Project Development Initial Draft

Chat Room

Department of Computer Science & Software Engineering FAST NUCES PWR

BRIEF DETAILS ABOUT PROJECT

Project Name	Chat room/ WhatsApp group		
Date of Commencement	01-12-2021		
Expected date of Completion	31-12-2021		
Group members name with Roll number	Name	Roll No.	
	Muhammad Mohsin Raza	19P-0072	
	Ibrar Babar	19P-0104	
	Asjid Tahir	19P-0085	
Implementation Tool	Python, Multi-threading, sockets, ports, file handling, TCP		
User interface / Graphics Development Tools	Console based		
Documentation Tools	Python Document: https://docs.python.org/3/library/socket.html		
Name of Platform for Implementation	PyCharm		

Executive Summary

We basically want to implement a concept that is used in group of WhatsApp app. So, there will be one admin(client) that adds or remove the multiple users (clients) in group. They will only send text messages. The client(user) who is not in group try to connect to server will not be allowed to enter the group.

Like in WhatsApp group if someone message in group its name with its message will show on all user's device. In our application we will also implement it if someone message all users will receive it and see who sends it?

Things that will be used:

For our application, we will use the client-server architecture. This means that we will have multiple clients (the users) and one central server that hosts everything and provides the data for these clients.

Therefore, we will need to write two Python scripts. One will be for starting the server and one will be for the client. We will have to run the server first, so that there is a chat, which the clients can connect to. The clients themselves, are not going to directly communicate to each other but via the central server using TCP.

All the clients connect to same port of server, but they do not have same ports.

Mail and Passwords:

So, we don't have a phone number. We will use mail as it is unique and its password to login into our group. If mail and password for a user (client) found in txt file, he will then be able to enter group and start chatting.

So, in code we will maintain a list or list of tuples or tuples in server which contains information about clients (mails, passwords, name).

List of Users:

To know that a user has rights to enter the group or not. We will fetch a data from a txt file that contain the mail and password of all the members that was added by admin.

Similarly, admin can add user by putting a mail and password of user into txt file. And if he wants to remove someone program will remove that mail and password from that txt file.

How user login:

First, we run server then clients, clients must enter mail and password when they are trying to connect with server to enter group and to communicate with each other. Same for admin but he has some privilege rights.

Introduction

1.1 Problem Statement
We don't have a medium for faster communication with each other.

1.2 Aim and Scope
One will be able to easily chat with one's friends or family.

1.3 Project Background/ Previous Work Done
We have made one server and one client they are communicating with each other.

1.4 Expected Deliverable /End Product
We will have a console application through One will be able to easily chat with one's friends or family.

1.5 Limitations
- We are just bound to send text messages
- We are unable to send large documents
- We are unable to send pictures,audio etc
- User have to give his mail and password for login to group

1.6 Reference

WhatsApp group, discord channel

Note: Text messages only because theses application not only send text messages but also do more things.