

To Compile:

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
gautam_1124@GKS:~/Desktop/Sixth_Sem/Networks Lab/Assignment_5/Assignment_5_temp/Assignment_5 (copy)$ make -f Makefile.libsocket
gautam_1124@GKS:~/Desktop/Sixth_Sem/Networks Lab/Assignment_5/Assignment_5_temp/Assignment_5 (copy)$ make -f Makefile.initsocket
gautam_1124@GKS:~/Desktop/Sixth_Sem/Networks Lab/Assignment_5/Assignment_5_temp/Assignment_5 (copy)$ make -f Makefile.users all
gautam_1124@GKS:~/Desktop/Sixth_Sem/Networks Lab/Assignment_5/Assignment_5_temp/Assignment_5 (copy)$
```

To run the executable

```
ssignment_5/Assignment_5_temp/Assignment_5 (copy)$ m
ake -f Makefile.users run_usr1
gautam_1124@GKS:~/Desktop/Sixth_Sem/Networks Lab/Assignment_5/Assignment_5_temp/Assignment_5 (copy)$ make -f Makefile.users run_usr2
gautam_1124@GKS:~/Desktop/Sixth_Sem/Networks Lab/Assignment_5/Assignment_5_temp/Assignment_5 (copy)$ make -f Makefile.initsocket run_init
```

First run the initsocket

Then run Ustr2

Then run usr1

OUTPUT

```
gautam_1124@GKS:~/Desktop/Sixth_Sem/Networks Lab/Assignment_5/Assignment_5_temp/Assignment_5 (copy)$ make -f Makefile.users run_usr1
Press any character to proceed for socket creation. So that two process don't create socket at the same time
1
UDP SOCKET ID is 4
Socket: 1
Press any character to proceed for socket binding. So that two socket don't bind at the same time
1
To exit the program press any character (Don't exit before receiving or sending all message because garbage collector will delete the socket)
1
gautam_1124@GKS:~/Desktop/Sixth_Sem/Networks Lab/Assignment_5/Assignment_5_temp/Assignment_5 (copy)$

gautam_1124@GKS:~/Desktop/Sixth_Sem/Networks Lab/Assignment_5/Assignment_5_temp/Assignment_5 (copy)$ make -f Makefile.users run_usr2
Press any character to proceed for socket creation. So that two process don't create socket at the same time
1
UDP SOCKET ID is 3
Socket: 0
Press any character to proceed for socket binding. So that two socket don't bind at the same time
1
I am a big boy
I live in my house
I am not good at studying
I try hard to study but fails
This Networks assignment is also very tough
TEST CASES:
NUM 1
NUM 2
NUM 3
NUM 4
NUM 5

Expected Seq_num= 5
R.THREAD: Received out-of-order or duplicate message.
R.THREAD: Duplicate Message(NUM 9.) ,sequence number: 4 Received
R.THREAD: Listening on Socket 0
R.THREAD: Listening on Socket 1
R.THREAD: Received ACK seq_num: 4, Receiver buffer size = 5
R.THREAD: Message Seq Num: 4 marked as received
R.THREAD: Listening on Socket 0
R.THREAD: Listening on Socket 1
R.THREAD: Listening on Socket 0
R.THREAD: Listening on Socket 1
R.THREAD: Listening on Socket 0
R.THREAD: Garbage collector cleaned up socket 0
R.THREAD: Garbage collector cleaned up socket 1
```

-> Don't complete the execution of usr1 and usr2 before receiving all messages and Acks

-> Ustr1 will take the data from send.txt and usr2 after receiving will store in recv.txt

->Control flow to run

1-> Run initsocket

2-> Run usr2, press 1 to proceed for socket creation

3-> Run usr1, press 1 to proceed for socket creation

4-> In usr2, press 1 to make the bind(****)

5-> In usr1, Press 1 to make the bind

-> The delimiter(to show the end of file) I used is “%” so I hope that the send.txt file doesn't contain this character.

Note***: If we bind the usr2 first, it will be waiting to receive message and then usr1 will start sending message, if i am not binding the usr2 first (only in my machine not in my friend' machine) for the first run only it is working properly after running again it just somehow misses the first message(maybe the shared memory issue or buffer is not cleared properly) then if i restart the cpu and run again, it runs. So it's better to always bind usr2 first then usr1, although this problem only occurred in my machine and not in my friend's cpu. 😊