Protocol 1 2 1’\n’

Server = 1 thread

Client = 2 threads

Thread 1 listening for server messages and writing to files

Thread 2 gets user input and sends requests to Server.

1. On bootup

1. Register
2. Input Username
3. Let user know username is already in use ask for Username again.
4. Option to exit loop back to bootup menu
5. Input Password
6. Reenter Password
   1. Passwords do not match go back to 2
   2. Success, move to Main Menu
7. Login
8. Username?
9. Password?
10. Invalid username or password return to on bootup menu
11. Success move to Main Menu
12. Quit
    1. Prompt all client threads to terminate

2. Main Menu (after login)

1. View current online number
   1. Show current number of online users and the names of online users then return to main menu.
2. Enter group chat
   1. Mutex Locked, prints contents of GroupMessage.txt which contains the current group message chat thread.
   2. User enters message to broadcast and sends server to broadcast to all users.
   3. Have menu back option to return to main menu
3. Enter private chat
   1. Receive private message (Most recent, unread or all? Select user? Clarify expectation)
   2. Send Message
      1. Prompt user to enter who to send message to.
      2. If user exists prompt user for message to send.
   3. Have menu back option
4. View chat history
   1. Group chat history (How Far?)
   2. Private chat history (how far?, individual or all?)
   3. Have menu back option
5. File transfer
   1. File
   2. Access Transferred Object
6. Change password
   1. Request old password
      1. Verify old password
   2. Request new password\
7. Register new requested password
   1. Request user reenter new password
8. Verify new password matches
   * + 1. MATCHES: Change password to new password
       2. NO MATCH: Tell user passwords did not match and reset to step b
   1. Allow for abort function to return to main menu
9. Logout
   1. End client program
10. Administrator
    1. Ban member
    2. Dismiss member
    3. Kick member
11. Return to login
    1. Show user as logged out on Server side and return to login screen.