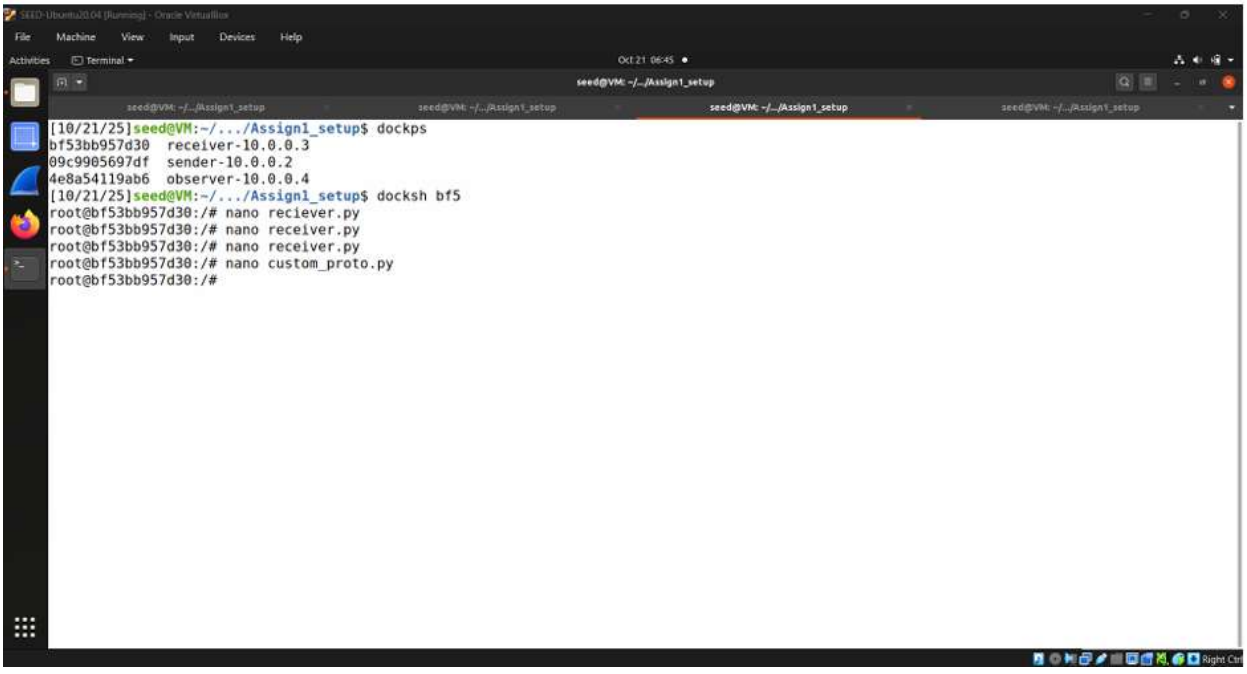
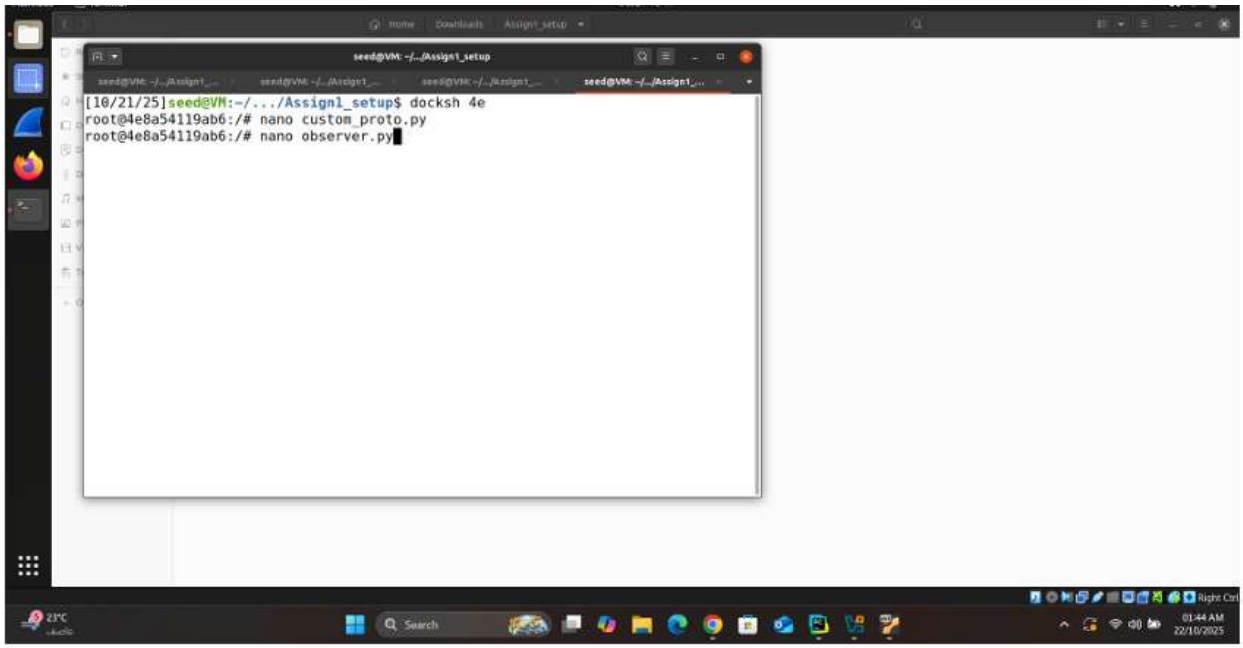
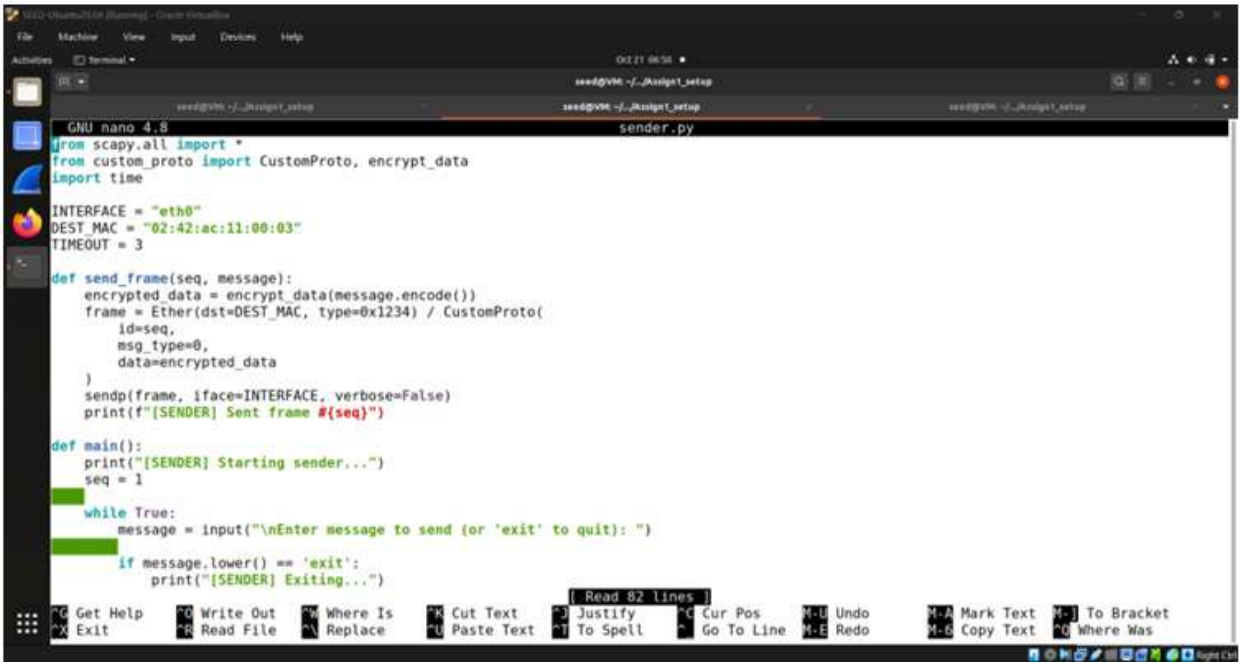
```
seed@VM: ~/.../Assign1_setup
seed@VM: ~/.../Assign1_setup   seed@VM: ~/.../Assign1_setup   seed@VM: ~/.../Assign1_setup
[10/21/25]seed@VM:~/.../Assign1_setup$ ls
docker-compose.yml  pcaps  starter
[10/21/25]seed@VM:~/.../Assign1_setup$ dcbuild
sender uses an image, skipping
receiver uses an image, skipping
observer uses an image, skipping
[10/21/25]seed@VM:~/.../Assign1_setup$ dcup
Starting observer-10.0.0.4 ... done
Starting sender-10.0.0.2   ... done
Starting receiver-10.0.0.3 ... done
Attaching to receiver-10.0.0.3, sender-10.0.0.2, observer-10.0.0.4
receiver-10.0.0.3 | 10: eth0@if11: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qd
isc noqueue state UP group default  link-netnsid 0
receiver-10.0.0.3 |     inet 10.0.0.3/24 brd 10.0.0.255 scope global eth0
receiver-10.0.0.3 |        valid_lft forever preferred_lft forever
sender-10.0.0.2 | 8: eth0@if9: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc
noqueue state UP group default  link-netnsid 0
sender-10.0.0.2 |     inet 10.0.0.2/24 brd 10.0.0.255 scope global eth0
sender-10.0.0.2 |        valid_lft forever preferred_lft forever
sender-10.0.0.2 | RTNETLINK answers: File exists
observer-10.0.0.4 | 6: eth0@if7: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdis
c noqueue state UP group default  link-netnsid 0
observer-10.0.0.4 |     inet 10.0.0.4/24 brd 10.0.0.255 scope global eth0
observer-10.0.0.4 |        valid_lft forever preferred_lft forever
```

