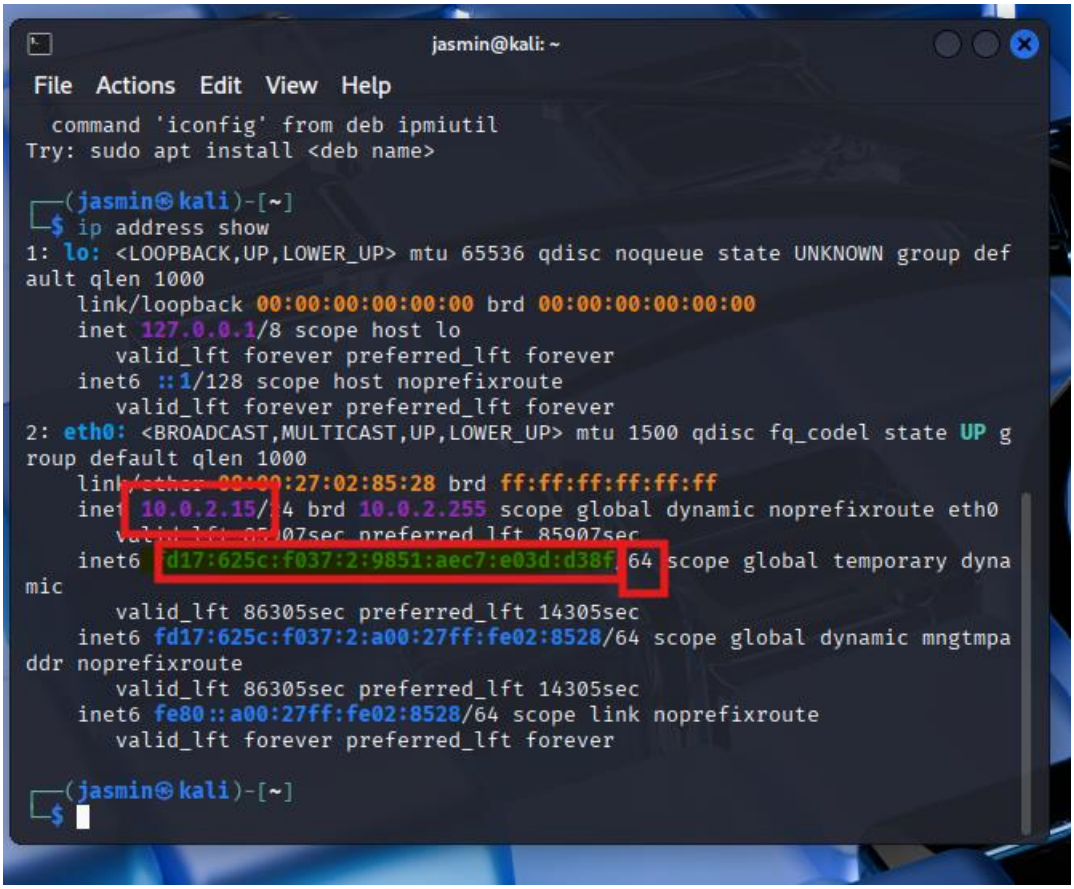
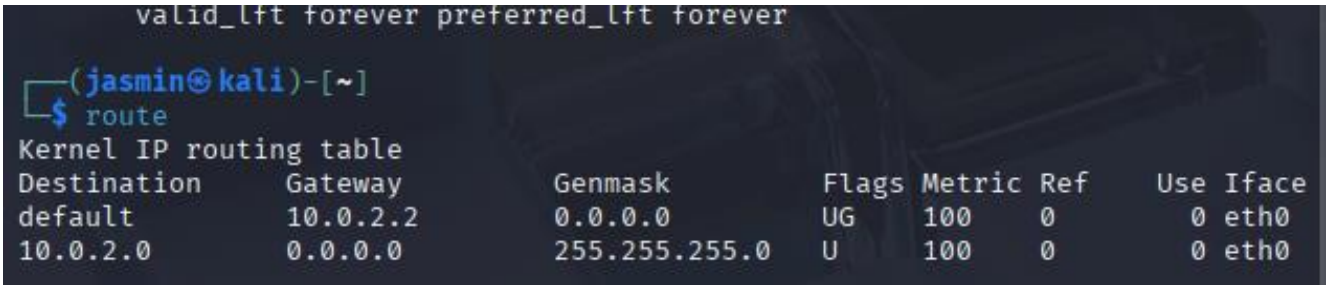
1. **Use the correct ifconfig command to display the current network configuration. Highlight your IP address, MAC address, and the network mask.**

