A1 README

Name : N K Sagar Reddy
Roll Number: CS18B029

Aim:

To implement an email server-client interface using sockets.
We give different commands to the client side, which parses and sends the updated commands to the server,
Which does the required computation and is responsible for the logical part of the email handling and we get an output at the client side,which has been sent from the server through the socket.

Initializing the socket and PORT number:

I have used the port number 8080 and the server address as 127.0.0.1 and
Initialized the socket in the main() function.
Any error faced in the socket establishment process would create an error message which would be visible to the client side.

Types of Instructions:

1) Adduser:
   This instruction is of the format - Adduser <userid>
   This basically prompts the server to initialize a new node in the list of user nodes and create a new spoof file to store the mails as an inbox for the mentioned user.
2) Listusers:
   This command makes the server to send all the existing users in the linked list,
   Which the client would then print with spaces in between their names.
3) Setuser:
   This command is of the format - Setuser <userid>
   This command actually makes a certain user-pointer to point towards the given user node,so that we can perform user specific commands which are stated below.
   (And also the client side terminal prompt gets modified to this format -
   Sub-Prompt-userid>)

1) Read: This instruction prints the mail that the current mail pointer is pointing at in the user's spoof file.
   The mail pointer initially points to the first mail and after reading the last mail,it points back to the first mail.
   It also returns an error if no mail is present in the spoof file.
2) Delete: This instruction deletes the mail in the user's spoof file, (the mail which the current mail pointer is pointing at,gets deleted)
   Upon giving the delete command to an empty spoof file,it returns an error
3) Send: This command is of the form : Send <userid>
   This prompts the client to take the subject and the message of the mail and send it to the server which then writes it into the specified userid's spoof file
4) Done: THis command nullifies the user pointer and brings the client back to the Main Prompt where it accpets the normal commands(which aren't user specific).

4) Quit:
   This command removes the client-server socket connection, ends the processes , while the server also deletes the spoof files of all of the users,since the session has come to an end.