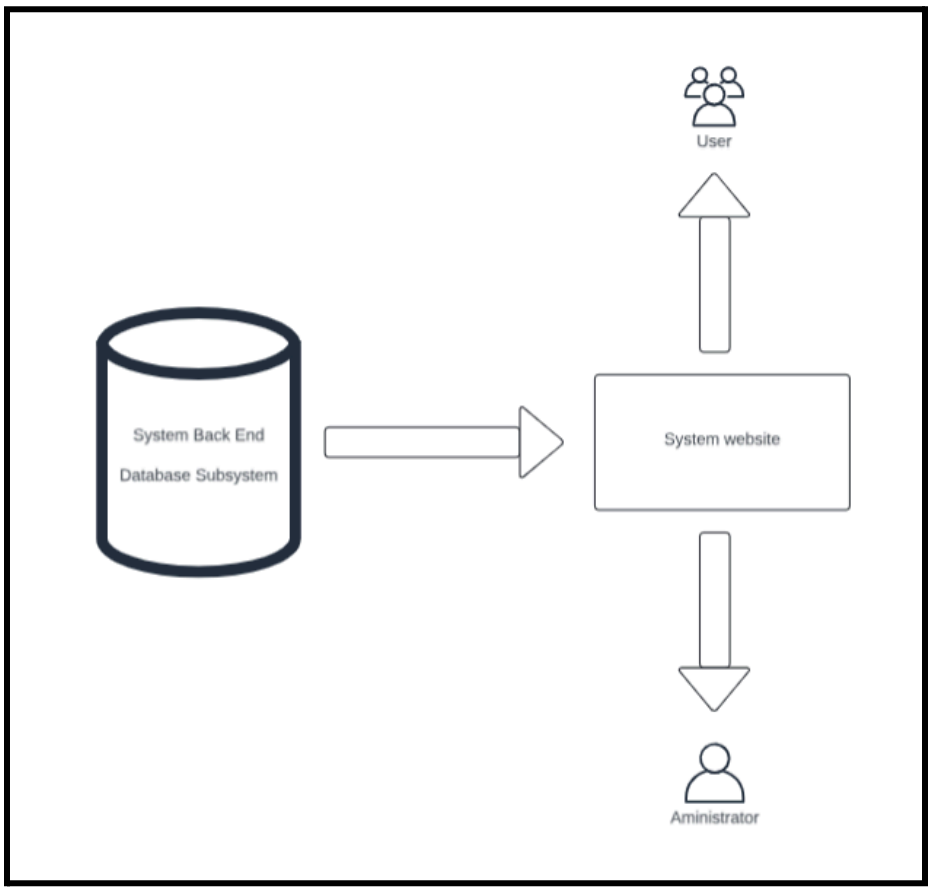
1. Define the system of interest

   “For this research project, the SOI will consist of two separate subsystems. The first subsystem is the user/admin interface, which will be operated from a web browser and coded in HTML, hence will only need to be coded a singular time to fit different screen sizes, as well as have a password so only authorized users may access the system. In addition to being able to send in excuses and check into study hours, this subsystem will also use the database to be able to pull up notes and files left by other students in regards to classes and teacher material. This subsystem will be used as well by the administrator with a different login key in order to get reports on student grades as well as enter/delete student info. The second subsystem is the database, stored locally on a server and used by the other subsystem. The system of interest is shown below.”



