

## Task A

1.

```
(william-gardin@Kali)-[~]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
    inet6 fe80::a00:27ff:fe20:d4bf prefixlen 64 scopeid 0x20<link>
    inet6 fd17:625c:f037:2:6a22:192:d85c:531d prefixlen 64 scopeid 0x0<global>
    inet6 fd17:625c:f037:2:a00:27ff:fe20:d4bf prefixlen 64 scopeid 0x0<global>
    ether 08:00:27:20:d4:bf txqueuelen 1000 (Ethernet)
    RX packets 9 bytes 3723 (3.6 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 30 bytes 4974 (4.8 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
```

IP Address: 10.0.2.15

MAC Address: 08:00:27:20:d4:bf

Netmask: 255.255.255.0

2.

```
(william-gardin@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

(william-gardin@Kali)-[~]
$
```

3.

```
(william-gardin@Kali)-[~]
$ netstat -p TCP
(Not all processes could be identified, non-owned process info
will not be shown, you would have to be root to see it all.)
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
udp        0      0 10.0.2.15:bootpc        10.0.2.2:bootps        ESTABLISHED -

Active UNIX domain sockets (w/o servers)
Proto RefCnt Flags      Type       State      I-Node  PID/Program name  Path
unix   3      [ ]      STREAM    CONNECTED  10132    1351/obexd
unix   3      [ ]      STREAM    CONNECTED  9931     1304/gvfs-afc-volum
unix   3      [ ]      STREAM    CONNECTED  9542     -          @/tmp/.X11-unix/X0
unix   3      [ ]      STREAM    CONNECTED  9163     1006/dbus-daemon    /run/user/1000/at-spi/bus_0
unix   3      [ ]      STREAM    CONNECTED  8682     -          @/tmp/.X11-unix/X0
unix   3      [ ]      STREAM    CONNECTED  8633     -          @/tmp/.X11-unix/X0
unix   3      [ ]      STREAM    CONNECTED  11050    1701/xdg-permission
unix   3      [ ]      STREAM    CONNECTED  9274     862/dbus-daemon     /run/user/1000/bus
unix   3      [ ]      STREAM    CONNECTED  8308     863/pipewire
unix   3      [ ]      STREAM    CONNECTED  9165     1083/Thunar
unix   3      [ ]      STREAM    CONNECTED  10133    862/dbus-daemon     /run/user/1000/bus
unix   3      [ ]      STREAM    CONNECTED  9932     -          /run/systemd/journal/stdout
unix   3      [ ]      STREAM    CONNECTED  9541     1203/xcap
unix   3      [ ]      STREAM    CONNECTED  11044    862/dbus-daemon     /run/user/1000/bus
unix   3      [ ]      STREAM    CONNECTED  9277     1103/wrapper-2.0
unix   3      [ ]      STREAM    CONNECTED  9070     1064/VBoxClient
unix   3      [ ]      STREAM    CONNECTED  8749     999/at-spi-bus-laun
unix   3      [ ]      STREAM    CONNECTED  8353     869/mpri
unix   3      [ ]      STREAM    CONNECTED  9150     1083/Thunar
unix   3      [ ]      STREAM    CONNECTED  10137    -          /run/dbus/system_bus_socket
unix   3      [ ]      STREAM    CONNECTED  9965     862/dbus-daemon     /run/user/1000/bus
unix   3      [ ]      STREAM    CONNECTED  9523     1174/polkit-mate-au
unix   3      [ ]      STREAM    CONNECTED  9273     1101/wrapper-2.0
unix   3      [ ]      STREAM    CONNECTED  8723     862/dbus-daemon     /run/user/1000/bus
unix   3      [ ]      STREAM    CONNECTED  8632     952/VBoxClient
unix   3      [ ]      STREAM    CONNECTED  8379     865/pipewire
unix   3      [ ]      STREAM    CONNECTED  10136    1351/obexd
unix   3      [ ]      STREAM    CONNECTED  9964     1310/gvfs-gphoto2-v
unix   3      [ ]      STREAM    CONNECTED  9524     862/dbus-daemon     /run/user/1000/bus
unix   2      [ ]      DGRAM     CONNECTED  8724     862/dbus-daemon
unix   3      [ ]      STREAM    CONNECTED  9166     878/xfce4-session   @/tmp/.ICE-unix/878
unix   3      [ ]      STREAM    CONNECTED  8319     -          /run/dbus/system_bus_socket
unix   3      [ ]      STREAM    CONNECTED  11046    1701/xdg-permission
unix   3      [ ]      STREAM    CONNECTED  9278     -          @/tmp/.X11-unix/X0
unix   3      [ ]      STREAM    CONNECTED  8722     878/xfce4-session
unix   3      [ ]      STREAM    CONNECTED  9162     1083/Thunar
unix   3      [ ]      STREAM    CONNECTED  10122    863/pipewire
unix   3      [ ]      STREAM    CONNECTED  9937     862/dbus-daemon     /run/user/1000/bus
unix   3      [ ]      STREAM    CONNECTED  9516     1203/xcap
unix   3      [ ]      STREAM    CONNECTED  9270     1101/wrapper-2.0
unix   3      [ ]      STREAM    CONNECTED  8751     -          /run/systemd/journal/stdout
unix   3      [ ]      STREAM    CONNECTED  8717     -          @/tmp/.X11-unix/X0
unix   3      [ ]      STREAM    CONNECTED  11043    1693/qterminal
unix   3      [ ]      STREAM    CONNECTED  8314     869/mpri
unix   3      [ ]      STREAM    CONNECTED  10139    1351/obexd
unix   3      [ ]      STREAM    CONNECTED  9956     1310/gvfs-gphoto2-v
```

