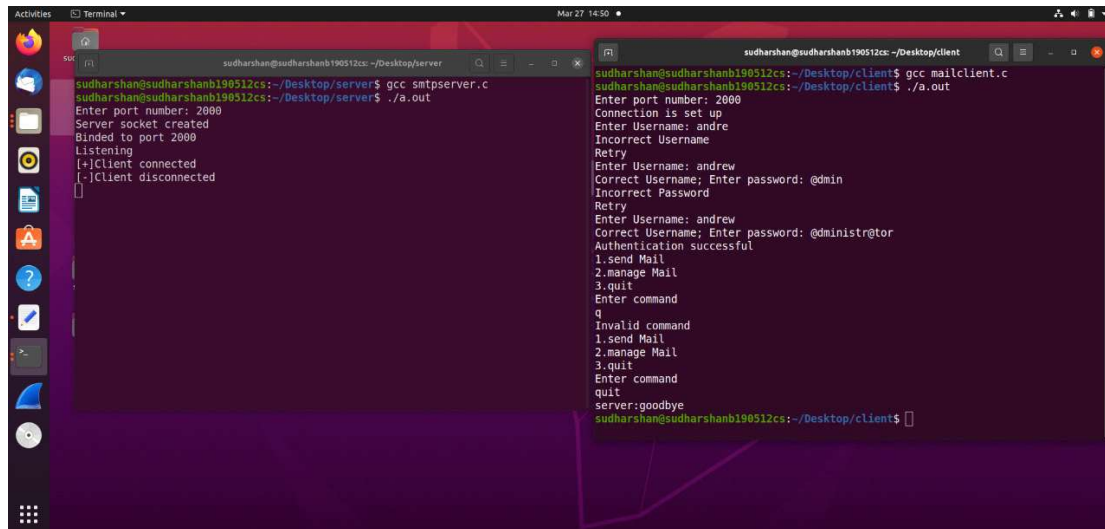


1)SMTP functionalities sample run covering all cases included in the codes

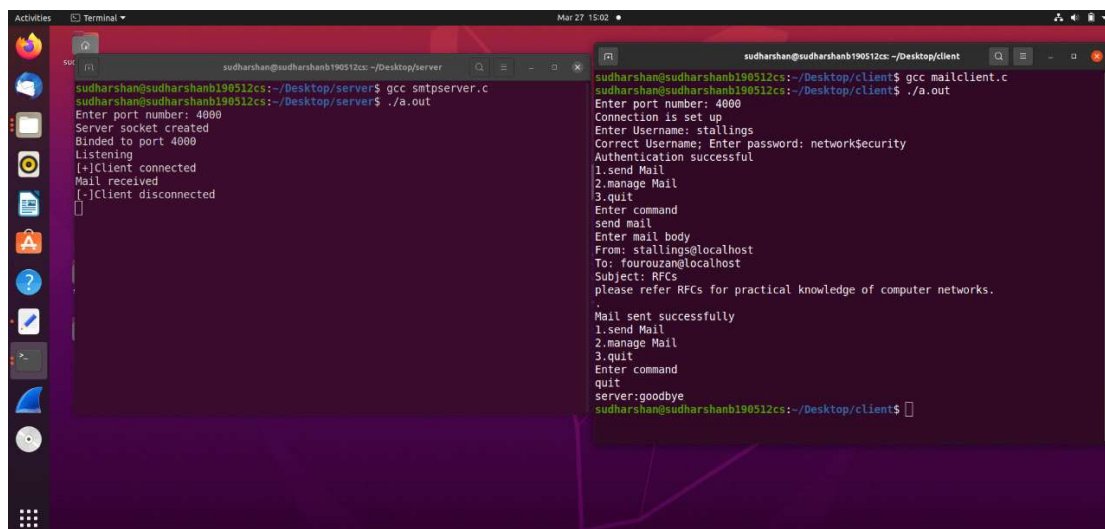
a)authentication process of smtp server



```
sudharshan@sudharshanb190512cs: ~/Desktop/server
sudharshan@sudharshanb190512cs:~/Desktop/server$ gcc smtpserver.c
sudharshan@sudharshanb190512cs:~/Desktop/server$ ./a.out
Enter port number: 2000
Server socket created
Bound to port 2000
Listening
[+]client connected
[-]client disconnected

sudharshan@sudharshanb190512cs:~/Desktop/client$ gcc mailclient.c
sudharshan@sudharshanb190512cs:~/Desktop/client$ ./a.out
Enter port number: 2000
Connection is set up
Enter Username: andre
Incorrect Username
Retry
Enter Username: andrew
Correct Username; Enter password: @dmin
Incorrect Password
Retry
Enter Username: andrew
Correct Username; Enter password: @dministr@tor
Authentication successful
1.send Mail
2.manage Mail
3.quit
Enter command
q
Invalid command
1.send Mail
2.manage Mail
3.quit
Enter command
quit
server:goodbye
sudharshan@sudharshanb190512cs:~/Desktop/client$
```

b)sending mail(correct format-no error)



```
sudharshan@sudharshanb190512cs:~/Desktop/server
sudharshan@sudharshanb190512cs:~/Desktop/server$ gcc smtpserver.c
sudharshan@sudharshanb190512cs:~/Desktop/server$ ./a.out
Enter port number: 4000
Server socket created
Bound to port 4000
Listening
[+]client connected
Mail received
[-]client disconnected

sudharshan@sudharshanb190512cs:~/Desktop/client$ gcc mailclient.c
sudharshan@sudharshanb190512cs:~/Desktop/client$ ./a.out
Enter port number: 4000
Connection is set up
Enter Username: stallings
Correct Username; Enter password: network$ecurity
Authentication successful
1.send Mail
2.manage Mail
3.quit
Enter command
send mail
Enter mail body
From: stallings@localhost
To: fourouzang@localhost
Subject: RFCs
please refer RFCs for practical knowledge of computer networks.
Mail sent successfully
1.send Mail
2.manage Mail
3.quit
Enter command
quit
server:goodbye
sudharshan@sudharshanb190512cs:~/Desktop/client$
```

c)empty message body in mail is accepted

```
Activities Terminal Mar 27 15:39
sudharshan@sudharshanb190512cs: ~/Desktop/server$ gcc smtpserver.c
sudharshan@sudharshanb190512cs:~/Desktop/server$ ./a.out
Enter port number: 6000
Server socket created
Binded to port 6000
Listening
[+]Client connected
Mail received
[-]Client disconnected

sudharshan@sudharshanb190512cs:~/Desktop/client$ gcc mailclient.c
sudharshan@sudharshanb190512cs:~/Desktop/client$ ./a.out
Enter port number: 6000
Connection is set up
Enter Username: andrew
Correct Username; Enter password: @dministr@tor
Authentication successful
1.send Mail
2.manage Mail
3.quit
Enter command
send mail
Enter mail body
From: andrew@localhost
To: fourouzan@localhost
Subject: hi
.
Mail sent successfully
1.send Mail
2.manage Mail
3.quit
Enter command
quit
Server:goodbye
sudharshan@sudharshanb190512cs:~/Desktop/client$
```

d)checking username and sendername in mail to be sendd

```
Activities Terminal Mar 27 15:17
sudharshan@sudharshanb190512cs: ~/Desktop/server$ gcc smtpserver.c
sudharshan@sudharshanb190512cs:~/Desktop/server$ ./a.out
Enter port number: 3000
Server socket created
Binded to port 3000
Listening
[+]Client connected

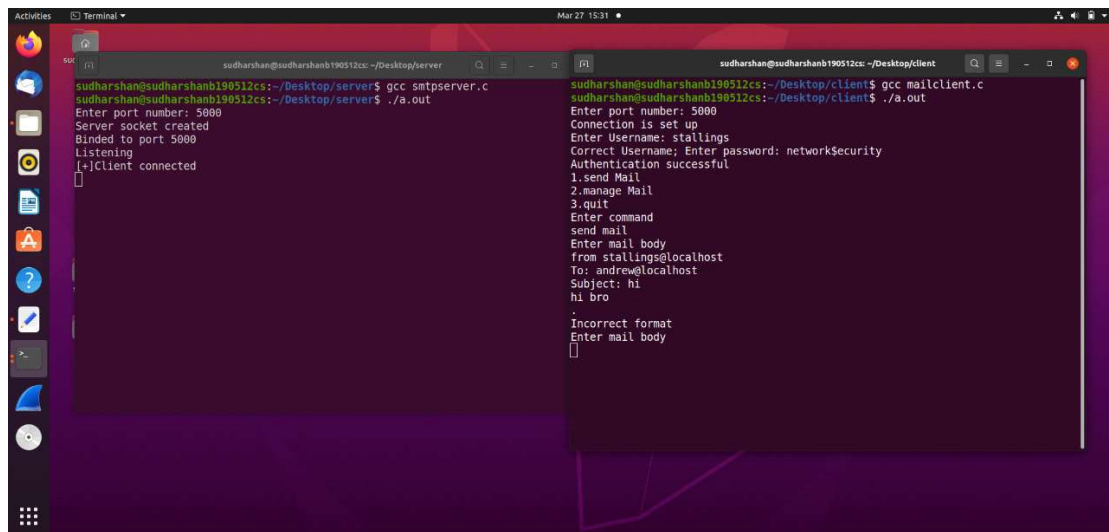
sudharshan@sudharshanb190512cs:~/Desktop/client$ gcc mailclient.c
sudharshan@sudharshanb190512cs:~/Desktop/client$ ./a.out
Enter port number: 3000
Connection is set up
Enter Username: stallings
Correct Username; Enter password: network$ecurity
Authentication successful
1.send Mail
2.manage Mail
3.quit
Enter command
send mail
Enter mail body
From: andrew@localhost
you are not allowed to send a mail to someone(valid users) with random name
please change name in the 'From: ..' line to your actual username
Incorrect format
Enter mail body
From: ftyuw@localhost
you are not allowed to send a mail to someone(valid users) with random name
please change name in the 'From: ..' line to your actual username
Incorrect format
Enter mail body
```

e)subject line missing(incorrect format) and order of from,to,subject is not crct

```
Activities Terminal Mar 27 15:23
sudharshan@sudharshanb190512cs: ~/Desktop/server$ gcc smtpserver.c
sudharshan@sudharshanb190512cs:~/Desktop/server$ ./a.out
Enter port number: 3000
Server socket created
Binded to port 3000
Listening
[+]Client connected

sudharshan@sudharshanb190512cs:~/Desktop/client$ gcc mailclient.c
sudharshan@sudharshanb190512cs:~/Desktop/client$ ./a.out
Enter port number: 3000
Connection is set up
Enter Username: fourouzan
Correct Username; Enter password: d@t@comm
Authentication successful
1.send Mail
2.manage Mail
3.quit
Enter command
send mail
Enter mail body
From: fourouzan@localhost
To: stallings@localhost
hi bro
.
Incorrect format
Enter mail body
From: fourouzan@localhost
Subject: hi
To: stallings@localhost
hi bro
.
Incorrect format
Enter mail body
```

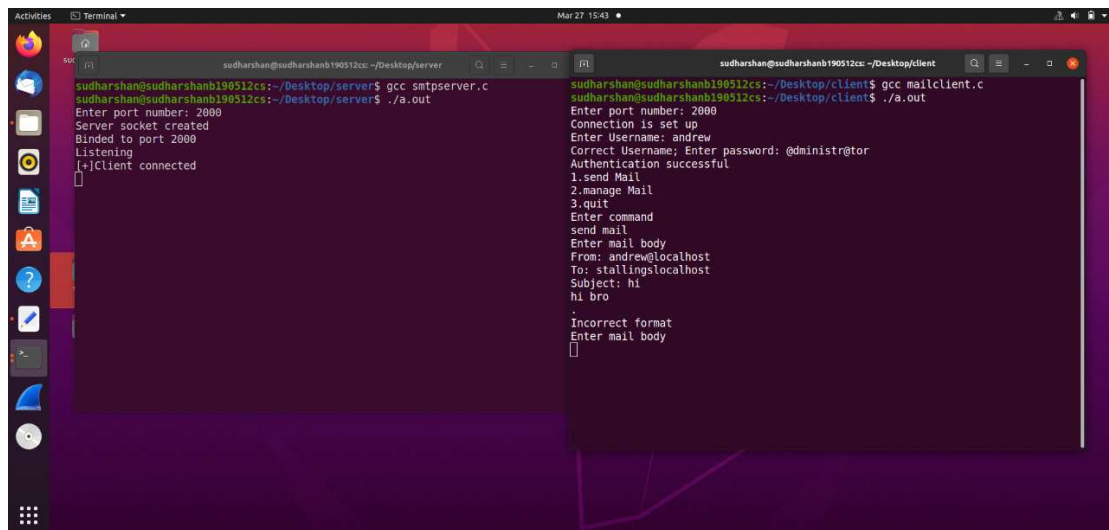
f)from is not in proper format(to and subject should also be in crct format same as this case)



```
sudharshan@sudharshanb190512cs:~/Desktop/server$ gcc smtpserver.c
Enter port number: 5000
Server socket created
Binded to port 5000
Listening
[+]Client connected

sudharshan@sudharshanb190512cs:~/Desktop/client$ gcc mailclient.c
Enter port number: 5000
Connection is set up
Enter Username: stallings
Correct Username; Enter password: networkSecurity
Authentication successful
1.send Mail
2.manage Mail
3.quit
Enter command
send mail
Enter mail body
from stallings@localhost
To: andrew@localhost
Subject: hi
hi bro
.
Incorrect format
Enter mail body
```

g)to is not in X@Y format(from should also be in X@Y format)



```
sudharshan@sudharshanb190512cs:~/Desktop/server$ gcc smtpserver.c
Enter port number: 2000
Server socket created
Binded to port 2000
Listening
[+]Client connected

sudharshan@sudharshanb190512cs:~/Desktop/client$ gcc mailclient.c
Enter port number: 2000
Connection is set up
Enter Username: andrew
Correct Username; Enter password: @ministr@tor
Authentication successful
1.send Mail
2.manage Mail
3.quit
Enter command
send mail
Enter mail body
From: andrew@localhost
To: stallings@localhost
Subject: hi
hi bro
.
Incorrect format
Enter mail body
```