MPCS 53001 Databases

Final Project - Overview

The University of Chicago - Department of Computer Science

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For the final project (25 points), you will build a design and build a database along with an interface to facilitate user interactions. The project is a teamwork, please use the following sheet to add your name and the name of your team members:

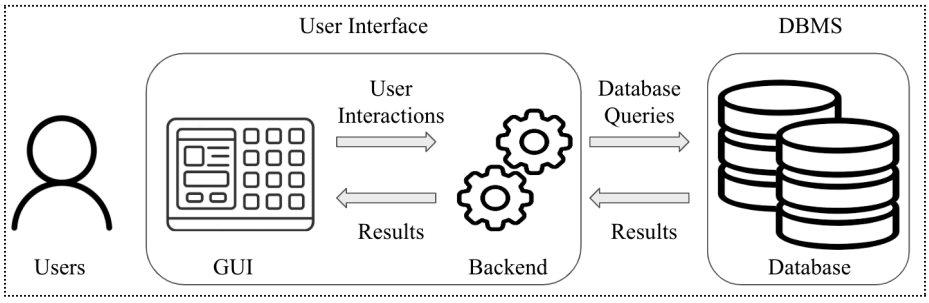
https://docs.google.com/spreadsheets/d/1GJ7Biu-ITomDHA3BCL1LkILEacZryhzNDTIo9wkdWps/edit?usp=share_link

The project is divided into three sequential steps, ***summarized*** as follows:

- ***Step 1 (5 points):***
  - Think of an idea or a topic for a software/application that requires a database
  - What are the set of initial requirements you would like your database to address
  - List an initial set of queries you would like your database to answer.

- ***Step 2 (10 points):***
  - You can revise (add, remove, or edit) the requirements and queries you mentioned in Step1
  - You will analyze the requirements and the initial queries of Step1 to build a conceptual design (using ER diagrams)
  - You will translate your ER diagram into a logical design (using the Relational Model)
  - You will search for / prepare data sets to populate your database with.

- ***Step 3 (10 points):***
  - You can revise (add, remove, or edit) the requirements and queries you mentioned in Step 1.
  - You can revise (add, remove, or edit) the ER and Relational Model you designed in Step 2.
  - You will use MySQL RDBMS and the SQL query language to design and build your database.
  - You will implement the User Interface (e.g., Web-based application, Desktop-based application) that enables user interaction with the database.
    - You can use any of the following programming languages: Python, Java, or C++.
    - Resources/Tutorials will be provided on how to use these programming languages to interface with the database.
    - Resources/Tutorials will be provided to help you build GUIs.



<u>There will be a separate document regarding each step, discussing what you will be working on and what to submit.</u>

<u>The teams will present their designs and implementations in-class during the final week. More information about the presentations and the exact schedule will be shared with the class in a separate document.</u>