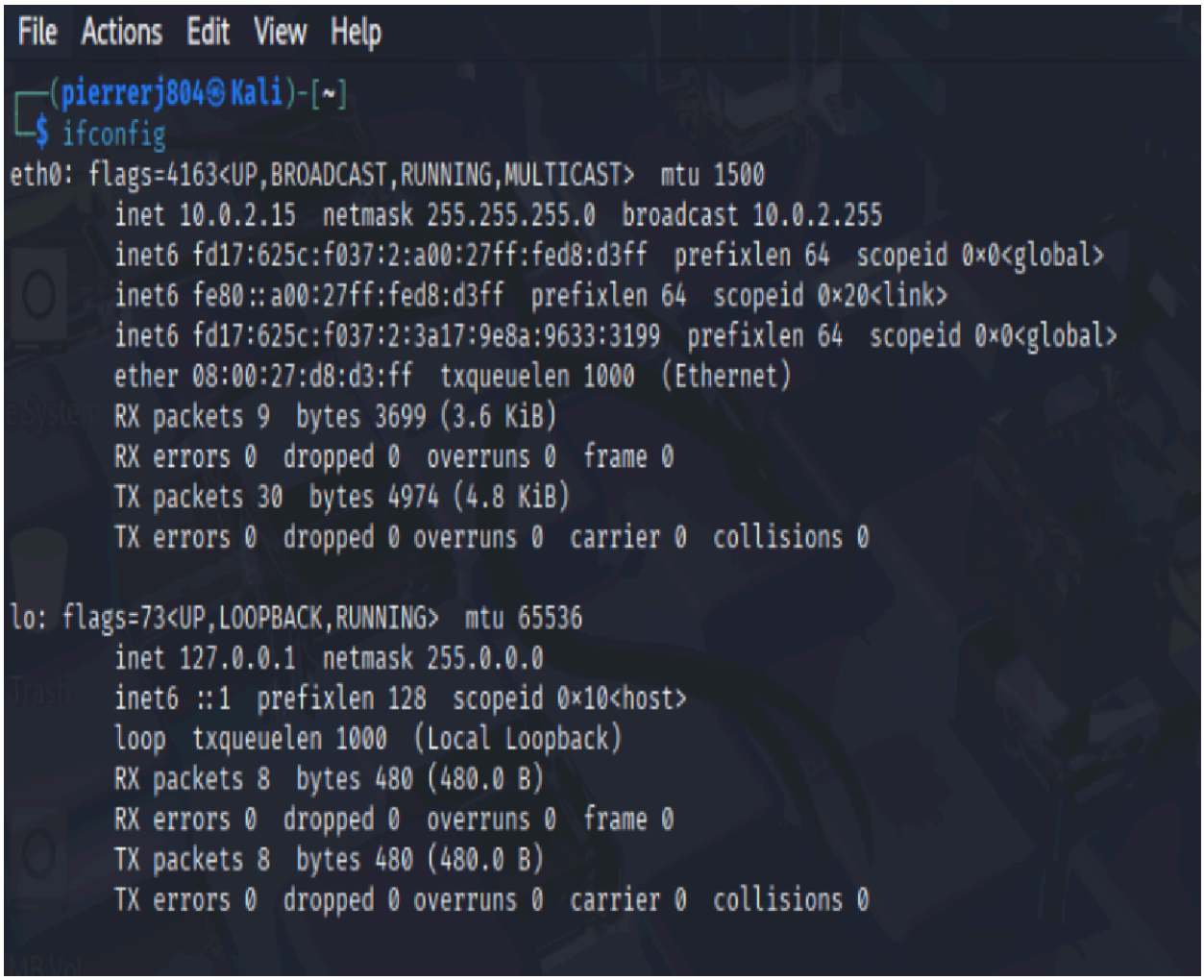
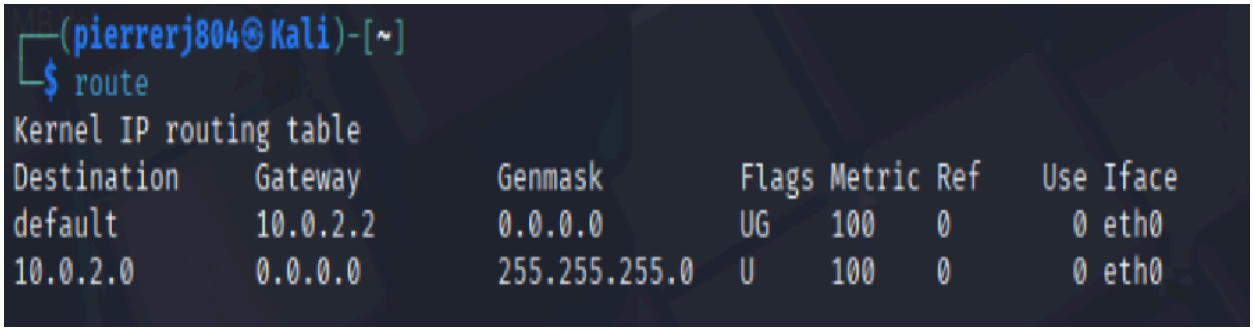
Lab 11 – Network basics

