CSE4226: Network Programming Lab

Assignment 2: Developing a multi-threaded server-client application
Evaluation Phase – I Report
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Date of Submission: 29.05.2018

1 Implementation summary:

Features	Status
User Register and Login	Partially implemented
Online User Lists	Partially implemented
Friend Request	Partially implemented
Unicast	Not implemented
Multicast	Not implemented
Broadcast	Not implemented
Create Chat Room	Not implemented
Chat History	Not implemented

2 Implementation Challenges:

Implementation challenges are given below:

- **User Registration and Login:** To join the system, a user requires creating an account with a username and password. Once account creation is done, the user can log-in or log-out anytime.

- **Online User Lists:** After logging on, a user can have the online user list.

- **Friend Request:** A user can send friend request to other users. The request can be accepted or rejected. A user can have his/her friend list.

- **Unicast:** A user can send message to any other online user.

- **Multicast:** A user can send message to a group of online users (for this feature send the message as message@first-user:second-user:third-user and the message will be delivered to the users separated by ":")

- **Broadcast:** A user can send message to all the online users

- **Create Chat Room:** A user can also create a chat room, see the list of existing chat rooms, join and leave it

- **Chat History:** Whenever a user logs in, he/she should get the unread messages and see his or her chat history.

3 Limitation and Future Scope of Improvements:

My project is still incomplete. And I will try to give my extra features and I will make sure to fulfill every single bit of it.

4   Discussion:

The aim of this assignment is to create a simple multi-threaded server-client application and that will provide chat list system and add friend list.

5   References:

1. For server side programming: https://www.geeksforgeeks.org/multi-threaded-chat-application-set-1/

2. For client side programming: https://www.geeksforgeeks.org/multi-threaded-chat-application-set-2/