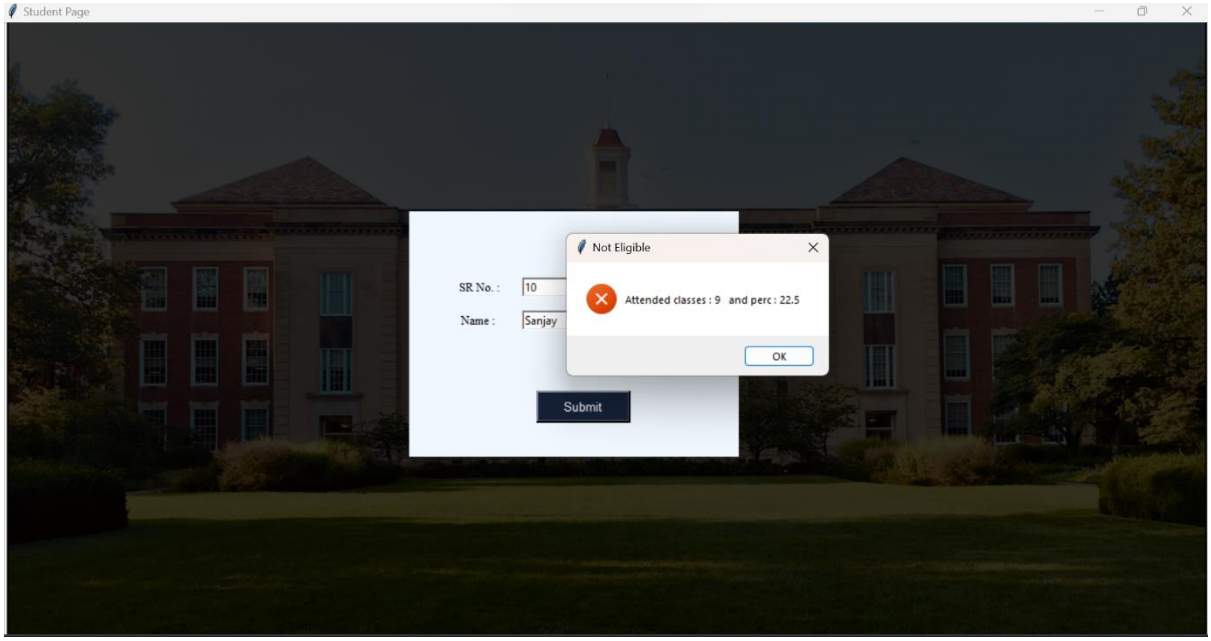
Admin page :



Retrieve students having more than 75% :



Student Eligibility Status :



CHAPTER 6 : CONCLUSION

In conclusion, the development of the student attendance management system project using Python has proven to be a significant achievement. This project aimed to streamline the process of recording and tracking student attendance, ultimately enhancing administrative efficiency and promoting student accountability. Throughout the development process, Python demonstrated its versatility and effectiveness as a programming language. Its extensive libraries and frameworks allowed for the seamless integration of various functionalities and features into the system. From data storage and retrieval to generating comprehensive attendance reports, Python provided the necessary tools to meet project requirements.

The student attendance management system serves as a valuable tool for educational institutions, fostering a more efficient and organized environment. Its successful implementation showcases the power of Python in developing practical solutions to real-world challenges.

In conclusion, the completion of the student attendance management system project using Python marks a significant milestone in enhancing attendance management processes. It serves as a testament to the capabilities of Python as a programming language and its potential for transforming educational systems.

CHAPTER 7 : FUTURE ENHANCEMENT

- Enhance the system with biometric or RFID integration for secure attendance tracking.
- Develop a mobile application with automated notifications to keep students and parents informed.
- Implement data analysis and machine learning for valuable insights into attendance patterns.
- Integrate with existing learning management systems for seamless data sharing and comprehensive student monitoring.
- Incorporate gamification elements to incentivize regular attendance and improve student engagement.

THANK YOU