TASK A

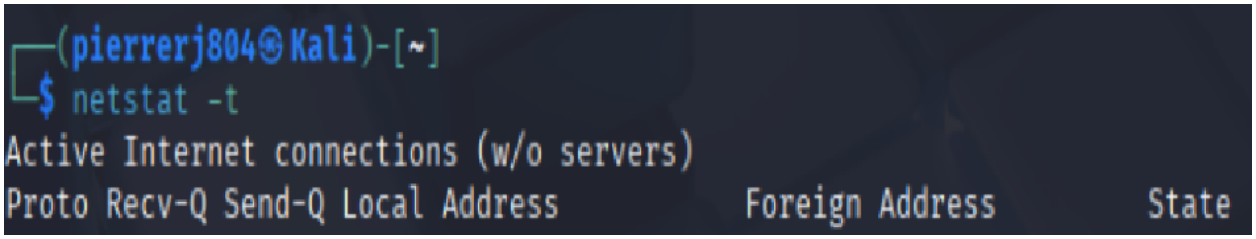
Step 1



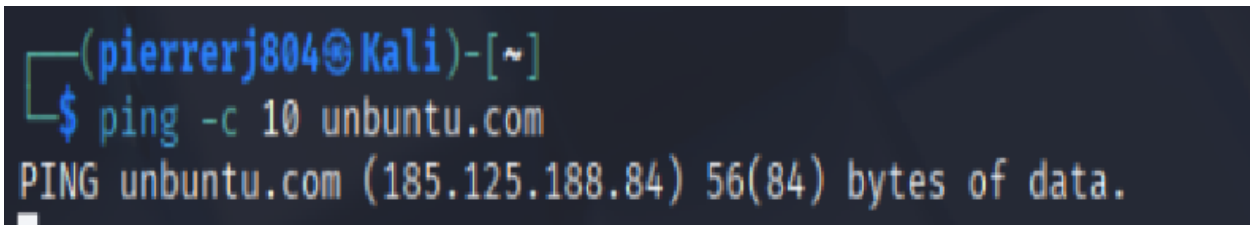
Step 2



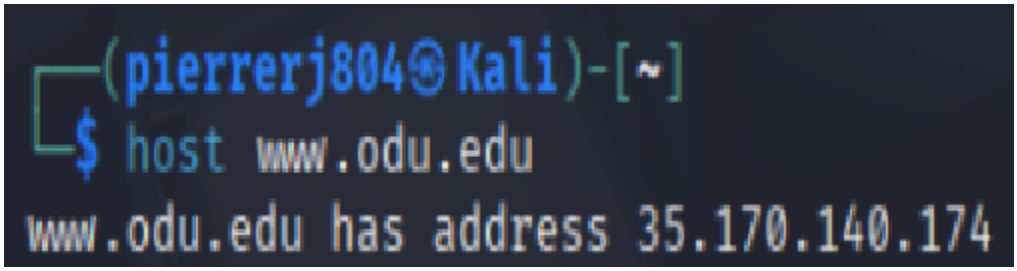
Step 3



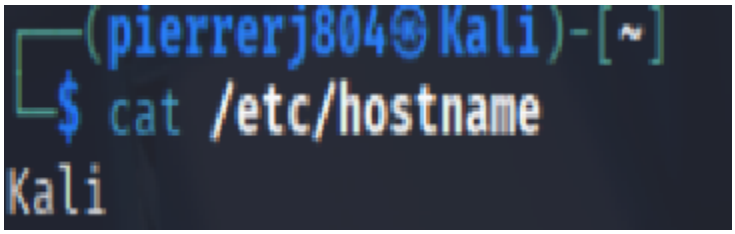
Step 4



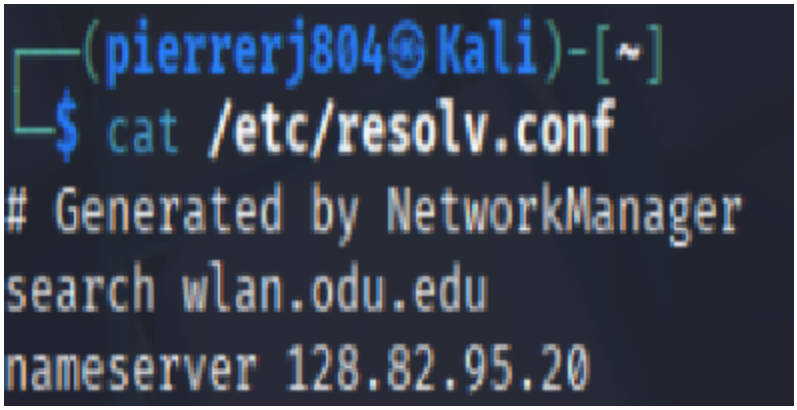
Step 5



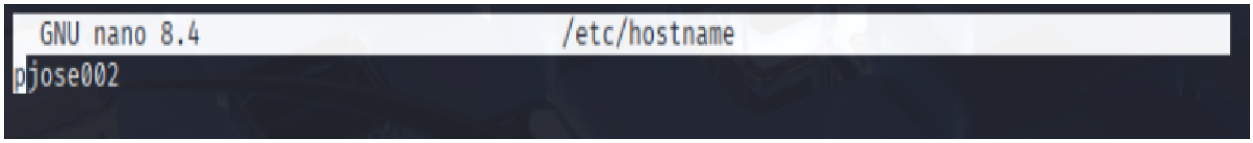
Step 6



Step 7

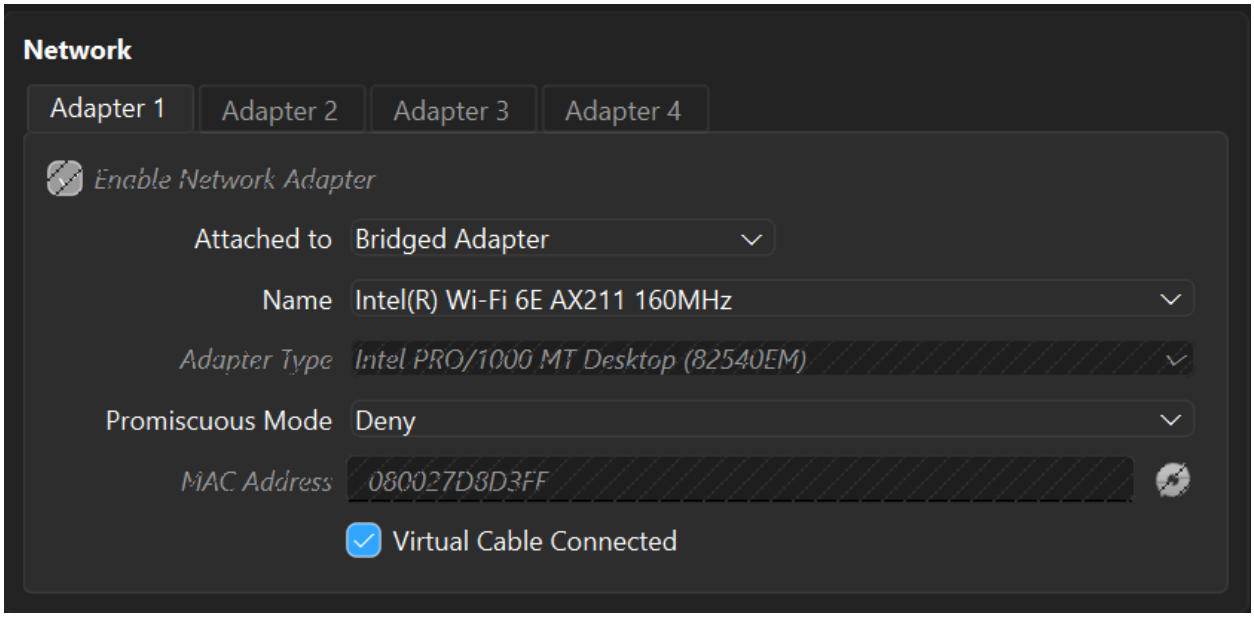


Step 8

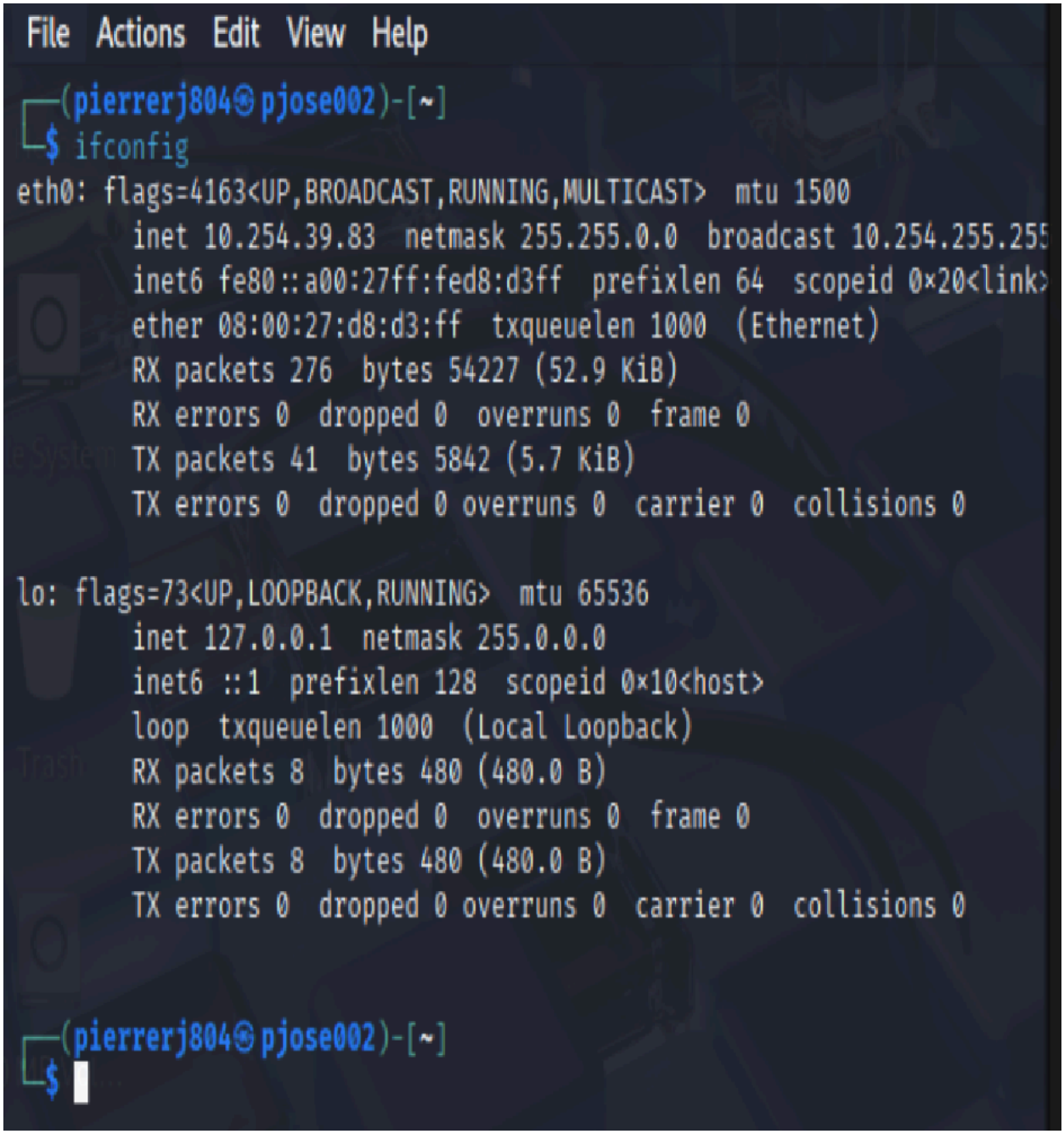


TASK B