2. Describe the environment.

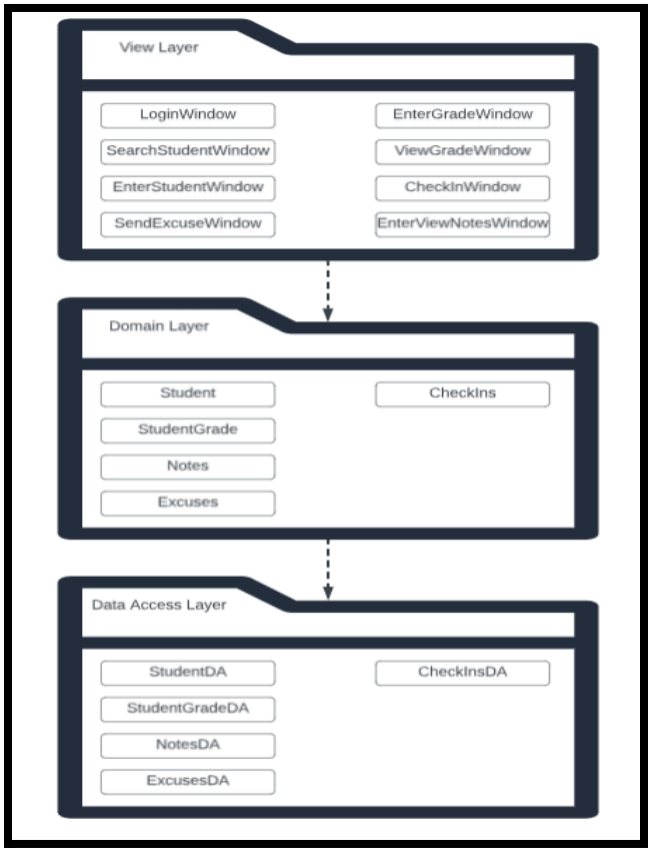
There are currently few external systems in use within the organization in regards to an academic management system. The technology that is being interfaced by our software/hardware is the modem/router combo for internet traffic.

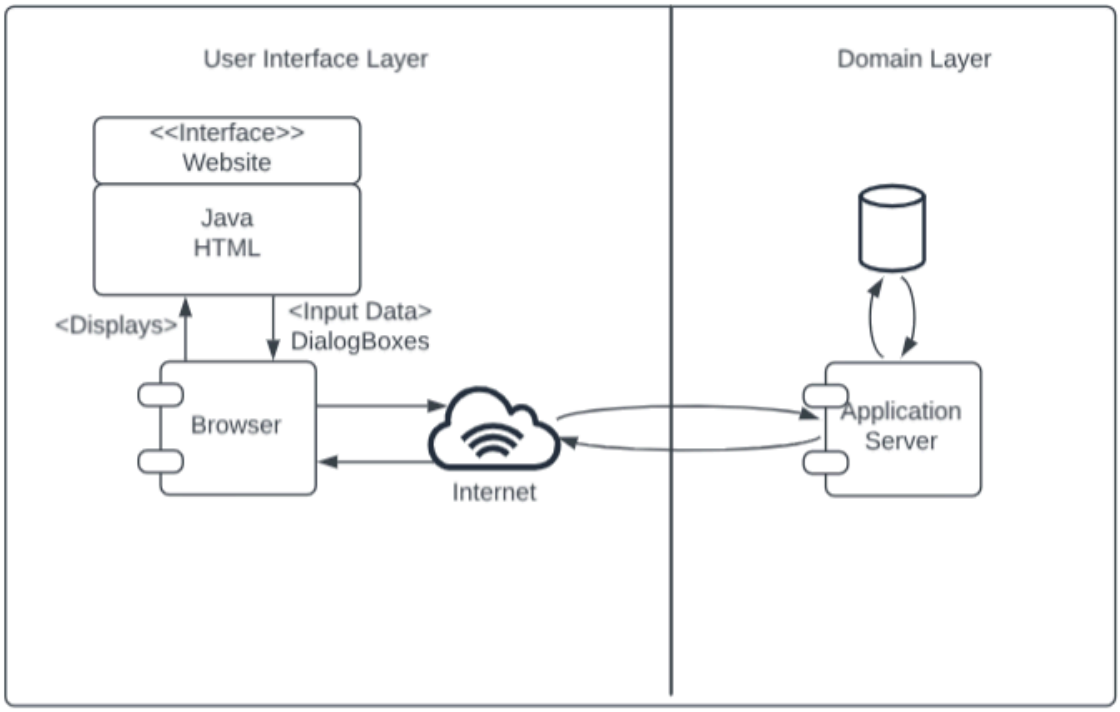
In regards to the technology architecture, there will be an on premise server housing the database and hosting the website that is being utilized by both the administrator and users to interact with the system. This system will need to be connected to the internet to be functional. The off premises devices, personal devices belonging to the users and admin, can be of any OS and only require an internet access to interact with the website which then interacts with the database to update and change information.

