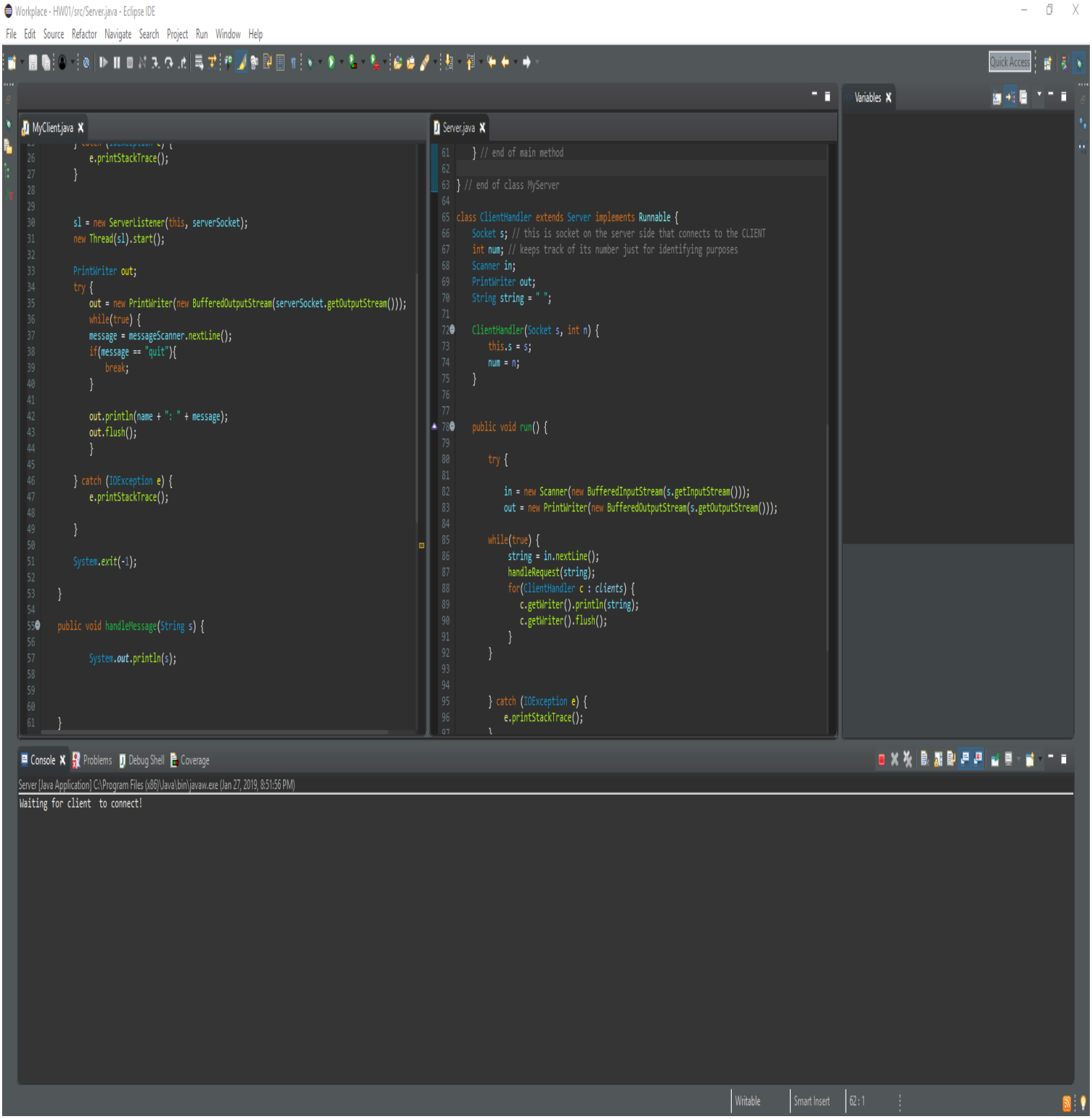
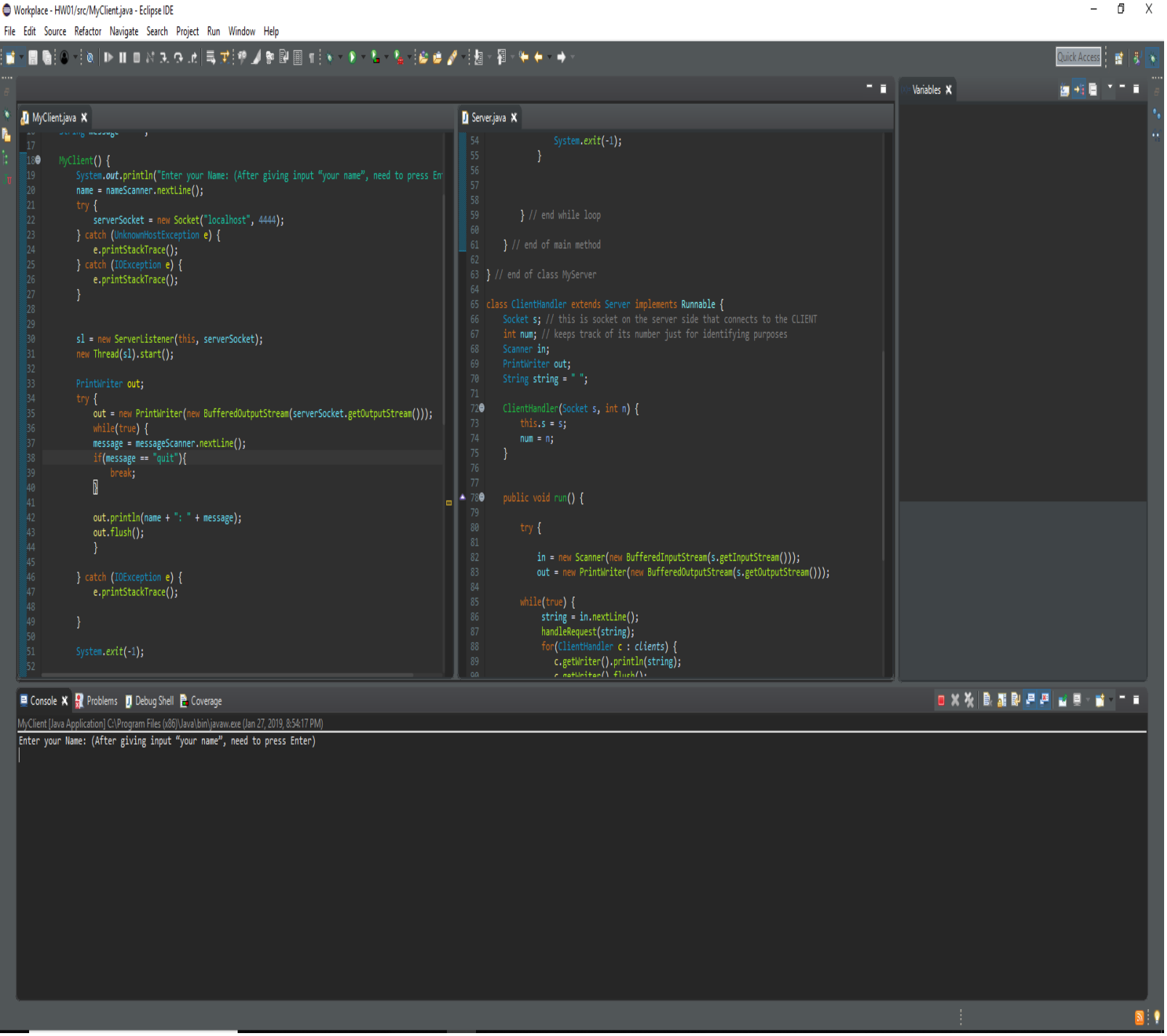
To come up with the solution, I used the server and client code that was given to us in the lab. I adjusted ListServer.java and ListClient.java. Within MyClient.java, I added one scanner