4.

```
(william-gardin@Kali)-[~]
$ ping -c 10 ubuntu.com
PING ubuntu.com (185.125.190.21) 56(84) bytes of data.
— ubuntu.com ping statistics —
10 packets transmitted, 0 received, 100% packet loss, time 9198ms
```

5.

```
(william-gardin@Kali)-[~]
$ host www.odu.edu
www.odu.edu has address 35.170.140.174

(william-gardin@Kali)-[~]
$
```

6.

```
(william-gardin@Kali)-[~]  
$ cat /etc/hosts  
127.0.0.1    localhost  
127.0.1.1    Kali.admdesk.odu.edu    Kali  
  
# The following lines are desirable for IPv6 capable hosts  
::1          localhost ip6-localhost ip6-loopback  
ff02::1      ip6-allnodes  
ff02::2      ip6-allrouters  
  
(william-gardin@Kali)-[~]  
$  
::1          ff02::2          ip6-allrouters    ip6-loopback    Kali.admdesk.odu.edu  
ff02::1      ip6-allnodes    ip6-localhost     Kali             localhost  
(william-gardin@Kali)-[~]
```

7.

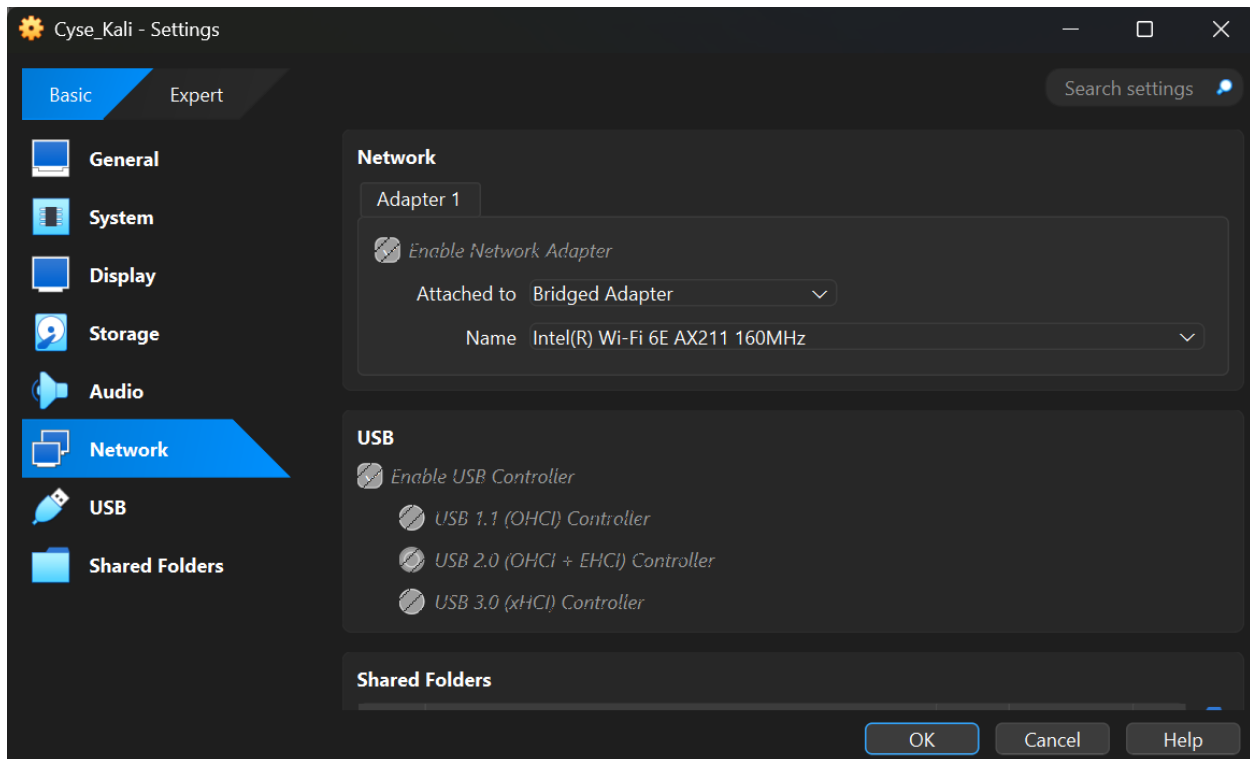
```
(william-gardin@Kali)-[~]  
$ cat /etc/resolv.conf  
# Generated by NetworkManager  
search lan  
nameserver 192.168.12.1  
nameserver fd17:625c:f037:2::3
```