The command that I used to display the current network configuration is **ip address show** which displays info such as the ip address, mac address, and lease times.



2. **Use the correct route command to display the current routing table.**

To display the current routing table, I used the command **route**.

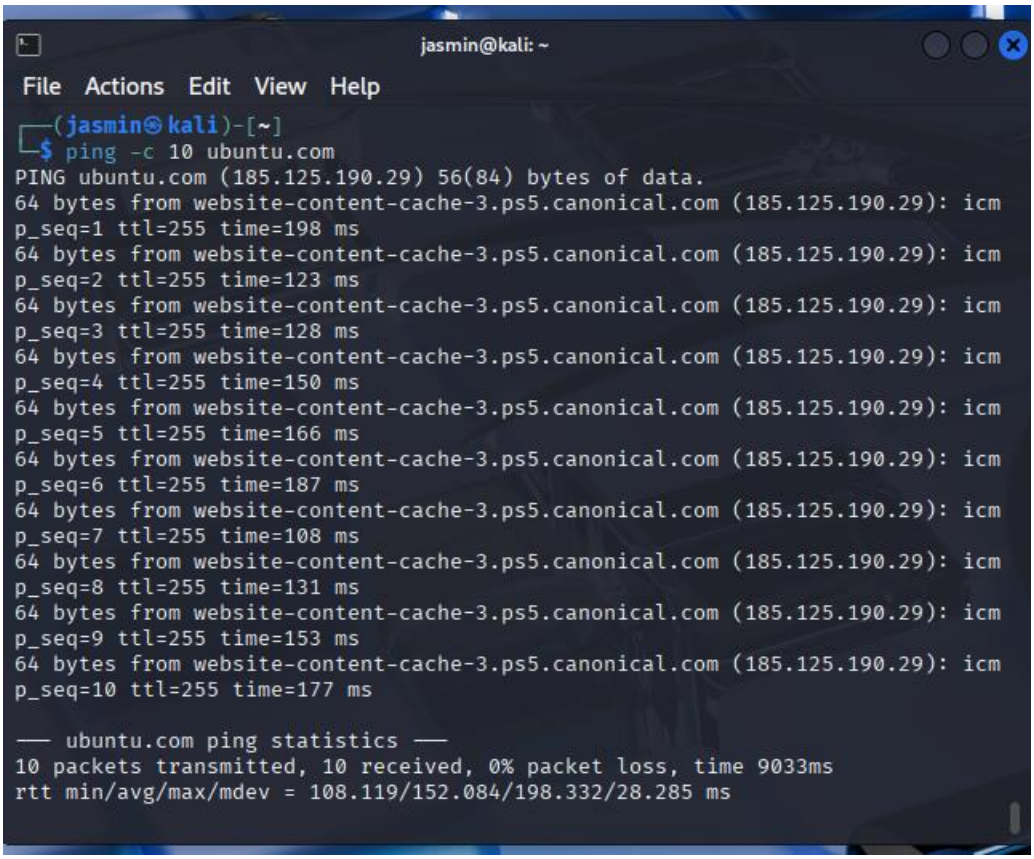


3. **Use the netstat command to list current TCP connections.**

To display the TCP connections, I used the **netstat -t** command.