that would scan for a name and one that would scan for the messages being sent. Within the Server.java, I created an ArrayList that would will populate with the clients that would be connected to the server. Once a message is received it will print out (server side) username: message (shown in screenshots below). It will then run through a for loop that will iterate through the ArrayList of clients and send the message to each client connected. I used the lab code for the way it had the server and client connect, and to learn how a client contacts with a server. As seen in the screenshots there is no GUI used and it is all in the console. Below are Screenshots of the needed output:

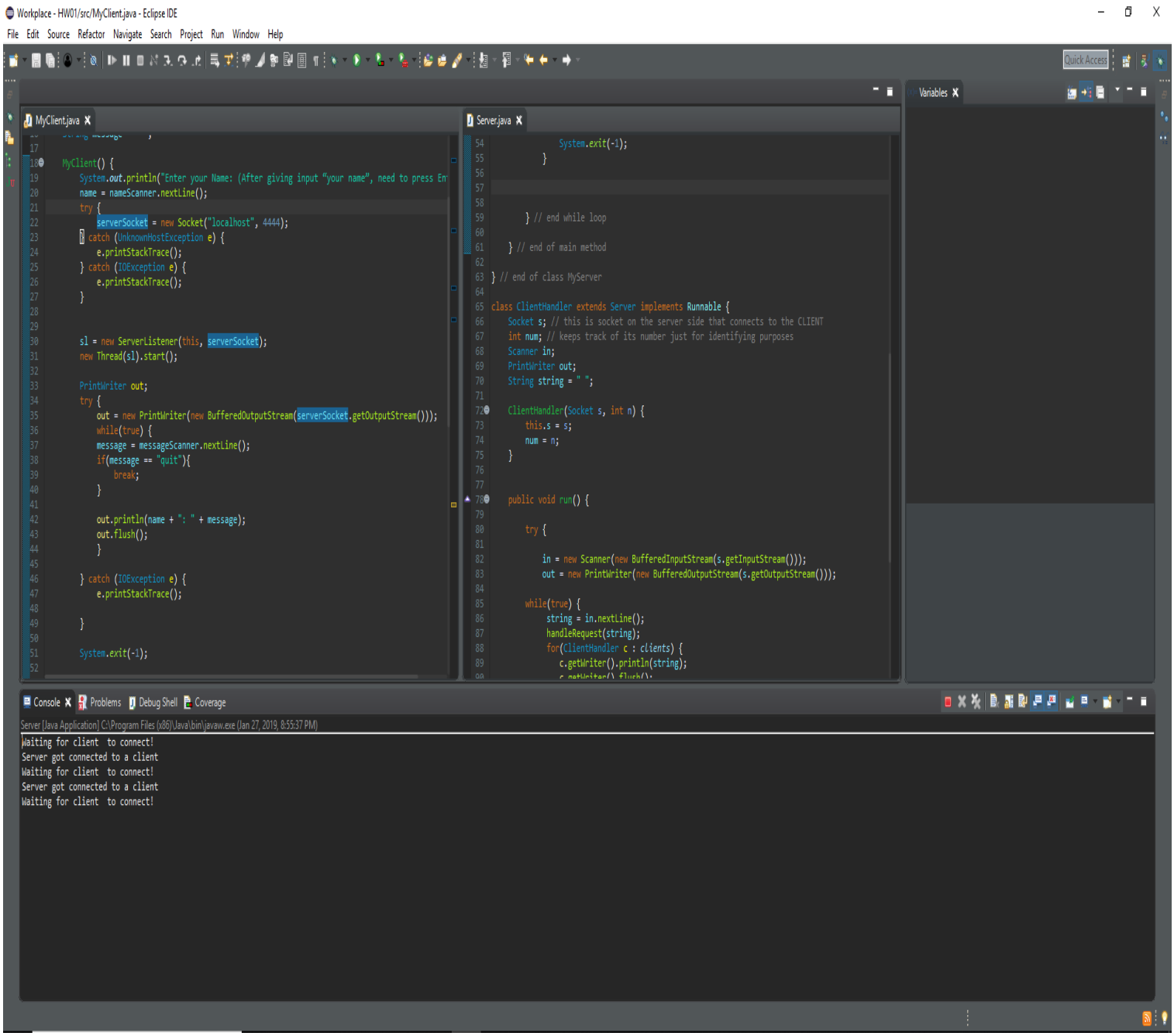
1) Screenshot of server waiting for a client to connec



