CSC 4480: Final Project

Project Brief

Create an application that uses a database system to keep track of records. Below is a sample application.

Sample Project: Student Gradebook

A student gradebook that keeps track of a student's grade for several courses that a professor teaches. Courses should have information about the department, course number, course name, semester, and year. For each course, the grade is calculated on various categories, including course participation, homework, tests, projects, etc. The total percentages of the categories should add to 100% and the total perfect grade should be 100. The number of assignments from each category is unspecified and can change at any time. For example, a course may be graded by the distribution: 10% participation, 20% homework, 50% tests, 20% projects.

Requirements & Due Dates

- General requirements:
    - you are permitted to work in groups of 2-4 for this project
    - all code must be saved to a source control system
    - non-code contributions should be documented (e.g. via documents with noted authors saved in a Google Drive, burndown charts, etc.)

- **11/10 at 11:59 PM**: Project Proposal outlining the conceptual idea of the application you will be developing. This proposal should include the following:
    - A brief project summary (i.e what does your application do?)
    - A tentative business rules and restrictions that your database might have.
    - A tentative ER diagram showing the conceptual model for the DB
    - A schema representation for the ER diagram.

- **11/29 - 12/10 in Class:** Project Presentations
    - Give a presentation (~10 minutes) on your project and design. You should plan to use the time between your proposal and this presentation to perform prototyping work (figuring out which parts of your design will work and which parts need refinement, for example), project setup.

Grading

- You will be graded *as a group* based on:
    - Does the application work (search, insert and retrieve a record)? - 50%
    - How well does the application demonstrate concepts learned in class? - 40%
        - What kind of dataset was used for your presentation?
    - Originality and creativity - 10%
- You will be graded *as individuals* based on:
    - How much did your *documented contributions* (code commits, document authorship, team coordination, testing, etc. -- as long as there is a record of the work it will be considered) contribute to the success of the project?
        - You and your team members will be given the opportunity to highlight these contributions and describe their impact on success.
- Your overall grade will be based on the group and individual grades. This will normally be 70% from the group grade, and 30% from your individual grade. However, the instructor reserves the right to change this assignment in cases where work is not well-distributed within a group.

Your Submission

- The ER diagram (with the attributes and foreign keys/primary keys indicated).
- The SQL commands for creating tables and inserting values.
- [Optional] A link to the git repository containing the source code.
    - The source code should include a README file.
    - The minimum required content of the file should contain instructions on how to execute your application.
- Screenshot of test cases of SQL queries you executed.