Multi-Threaded Client/Server chat
ISTE-121 – Homework 07

Overview
Write a Multi Threaded, Client / Server chat GUI that is both functional and bullet proof that can also be used in your final project.
This is a continuation of the Multi-Threaded Client/Server chat lab that was a team design effort in class. This is writing the code for the client and server to complete the lab.

THIS IS A GROUP PROJECT – you are expected to work with your final project teammates on this project. Only one copy of the final product is expected in the group dropbox for this homework.

Testing
Testing should follow these steps. Shutdown all the programs, and reset everything in a ready state to start up again. If you can show these steps, your code probably works.

1. Before starting the server, start a client. Client should not be able to communicate or show messages, if allowed to send any.
2. Show the startup of the server on one computer. Can (re)start a GUI client on that computer too.
3. Show the client can send messages and that client receives the message.
4. Start three or more GUI clients connected to the server, no more than two on a computer.
5. Show messages are being sent between all GUI clients.
6. Shut down one of the GUI clients normally, such as File→Exit.
    a. Show that other GUI clients can still communicate.
    b. Show the server indicates a client has disconnected, when it is detected.
    c. Show that the server does NOT show any error messages, such as stack trace errors.
7. Abnormally terminate a GUI client, not by File→Exit, or by the Window [X] close.
    a. Show that other GUI clients can still communicate.
    b. Show that the server does NOT show any error messages
    c. Show the server indicates a client has disconnected, when it is detected.
8. Close the Server abnormally.
    a. Show the GUI's (immediately, or upon sending a message) know the server is no longer there, and presents the user with a "user friendly" message informing them no more communications are allowed.

121 MultiThreaded Client/Server chat – HW7 Grade Sheet

Team number: _____

Criteria	Max Points	Points Earned
1. Before starting the server, start a client. Client should not be able to communicate or show messages, if allowed to send any.	5	
2. Show the startup of the server on one computer. Can (re)start a GUI client on that computer too.	5	
3. Show the client can send messages and that client receives the message.	10	
4. Start three or more GUI clients connected to the server, no more than two on a computer.	5	
5. Show messages are being sent between all GUI clients.	15	
6. Shut down one of the GUI clients normally, such as File → Exit.		
a. Show that other GUI clients can still communicate.	5	
b. Show that the server does NOT show any error messages	10	
c. Show the server indicates a client has disconnected, when it is detected.	10	
7. Abnormally terminate a GUI client, not by File→Exit, or by the Window [X] close.		
a. Show that other GUI clients can still communicate.	5	
b. Show that the server does NOT show any error messages	10	
c. Show the server indicates a client has disconnected, when it is detected.	5	
8. Close the Server abnormally.		
a. Show the GUI's (immediately, or upon sending a message) know the server is no longer there, and presents the user with a "user friendly" message.	15	
Points earned	**100**	
Deduction violations after above grading		
Program follows naming conventions		
Proper coding style used: indentation, use of white space, etc.		
JavaDoc documentation		
The program contains adequate in-code documentation		
Total Grade	**100**	

Additional Comments