University of Belize
Department of Mathematics, Physics, & Information Technology
CMPS1171 - Introduction to Databases

Final Project

Problem Statement:

There are currently no dating apps for Belizeans. So, you have been tasked with designing one. Let's call this app **utopia**. Your task is to design the database for **utopia**. We need to track:

- User accounts. A user will have a first name, a last name, a gender, a user-name (hotstuff99, bestToucan24, etc.), an email, and a bio/description of themselves. Note that gender can be many kinds (Male, Female, It, Them, etc.) so a separate gender linking table is needed.
- Gender(s) interested in. What gender is the user interested in. For example, a male user might be interested in a relationship with a Them, a Male, a Female or a Tree. So, the user can be interested in many genders.
- User photo(s). A user will have URL links to their images. Each image will have a description (ex. Just woke up.)
- Relationship types interested in. For example, friends, romance, buddies, etc. A user can be interested in many types of relationships.
- The conversation history. We need to keep track of all the user conversations. Each user will have conversations. Each conversation will be with some other user happening at some time. Remember a user can have multiple conversations and a conversation involves multiple users (2 exactly). Because a conversation is made up of multiple messages, it might be best to also have a messages table.
- Block list. We want to see for each user if they have other users blocked. Maybe they get tired of a user sending them 100+ messages a day.
- Comments/Feedback for users. For example, "Tommy is such a great guy. He is cool and easy to talk to. I would definitely go on a date with him if I were single."

Note [a]: Remember to include a timestamp(time+date) column in your tables.
Note [b]: If there will be any assumptions that you are making, please explicitly list them for me, so that I know your train of thought when grading your work.

Create and then login to a database named **utopia**. The password for the **utopia** role that your created should be **#final#**

1. Using the information provided above in the problem statement, create the appropriate tables that the application will need. Place all your tables in a file named final_tables_data.sql

   Note: If you try to cram all your data into a few tables and skip using linking tables (because you think they are too much work), you will lose a lot of points, and your queries may not work properly. I want you to do a proper design. [30 points]

2. Insert five rows of data into each of the tables that you created in problem one above. Place these inserts into your final_tables_data.sql file. Go ahead and load your final_tables_data.sql file into the utopia database to create the tables and populate them with data. [10 points]

NOTE: All the queries that you write are to be placed in a file named final_queries.sql

3. Write four (4) queries of your choosing that queries the data that you entered. The only requirement is that all the queries must use at least one join, at least one of the queries must employ a subquery, and at least one of the queries must use the count() function.

   Write the query description, the SQL code and also show query results (in the video or screen shot) for each of the queries you design. [30 points]