

# **FOSS LAB ASSIGNMENT**

Submitted by:

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Roll No: 23

## 1.View all network settings, assign IP address and netmask

```
user@hp-notebook:~$ ifconfig
enp1s0  Link encap:Ethernet  HWaddr 18:60:24:12:fd:a2
        UP BROADCAST MULTICAST  MTU:1500  Metric:1
        RX packets:0 errors:0 dropped:0 overruns:0 frame:0
        TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)

lo      Link encap:Local Loopback
        inet addr:127.0.0.1  Mask:255.0.0.0
        inet6 addr: ::1/128 Scope:Host
        UP LOOPBACK RUNNING  MTU:65536  Metric:1
        RX packets:4303 errors:0 dropped:0 overruns:0 frame:0
        TX packets:4303 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1
        RX bytes:356989 (356.9 KB)  TX bytes:356989 (356.9 KB)

wlo1    Link encap:Ethernet  HWaddr f8:28:19:93:3a:97
        inet addr:192.168.43.97  Bcast:192.168.43.255  Mask:255.255.255.0
        inet6 addr: fe80::47af:7406:f3a1:80e6/64 Scope:Link
        inet6 addr: 2405:204:d287:9462:743d:d4f1:f6d3:634/64 Scope:Global
        inet6 addr: 2405:204:d287:9462:2031:2bd6:5c4e:6682/64 Scope:Global
        UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
        RX packets:18335 errors:0 dropped:0 overruns:0 frame:0
        TX packets:16171 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:13585752 (13.5 MB)  TX bytes:2692398 (2.6 MB)

user@hp-notebook:~$ sudo ifconfig enp1s0 192.167.1.8 netmask 255.255.255.0 up
user@hp-notebook:~$ ifconfig -a
enp1s0  Link encap:Ethernet  HWaddr 18:60:24:12:fd:a2
        inet addr:192.167.1.8  Bcast:192.167.1.255  Mask:255.255.255.0
        UP BROADCAST MULTICAST  MTU:1500  Metric:1
        RX packets:0 errors:0 dropped:0 overruns:0 frame:0
        TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)

lo      Link encap:Local Loopback
        inet addr:127.0.0.1  Mask:255.0.0.0
        inet6 addr: ::1/128 Scope:Host
        UP LOOPBACK RUNNING  MTU:65536  Metric:1
        RX packets:4332 errors:0 dropped:0 overruns:0 frame:0
```

## 2.Configure gateway

```
user@hp-notebook:~$ sudo route add default gw 192.167.1.8
user@hp-notebook:~$ ifconfig -a
enp1s0  Link encap:Ethernet  HWaddr 18:60:24:12:fd:a2
        inet addr:192.167.1.8  Bcast:192.167.1.255  Mask:255.255.255.0
        UP BROADCAST MULTICAST  MTU:1500  Metric:1
        RX packets:0 errors:0 dropped:0 overruns:0 frame:0
        TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)

lo      Link encap:Local Loopback
        inet addr:127.0.0.1  Mask:255.0.0.0
        inet6 addr: ::1/128 Scope:Host
        UP LOOPBACK RUNNING  MTU:65536  Metric:1
        RX packets:4373 errors:0 dropped:0 overruns:0 frame:0
        TX packets:4373 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1
        RX bytes:362649 (362.6 KB)  TX bytes:362649 (362.6 KB)

wlo1    Link encap:Ethernet  HWaddr f8:28:19:93:3a:97
        inet addr:192.168.43.97  Bcast:192.168.43.255  Mask:255.255.255.0
        inet6 addr: fe80::47af:7406:f3a1:80e6/64 Scope:Link
        inet6 addr: 2405:204:d287:9462:743d:d4f1:f6d3:634/64 Scope:Global
        inet6 addr: 2405:204:d287:9462:2031:2bd6:5c4e:6682/64 Scope:Global
        UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
        RX packets:18541 errors:0 dropped:0 overruns:0 frame:0
        TX packets:16384 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:13618513 (13.6 MB)  TX bytes:2718681 (2.7 MB)

user@hp-notebook:~$ sudo route add default gw 192.167.1.8
SIOCADDRT: File exists
```

### 3. Configure DNS

```
user@hp-notebook:~$ sudo echo "nameserver 192.168.12.1" >> /etc/resolv.conf
bash: /etc/resolv.conf: Permission denied
```

```
r@hp-notebook: ~
GNU nano 2.5.3 File: /etc/resolv.conf
## Dynamic resolv.conf(5) file for glibc resolver(3) generated by resolvconf(8)
#     DO NOT EDIT THIS FILE BY HAND -- YOUR CHANGES WILL BE OVERWRITTEN
nameserver 127.0.1.1
```

### 4. Iptables

```
user@hp-notebook:~$ iptables -L
modprobe: ERROR: could not insert 'ip_tables': Operation not permitted
iptables v1.6.0: can't initialize iptables table 'filter': Table does not exist (do you need to insmod?)
Perhaps iptables or your kernel needs to be upgraded.
user@hp-notebook:~$ sudo iptables -L
[sudo] password for user:
Chain INPUT (policy ACCEPT)
target     prot opt source                destination

Chain FORWARD (policy ACCEPT)
target     prot opt source                destination

Chain OUTPUT (policy ACCEPT)
target     prot opt source                destination
```