

LAB-#1 -MESSAGE SERVER

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Requirements for running the assignment:

jdk 1.8.0_191 or above, IDE(Optional)(eclipse/NetBeans)

Running the assignment and the flow of GUI:

1. Unzip the Reddammagari_sxr6494.zip file
2. The folder Reddammagari_sxr6494 inside has three files MessagingServer.java, MessagingClient.java, Message.java
3. If running on terminal cd to the folder and use the following commands:
(First) javac MessagingServer.java(For Compilation); java MessagingServer(For Running)
(Second) javac MessagingClient.java(For Compilation); java MessagingClient(For Running)
4. If running on IDE import the project then compile and run MessagingServer.java, MessagingClient.java
5. After running java MessagingServer GUI pops up then the server starts at "localhost:8080"
6. Server displays a log of usernames and currently connected clients
7. Stop server button is available for stopping the server and exiting out.
8. After running java MessagingClient.java GUI pops up asking users the server address to connect to(i.e enter localhost) and a distinct username from those to online users. If the same username is entered it prompts a dialog box saying "User Online" and username cannot be empty.
9. Once a user registers with a server a dialog box pops up saying Welcome username and a log of usernames used since the server started.
10. User can select the check boxes to his left to select active usernames he wants to send messages. He has an option of sending messages to one, subset or all usernames depending upon his selection of checkboxes.
11. Once the user makes his choice he can enter the message in the text field and click on send button to send messages to intended recipients(drag the UI to right to see send button)
12. User can exit and disconnect using the disconnect button. User will be removed from active clients/online clients.

Assumptions:

1. There is no other process running or blocking port 8080
2. Can handle any number of clients at a time
3. Server remains on indefinitely until disconnected
4. User cannot send a message to unintended recipients.
5. Messages are transferred between users without losing them

Known Bugs/Limitation:

The program does not allow the case where the user tries to send a message to disconnected recipient or unintended recipient and receive an error message as the program restricts the user to choose only between online clients.

References:

JPanel :

<https://www.geeksforgeeks.org/java-swing-jpanel-examples/>

Remove key events:

<https://stackoverflow.com/questions/4472530/disabling-space-bar-triggering-click-for-jbutton>

Setting the state of checkbox:

<http://www.java2s.com/Code/JavaAPI/javax.swing/JCheckBoxisSelected.htm>

General References:

Multi-Threaded Chat Application

<https://www.geeksforgeeks.org/multi-threaded-chat-application-set-1/>

<https://www.geeksforgeeks.org/multi-threaded-chat-application-set-2/>