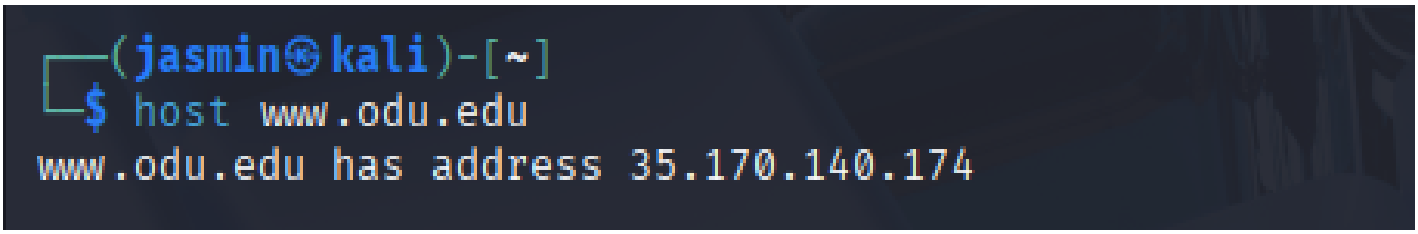
4. **Use the ping command to determine if the ubuntu.com system is accessible via the network. (Use the correct option to send 10 ping requests only.)**

To determine if Ubuntu is accessible via the network, I used the command **ping -c 10 ubuntu.com**.



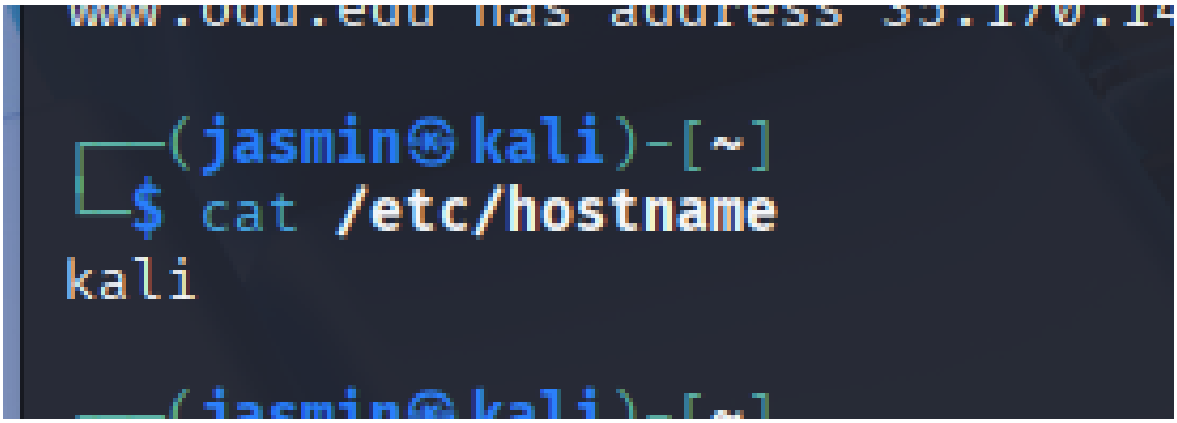
5. **Use the host command to perform a DNS query on www.odu.edu**

The command that I used to perform a DNS query on www.odu.edu is **host www.odu.edu**.



6. **Use the cat command to display the contents of the file that contains the system's hostname.**

The cat command that I used to display the contents of the file that contains the systems hostname is **cat \etc\hostname.**