8.

```
(william-gardin@Wgard005)-[~]  
$ cat /proc/sys/kernel/hostname  
Wgard005
```

## Task B

1.



2.

```
(william-gardin@Kali)-[~]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.12.198 netmask 255.255.255.0 broadcast 192.168.12.255
    inet6 fe80::a00:27ff:fe20:d4bf prefixlen 64 scopeid 0x20<link>
    inet6 fd2a:1bb4:3331:0:a00:27ff:fe20:d4bf prefixlen 64 scopeid 0x0<global>
    inet6 fd2a:1bb4:3331:0:1a6a:95d8:b8df:332a prefixlen 64 scopeid 0x0<global>
    inet6 2607:fb91:3d80:9a6a:a00:27ff:fe20:d4bf prefixlen 64 scopeid 0x0<global>
    inet6 2607:fb91:3d80:9a6a:d588:bd72:1c15:a426 prefixlen 64 scopeid 0x0<global>
    ether 08:00:27:20:d4:bf txqueuelen 1000 (Ethernet)
    RX packets 2232 bytes 825899 (806.5 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 814 bytes 105962 (103.4 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
```

The IP Address and broadcast has changed. There are more inet6 listings too. The number of RX packets and bytes has increased.

3.

```
(william-gardin@Kali)-[~]
$ route
Kernel IP routing table
Destination Gateway Genmask Flags Metric Ref Use Iface
default f5688w.lan 0.0.0.0 UG 100 0 0 eth0
192.168.12.0 0.0.0.0 255.255.255.0 U 100 0 0 eth0
```

The default IP Address and gateway has changed.

4.

```
(william-gardin@Kali)-[~]
$ ping -c 10 unbuntu.com
PING unbuntu.com (185.125.188.232) 56(84) bytes of data.

— unbuntu.com ping statistics —
10 packets transmitted, 0 received, 100% packet loss, time 9216ms
```

The IP address has changed. The time it took to complete the ping also went up.

5.

```
(william-gardin@Kali)-[~]
$ host www.odu.edu
www.odu.edu has address 35.170.140.174
```

Nothing changed.

6.

```
(william-gardin@Kali)-[~]
$ cat /etc/hosts
127.0.0.1 Wgard005
127.0.1.1 Kali.admdesk.odu.edu Wgard005

# The following lines are desirable for IPv6 capable hosts
::1 localhost ip6-localhost ip6-loopback
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
```

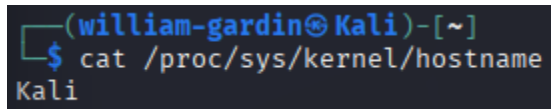
The host name has changed from when I had previously changed it in nano. Besides that nothing changed.

7.

```
(william-gardin@Kali)-[~]
$ cat /etc/resolv.conf
# Generated by NetworkManager
search lan
nameserver 192.168.12.1
nameserver fd2a:1bb4:3331::1
```

The second nameserver had changed.

8.



```
(william-gardin@Kali)-[~]  
$ cat /proc/sys/kernel/hostname  
Kali
```

The hostname went back to Kali.