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Applied Programming Concepts

Integrate & Configure Model

- To create the webpage/system, use Flask. Suitable for applications and webpages. Helps with complex applications. This could be used as the main base of the system where we can create the application.
- For the database, where the users, courses, schedules etc. will be stored, SQL can be used. SQL will allow us to access and manipulate databases. It is efficient to organize data, create tables, retrieving data, and changing data structures.
- For login authentication, Flask-Login extension can be used to manage user's login and logout sessions.
- Search features to search courses and users Whoosh can be used. Whoosh would be efficient to quickly look up what the users need to find (for example, courses for students).

Timeline:

Week	Task
Week 1	Set up a project using Flask to create a system setup/application.
Week 2	Implement database with users, courses, and schedules using SQL.
Week 3	Login authentication by using Flask Login extension.
Week 4	Implement search features to search courses and users.
Week 6	Test and fix any bugs. Get feedback.

Reference:

https://flask.palletsprojects.com/en/stable/

https://www.w3schools.com/sql/sql_intro.asp

https://learn.microsoft.com/en-us/entra/identity-platform/tutorial-web-app-python-flask-sign-in-out?tabs=external-tenant

https://www.geeksforgeeks.org/how-to-add-authentication-to-your-app-with-flask-login/

https://github.com/whoosh-community/whoosh

https://whoosh.readthedocs.io/en/latest/intro.html