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School Management System

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Abstract Our project "School Management System" is an application designed to automate the manual work involved in managing schools, students, courses, and classes. Our project aims to develop a user-friendly graphical user interface (GUI) and MySQL database to store and track school resources. Our system will allow administrators to register new students, assign them to classes, and manage teacher schedules. Our system will also allow teachers to update student records, assign homework, and record grades. Our School Management System is a valuable tool for administrators, teachers, and students in improving theoverall educational experience. Our system will be built using MySQL database to store all the necessary data, and a GUI will be created using Python language with Tkinter library. Our system will be designed to be scalable, customizable, andeasy to use.

Our school management system will have modules for student enrolment, class scheduling, attendance tracking, and grading. Our system will generate reports on student performance, attendance, and other metrics to help teachers and administrators make informed decisions.

I. INTRODUCTION

Our SCHOOL MANAGEMENT SYSTEM project is a sophisticated application with a user-friendly graphical interface that utilizes a database management system for data storage. In today's fast-paced world, management systems are essential for organizations to manage workforce and resource data effectively. The primary objective of this

project is to offer teachers an easy-to-use platform to update student records, assign homework, and record grades, which are then saved in a database, primarily using SQL. Additionally, the system allows administrators to register new students, assign them to appropriate classes, and manage teacher schedules. With this project, we aim to demonstrate how school management systems can help maintain data efficiently, thereby playing a crucial role in the smooth functioning of an educational institution.

II. EXISTING SYSTEM

1.Edsby is a cloud-based school management platform that allows teachers, students, and parents to communicate and collaborate. It provides features such as attendance tracking, grade book management, and parent-teacher conference scheduling.

2.PowerSchool is a web-based school management system that includes features such as student information management, grade book management, and attendance tracking. It also includes a portal for parents to monitor their child's progress and communicate with teachers.

3.Skyward is a comprehensive school management system that includes features such as student information management, grade book management, attendance tracking, and discipline tracking. It also includes modules for managing library resources, food service, and transportation.

4.Blackbaud is a suite of school management applications that includes modules for admissions, enrolment, student information management, and fundraising. It is designed to help schools streamline their operations and improve communication with parents and students.

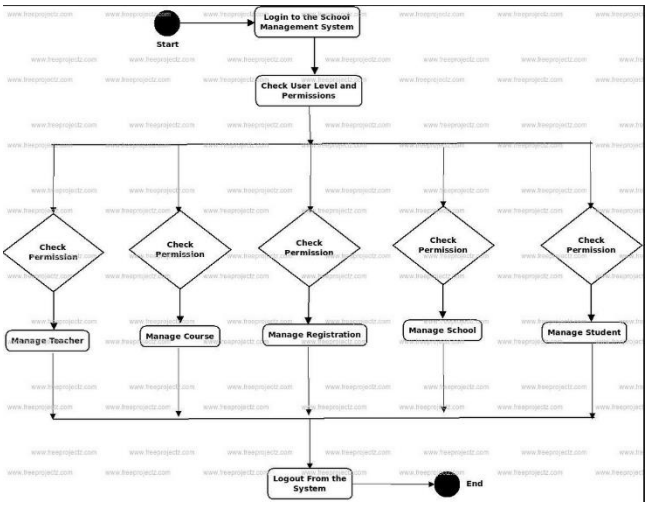

Fig.1.UML diagram

III. PROPOSED SYSTEM

Data Analysis The first part of this feature involves analysing attendance data to identify patterns or trends. This could involve looking at data such as overall attendance rates, rates of absences or tardiness by class or teacher, and rates of unexcused absences. This data could be used to identify specific areas where attendance is particularly low or to identify students who are consistently absent or tardy.

Data Visualization The second part of this feature involves presenting attendance data in a visual format, such as a chart or graph. This could involve creating a dashboard that displays key attendance metrics or creating interactive visualizations that allow users to explore attendance data in more detail. For example, you could create a chart that shows overall attendance rates by month or a heat map that shows rates of absences by day of the week.

Actionable Insights The goal of this feature is to provide administrators and teachers with actionable insights that they can use to improve

attendance rates. For example, if the data shows that a particular class or teacher has high rates of absences, the school could take steps to address this issue, such as providing additional support to students or working with the teacher to improve attendance. Additionally, presenting attendance data in a visual format can help school boards or funding agencies understand the scope of the attendance problem and make informed decisions about how to allocate resources to address it

IV. ARCHITECTURE

V. FLOW DIAGRAM

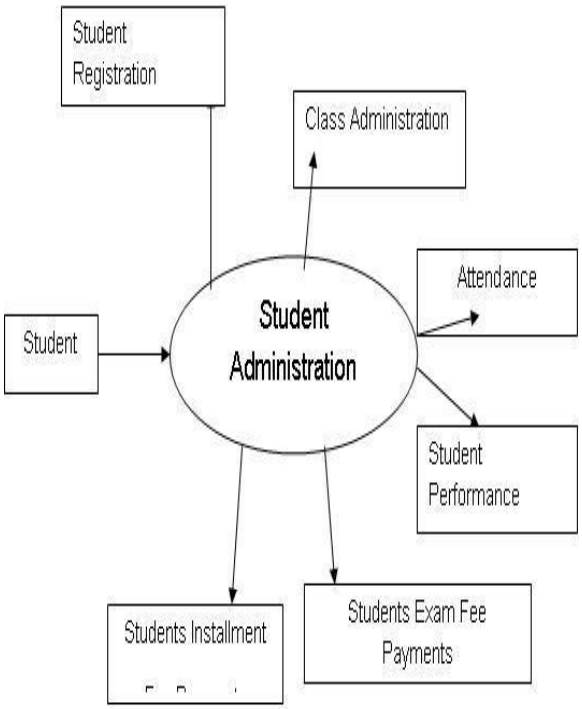

Fig.2. Architecture

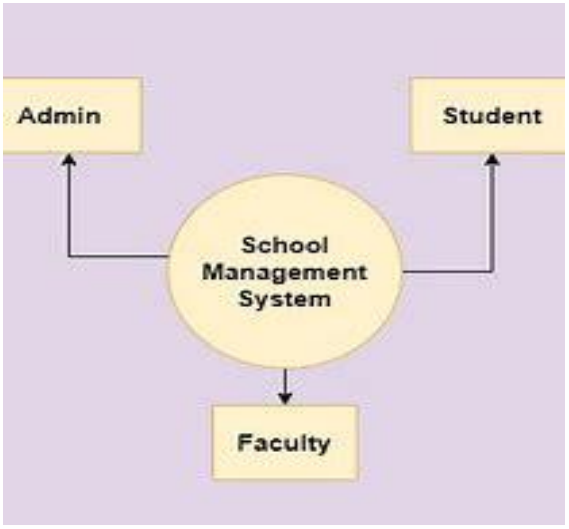

Fig.3.Flow Diagram

CONCLUSION

Our project involved developing a graphical user interface (GUI) for a school management system that was powered by a MySQL database. The goal was to create a system that would allow school administrators to manage student records, attendance, grades, and other important information in a more efficient and user-friendly way.

We are able to achieve our goals and create a system that is both functional and easy to use. We were able to leverage the power of MySQL to create a robust and reliable database that could handle large amounts of data,and we were able to design a GUI that was intuitive and user-friendly.

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