3. Design application components

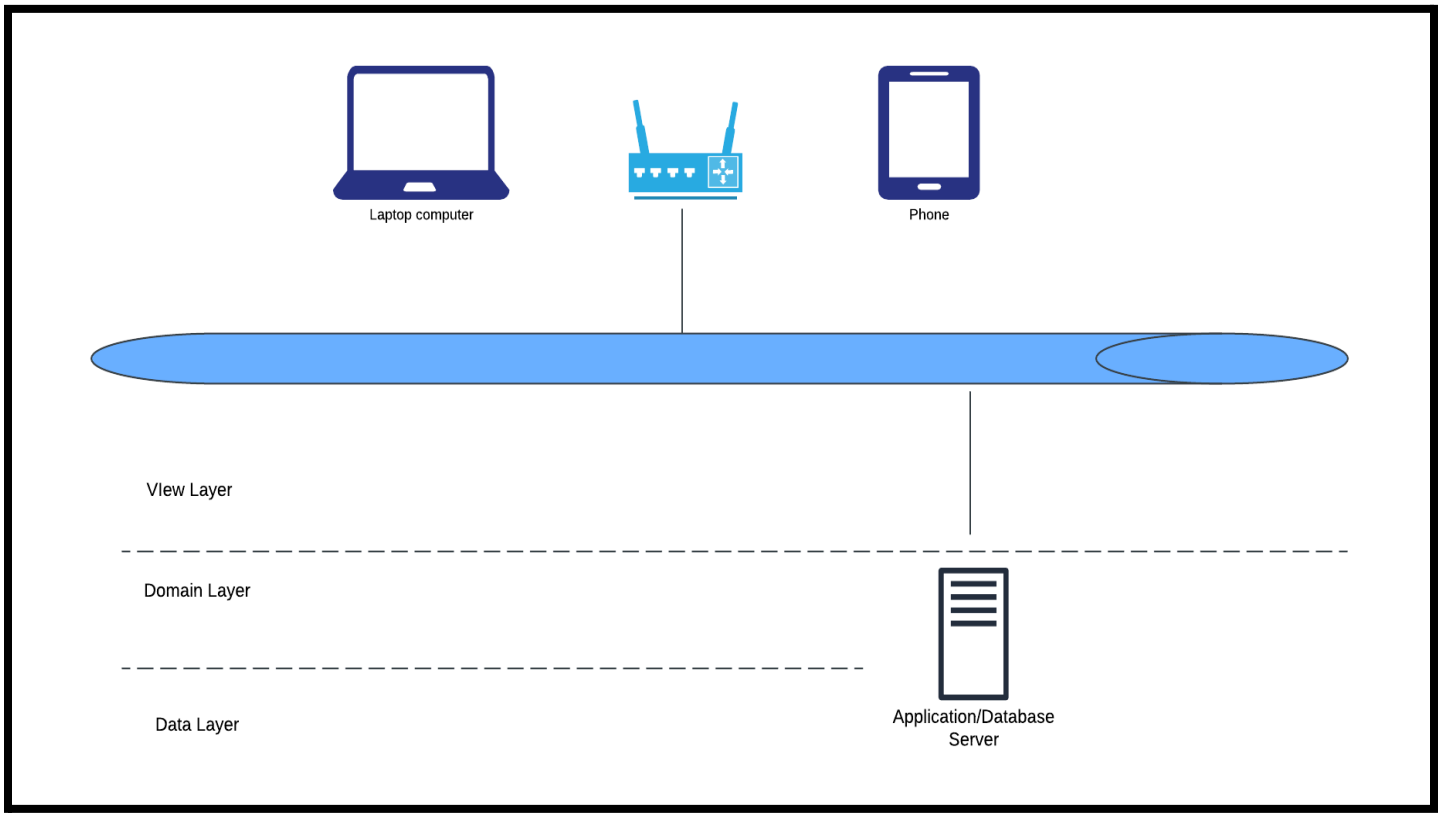
The proposed system will consist of a few key components which are divided into three subsystems. These components are the database, the website, and the system itself. For the components to interact, the system will pull and display information requested and entered through the website. The website will be hosted on the internet for remote access.

