

# Sibelle Khayrallah messaging app

Classes:

Sibelle\_server:

Class Summary	
Class	Description
<b>Message</b>	It's a class Message that has Strings type, sender, content, recipient; It's the Objects that r being sent between the server and the clients, The type can be login if a client logs in or message if a message is being sent or received or sign out or upload request...
<b>ServerFrame</b>	The server frame is simply the frame of the server with a start button; The fields in it are the serversocket and the serverthread, the button creates a new socket.
<b>SocketServer</b>	It's the serverSocket, it uses objectInputStream and objectOutputStream to send and receive messages, it takes the server frame and socket, it has server thread of clients, port and number of clients. Functions: Announce : sends any message to everyone. SendUserList: sends the list of users to one user. findUserThread: finds one user in the serverthread of clients. addThread: takes a socket and starts the thread. Remove: closes the thread. findClient: finds id of client from the clients. Stop: stops a thread. Start: starts a new thread. Handle: takes a msg and an ID of client and handles each message depending on its type

## Sibelle\_messenger:

Class Summary	
Class	Description
<b>Download</b>	This class is to download the file that another user sent and save it.
<b>Message</b>	It's the same message class that's in the server project.
<b>MyConnection</b>	It's the class that takes care of all the communication to the database. Functions: getConnection: Returns the connection to the database. Createlist: takes the users from the database and puts them in an arraylist of users. getUser: takes a username and searches for it in the database returning a user. Displaylist: takes a list and prints it, we didn't use it in the program it was for testing purposes. Savepcm: takes a message when clicking on the send button in the chat frame and saves it to the database(message,sender,receiver)
<b>SocketClient</b>	It's the client socket that handles the messages sends and receives objects that are of type message and handles them depending on their type.
<b>Upload</b>	It's the class that uploads the file from a user to another.
<b>User</b>	This is the class of users each have an id,username,firstname,lastname,password,gender and profilepic with their setters and getters.
<b>ChatFrame</b>	It's the frame of the chats that makes a client thread and starts it with the textarea and text field with the name and pic of the logged in user, two buttons, one that takes you to the profile of the user and another to log out returning to the login page with a tabbedpane of two tabs one that shows list of online users to be able to send them messages and files using client-server communication and database and the other tab contains the list of all the users to communicate with them using just the database without client-server. The function loadpcm loads the chat history from the database table from every chat when clicking on the name of the user from the lists in the tabbedpane. And you can see the info of the user taking you to the Profile by clicking the profile button of course without being able to change them nor see the password.
<b>HomeFrame</b>	It's the profile of the user where he can see his info and change his password and his profile picture
<b>LoginForm</b>	It's the login frame where the projet starts when you run it u can login or go to the register frame.
<b>Profile</b>	It's the frame that displays the info of the other users.
<b>RegisterForm</b>	It's the frame to register a user and saves it to the database of course after checking that all the fields are filled and that the username is unique.

## Database:

In my database I have two tables `the\_app\_users` and the `public\_chat`,

**Table: the\_app\_users**

**Columns:**

**u\_id**

u\_fname

u\_lname

**u\_uname**

u\_pass

u\_gender

u\_ppic

	u_id	u_fname	u_lname	u_uname	u_pass	u_gender	u_ppic
▶	1	alex	a	alex	a	Male	C:\Users\USER\Desktop\pics\alex.jpg
	2	sarah	s	sarah	s	female	C:\Users\USER\Desktop\pics\sarah.jpg
	3	rony	r	rony	r	Male	C:\Users\USER\Desktop\pics\rony.jpg
	5	mira	m	mira	m	female	C:\Users\USER\Desktop\pics\images.png
	6	fadi	f	fadi	f	Male	C:\Users\USER\Desktop\pics\images.png
	7	margueritta	m	marg	12345	female	C:\Users\USER\Desktop\pics\download.jpg
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

**Table: public\_chat**

**Columns:**

**id\_pc**

sender

message

receiver

	id_pc	sender	message	receiver
▶	1	alex	hey	sarah
	2	sarah	kifaaak	All
	3	alex	mni7 w entee?	sarah
	4	sarah	mni7a <3	All
	5	mira	hey	All
	6	sarah	MIRAA	All
	7	alex	kifik	mira
	8	mira	mni7a enta?	All
	9	marg	heey	alex
	10	alex	hi	marg
	11	alex	hey	sarah
	12	sarah	hellooo	All
	13	sarah	hey	alex

