

Assignment 5: Message passing

Create a two way message passing objects.

Message Object:

Use enum

Complete the provided message class to represent **three types of messages**. The message types are: **login, text, logout**. The message type is simply a String attribute that represents the type. For example, login messages should set type = "login".

Once the message type attribute is set, it must not be changed by client code. The message class is used for sending messages between server and client objects. The status and text attributes may be changed as needed before sending the message object.

Server Object: Multi-threaded Server

The server listens for incoming connections from clients. On receiving an incoming connection, *create a new thread for handling* this connection until it is closed. This will need to be a two way connection.

Hand it to client handler

The server **does nothing with the new connection until a 'login message' is received** from the client. On receipt of the 'login message', the server changes the status of this connection to 'success'. It then returns a new 'success' object to the client.

Create a new success message and send back to client.

If this connection has logged in, the server will accept a 'text' or 'logout message' message. On receipt of logout, a 'logout message' will be returned with status of 'success', then the connection will be **closed by the server and the thread terminates.**

the server is the one that closes the connection and discard the thread.

If the client has sent a 'login message', the server will accept 'text message' messages. On receipt of 'text message', the text of text messages will be changed to all caps. The capitalized message is then returned to the client in a new 'text' message.

Get the text from the client and return the all cap text to client

Client Object:

Client connects to a listening server object. On connection, pass a 'login message' to the server. The server will return a login message with a status of 'success'. Only after login, the client prompts the user for text to send to the server. Text is sent using a 'text message'. On receipt of 'text message' from server, display the text field to the user. If the user enters, 'logout', the client sends a 'logout message' to the server.

Deliverables

Submit your java source files and screenshots of your program operations. Submit only your own original work.