Package Diagram:

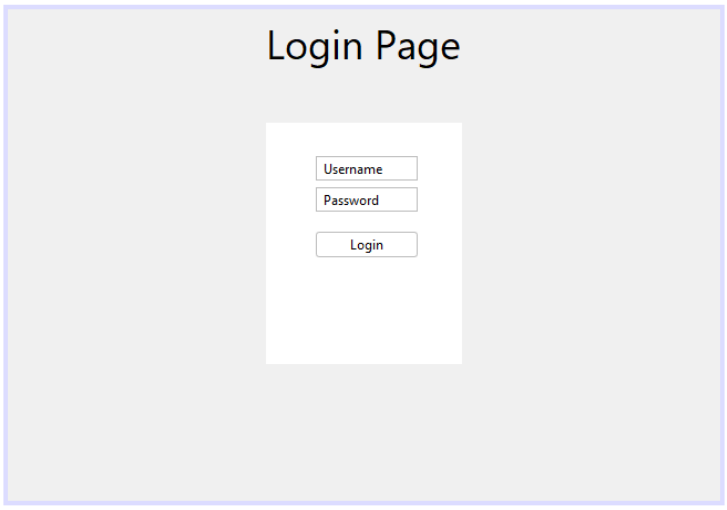


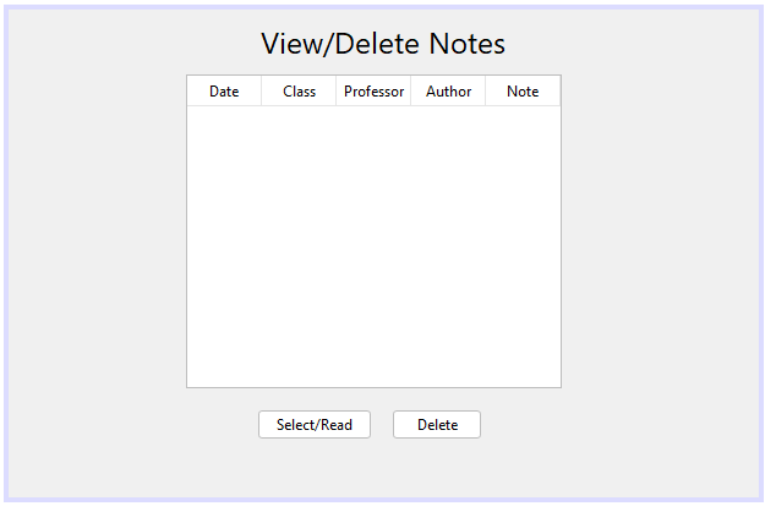


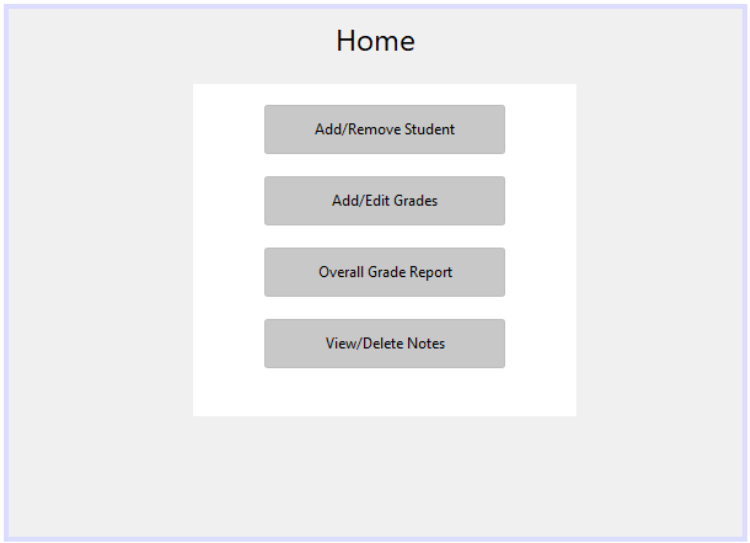
Deployment Diagram:

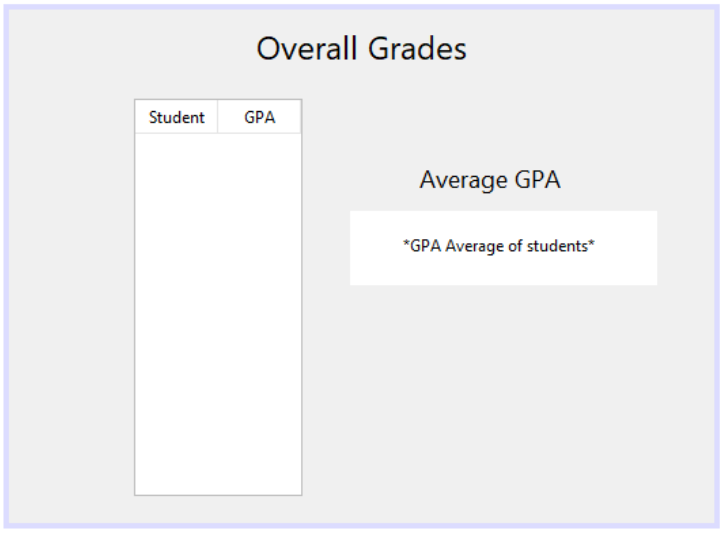


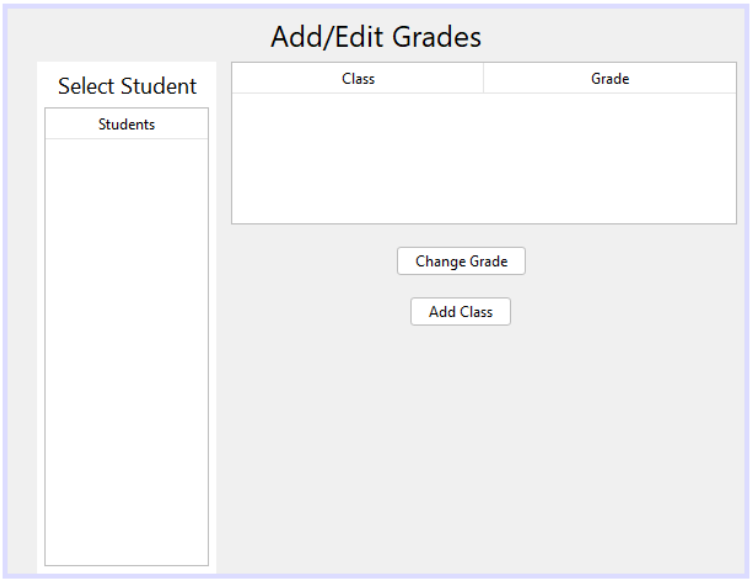
4. Design the user interface

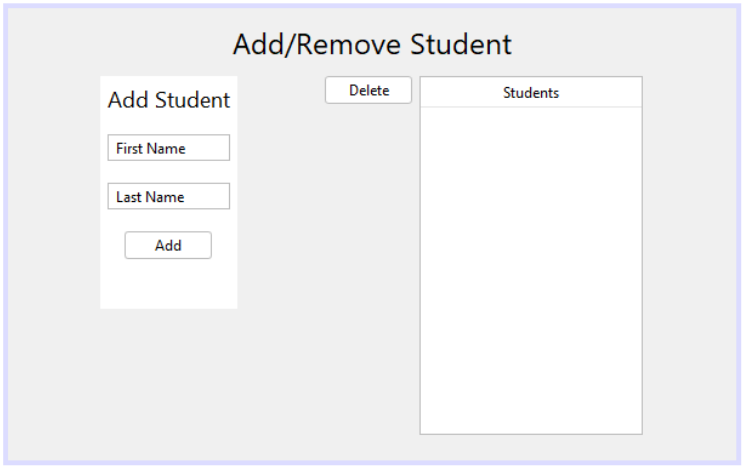


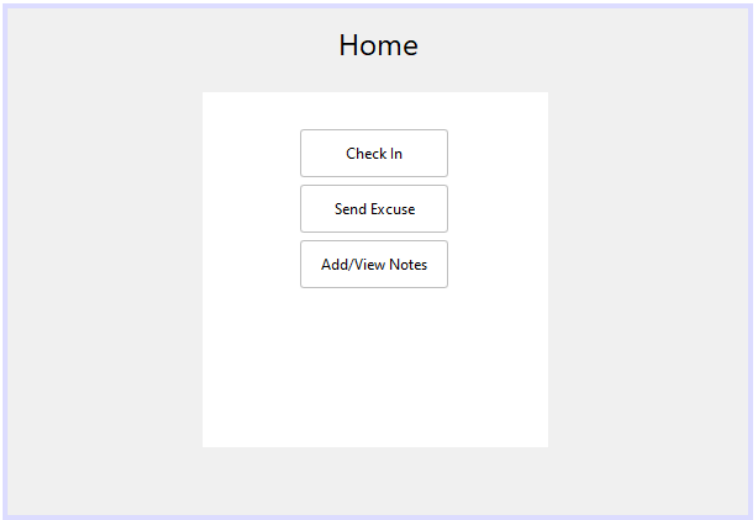


