

C++ project

Report of instant communication software

高震 3150104390 张炜 3160101188 赖梓林 3170104684

Intro

The purpose to develop

In the information age, daily lives of people are filled with information communication. Thus, the need of communicating faster and more effective is constantly increasing. This project provides netizens a fast and efficient way to communicate with others, which is, an instant communication software. Comparing with other instant communication software, it has complemented several essential functions for users to communicate (chatting, files sharing, picture sending etc.). In a word, it's a software focused on communicating.

Main customers

This project provide service mainly for customers who prefer a faster way to communicate. For those who only need the functions to communicate and consider other chatting software too complex, it's a better software to communicate with other users and to share resources with others.

Requirement analysis

Personal account

For an instant communication software, it's essential to make sure that users are given fully permissions to operate. Thus, functions to sign up and sign in are needed.

To sign up, users need to fill in their username and password, then double check the password and set up a security question.

After entering correct username and password, users can sign in successfully.

If users forget their passwords, just answer the security question correctly and get the password back.



First figure is the login window screenshot, it shows that users first need to sign up and then sign in. Also, there's a button for users who forget their password to get it back.



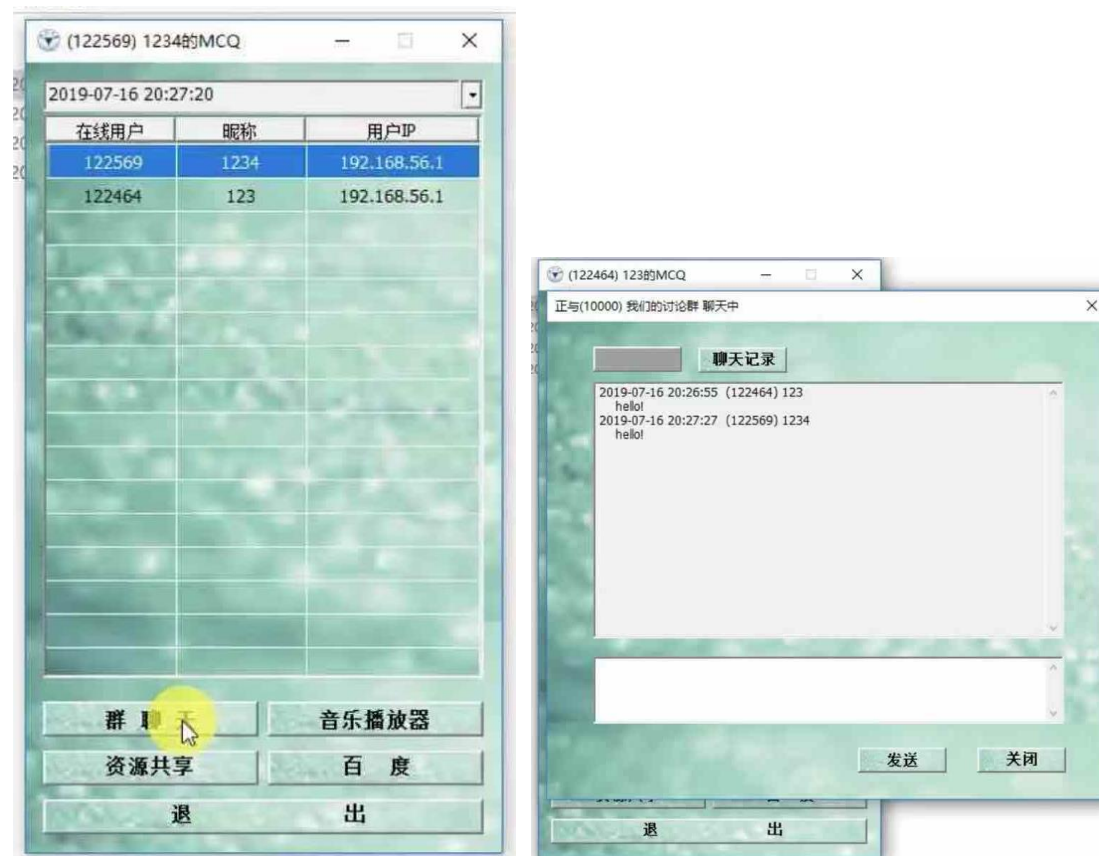
The second one is the sign-up window screenshot, the information needed to create a personal account is shown.

