Group Chat Application

The application is composed by 2 main parts. First one is the server-side, where we open a connection using a server socket running on port “1234” and wait for clients to connect. Once the server knows that a client has connected, it creates a ClientHandler instance with the socket it received from the freshly connected client. ClientHandlers are stored in a list. Each ClientHandler keeps information of its Client connection and its communicating channel. When a client writes a message, it writes that message to its’ socket writing stream. The ClientHandler receives this signal and reads from the socket’s reading stream, then broadcasts the message to all the other ClientHandlers, which write to the Clients channel. Each client updates their GUI respectively.

The functionalities of the applications are:

* Client is be able to send/receive messages to/from the other clients
* Real Time update of the conversation
* Timestamp for the time of sending/receiving messages
* GUI for the Server + Client side
* Ability to change the group photo
* Ability to change the group name