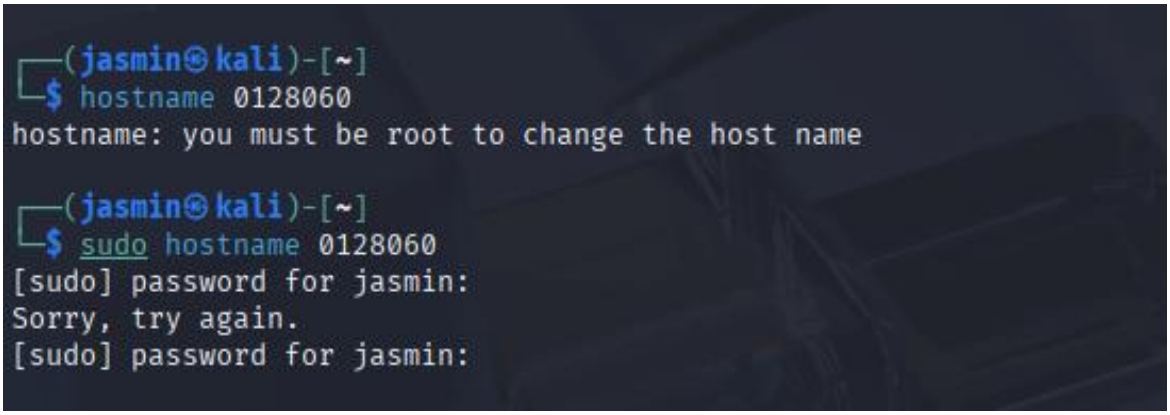


7. **Use the cat command to display the contents of the file that contains the DNS servers for this system.**

The cat command that I used to display the contents of the file that contains the DNS servers for this system is **cat /etc/resolv.conf**

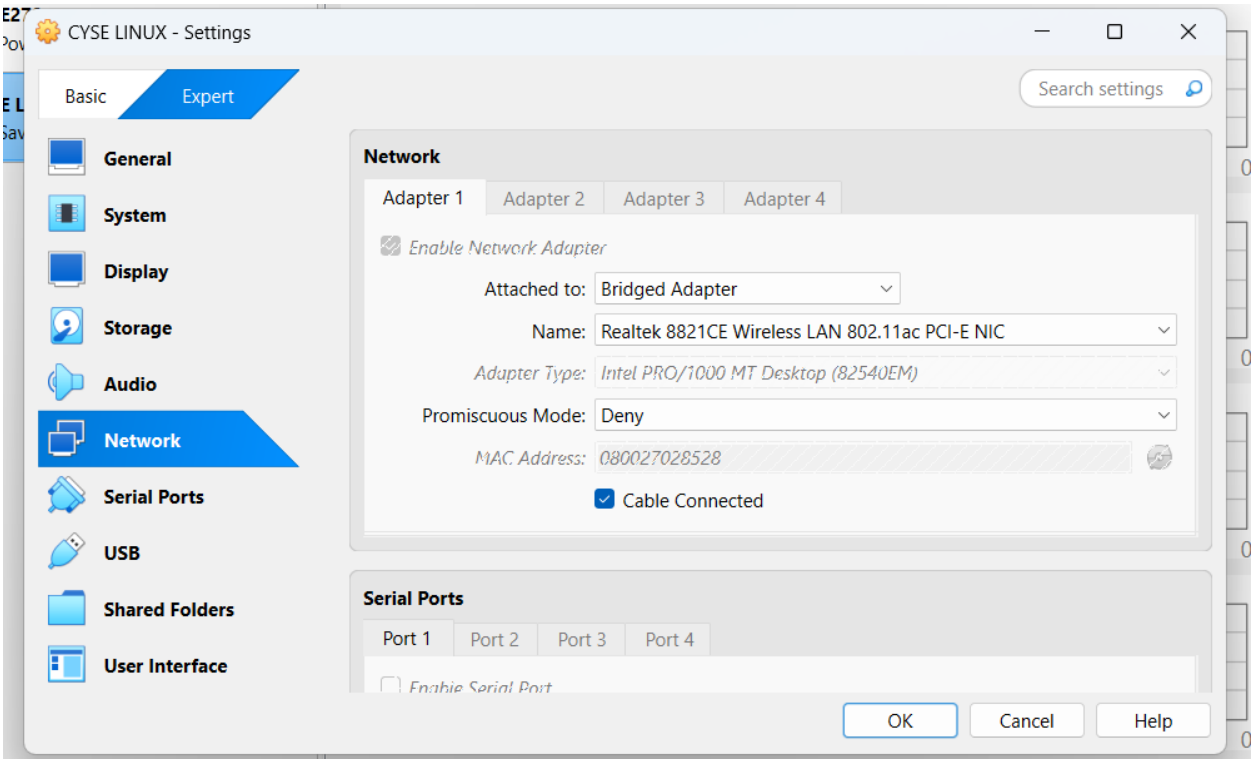
8. **Edit the same file you display in the previous step, set the system's hostname to your MIDAS ID permanently. Reboot system and repeat step 6.**

To type change the hostname, I would use command **hostname 0128060**.