Step 1



Step 2


File Actions Edit View Help
(pierrerj804㉿pjose002)-[~]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
inet 10.254.39.83 netmask 255.255.0.0 broadcast 10.254.255.255
inet6 fe80::a00:27ff:fed8:d3ff prefixlen 64 scopeid 0x20<link>
ether 08:00:27:d8:d3:ff txqueuelen 1000 (Ethernet)
RX packets 276 bytes 54227 (52.9 KiB)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 41 bytes 5842 (5.7 KiB)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
inet 127.0.0.1 netmask 255.0.0.0
inet6 ::1 prefixlen 128 scopeid 0x10<host>
loop txqueuelen 1000 (Local Loopback)
RX packets 8 bytes 480 (480.0 B)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 8 bytes 480 (480.0 B)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
(pierrerj804㉿pjose002)-[~]
$

Step 3

```
┌──(pierrerj804㉿pjose002)-[~]
└─$ route
Kernel IP routing table
Destination     Gateway         Genmask         Flags Metric Ref    Use Iface
netstat -t
default         10.254.0.1      0.0.0.0         UG    100    0        0 eth0
10.254.0.0      0.0.0.0         255.255.0.0     U     100    0        0 eth0
```

Step 4

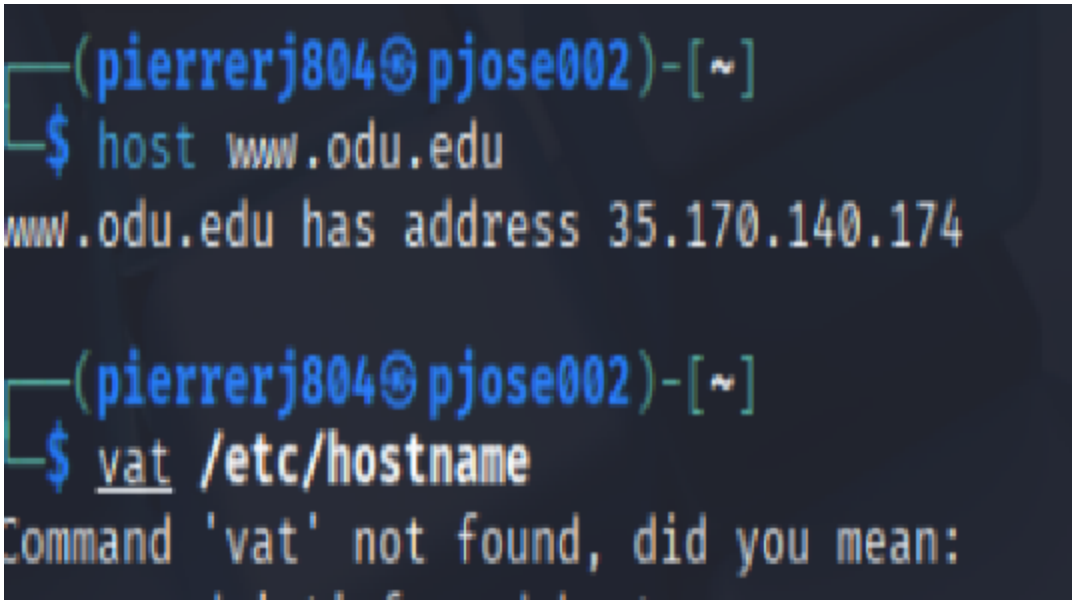
```
┌──(pierrerj804㉿pjose002)-[~]
└─$ netstat -t
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
```

