

Implication Project Proposal

EECS 393

Team Members:

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Background:

Our proposal is to design a web application that provides automatic course scheduling service for Computer Science students in Case Western Reserve University. The current alternative is the SIS system, which has significant drawbacks:

- 1) The system is not designed specifically to serve our target audiences.
- 2) The system does not provide automatic scheduling based on the student's current status and make course recommendations.
- 3) The graduation requirements for Computer Science Department are more complicated compared to most of other majors since five different tracks could be selected and multiple listed courses are no longer provided.

Requirements:

- User registration: Create new users, user information collection (courses taken, year of study)
- Automatic Scheduling: Based on entered preferences including the number of C.S. course credits intended to take, time slots unavailable, and other non-C.S. courses intended to

take, the web application generates recommended schedules that consider course prerequisites, availability, and difficulty level.

- (Optionally) Graduation Check: Check and generate the list of courses needed to be taken for graduation
- (Optionally) Facts About Courses: Provide facts and comments about courses (collected from Case students who previously took the course) that will help students choose the most suitable courses

Implementation Details:

- Front-End Development (Web Development): HTML5, CSS, JavaScript (Angular.js, Vue.js, React.js, or JQuery depending on team members' experiences), Java Server Page (JSP)
- Web Page Prototype: Axure RP 8
- Back-End Development: Java with Log4j Framework (Error Log), MyBatis and Spring Frameworks (Tentatively, depending on team members' experiences)
- Database: some sort of MySQL opensource database or DB2 by IBM
- Database Connection: JNDI managed by Apache Tomcat
- Collaboration Platform: GitHub
- IDE: IntelliJ IDEA Community Edition