

Social Networking Analysis

1. README

- Load and execute 'project_schema.sql' file that contains the schema of the project
- Then load and execute 'data_insertion.sql' file that inserts data into tables. It also contains all user defined functions, procedures, triggers and events
- Open jupyter notebook using 'Anaconda Navigator' or by installing jupyter notebook externally (Link: <https://www.anaconda.com/products/individual>) to open the 'Challa_project.ipynb' file containing the application code
- Install sql connector using the command: pip install mysql-connector-python or conda install mysql-connector-python
- Execute each cell by using shift+enter
- Provide user inputs when necessary

2. Technical Specifications

2.1 Introduction

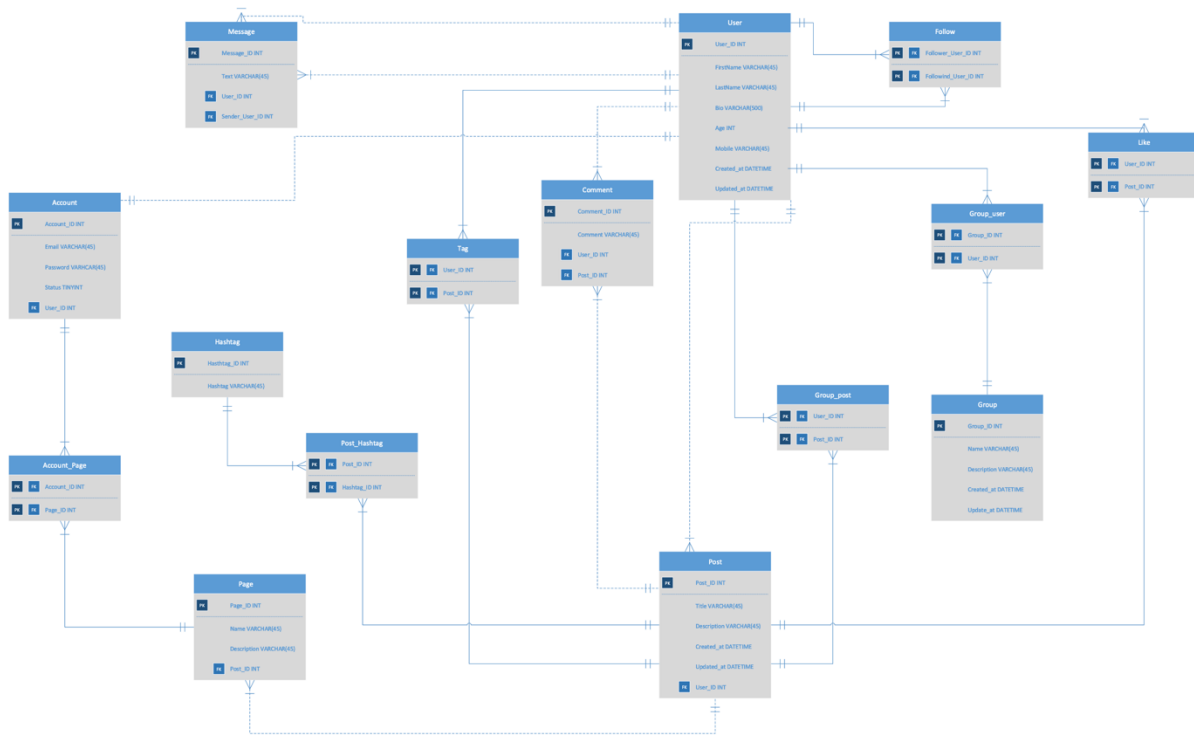
- On an average, a person uses at least 8 platforms to communicate in several ways such as pictures, texts, videos or articles
- The more number of people who sign up on these social media platforms, the more there is need to store data and more the need for the storage sophistication
- The project is an effort to show how these database structures are made and what kind of relationships are used to correlate the data
- This database will be used immensely to understand the data usage, the popularity of features and the consumption of data. These datasets can be further analyzed to predict trends or can be used to gauge the reaction for future possible features.

2.1 Technical Info

The project schema creation and data insertion were performed using MySQL Workbench. Application code for user access was executed using Jupyter notebook.

