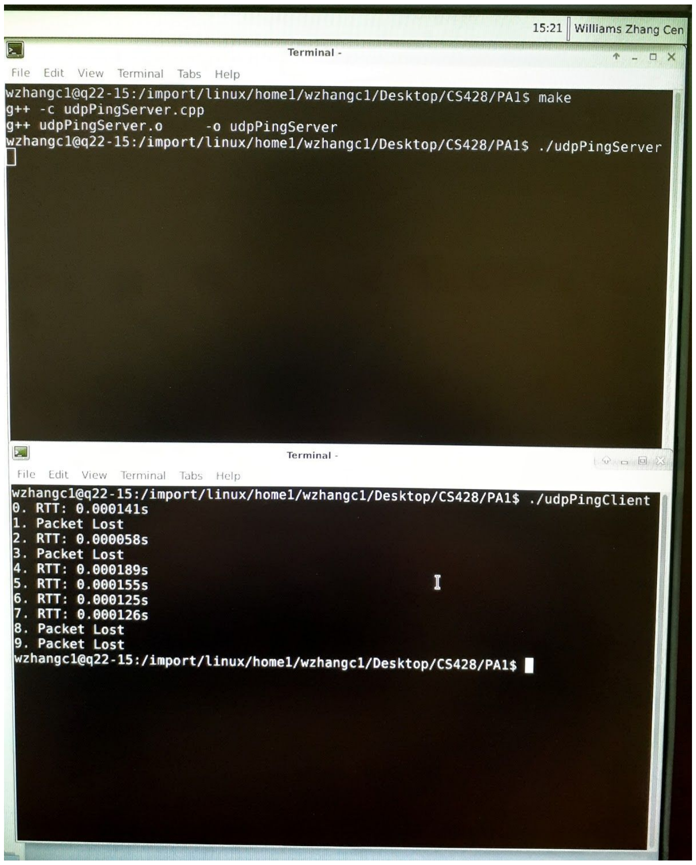
Screenshot:



15:21 Williams Zhang Cen

```
wzhangc1@q22-15:/import/linux/home1/wzhangc1/Desktop/CS428/PA1$ make
g++ -c udpPingServer.cpp
g++ udpPingServer.o     -o udpPingServer
wzhangc1@q22-15:/import/linux/home1/wzhangc1/Desktop/CS428/PA1$ ./udpPingServer
```

```
wzhangc1@q22-15:/import/linux/home1/wzhangc1/Desktop/CS428/PA1$ ./udpPingClient
0. RTT: 0.000141s
1. Packet Lost
2. RTT: 0.000058s
3. Packet Lost
4. RTT: 0.000189s
5. RTT: 0.000155s
6. RTT: 0.000125s
7. RTT: 0.000126s
8. Packet Lost
9. Packet Lost
wzhangc1@q22-15:/import/linux/home1/wzhangc1/Desktop/CS428/PA1$
```

Design Choices:
Pollfd was used to make sure that the packet arrives before one second. Other functions such as select() were used with no success.

Time from <chrono> was used to keep track of the execution time. Other libraries such as <ctime> and <time.h> were used, but the time provided was longer and less accurate to real time.

Printf() was used instead of cout for simplicity.

Buffer was set to the null character to reduce transmission time.

Failing cases:
There were no major failing cases. The only failing case is that the connection might be closed if no message is sent after a certain amount of time (around 5 min), which prevents messages to be sent, requiring the user to recompile the program.

Improving:
One improvement I could make for this lab is to check that the message is correct. This implementation would require keeping a copy of the message and an extra check.