CSE4074-Computer Networks

Socket Programming Chat Application

Report

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Project Summary

In this socket programming project we have design chat application program which provides join, search, chat operations. Users can send message privately or as group by entering specific commands in TCP socket. Users send private message request to each other and server returns appropriate messages to users. Online user are determined in UDP socket by server. Also program provides log file about registration, log in, private message connection by users etc.

Encountered problems and solutions

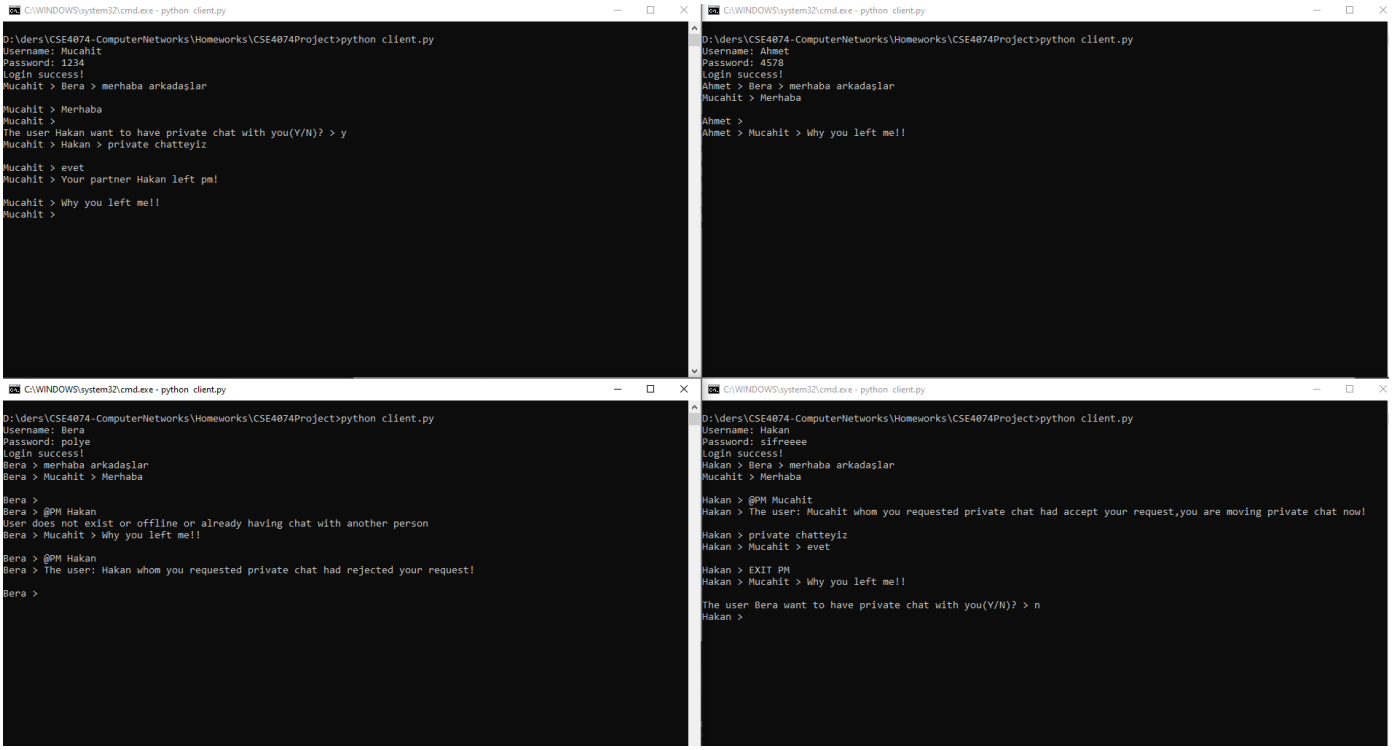
Problem : In first trials we designed chat application by socket programming but user could not see the message of other users directly, they had to press enter to see message that are in socket.