1. **Change the VM network connection from NAT to the bridge mode (you will lose your Internet connection if you are connected to the ODU campus Wi-Fi network, but it is okay).**

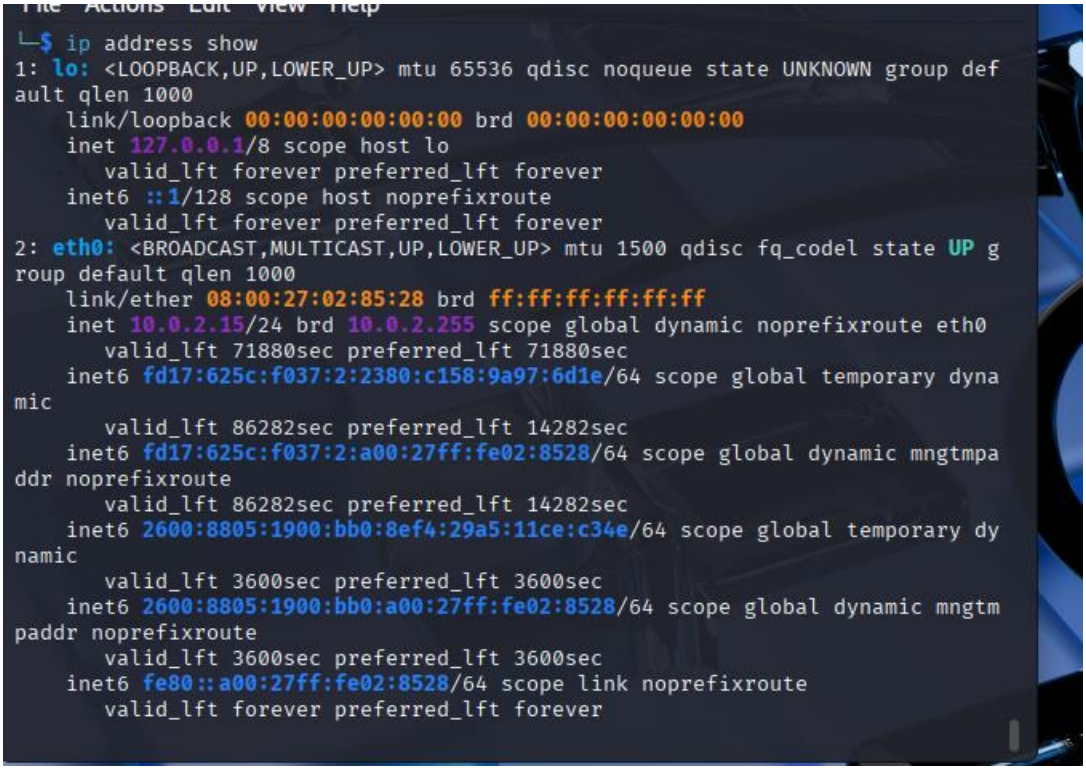
To switch to bridge mode, I go to **settings > network> attached to:> and select bridged adapter.**



