Mad Course Evaluator

I. Problem & Core Functionality

For college students, selecting the courses for each semester is a very important event. During the course selection process, students need to take into account their major requirements, their schedule, their interests, the assessment of difficulty level, GPA expectations, and many other factors. Together, these factors will determine whether the courses chosen for the next semester will be useful and appropriate for the student's college experience. Arriving at a comprehensive consideration of these factors requires students to obtain information from a variety of sources. As far as we know, most students think this process is pretty time-consuming and sometimes they cannot find the best source to answer their confusion. In this project, we want to design a website that would help students do their course selection, which would save the students a lot of research time, providing them with an integrated platform with plenty of information about other students' comments, course content, grade distribution, etc.

II. Clients & Target User Base

College and graduate students are the main stakeholders, or it can be further extended to the whole group of students who need to choose courses. While there are many websites that provide information to help with course selection, they are sometimes not up-to-date or not representative, and they are often on different websites, requiring students to go to many pages on each site to get comprehensive information about a class. Students who want more accurate, extensive, and comprehensive information are our key stakeholders, and teachers, teaching assistants, and course designers are also part of the stakeholders. They can browse the website to see how they are doing through the evaluation of the course and the teaching team, and they can get substantive feedback to improve their teaching style, content, etc.

III. Priority Features

Mad Course Evaluator allows users to

- 1. sign up accounts, select majors and previously taken courses, update profile info.
 - a. Users will receive questions popping up on the homepage which are related to the courses that either users had taken before or they are marked as favorites.
 - b. Users can get quick access to questions that they can answer and browse potentially interesting questions.
- leave comments and advice for prospective students on registered courses.
 - a. Users can enter the semester and professor name when they leave comments.
 - b. Users can do anonymous comments if they want.
 - c. Users can reply to comments posted.
- 3. add new courses to the system.
 - a. Users can "leave a message". The requested course will be under review by us and then published on the website if it is qualified.
- 4. ask questions on a certain course
 - Users can select tags, so that the question can be easily navigated by potential answer providers.

- b. When the question receives a response, an email will be sent to the question askers' email address and users who are involved in the comment area.
- c. Users can unsubscribe from certain questions' email lists once they receive the first notification email.
- 5. get an overview of the grade distribution over different semesters. The information will be retrieved from madgrades.com.

References to similar systems are *madgrades* and *RateMyProfessor*. However, unlike *madgrades* and *RateMyProfessor*, Mad Course Evaluator gives a space for users to not only leave comments but also communicate on follow-up questions as well. Besides, *RateMyProfessor* aims at rating professors, which give limited help on whether the course is designed well or other course based information. Additional reference is to Amazon. The comment area in Amazon gives lots of hints to us as it allows users to rate a product, leave questions, and wait for them to be answered.

IV. Secondary Features (time permitting)

- 1. Allow users to check their own comment history (daily contribution).
- 2. Users with high upvotes on comments will be granted certain plagues.
- 3. Develop a separate tab for random discussion on school events.
 - a. Users can send posts without being binded to any course number.
- 4. Users will be warned and restricted when they post inappropriate contents.

V. Test & Demo

For testing, we will first test the functionality by test automation to ensure the system functions properly without bugs. Then, the team will invite multiple students on campus for user experience surveys. They will register accounts, update profile, and try out functionalities such as leave comments on course, reply to comments, like/dislike comment, etc. Feedback from test users helps us to improve user experience by possibly changing some feature designs. We will start from friends of our team members and also share the invitation QR code at university dorms to get more users for testing.

VI. Viability

The project is feasible for us to design because it is a web application and most of the frames and techniques used are mature and will be easy to grasp. We plan to implement a separate tab for the homepage. Another tab will be the profile page. The rest of the tabs will be the pages for each course, which will use the same structure, so we only need to build them once. We think according to the breakdowns, the workload for frontend would be appropriate for 5-7 people. Other work we need to do is to establish a database and fill the backend part, so that the information for each course could be rendered and grade records from *Madgrades* or other sources could be imported. We have also come up with some secondary features, which when time permits can be implemented as well.

VII. Domain Knowledge

- Design and develop SQL database or any other databases, not restricted to relational database
- 2. Java, Spring Boot
- 3. HTML/css, node.js (ReactJS), UI design