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CS166 Project Report

Compiling and Running Requirements:

Starting the program requires you to have your Postgres instance started correctly with `PGPORT=2536` and `DB_name=mydb`. In order to load data into the database you must edit the `sql/src/load_data.sql` file so that the paths for the csv files match your computer. Load tables by running the `create_db.sh` script in `sql/scripts/create_db.sh`. After loading the database, you can run the program by executing the `compile.sh` scripts in `java/scripts/compile.sh`.

High Level Description:

The application's main menu presents the user with the option to create an account, login to their account or exit the application. Once logged in, they are presented with a user menu that gives them the option to view the contact list menu, blocked list menu, chat menu, delete their account, or to return to the main menu .

- If the user selects the contact list menu, they are given the option to add people to their contact list, delete from their contact list, view their contact list, or to return to the user menu
- If the user selects the blocked list menu, they are given the option to add people to their contact list, delete from their contact list, view their contact list, or return to the user menu.
- If the user selects the chat menu they are given the option to create a chat or to navigate to the chat viewer. The chat viewer displays the chats that the user belongs to. If chats exist, they are listed with their chat id and the members that belong to the chat. After selecting a chat by entering a valid chat id, the user is taken to the chat viewer menu. The chat viewer menu lists the options to display messages, add messages, edit messages, add users to the current chat, remove user from chat, delete chat, or return back to chat menu.
- If the user selects to delete their account, their account is deleted only if they are not part of any chats. The user must delete all their chats in order to delete their account. Once the account is deleted, the user is brought back to the main menu.

Problems Encountered:

One problem that occurred for us was getting the error message that the `chat_chat_id_seq` was not defined for the current session. We fixed this by moving the statement after the related sql statements. Another problem we occurred was when we

were having problems with displaying our messages. After hours of testing we found that our problem was in the display message function and that we were accessing the wrong index when we were print the message id, sender, time, and message content.

Design Decisions:

We decided to separate the features of our application with multiple menus for clarity. We also added indexes on all primary keys of each table. We also edited the load_data.sql file to add a chat_chat_id_seq sequence that allows to update the chat_id value with the given getCurrSeqVal function.

Contribution:

Shilpa worked on chat features and testing and Alyza worked on messages and user interface. However, we worked together and helped each other with implementing all of the functions throughout the project.