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Integrate and Configure

- **Requirements Specification:** The goal is to design a scheduling system software that provides a service where students, instructors, and administrators are able to add and remove courses, search courses, print schedules, and many other functionalities which are allowed for each user type. Some constraints include a hierarchy of user types where user cannot perform actions that an instructor can perform unless their actions overlap, and an instructor cannot perform actions that an admin can perform unless given permission.
- **Component Analysis:** SQLite will be used as an external application for the scheduling system's database.
- **Requirements Modification:** System must be able to save information about a user and the classes that they are in after a change has been made.
- **System Design with Reuse:** SQLite will contain the first and last name of each user, their user type, and ID. A user's type and ID cannot be changed by any user, even admin.
- **Development and Integration:** The logic behind each method for every class has been defined, now the relevant information must be drawn when those methods are called.
- **System Validation:** System will be checked if its functionality satisfy the goals that the program is supposed to meet. This means making sure that the program can handle a database of 100 students, 10 instructors, and 1 admin; The program can also update information changed within the data base accordingly.

Timeline:

Week	Task
Week 1	Set up basic functionality of program
Week 2	Create database of users in SQLite with names, ID, user type, and classes enrolled in.
Week 3	Implement SQLite into the code so that the database can be accessed and used by program.
Week 4	Database will be updated accordingly if any changes were made by a user regarding their classes or the students within a class.
Week 5	Test for bugs then fix and patch software.

References:

[Software Process Model: Part Three — Jigsaw of Integration & Configuration | by Yousuf Khan | Medium](#)

[Software Process Model | by Anusha Patil | Medium](#)

[SQL Introduction](#)

[Differences between SQL and SQLite | GeeksforGeeks](#)

[Incremental Development • DeepSource](#)

[Waterfall Model – Software Engineering | GeeksforGeeks](#)