# **Project 4 ReadMe**

## Team members:

Isabel Laurenceau 7393-5064

Anshika Saxena 9530-5566

# Explain what functionality is implemented

Six functionalities were requested for this project.

The first functionality is to register the account, log-in with the account and delete the account.

## 1a) Register

To register the count the main program asks if the user would like to log in or register. When the user types “register” or “Register” they are asked for their user-name. It is first checked whether the username is already taken or not. If the username is free they are asked to enter their new password twice. If the passwords match the dynamic supervisor is started and the username and password are saved. The password is insert some security stuff here. The main menu options are then presented to the user: delete account, send tweet, subscribe to user, re-tweet, query, check feed

### Tests for Register

\*\*Single Test\*\*<br>

<br>

[x] test that new client is in dynamic supervisor<br>

<br>

\*\*Single Test (with children already present in dynamic supervisor)\*\*<br>

[ ] test that new client is in dynamic supervisor<br>

[ ] test to register with already taken username<br>

[ ] test that all children are in the dynamic supervisor<br>

<br>

\*\*Multiples Tests\*\*<br>

[ ] do both tests above with 10, 100, 1000 children<br>

<br>

\*\*Security Tests\*\*<br>

## 1b) Log In

The main program asks if the user would like to log in or register. When the user types “login”, “Login” “log in”, “Log in” , “logIn” or “LogIn” they are asked for their user-name. After both are entered it is checked whether the user-name and password exists together. The reason it does not check if the user-name exists as soon as it is entered is for an added layer of security. Other users should not be able to brute force put in user-names to see which are not yet taken as a security precaution. If both the user name and password match the main menu options are then presented to the user: delete account, send tweet, subscribe to user, re-tweet, query, check feed. If they do not match the user has 3 attempts to log in before they are locked out for an exponential amount of time.

### Tests for Log In

[] Test for incorrect password<br>

[] Test for incorrect username<br>

[] Test that after 3 times starts exponential lock out<br>

[] Test that lock out is exponential

## 1c) Delete Account

If the user selected delete account from menu ask user if they are sure they want to delete the account. If no; show main options again but if yes; ask user for password. If the user passed password check: ask again if they want to delete. If they respond yes; delete account from the supervisor but if no; go back to main menu. If the user fails the password after 3 attempts they have to wait 24 hours until they can try to delete again.

### Tests for Delete

[] Test user is gone from dynamic supervisor<br>

[] Test user cannot log in<br>

[] Test other users cannot @ them<br>

[] Test user's tweets are gone<br>

How to run the tests

Performance analysis