

MP2-Design

GITHUB LINK: <https://github.com/kuma190/CSCE438>

- Tsd.cc
 - Login
 - Add username to userfile
 - Create following, followers, and timeline files for user
 - Add username to its own followers file
 - Follow
 - Check if user exists
 - Check if potential user is not in original user's following file and not in potential user's follower's file
 - Add potential user to both files
 - Else
 - User already exists error
 - If user does not exist
 - Invalid user error
 - Unfollow
 - Check if user exists
 - Check if potential user is in original user's following file and in potential user's follower's file
 - Remove potential user from both files
 - Else
 - User does not exist
 - If user does not exist
 - Invalid user error
 - List
 - Get all users from users file
 - Get all users from username's followers file
 - Timeline
 - Create unordered hashmap that relates usernames to stream pointer
 - Receive stream and read messages from calling user (wait)
 - If calling user's username does not exist in hashmap:
 - Add username and its stream to hashmap
 - Get all posts from username's timeline
 - Write each post to calling user's stream in reverse fashion
 - If calling user is in hashmap
 - Get calling user's followers from its followers file
 - Write post message to each of the followers' timeline files
 - If follower is in hashmap, write the post to their stream
- Tsc.cc
 - Handled commands by splitting up at space delimiter and creating two separate tokens (if the command was list and timeline, only one token is created)

- Login sends request receives reply, nothing is done with reply
- Follow and unfollow do the same, the message in reply stores what the comm_status will be.
- Timeline has the main writer process which gets inputs from cin and sends it to server using Clientreaderwriter stream. Timeline also has reader thread which reads values from a stream and outputs it to the console.