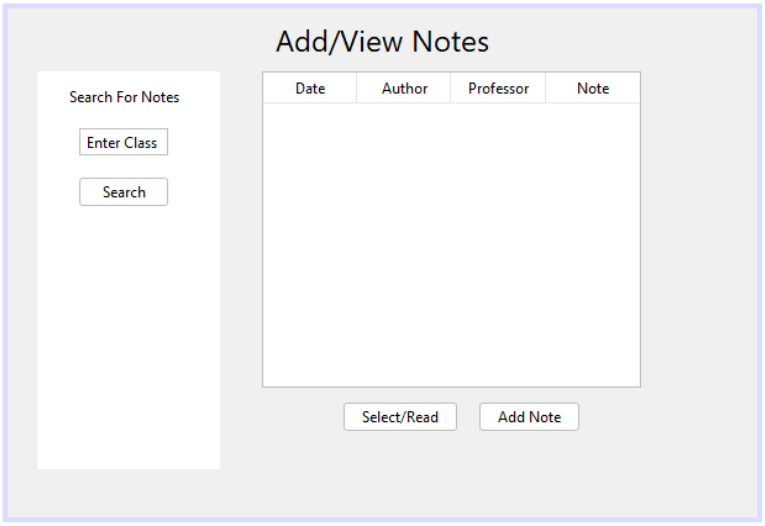



Overall Grades
Student
GPA
Average GPA
GPA Average of students

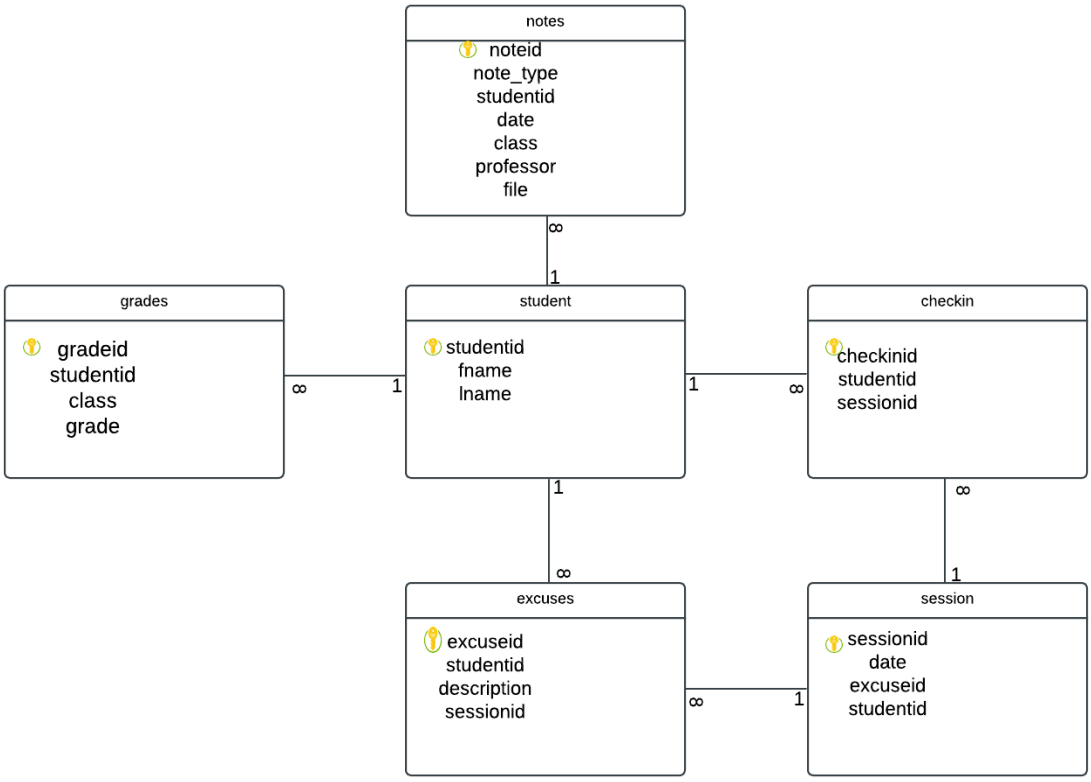

Add/Edit Grades
Select Student
Students
Class
Grade
Change Grade
Add Class


