Problem 1
Write a 'chat' application using sockets, channels and selectors (from *java.nio*).

The application should consist of:

- A server (class **Server**), which registers and unregisters users, receives messages and broadcasts them to all registered users.
- A client (class **Client**) with a simple GUI which allows to:
  - log in (register) a user;
  - send text messages (entered into a small text area – **JTextArea**);
  - see the list of messages sent by all registered users (a list, table or a big text area).
- Class **Main**, which, in its **main** function, starts the server and two clients (users).

Note: using NIO (multiplexed channels with selectors) is obligatory. The application must contain at least the three classes mentioned above. Each class should contain **main** function — in class **Main** as described above, in **Server** and **Client** classes it should start the server or client, respectively.