Team 5 September 7, 2017

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# **Project Proposal: UCDB**

This project proposal is created for Team 5's CS 157A semester team assignment. Our project will be a **university database**. The database will store the university's numerous departments, staffs and faculties, courses, and students information. The roles of each teammate is determined by the sprint we're in, following good Agile methodology.

## **Team Information**

Student Name	Email	Role
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### **Domain of Database Application**

This project is on Github <a href="https://github.com/EeYiengZheng/UC\_DB\_PJ\_REC">https://github.com/EeYiengZheng/UC\_DB\_PJ\_REC</a>. We will be using XAMPP for a local host server and MySQL as our database since Github does not have the functionalities of hosting a database or running PHP.

## **Benefits of Database Application**

A university is complex. There must be an easy way to structurally organize all members associated with a university, whether it be students, staffs, or outsiders. Using relational techniques, we can organize a university based on the function of its members.

## **Application Specifics**

The application is a private database for a university to store information. The database may be ordered by relation. Information may include departments, staffs and faculty members,

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buildings, courses, students, or more. Users will be able to query the database for specific information.

- Security: access to DB is limited by permission
  - User account system
  - System administrator may access all information
- Hierarchical structure
  - Head of department may have more power than professors
  - Professors may have more power than students
  - o Non-members have no power, etc.
- Course information
  - Lecturer, students, time slot, course name
- Common database functions
  - Modification permissions based on member's power
    - The president has power over the deans
    - A dean has power over a college/department
    - Department can hire/fire professors
    - Lecturers can add/drop students
    - Students may drop themselves
  - Modification of member's information
    - Names, ID, medical records, attendance, and anything else
    - Dean's payroll
- Set key roles
  - Instructor can only teach one class in one time slot
    - Can teach a limited number of classes
  - Students may or may not show up...
    - Can take a limited number of classes with permission
      - CS student shouldn't be taking BUS 160
  - One dean per college
  - One president per university