Add/Remove Student
Add Student
First Name
Last Name
Add
Delete
Students


Home
Check In
Send Excuse
Add/View Notes

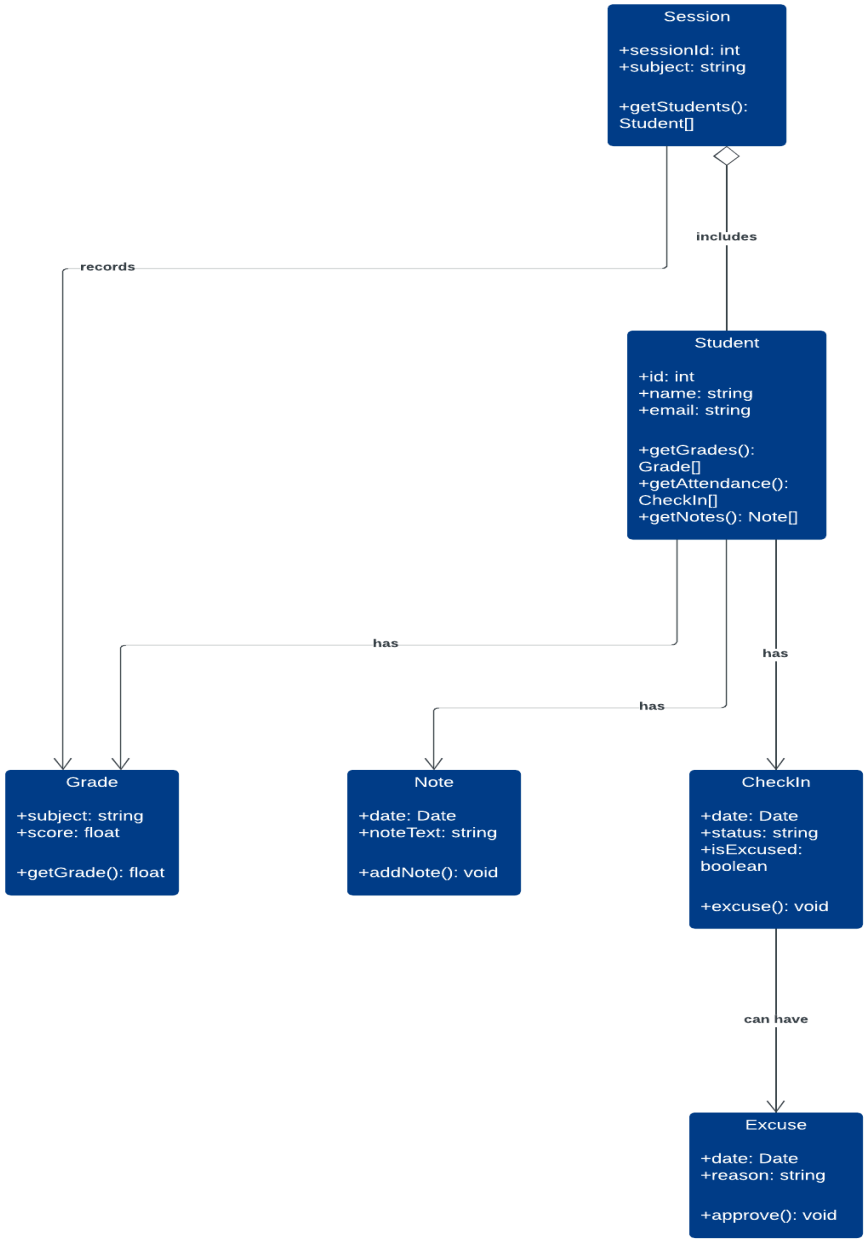

Add/View Notes
Search For Notes
Enter Class
Search
Date
Author