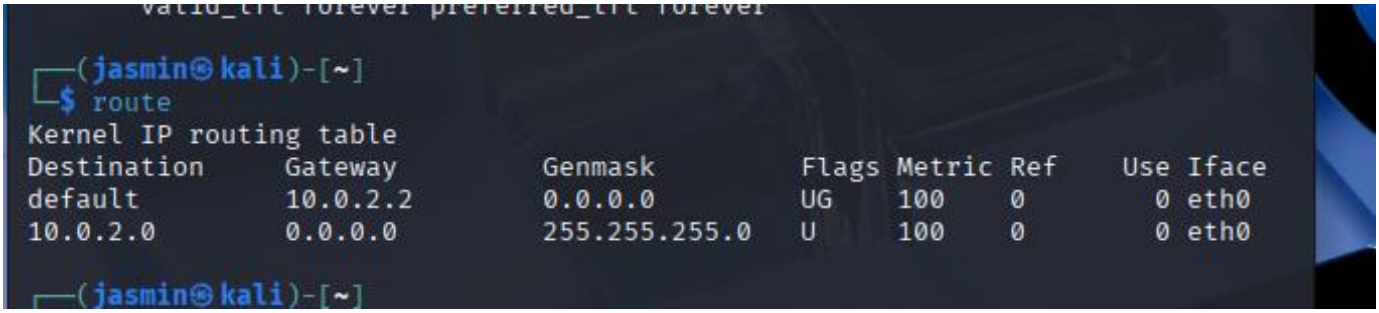
2. Reboot your system, then repeat Steps 1 – 7 in Task A.

3. Highlight the differences at the end of each step and discuss what do you find.

Step 1.)



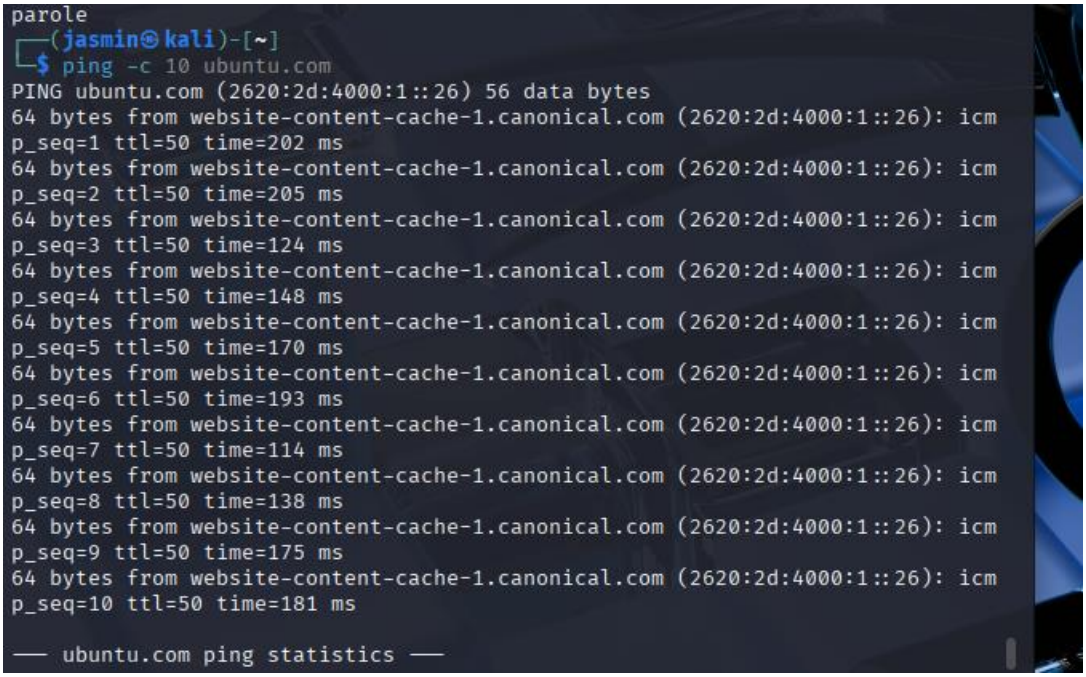
Step 2.)


valid_lft forever preferred_lft forever
(jasmin㉿kali)-[~]
$ route
Kernel IP routing table
Destination Gateway Genmask Flags Metric Ref Use Iface
default 10.0.2.2 0.0.0.0 UG 100 0 0 eth0
10.0.2.0 0.0.0.0 255.255.255.0 U 100 0 0 eth0
(jasmin㉿kali)-[~]