Solution : We used threads to solve this problem because input function waits to enter input from user but at the same time message is already in socket. Threads helped us to get message and input at the same time

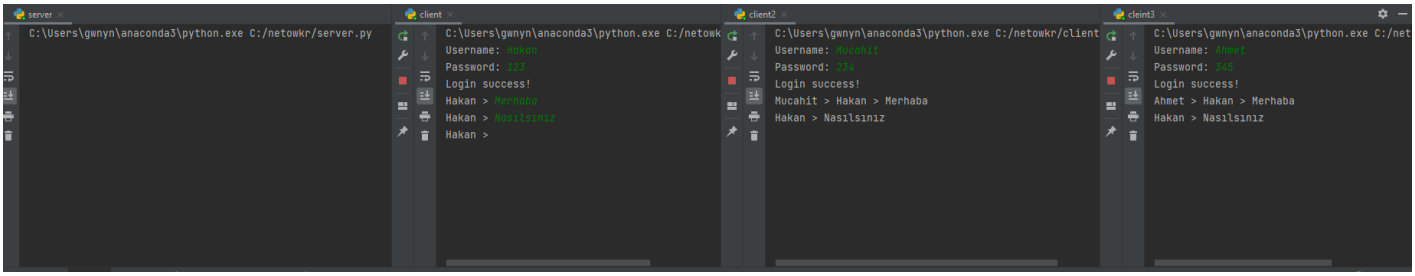
Usage

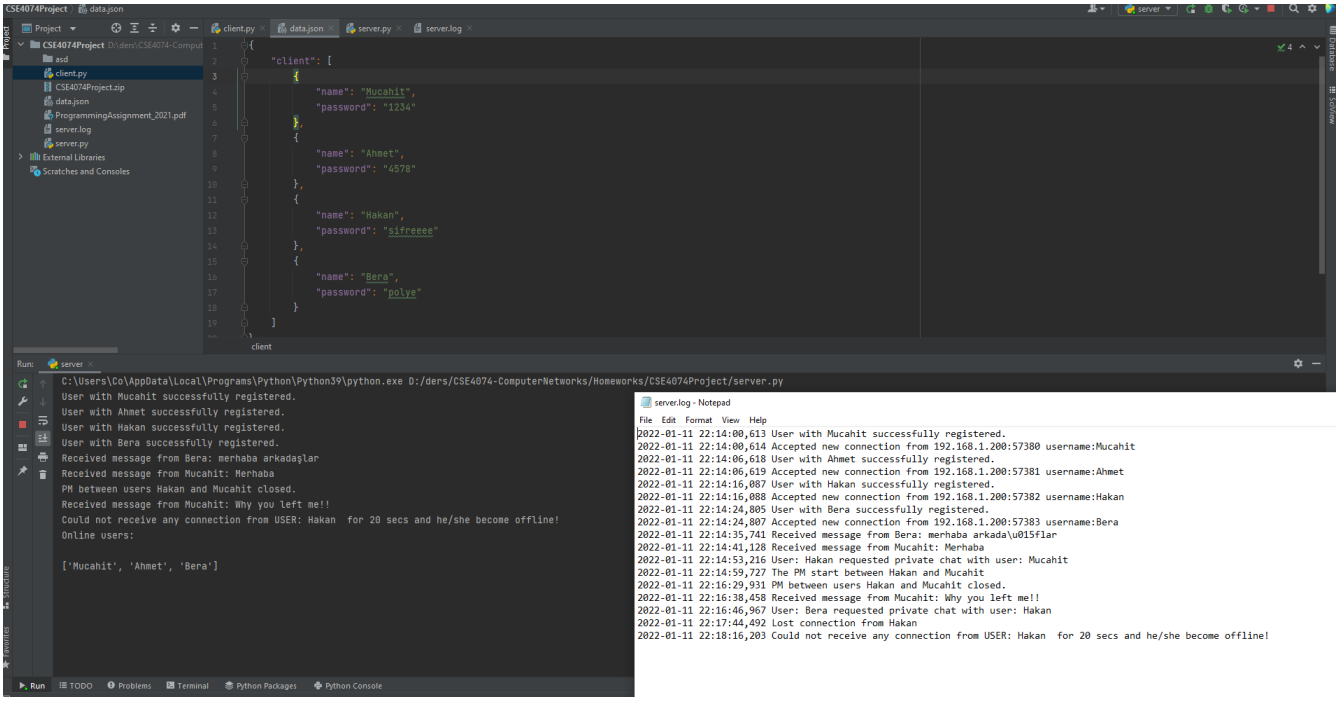
First of all user enters the system by entering username and password, if username is not exist it sign up automatically or if username exist but password is wrong, system ask to enter again . After log in successfully users enter to group chat where all users can send message to everyone. User enters “@PM user”, pm request send to user to ask whether want to chat privately or not, also response is sent back again to inform user who sent invite. Now other users except these 2 users can still chat as group.

Below there is sample of private and group chat



Also below there is a sample of group chat.



When one of user decided to exit private chat, then user enters “EXIT PM”, at the end connection is broken they turn into initial condition. At the end of the program if user want to exit from the chat application user enters “LOGOUT” to exit totally from the program.

Below there is a sample of log file