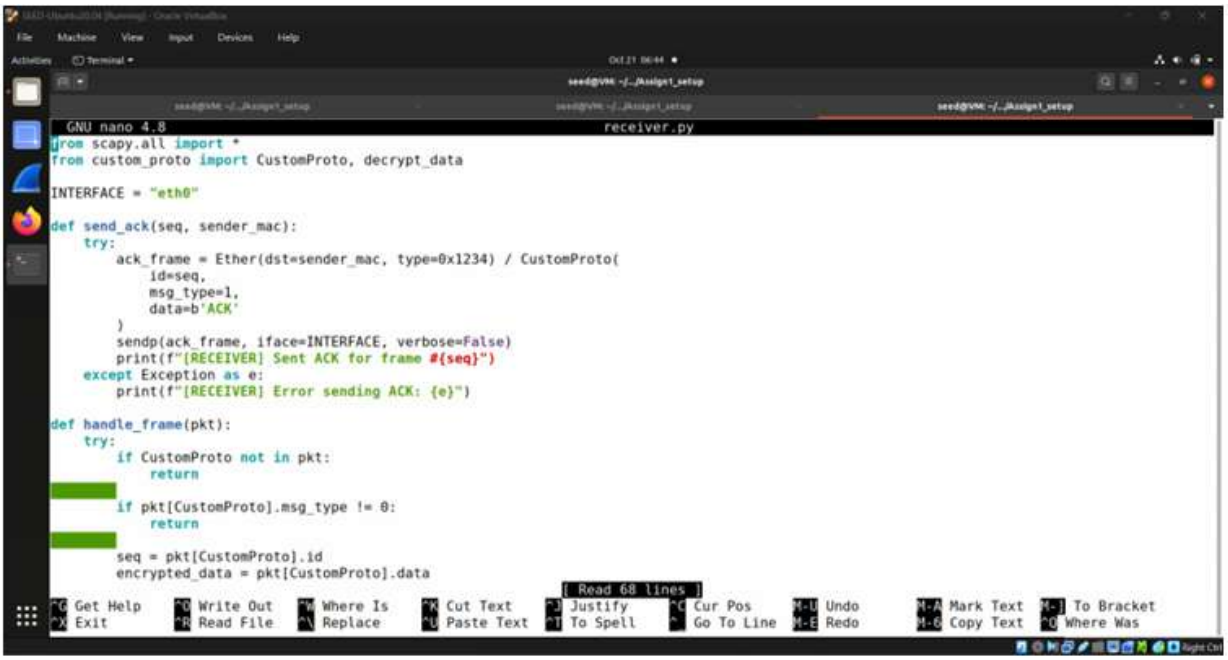



seed@VM: ~/.../Assign1_setup
[10/21/25]seed@VM:~/.../Assign1_setup$ docksh 4e
root@4e8a54119ab6:/# nano custom_proto.py
root@4e8a54119ab6:/# nano observer.py

