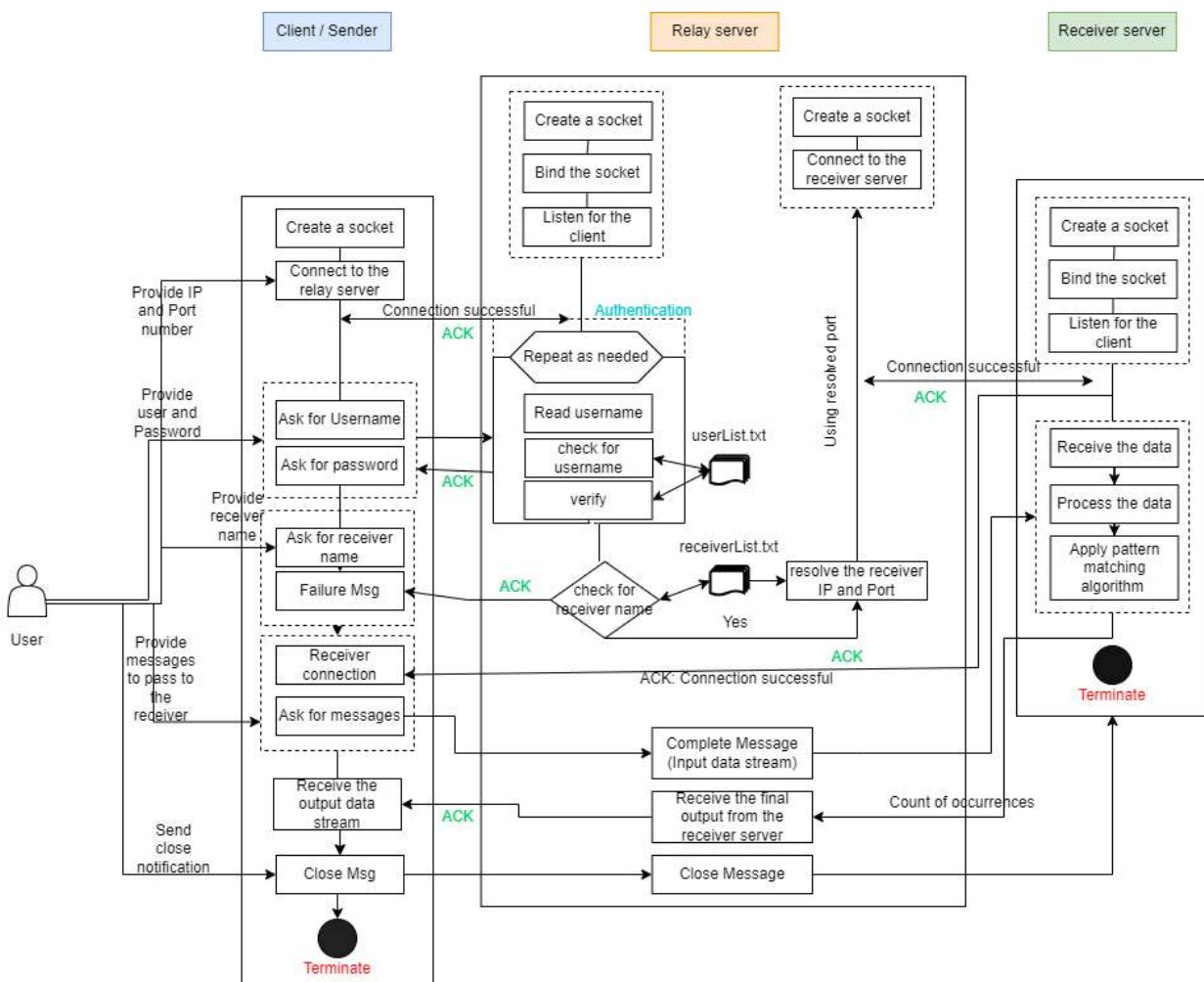# CSCI 5531: Advanced Operating System
Distributed Message Relay System

Team:
1. Shivaraj Akula - 2202222
2. Tahoor Mohammad – 2186473

Design:

Description:

1. The Distributed system we are building consists of 3 components:
   a. Sender
   b. Relay server (Intermediate server)
   c. Receiver
2. We are using sockets as an interface for data transmission between each component.
3. The above design diagram demonstrates the various events occurring at each level during the communication process.
4. At each level, for every request sent, we are getting an acknowledgment (ack), and based on the type of ack the next steps are being followed.
5. These are some of the key events occurring during the data transmission -
   a. Connectivity between sender - relay and relay - receiver via sockets
   b. Sender authentication
   c. Sender message transmission
   d. Receiver utilizing the sender's data.
6. By sending a close message to the receiver, the sender puts the communication process to an end.