Chatting room

Users can have a nickname to show other users who they are.

For different need to communicate, users can have a private chat with another user or create a chatting room.

In a private chat or chatting room, users send message to communicate with each other. There's also functions to support the need to send files.



This figure shows when a user log in successfully, the interface he would see is clear and the functions are easy to use. As we said, it's a software easier and faster to use.

Sending functions

In client software, there're buttons to send message\pictures\files and interfaces to implement those functions.

Sharing files

In a chatting room, people send files through the sharing files function. Any user can upload their files and other users download files as they like.

In a private chat, user can choose to receive the files or to reject the files which is similar to a chatting room.

Music playing

This software has the function to play music inside it, users can add\delete\choose the songs they want.



Main window shows functions that users can use.
(chatting room\ music player\ sharing files\ search engine)

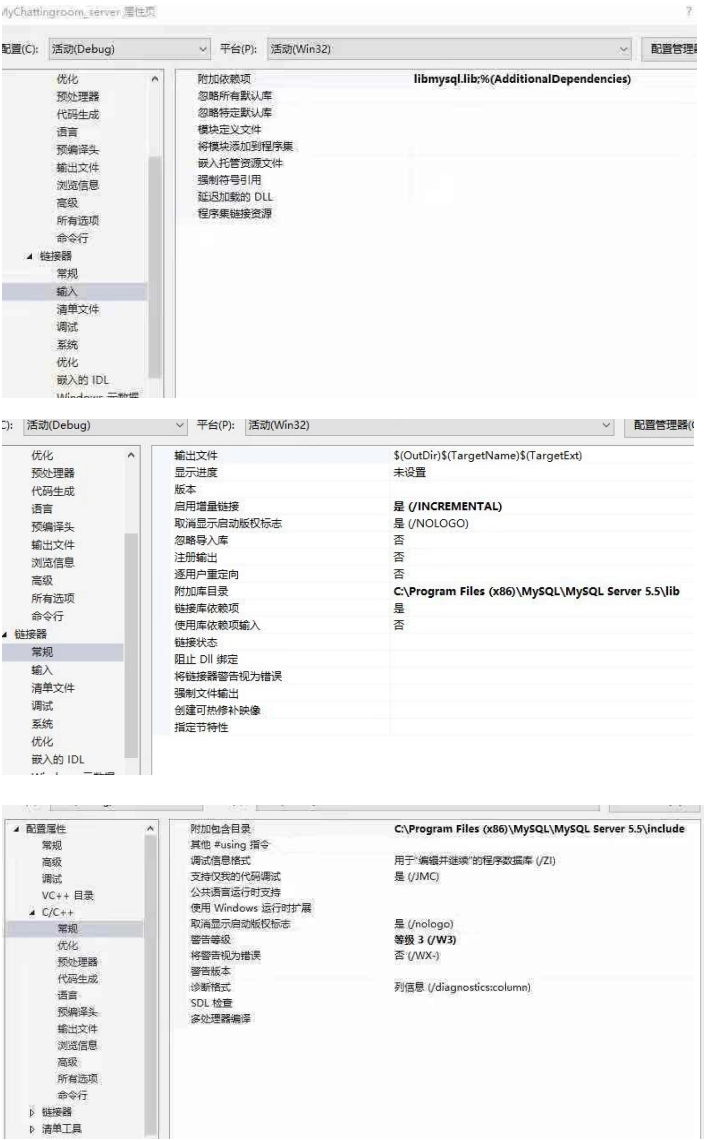
Developing plan

The instant communication software needs to be developed and run by the client and the server separately, so it is necessary to set up the server first, realize the communication between the client through the server, forward the information between the client, monitor the connection status of the client, handle the abnormal information and interruption.

The server of this project intends to use console mode to output various prompt information through the console, and on this basis, write a matching client, and develop various functions in the client, which are implemented by the server.

using: MFC for the interface building

Environment setting



Teamwork:

Gao Zhen:

set up and implement the server and IOCP model.

Zhang Wei:

build the interfaces with mfc and implement most functions

Lai Zilin:

implement some functions