UNP Lab Lab Exercise - 7

Name:Shravani SIsta Roll No.:19MCME01

1) 2)

a) Server:

```
sista@ubuntu:~/NP/lab/ex7$ gcc -o q2a_server -L . q2a_server.c libunp.a
sista@ubuntu:~/NP/lab/ex7$ ./q2a server&
[1] 19449
sista@ubuntu:~/NP/lab/ex7$ netstat -a | head
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address
                                         Foreign Address
                                                                  State
tcp 0 0 0.0.0.0:9877
                                         0.0.0.0:*
                                                                  LISTEN
tcp
         0
                0 localhost:domain
                                        0.0.0.0:*
                                                                  LISTEN
         0
                0 localhost:ipp
                                         0.0.0.0:*
tcp
                                                                  LISTEN
         0
                0 ubuntu:38906
                                        maa05s24-in-f14.1:https TIME_WAIT
55.65.117.34.bc.g:https ESTABLISHED
tcp
tcp
         0
               0 ubuntu:60818
0 ubuntu:57692
         0
                                         a104-120-159-223.:https ESTABLISHED
tcp
                                        [::]:*
tcp6
         0
                0 ip6-localhost:ipp
udp
         0
                 0 0.0.0.0:631
                                         0.0.0.0:*
sista@ubuntu:~/NP/lab/ex7$
```

Client:

```
sista@ubuntu:~/NP/lab/ex7$ gcc -o q2a_client -L . q2a_client.c libunp.a
sista@ubuntu:~/NP/lab/ex7$ ./q2a_client
1 argument required. The server IPaddress
sista@ubuntu:~/NP/lab/ex7$ ./q2a_client 0.0.0.0
Hello
Message recieved from server:Hello
This is client
Message recieved from server:This is client
```

b) Server:

```
sista@ubuntu:~/NP/lab/ex7$ gcc -o q2b -L . q2b.c libunp.a
sista@ubuntu:~/NP/lab/ex7$ ./q2b &
sista@ubuntu:~/NP/lab/ex7$ netstat -a | head
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address
                                          Foreign Address
                                                                 State
tcp
          0
               0 localhost:ipp
                                          0.0.0.0:*
                                                                 LISTEN
tcp
          0
                 0 localhost:domain
                                          0.0.0.0:*
                                                                 LISTEN
                0 0.0.0.0:9877
tcp
          0
                                          0.0.0.0:*
                                                                 LISTEN
                0 10.0.2.15:53980
tcp
         0
                                          maa03s47-in-f14.1:https ESTABLISHED
         0
tcp
               0 10.0.2.15:58584
                                          maa03s42-in-f13.1:https ESTABLISHED
tcp
         0
               0 10.0.2.15:49676
                                         maa05s19-in-f3.1e1:http TIME WAIT
tcp
         0
               0 10.0.2.15:59990
                                          maa05s15-in-f1.1e1:http TIME_WAIT
tcp
          0
                0 10.0.2.15:42242
                                          server-54-240-162:https TIME WAIT
sista@ubuntu:~/NP/lab/ex7$
```

Client:

```
sista@ubuntu:~/NP/lab/ex7$ gcc -o q2a_client -L . q2a_client.c libunp.a
sista@ubuntu:~/NP/lab/ex7$ ./q2a_client 0.0.0.0
Hello to iterative server
Message recieved from server:Hello to iterative server

Message recieved from server:1
2
Message recieved from server:2
3
Message recieved from server:3
4
Message recieved from server:4
^C
sista@ubuntu:~/NP/lab/ex7$
```

3) Server:

```
sista@ubuntu:~/NP/lab/ex7$ gcc -o q3_server -L . q3_server.c libunp.a
sista@ubuntu:~/NP/lab/ex7$ ./q3_server&
[1] 4539
sista@ubuntu:~/NP/lab/ex7$ netstat -a | head
Active Internet connections (servers and established)
Proto Recv-O Send-O Local Address
                                          Foreign Address
                                                                  State
tcp
          0
                 0 localhost:ipp
                                           0.0.0.0:*
                                                                  LISTEN
tcp
          0
                 0 localhost:domain
                                           0.0.0.0:*
                                                                  LISTEN
         0
                 0 0.0.0.0:9877
                                           0.0.0.0:*
                                                                  LISTEN
tcp
         0
                0 10.0.2.15:35880
                                           server-54-230-24-5:http ESTABLISHED
tcp
         0
                0 10.0.2.15:55518
tcp
                                           broadband.actcorp.:http ESTABLISHED
         0
                0 localhost:42664
                                          localhost:9877
                                                                  TIME WAIT
tcp
         0
                 0 10.0.2.15:55490
                                          55.65.117.34.bc.q:https ESTABLISHED
tcp
tcp
          0
                 0 10.0.2.15:60084
                                         ec2-184-72-95-230:https ESTABLISHED
sista@ubuntu:~/NP/lab/ex7$
```

Client:

```
sista@ubuntu:~/NP/lab/ex7$ gcc -o q3_client -L . q3_client.c libunp.a
sista@ubuntu:~/NP/lab/ex7$ ./q3_client 0.0.0.0
(In expression, each character MUST be seperated by a space)
Enter expression:1 + 2
Result:3.000000

Enter expression:(4 * 2 ) / 3
Result:2.666667

Enter expression:0.5 - 0.13
Result:0.370000

Enter expression:(1 + 2 - 3
Result:Invalid expression

Enter expression:(1 + 2 ) - 3
Result:0.000000

Enter expression:
*C
sista@ubuntu:~/NP/lab/ex7$
```