Professor
Note
Select/Read
Add Note

5. Design the database:

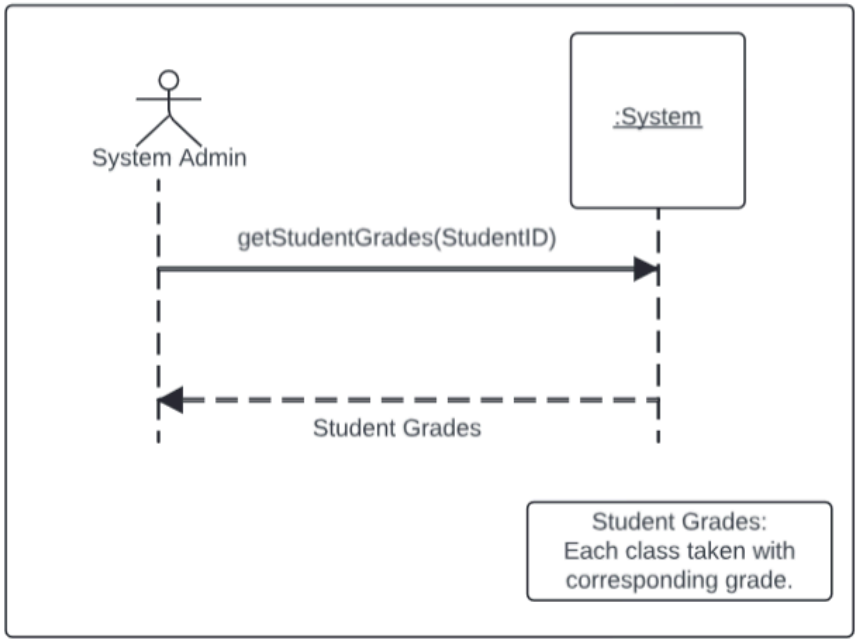


6. Design the Software Class Methods

Class Diagram:



Systems Sequence Diagram:



State Machine Diagrams: