COL334- Assignment 2
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Design Choices :

1. Client Side : 2 sockets used.
2. Input Specifications :
   - Client will have to give the desired IP as input.
   - Client will have to give the username as input
   - While sending a message, the format will be @username message . As specified in the documents.
3. Output Specifications:
   - Client Side:
     - When the client receives a message, MESSAGE FROM SENDER : MSG
     - When the message is successfully delivered, MESSAGE SENT TO USERNAME_RECEIVER
     - When there is error, mention the error number.
     - Mention disconnects from the server whenever it happens.
   - Server Side:
     - When a message is sent from one client to another, MESSAGE SENT FROM A TO B
     - When a message is not sent, MESSAGE NOT SENT DUE TO ERROR_NO
     - Mention when a client gets disconnected.
4. Broadcast :
   - Stop and Wait Protocol is followed.
5. Errors : Followed as per the assignment instructions.
6. Disconnecting Clients:
   - When the client replies with 103.
   - If the client disconnects(still the reply will be 103).
   - Error 100 : Client has chosen an incorrect username.
   - Error 101 : Client has not registered yet but is still sending messages.
   - Any reply other than the format in the assignment.
7. Disconnecting Server:
   - Server replies with 103 or 100 or 101.
   - Any reply other than the format of the assignment.