The\_app\_users is the table that holds all the users and their data;

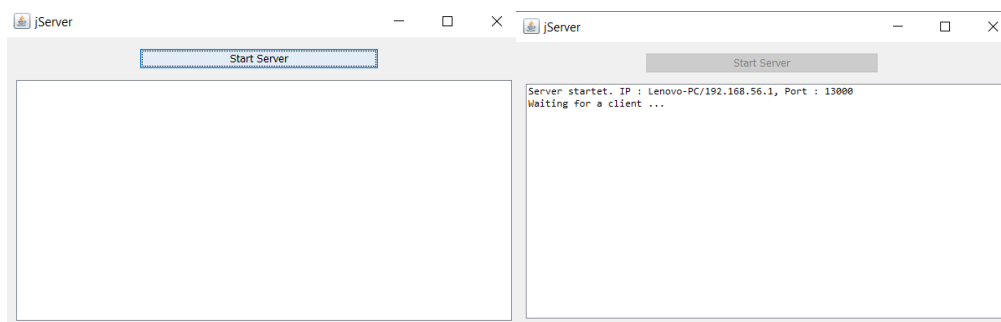
Public\_chat is the table that holds all the messages with the sender and the receiver.

## Steps:

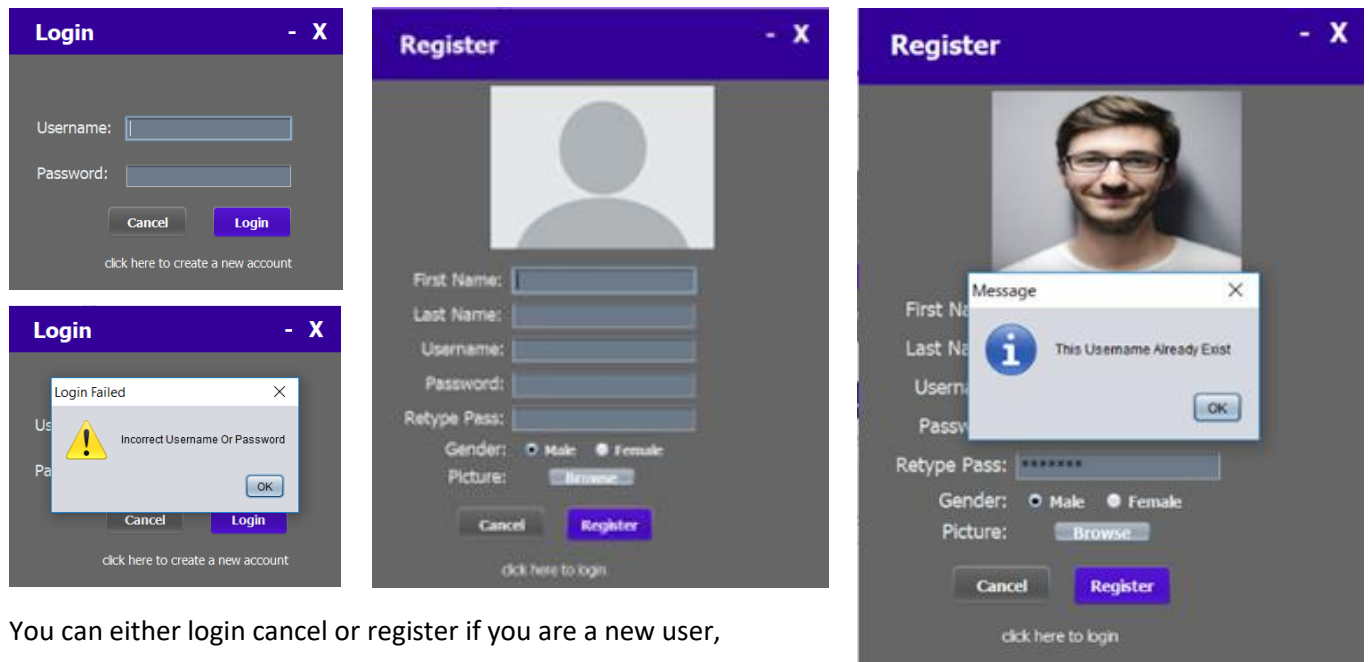
In the messenger there's two projects the server and the messenger,

