CMPUT 291

MINI PROJECT 1

Design Document

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Group Members:

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1. **A general overview of your system with a small user guide:**

The goal of this project is to use SQL in Python, and to demonstrate some of the functionalities that result from combining SQL with interfaces like Python. This program interacts with the user and displays the required data (which in this case is the Relational Schema of a Movie Streaming Service). The relational schema given to us for this project is defined as:

- moviePeople (pid, name, birthYear)
- movies (mid, title, year, runtime)
- casts (mid, pid, role)

• recommendations (watched, recommended, score)
• customers (cid, name, pwd)
• sessions (sid, cid, sdate, duration)
• watch (sid, cid, mid, duration)
• follows (cid, pid)
• editors (eid, pwd)

We divided the project into three main problems namely: Login Screen, Customer, and Editor. And then we implemented certain subtasks inside these problems according to the detailed description given to us in the project document.

We have used only functions in python source code to implement every aspect of this project.

2. **Detailed Design of the program:**

In addition to being able to login on the login screen using a valid user id and password, a user can perform subsequent operations based on their type (customers or editors).

Roles were assigned to each type of user, and it was linked to the functions they have permissions for. For instance, all users can quit the program and logout of the program. In addition, a customer can start a session, search for movies, end watching a movie and end the session. While editors cannot perform these operations, they are able to add movies and update recommendations.

3. **Testing Strategies:**
   - Started building the program by having all the set-up data in place and writing one query at a time. This allowed to build a bug-free program in small steps.
   - A small test database was also created to test the functionality of the queries.

4. **Group Break down Strategy:**

Break-down of the work items:

- Shubhangi worked on the login screen, customers starting a session and testing
- Rahulpreet worked on customers searching a movie and editors updating the recommendations and testing
- Kannan worked on ending customers ending the movies and sessions and editors adding the movies and testing

Time spent of each member:

- Shubhangi spent 10 to 12 hours
- Kannan spent 10 to 15 hours
- Rahulpreet spent 10 to 12 hours

Method of coordination to keep the project on track

- The group met in the beginning of the project to discuss an overall strategy and divide the work among themselves.

- The group also met on the submission day to go through the code together, divide it into separate files for improving code quality. Changes were also made in the code to ensure it works well with the python version on the lab machine
- All the other communication was done in a group chat, including modifying work distribution as necessary and tracking progress.
- The design document was prepared by collaborating on a google doc

No further assumptions were made in this assignment