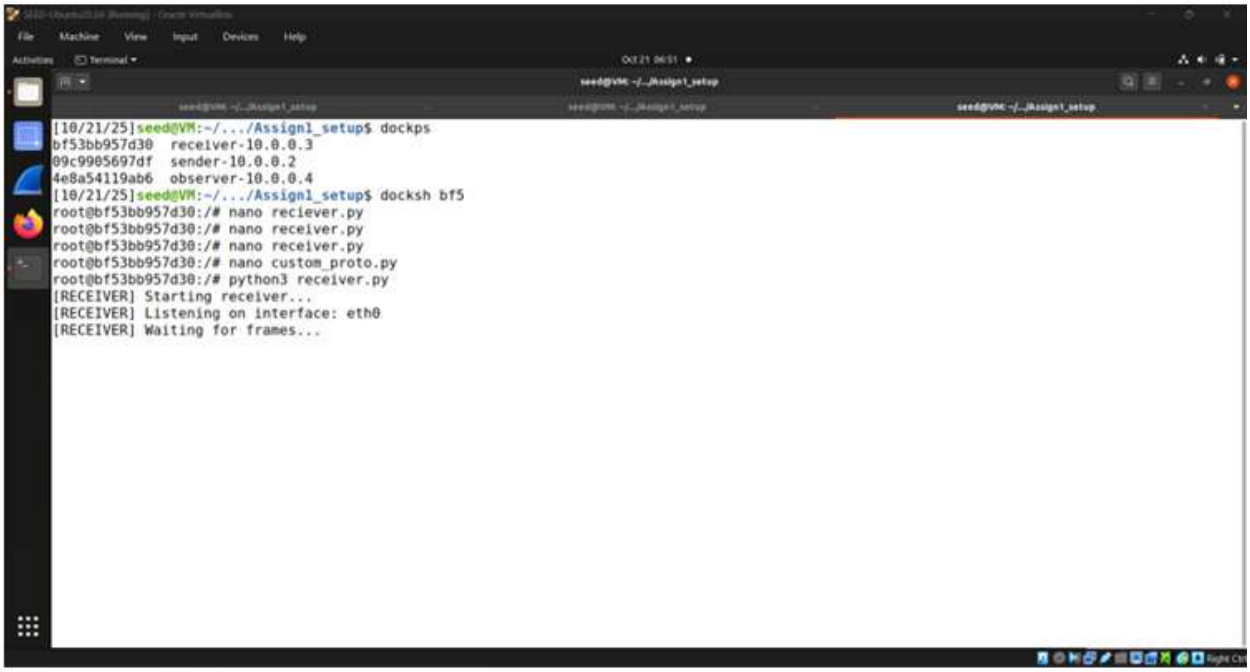

seed@VM: ~/.../Assign1_setup
[10/21/25]seed@VM:~/.../Assign1_setup$ dockps
bf53bb957d30 receiver-10.0.0.3
09c9905697df sender-10.0.0.2
4e8a54119ab6 observer-10.0.0.4
[10/21/25]seed@VM:~/.../Assign1_setup$ docksh 09
root@09c9905697df:/# nano sender.py
root@09c9905697df:/# ^C
root@09c9905697df:/# nano custom_proto.py
root@09c9905697df:/# nano sender.py