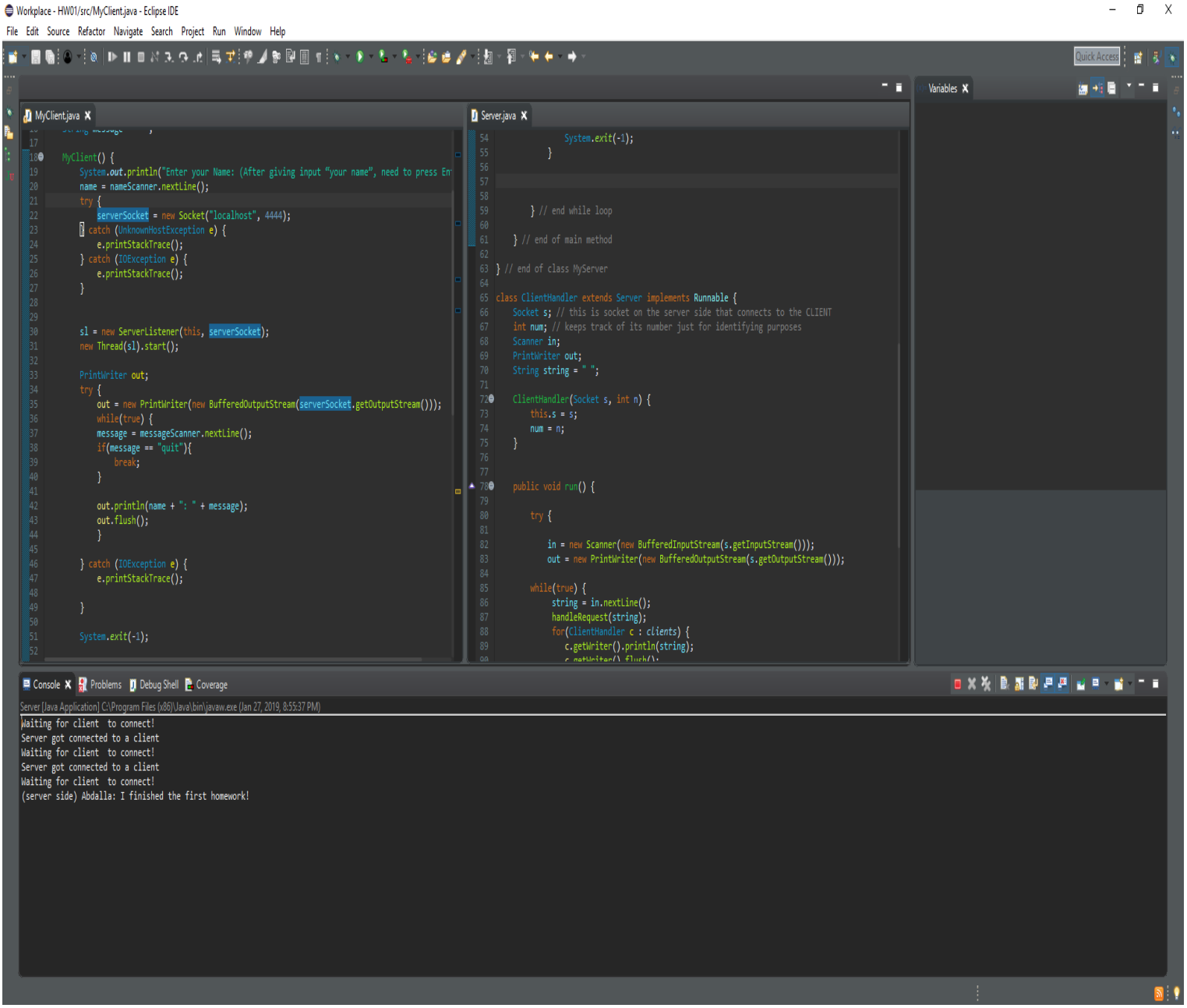
2) Screenshot of Client requesting a username (still not connected to the server)



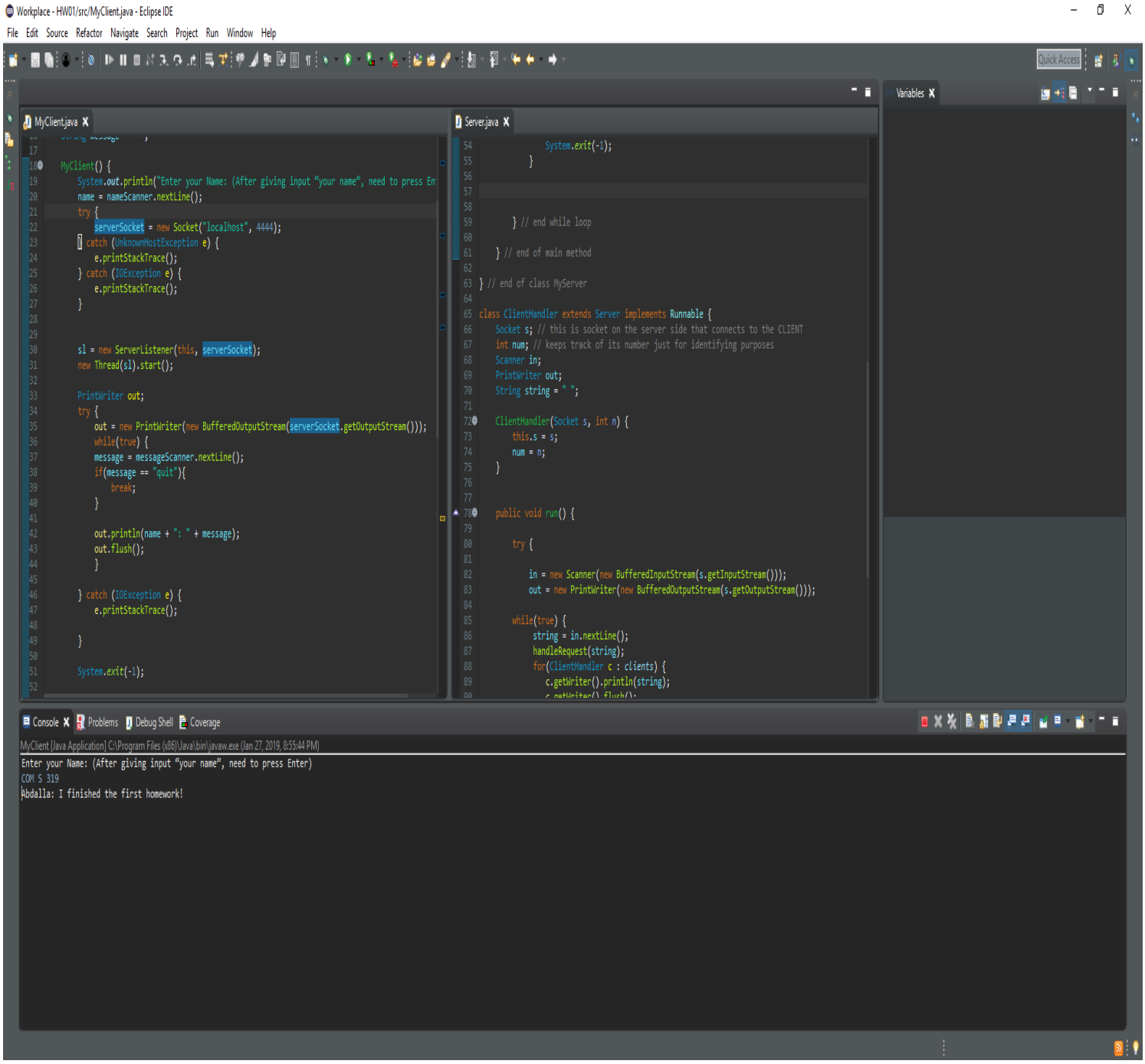
3) Screenshot of the server after two clients connect after inputting their username



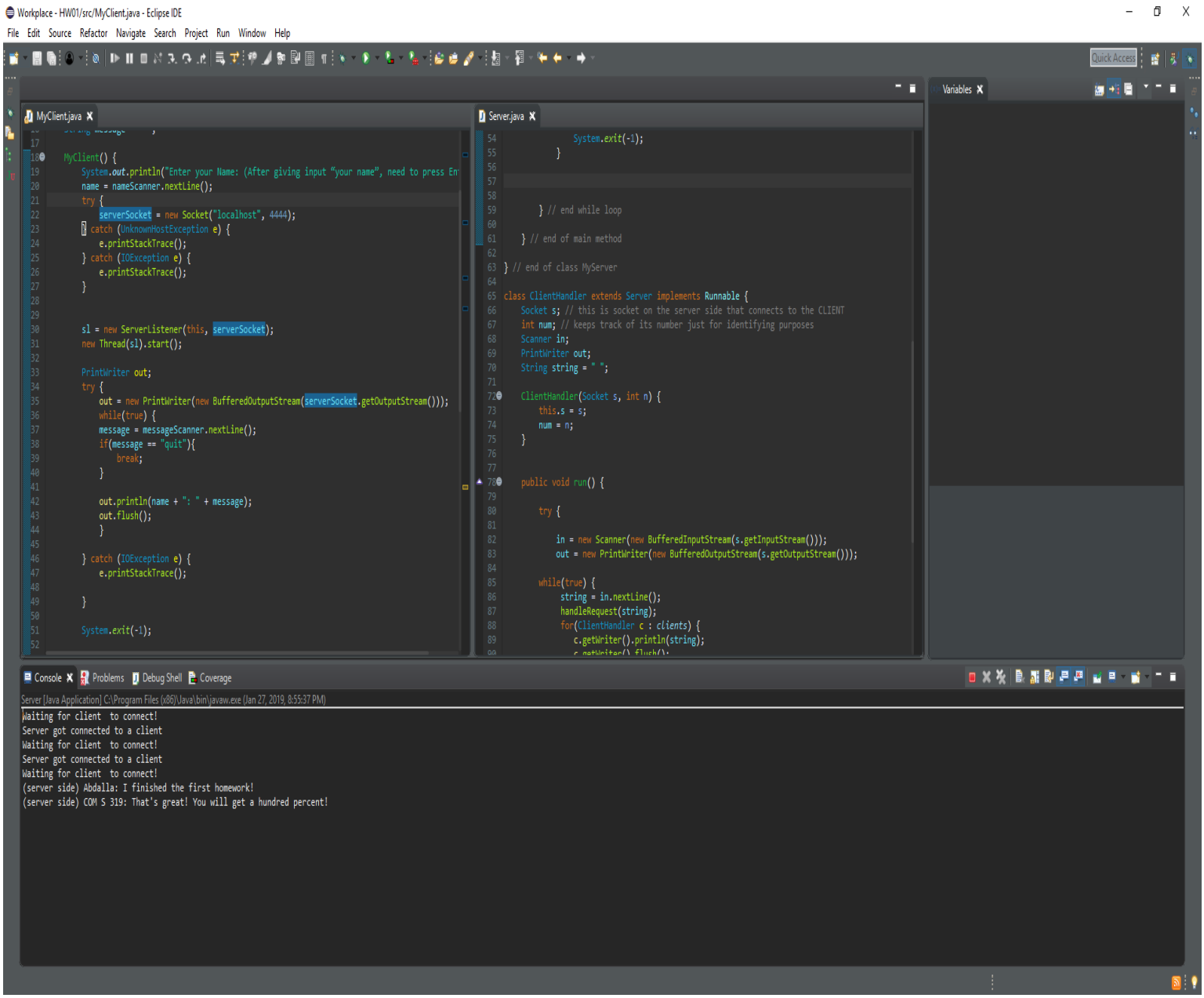
4) Screenshot of the server console after I sent a message



5) Screenshot of the other client receiving the message



6) Screenshot of the server after the second client replies



7) Screenshot of the first client after the second client responds