Title:

Help me graduate ECE :(

Summary:

We will create a website that will increase the rate of graduation for ECE majors. This will help incoming freshmen in ECE plan out their academic schedules for their 4 years at UIUC. This will also help them choose their professors. This is also a good website for sophomores, juniors and seniors to reference back to during course selection.

Description:

Our project rates all of the required courses in the ECE department. We will rate these classes by average GPA, professor, class size, etc. We will give these classes a rating based on the A, B, C, D, F scale. We will also create a final flow chart for the most optimal class schedules from freshman to senior year. This will not only include the most optimal classes to take, but also the best professors to take it with. This flowchart will take into account the 1-of-6 requirement for CE major and 3-of-6 requirement for EE majors. We will have a user sign up and login to make sure only Illinois students can access this data. You must have an Illinois email account to sign up.

When ranking classes, we will also include a small description about the class and if it has a discussion or lab section. In the class description we will talk about the type of work required. This will include homework, MP/Lab, discussions, and Exams. This will give the user a better gauge on what each class requires and can help when picking a class. This will also give the user a more realistic idea of how a class is structured.

Usefulness:

This website will be useful to not only students at UIUC but also counselors. There are multiple resources that are currently available to students to help pick their classes such as reddit, rate my professor, waf cs GPA visualizer and more. This website will basically combine all these resources to help students figure out their class schedules based on professor, class description, and GPA. This website will also be useful to counselors when meeting with their students. They can refer to this website when advising them.

Realness:

We are going to get out data from various sources. We will get information from:

- Waf CS GPA visualizer
- Rate my professor
- R/ UIUC comments on Reddit
- Course explorer
- ECE advising website

From these websites we will get:

- Average GPA for each class
- Difficulty level for each class and each professor
- Student feedback from classes and professors
- CRN and course names
- ECE curriculum flowchart for graduation

Functionality:

Insert:

We will insert all the data that we collected from these various websites. We will have numerical data and non-numerical data. We will have to insert new data each semester.

Update:

We will have to modify the numerical and non-numerical data as semesters finish and new ones begin. Average GPA, and number of students will change as a semester finishes.

Delete:

Sometimes the course requirements change for graduation. So, we might have to delete some courses. For example, it was a requirement to take MATH 286 but now ECE majors have to take MATH 285 and MATH 257.

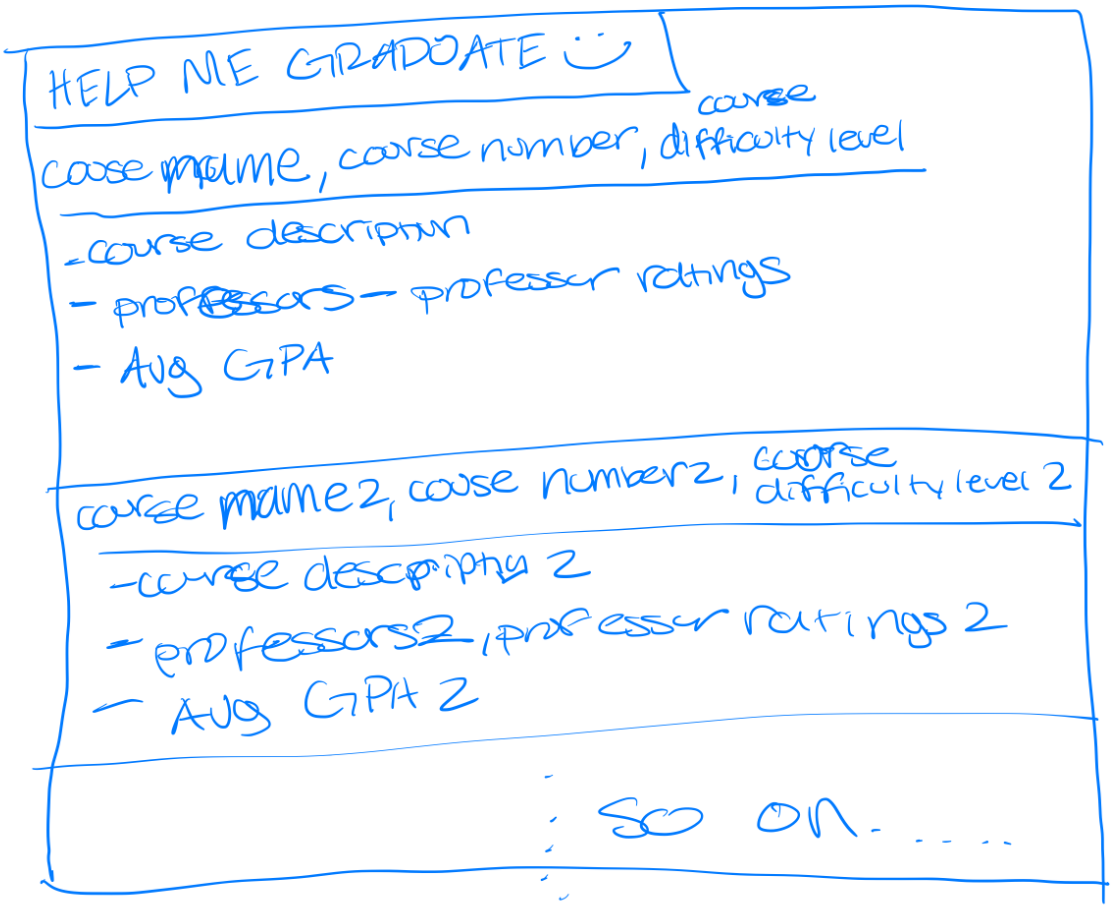
Order By:

We will order these classes by the level of class. It will do in ascending order:

- 100-level
- 200-level
- 300-level
- 400-level

UI:

Roughly drew by hand (by Srishti Modgil), subject to change.



Work distribution:

Xinzhuo Li:
Database-building: Implement function Insert
Create a function which can help insert new data to the database if a new semester start, there are some new professors, new GPA data and so on. It is also possible to have more students to be recorded as some students register.
Other work: Make sure the completeness of tasks, develop one of two SQL queries for the project.

Srishti Modgil:
Database-building: Implement function Update
Updating the records changes the data if needed. For example, we may want to change the average GPA if the data is updated each semester.
Other work: UI designer for the project.

Yang Chen:
Database-building: Implement function Delete
This function deletes data from our database. If a professor retires, we may want to delete all the data of his row. If a course is no longer provided, we may want to delete all the data of the course's row. These are two examples of the delete function.
Other work: Check for the database, develop one of two advanced SQL queries for the project.

Zach George:
Database-building: Implement function Search
The users may use the search function to search the average GPA of certain course, the rate of a professor and so on. This needs to have a text box to enter keywords.
Other work: Collect data for the project, if some of the data is unavailable, random or insert by ourselves.