Wrote python file for sender

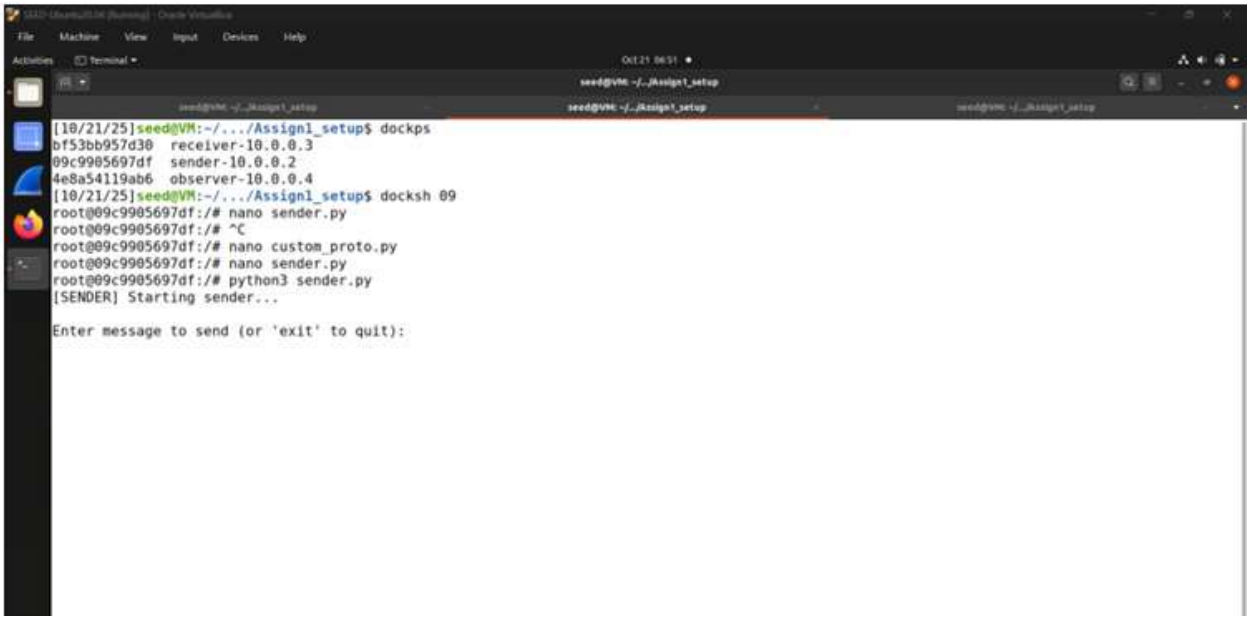




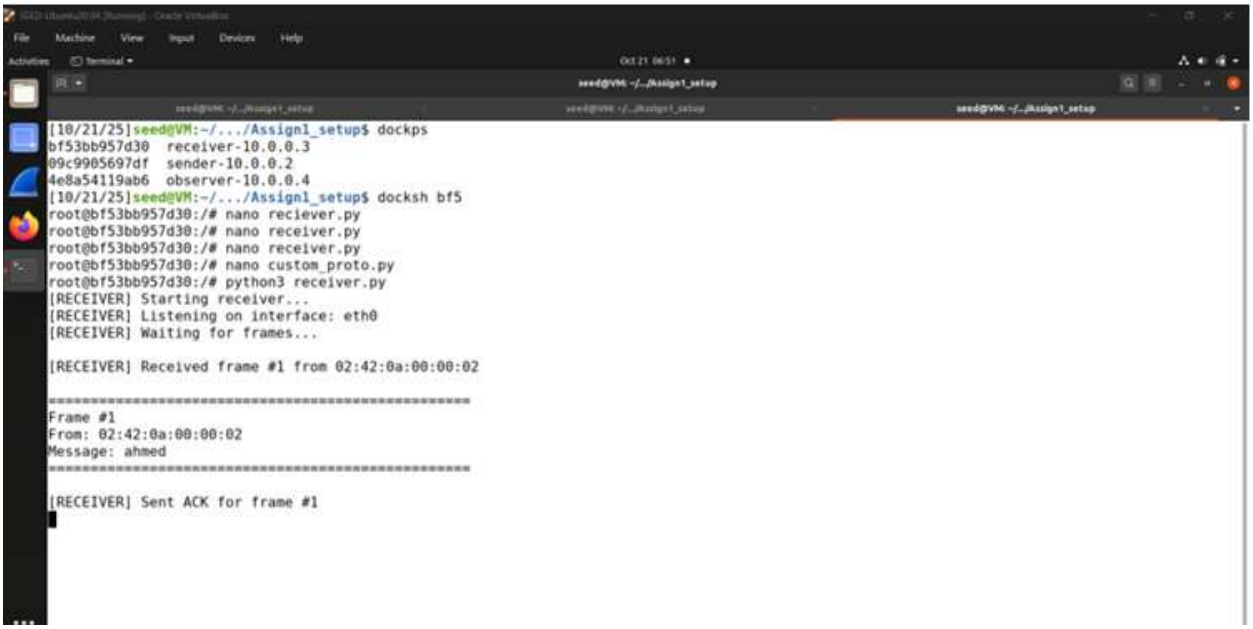
Wrote observer.py code



Started sender



Message received. ack sent from receiver and received at sender



Observer saw frame