

## Messaging App

### Functions:

The native functions that were given to us in the sample were inefficient to finish the project so we made our own helper functions to provide the functionality of a working messaging application. Below we list and detail the high level logic of each function:

- Contact List Features
  - Adding users to contact list
  - Removing users from contact list
  - Display the current user's contact list
- Block List Features
  - Adding users to block list
  - Removing users from block list
  - Display the current user's block list
- Chat Room Features
  - Creating a chat room, private/group
  - Adding members on contact list to chat group
  - Removing people from chat group
  - Dissolving a chat if you own it
  - Leaving a chat room you are added to
  - Show messages in a chat you are in. Increments of 10
- Messaging Features
  - Add a message to a chat you are currently in
  - Edit a message you own that already exists
  - Delete a message you have made
- Authentication
  - Functional Log in feature. Checks user credentials
  - User can create an account. Checks for duplicates.
- User Interface
  - Text based user interface.

### Problems and Limitations:

We initially had a few hurdles that we had to overcome. Neither of us had written a Java application so we had to do some initial research to begin the third phase of the project. We leverage our SQL knowledge and new Java knowledge to expand the Messenger class.

After some initial development, error checking was a larger task that we had initially anticipated. Most of our queries were fine but the application design and UI took a considerable amount of time. We spent a lot of time debugging and checking edge cases. We also spent a lot of time masking SQL errors to have a nice user friendly error message.

## Contributions:

We divided the workload between us at a high level. We list below the individual contributions that each member had to the project.

Dylan: User Interface, Adding and editing messages, remove contact, remove block, display messages, delete account

Calvin:

Chat Features, Adding users to contact and block list, function documentation