So of course before running the messenger the server should be started

The server uses the localhost and the port:13000 and it waits for clients



When running the messenger first you get in the login page:



You can either login cancel or register if you are a new user,

If you login incorrectly of course you get a messageDialog,

If you want to register you get all the right messages to make the user unique and all the fields filled.

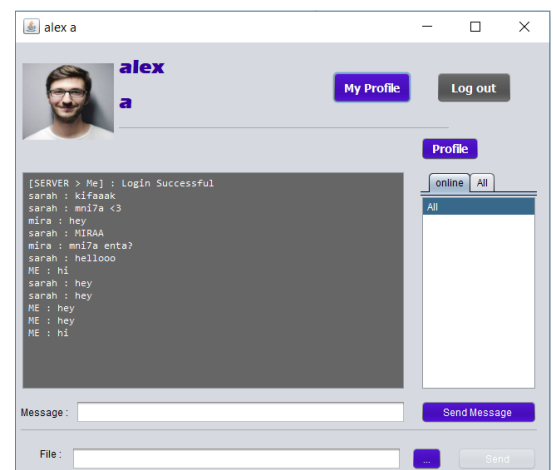
It will be added to the database and then you can login.

When you login you get directly redirected to the chat window with all the history loaded from the database.

You can pick one of the two tabs of the tabbed pane the online users or all the users and send them a message.

If you want to chat with the users from the online pane the chat uses client server but it is saved in mysql as well for history.

And if the user wants to send messages to the users in the All pane then it uses only the database communication and its not instant messaging.



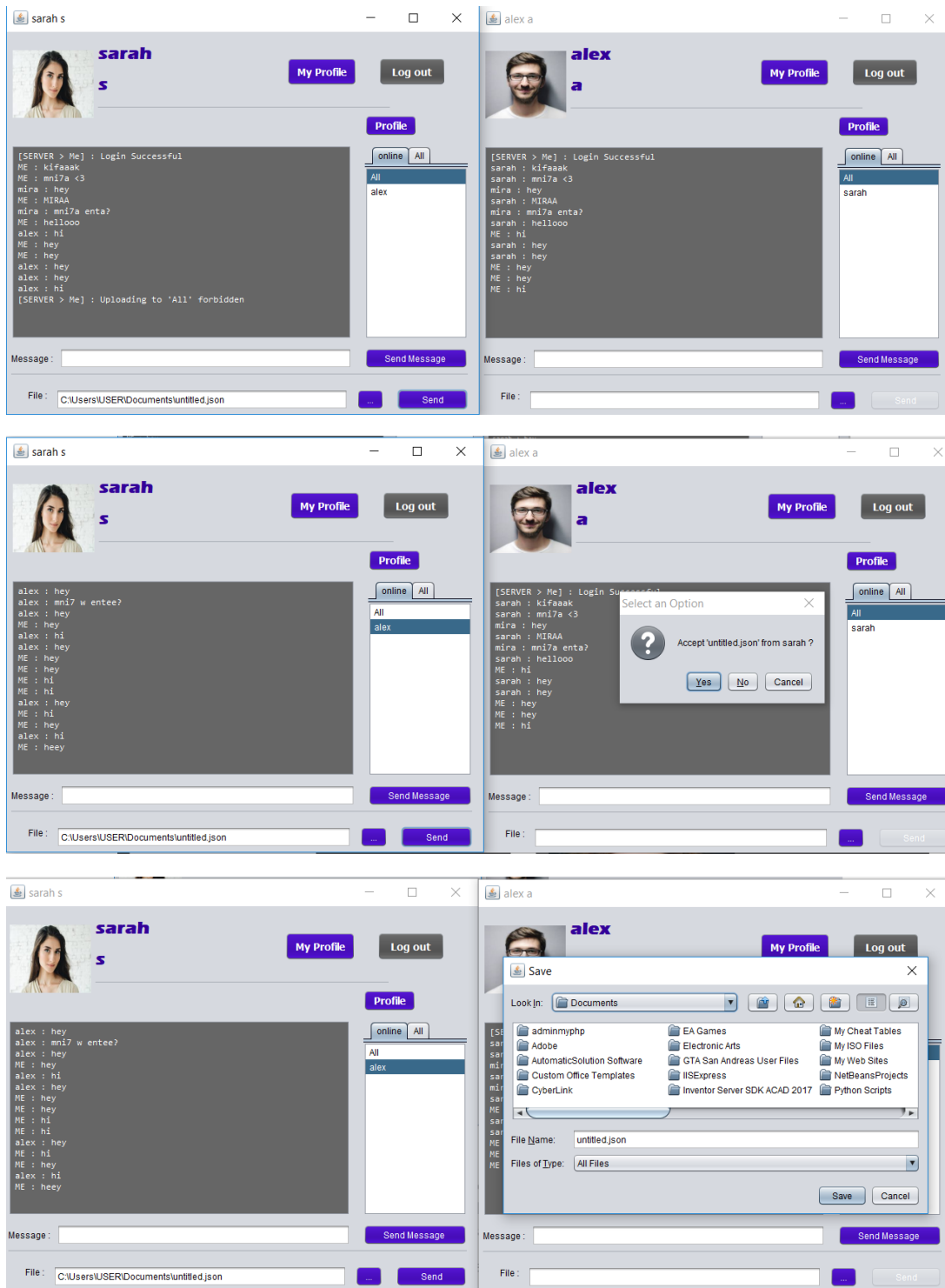
You can open more than one thread and connect and the jlist automatically shows the online users and also see the info of the users clicking on the name of the user then the button Profile.

