

Course Registration System

Group Members

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Overview

The goal is to build a course registration system in which the application will have two different roles, students and administrators. Administrators will be able to add and delete courses that are being offered, change / set the buildings that the courses will be held in, as well as set/change the instructors that the courses are being taught. Students will be able to register for courses (if there is availability left) and build schedules for themselves, which will represent the courses they have registered for in that upcoming semester. Both roles will be able to find out the availability of classes (i.e., if a class is full or still has spots available) and see a list of all courses offered.

Data Requirements

Administrators

- For each administrator, we will store their **name**, **email**, and **UIN**. The **UIN** will be how we identify each administrator.

Students

- For each student, we will store their **name**, **email**, **level** (Freshman - Senior), **Courses**, **Fee_Amt**, and **UIN**. The **UIN** will be how we identify each student. A student will likely have multiple classes, so the **Courses** field will store what classes each student is currently registered for, and this info will directly impact their **Fee_Amt** as well, as each class will have an associated fee.

Courses Information

The database will store information about the upcoming classes (courses) that are available.

These classes will be what students are registering for, and the data held for each course will be:

- **Instructor:** Each course will have an instructor assigned to teach it. For each **Instructor**, we will store their **name**, **email**, **dept_name**, **UIN**, and **course_id** of the class they are teaching
- **Courses:** For each course, we will store its **name**, **course_id**, **dept_name**, **location**, **credits**, **availability** (i.e., how many spots it has left), and the **instructor** that is teaching this course
- **Department:** Each course will be under a specific department, and for each **Department**, we will store its **dept_name**, **dept_id**, and **dept_head**.

Application Requirements

The website should support the following actions for admins and students. Students and admins will have to log into the system with their email and a password (created when the user is first registered with the system) before being able to do anything.

Administrators

- Admins will be able to add and delete courses that are being offered, meaning they can remove existing courses and create entirely new ones. Admins will also be able to update the info of current courses, such as changing the location, number of spots (availability), and instructor teaching it.
- Since admins can delete courses, they also must be able to change a student's schedule, as if they delete a course a student is registered for, they will cause that student's schedule to change and no longer contain the deleted courses.

Students

- Students will primarily be registering for available courses, and to do this they will be able to pull an entire list of all courses available to take, as well as filter this list down, in

ways such as only pulling classes from a specific department or departments, classes taught by a specific teacher or teachers, etc.

- The student will also be able to see what courses they are currently registered for. This will pull the list of classes associated with this student and show them so they can see what they have planned to take thus far.
- Students will be able to see how much they currently owe to the university based on their current schedules (the classes they've registered for). This will look at their **Fee_Amt** and indicate to the student how much their upcoming semester is going to cost them.
- Lastly, students will have an option to see what courses they would need to take in order to have the prerequisites to take a certain class. This option will give students a 'flow chart' of sorts that allows them to map out what courses they would need so they would be eligible for higher level classes.

As a note, administrators will also be able to pull an entire list of courses and filter this list down just as students can, but this functionality is more so intended for students, as admins will not be registering for any classes.