

# REPORT

## Assignment-1

### CS3205 : Introduction to computer networking.

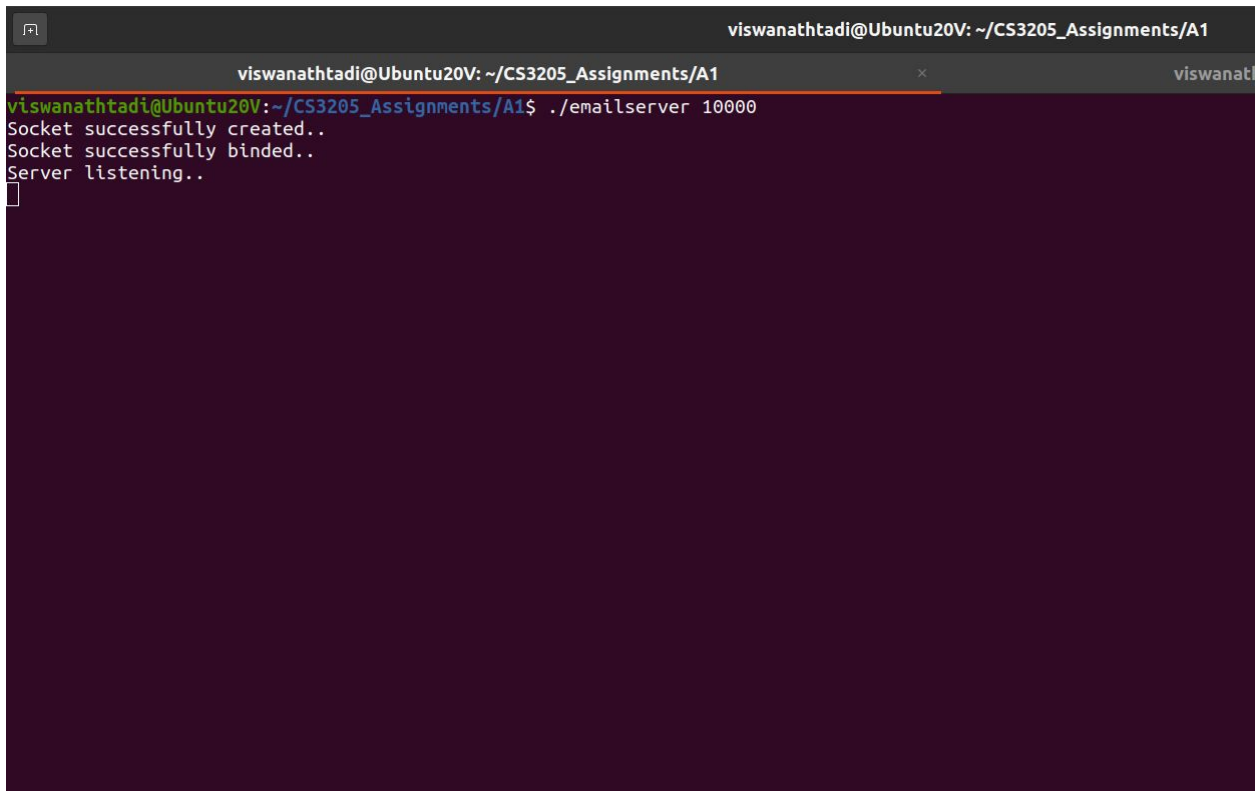
### CS18B047 Viswanath Tadi

#### Learning outcomes

This assignment helped me understand the application layer in-depth. I got to know how processes communicate on different end-systems. This assignment clearly exposes the abstraction done by the transport layer which makes it easier for application developers to easily write programs without worrying about the deeper layers and concepts.

#### Trail runs on local host:

The following is the screen-shot of the email server running on tcp port number 10000.



```
viswanathtadi@Ubuntu20V: ~/CS3205_Assignments/A1
viswanathtadi@Ubuntu20V: ~/CS3205_Assignments/A1$ ./emailserver 10000
Socket successfully created..
Socket successfully binded..
Server listening..
█
```

The following is the screen-shot of the email client running on the same machine as the server. This trail run covers all the commands the user can give to the client.

```
viswanathtadi@Ubuntu20V: ~/CS3205_Assignments/A1
viswanathtadi@Ubuntu20V: ~/CS3205_Assignments/A1
viswanathtadi@Ubuntu20V:~/CS3205_Assignments/A1$ ./emailclient 127.0.0.1 10000
socket created successfully
connected to server
general>ListUsers

general>AddUser alice
New user created
general>AddUser bob
New user created
general>SetUser alice
Selected user alice
User has 00 messages in his/her inbox
current>Read
Empty inbox
current>Delete
Empty inbox
current>Send bob
Type Message>hello bob
Type Message>xxx
Message sent
current>Done
User session ended
general>SetUser bob
Selected user bob
User has 01 messages in his/her inbox
current>Read
From: alice
To: bob
Sat Feb 27 23:18:51 IST 2021
Subject: hello bob
xx
current>Delete
Message deleted
current>Read
Empty inbox
current>Done
User session ended
general>Quit
Disconnectedviswanathtadi@Ubuntu20V:~/CS3205_Assignments/A1$
```

This trail covers the case when SetUser is not a valid user.

```
viswanathtadi@Ubuntu20V: ~/CS3205_Assi
viswanathtadi@Ubuntu20V: ~/CS3205_Assignments/A1
viswanathtadi@Ubuntu20V:~/CS3205_Assignments/A1$ ./emailclient 127.0.0.1 10000
socket created successfully
connected to server
general>Adduser alice
New user created
general>SetUser bob
User does not exist
general>
```

The trail covers the case when Send <userid> is not a valid user.

```
viswanathtadi@Ubuntu20V: ~/CS3205_Assignments/A1
viswanathtadi@Ubuntu20V: ~/CS3205_Assignments/A1
viswanathtadi@Ubuntu20V:~/CS3205_Assignments/A1$ ./emailclient 127.0.0.1 10000
socket created successfully
connected to server
general>Adduser alice
New user created
general>SetUser alice
Selected user alice
User has 00 messages in his/her inbox
current>Send bob
Type Message>hello###
Invalid user
current>
```