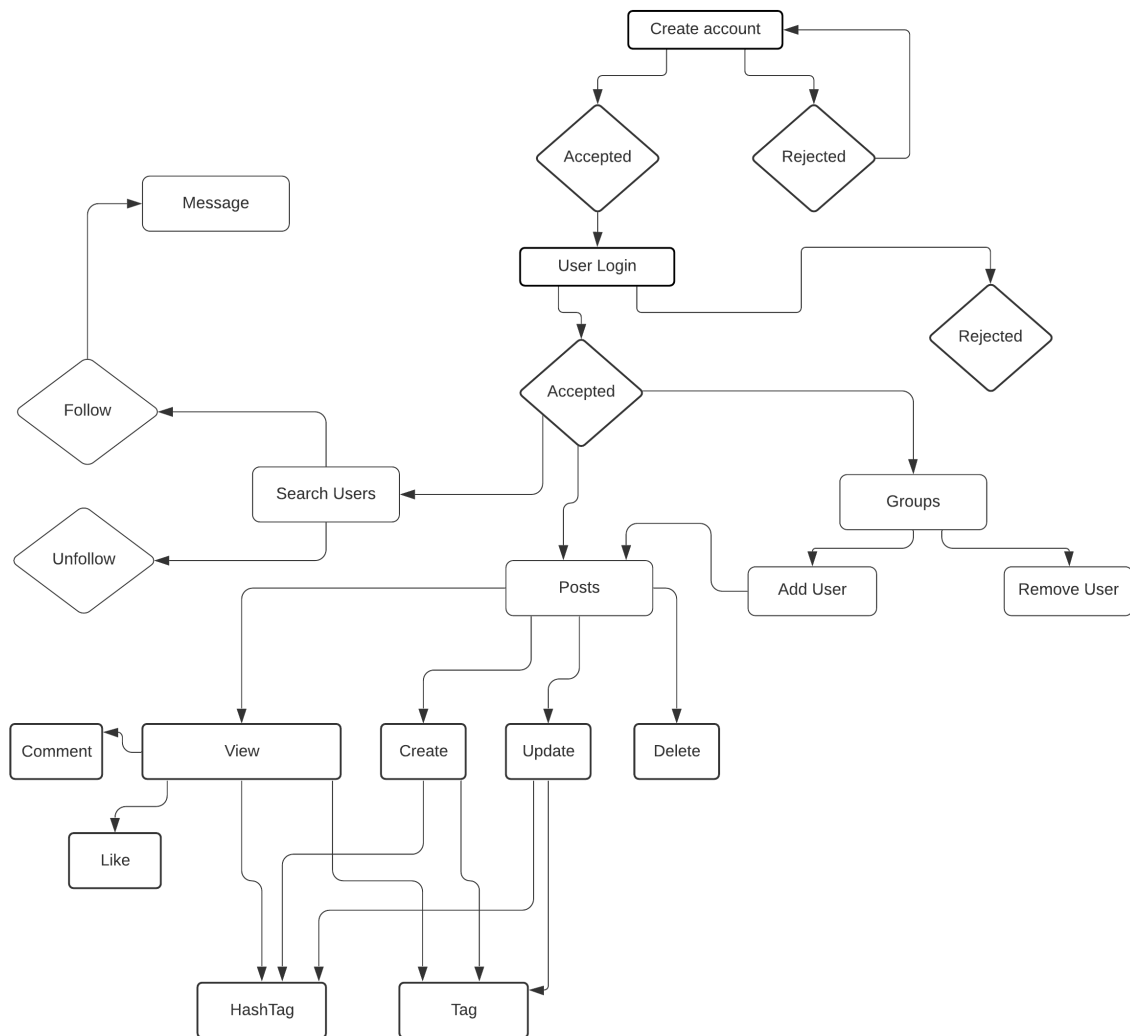
3. Design

3.1 UML Conceptual Design



3.2 Logical Design

The Social Network



A database system for social network analysis will be developed in this project which contains useful information of users.

A user can:

- create an account
- create profiles
- follow users

- message other users
- create groups
- post
- like
- comment
- use hashtags
- tag other users
- create pages

5. Lessons learned

5.1 Technical experience gained

Gained good knowledge of creating a database from scratch and creating relations between various tables. Got practical experience working with social network data and understood the complexity involved.

5.2 Insights

I have understood that maintaining many inter-related tables is a hard task and need to be handled with giving utmost attention to details. Changing entities/records in one table could affect other tables which we could miss sometimes. It is very important to make all such necessary modifications without missing anything.

5.3 Alternate approaches

Adding more records for all the tables would have given more flexibility working with the data. Also more triggers, procedures to automatically updates particular tables could have made the database better.

5.4 Code

All the code is working perfectly. So, no errors to discuss about.

6. Future work

6.1 Uses

The social network database could be used to store the data of any relevant social networking site that has similar functionalities.

6.2 Potential areas for added functionality

There are a lot of functionalities that could be added like the ability to store pictures, videos in the database, creating more triggers, events to improve the database functionality, inserting more data, adding more functionalities like sharing a post, adding friends etc.