The objects sent are messages with type content sender and receiver.

The type can be message, login or upload request or response and more, sent to a server or a client.

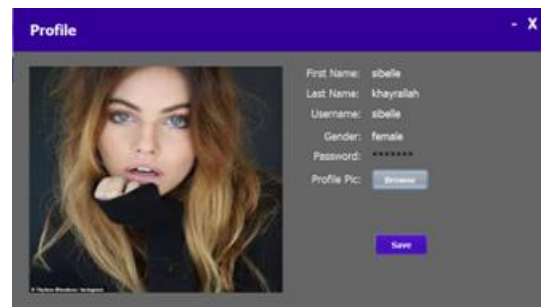
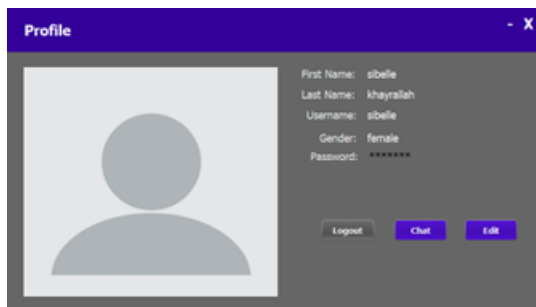
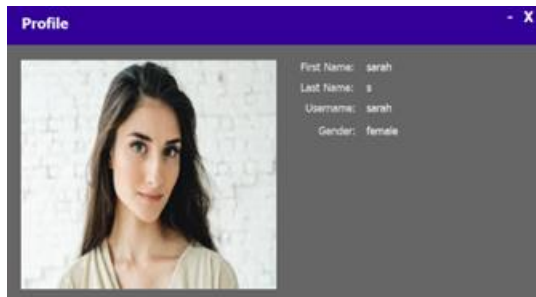
You can chat or send a file and the other user gets a request to accept or decline and then they can save the file.

If you pick to send to all it is not allowed you have to pick one other user.



You can log out and return to the login page, check other players profile or go to your profile where you can change your picture or your password other fields are unchangeable since the username is one of the identifiers in the app and the other information is basic like gender and birthday that don't change with time.

If the user while registering doesn't pick a picture it stays a silhouette by default and he can change it later.



You can edit your profile and pick a picture and it loads or change password and if you click save it gets changed in the database and the buttons go back to their old state you can logout edit again or go to chatpage.