Step 5

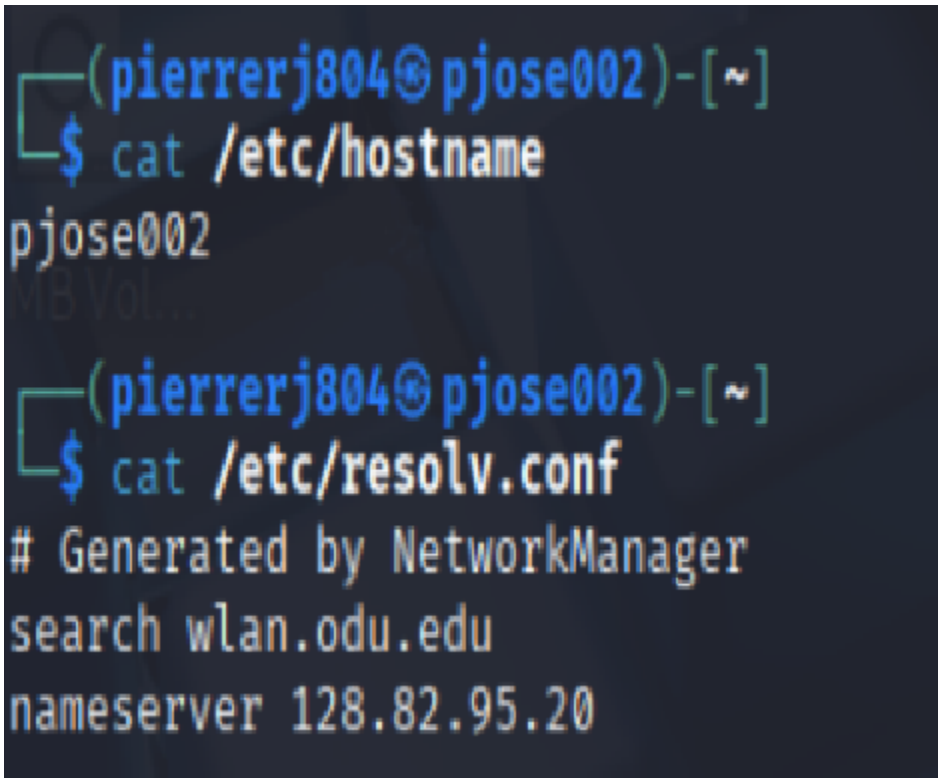
```
┌──(pierrerj804㉿pjose002)-[~]
└─$ ping -c 10 unbuntu.com
PING unbuntu.com (185.125.188.126) 56(84) bytes of data.
host www.odu.edu

— unbuntu.com ping statistics —
10 packets transmitted, 0 received, 100% packet loss, time 9199ms
```

Step 6



Step 7/8



The differences between task A and task B were the NAT and Bridge mode. Task A uses a network created from VirtualBox while task B simply uses the same network as your computer. I also noticed a speed difference in some of the commands, being that task B had a harder time running commands than task A. I think that's because instead

of a direct connection, task B uses your computer and finds a network sufficient enough to run tasks, nothing more, nothing less.