CS 432: Databases

Assignment 3: Implementing a Web App using MySQL

Total marks: 100M	Submission deadline: 23:59:59 Hrs, March 20, 2023

1. Assignment Instructions

Please refer to the following assignment instructions:
1. Regarding the late submission, we will be following the penalty as per the table:

Late Submission	Penalty (Out of 100)
Till 1-hour past deadline	5 points
1 to 12 hours past deadline	10 points
12 to 24 hours past deadline	20 points
24 to 36 hours past deadline	40 points
36+ hours past deadline	100 points

2. No assignment-related queries will be answered after March 18, 2023, 23:59:59.
3. We will follow the zero plagiarism policy, and any act of plagiarism will result in a zero for the assignment.
4. Please cite and mention others' work and give credit wherever possible.
5. If you seek help and discuss it with the stakeholders or individuals, please ask their permission to mention it in the report/submission.

2. Problem Statement & Requirements

1. Based on the teams formed, each team is supposed to create a web application of the proposed functionalities in the previous assignments. Each team can be divided into Group G1 and Group G2; G1 is supposed to work on the front-end and G2 on the back-end sections, respectively. You can use Flask + MySQL for developing your WebApp.
2. The web app should support the dynamic execution (The changes done by the user through the web app shall be reflected in the main database and web page also) of the following functions on your database:
   - ☐ INSERT
   - ☐ UPDATE
   - ☐ DELETE
   - ☐ RENAME

☐ WHERE clause
3. Push it to GitHub and share the link for submission.
4. Login page with authentication of users and stakeholders.

3. <u>Tasks</u>

3.1 Responsibility of G1:   40 Pts.

G1 is supposed to design the front end and beautify accordingly using HTML/CSS/JS, you may use any other libraries for the front end, such as Bootstrap or jQuery. But flask is mandatory.

3.2 Responsibility of G2:   40Pts.

G2 has to work on integrating MySQL in WebApp. This group works on the proper working of the backend.

3.3 Responsibility of G1 & G2:   20Pts

1. Create the database of the designed logical schema in your previous assignment number 2, enter dummy/imaginary values into it, and show these dummy entries on the web page. (10M)
1. Implementing the tasks as per the section <u>Section 2: Problem Statement and Requirements</u>. (15M)
2. Write-up in the README file, which should include the following: (5M)
   a. Steps to run your web app [initial setup, executing the required tasks, etc.].
   b. Screenshots of successful execution of the dynamic operations defined in <u>Section 2: Problem Statement and Requirements.</u> You can design the web app in such a way that a dialogue box pops up that the query has been successfully executed. Also, you will have to post these snapshots of the dialogue box (in the readme file) for every respective query. Or else, you can directly show the before and after changes reflected in your concerned table in the web app in the README file.

4. <u>Submission</u>

1. The submission pdf (or README) must have four sections with screenshots of the operations of the web app:
   a. Responsibility of G1 (Answers to the above questions)
   b. Responsibility of G2 (Answers to the above questions).
   c. Responsibility for both G1 and G2.
   d. Contributions with a list of members in G1 and G2.
2. Combine all the code & files, push it to Github, and submit the link in <u>this</u> Google form. Make sure to add all the files (HTML/CSS/JS/.py files), as there will be a pilot test of the web app (Ensure the path of files are relative).
3. While compiling the final PDF or README, please make sure that all the responsibilities and contributions are mentioned clearly (Also, please justify the individual contributions). The contributions can be added in the last.

4. PLEASE ADD THE SQL DUMB OR THE *.sql* FILE WITH QUERIES.
5. Working code of the implementation (HTML/CSS/JS/.py files).

Note: By submitting this assignment solution, you confirm to follow the IITGN's honor code. We shall strictly penalise the submissions containing plagiarised text/code.

5. References:

If required, please feel free to take help from the following references:
1. Installing Flask [Here].
2. Downloading MySQL workbench: [Here], Download MySQL server [Here]
3. Recording of connecting flask + mySQL [Here].
4. Template code flask + mySQL [Here].
5. Relevant commands [Here].

6. Timeline:

1. Assigned is released on March 3rd, 2023
2. First reminder - March 10th, 2023
3. Second reminder - March 15th, 2023
4. Submission - March 20th, 2023