MINI IT PROJECT

Group Members:

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PROJECT TASK LIST:

FEATURES	PIC	COMPLETION %	REMARK
• **User authentication** ☐ Admin main page	**ERIC TEOH WEI XIANG**	**100%**	
• **User authentication** ☐ User main page	**LIM ZHEN CONG**	**100%**	
• **Admin can create/remove/update students.**	**LIM ZHEN CONG**	**100%**	
• **Admin can create/remove/update courses.**	**ERIC TEOH WEI XIANG**	**100%**	
• **Student can browse courses offered.**	**CHIN ZHEN HO**	**100%**	
• **Student can register courses.**	**CHIN ZHEN HO**	**90%**	**-design**
• **Students can view his timetable.**	**BERNARD RYAN SIM KANG XUAN**	**100%**	
• **Student can view all students in a class**	**BERNARD RYAN SIM KANG XUAN & ERIC TEOH WEI XIANG**	**95%**	**-design**
• **Class capacity checking (reject registration for a full class)**	**LIM ZHEN CONG**	**100%**	
• **Detection of clashing classes**	**CHIN ZHEN HO**	**100%**	
• **Rank classes by popularity**	**BERNARD RYAN SIM KANG XUAN & ERIC TEOH WEI XIANG**	**95%**	**-design**
• **Password encryption**	**LIM ZHEN CONG**	**100%**	
• **Store data in a database**	**ALL THE GROUP MEMBERS**	**100%**	
• **Admin can view all students in university**	**BERNARD RYAN SIM KANG XUAN**	**100%**	

INTRODUCTION:

In this mini IT project, we will harness the power of Python and the Tkinter library to create a Course Registration App to simplify the academic course registration process and provide both students and administrators with a convenient and efficient experience.

This small-scale project will highlight how to utilise the Python programming language and the Tkinter GUI toolkit to transform a traditionally cumbersome registration process into an intuitive and user-friendly application. Whether it's students accessing course information and schedules or administrators managing courses and monitoring student registrations, the process will become more streamlined.

PROBLEM STATEMENT :

- Students' privacy issues: The school system needs to handle students' personal information and privacy issues carefully. If not handled properly, it may lead to legal disputes.
- User Experience Issues: Students and teachers may experience user experience issues when using school systems, such as unfriendly interfaces, slow response times, or unclear functionality.
- Academic management problems: the school system may be used for course registration and arrangement, which may lead to management problems if the system is unstable or the process needs clarification.
- Quantity students problems: know how many students are enrolled to avoid the school needing more classrooms and seats to teach students.

PROJECT OBJECTIVE :

- To protect the privacy of students by using SSL password encryption.
- To make the interface user-friendly by designing an intuitive and easy-to-use interface.
- To manage student information by creating a student information entry and management interface using Tkinter, including the ability to add, modify, and delete student records.
- To manage courses by using Tkinter to create a course scheduling and management interface, including arranging course timetables, assigning teachers, and more.
- To track the number of students by creating a student list to view all the students in the university.

Flowcharts

User interface

Implementation (languages, libraries, tools, etc.)

Language : Python

Libraries : sqlite3 , tkinter, matplotlib

Tools : vscode,sqlite3

Conclusion

In conclusion, the Course Registration App project has a clear set of objectives to enhance various aspects of the academic environment. First and foremost, it prioritises student privacy by implementing SSL password encryption to safeguard sensitive data. Additionally, it strongly emphasises user experience by designing an intuitive and user-friendly interface, ensuring that students and teachers can interact with the system seamlessly.

The project also focuses on improving academic management by providing tools for efficient student information management, including creating, updating, and deleting student records and course scheduling and management features. Furthermore, it addresses the need to accurately track the number of enrolled students, helping institutions avoid resource shortages and logistical challenges.

The Course Registration App project demonstrates how Python and Tkinter can be harnessed to address crucial issues in academia, ranging from privacy protection to efficient management and improved user experience, benefiting students and administrators in the educational ecosystem.