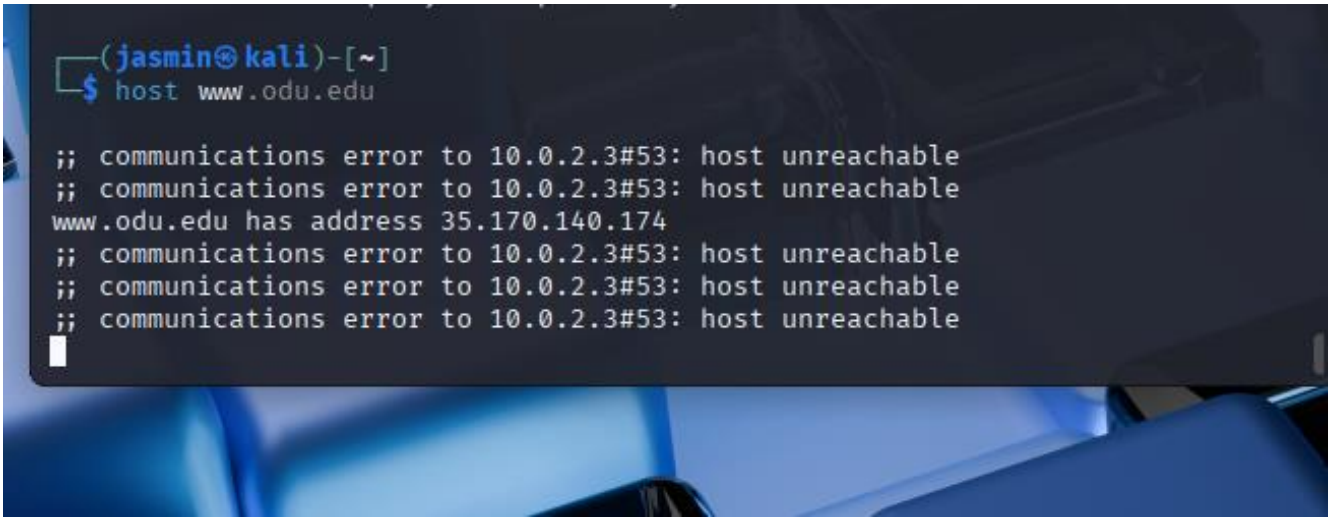
Step 3.)


(jasmin㉿kali)-[~]
$ netstat -t
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address Foreign Address State
(jasmin㉿kali)-[~]

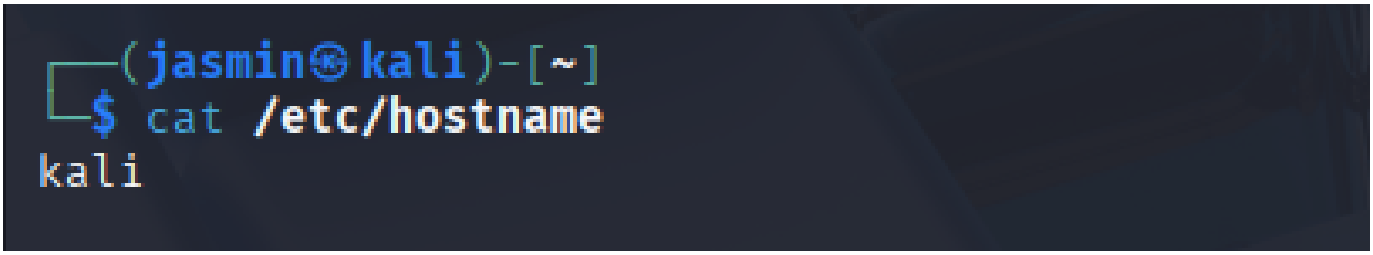
Step 4.)


parole
(jasmin㉿kali)-[~]
$ ping -c 10 ubuntu.com
PING ubuntu.com (2620:2d:4000:1::26) 56 data bytes
64 bytes from website-content-cache-1.canonical.com (2620:2d:4000:1::26): icm
p_seq=1 ttl=50 time=202 ms
64 bytes from website-content-cache-1.canonical.com (2620:2d:4000:1::26): icm
p_seq=2 ttl=50 time=205 ms
64 bytes from website-content-cache-1.canonical.com (2620:2d:4000:1::26): icm
p_seq=3 ttl=50 time=124 ms
64 bytes from website-content-cache-1.canonical.com (2620:2d:4000:1::26): icm
p_seq=4 ttl=50 time=148 ms
64 bytes from website-content-cache-1.canonical.com (2620:2d:4000:1::26): icm
p_seq=5 ttl=50 time=170 ms
64 bytes from website-content-cache-1.canonical.com (2620:2d:4000:1::26): icm
p_seq=6 ttl=50 time=193 ms
64 bytes from website-content-cache-1.canonical.com (2620:2d:4000:1::26): icm
p_seq=7 ttl=50 time=114 ms
64 bytes from website-content-cache-1.canonical.com (2620:2d:4000:1::26): icm
p_seq=8 ttl=50 time=138 ms
64 bytes from website-content-cache-1.canonical.com (2620:2d:4000:1::26): icm
p_seq=9 ttl=50 time=175 ms
64 bytes from website-content-cache-1.canonical.com (2620:2d:4000:1::26): icm
p_seq=10 ttl=50 time=181 ms
— ubuntu.com ping statistics —

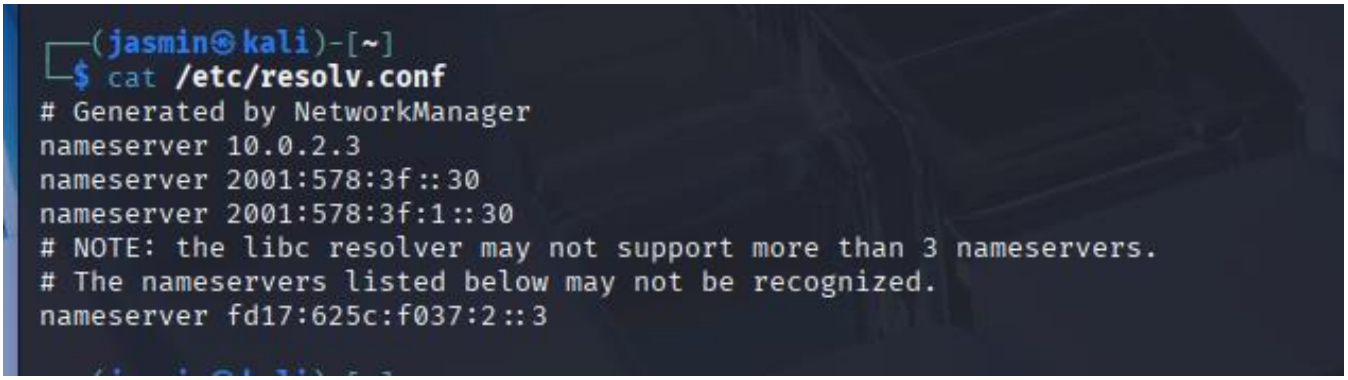
Step 5.)


(jasmin㉿kali)-[~]
$ host www.odu.edu
;; communications error to 10.0.2.3#53: host unreachable
;; communications error to 10.0.2.3#53: host unreachable
www.odu.edu has address 35.170.140.174
;; communications error to 10.0.2.3#53: host unreachable
;; communications error to 10.0.2.3#53: host unreachable
;; communications error to 10.0.2.3#53: host unreachable

Step 6.)



Step 7.)


(jasmin㉿kali)-[~]
$ cat /etc/resolv.conf
# Generated by NetworkManager
nameserver 10.0.2.3
nameserver 2001:578:3f::30
nameserver 2001:578:3f:1::30
NOTE: the libc resolver may not support more than 3 nameservers.
The nameservers listed below may not be recognized.
nameserver fd17:625c:f037:2::3