

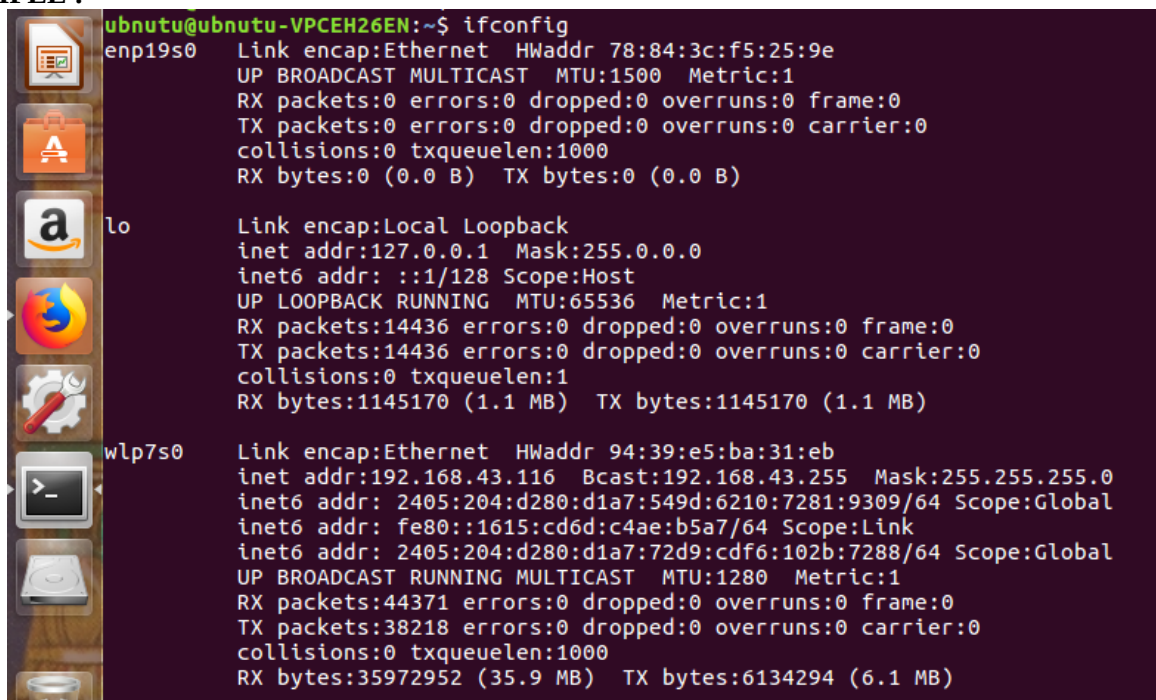
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DATE:21/02/19

AIM

Set up the complete network interface by configuring services such as gateway, DNS, IP tables etc. using ifconfig.

COMMAND 1:View All Network Setting

SAMPLE :



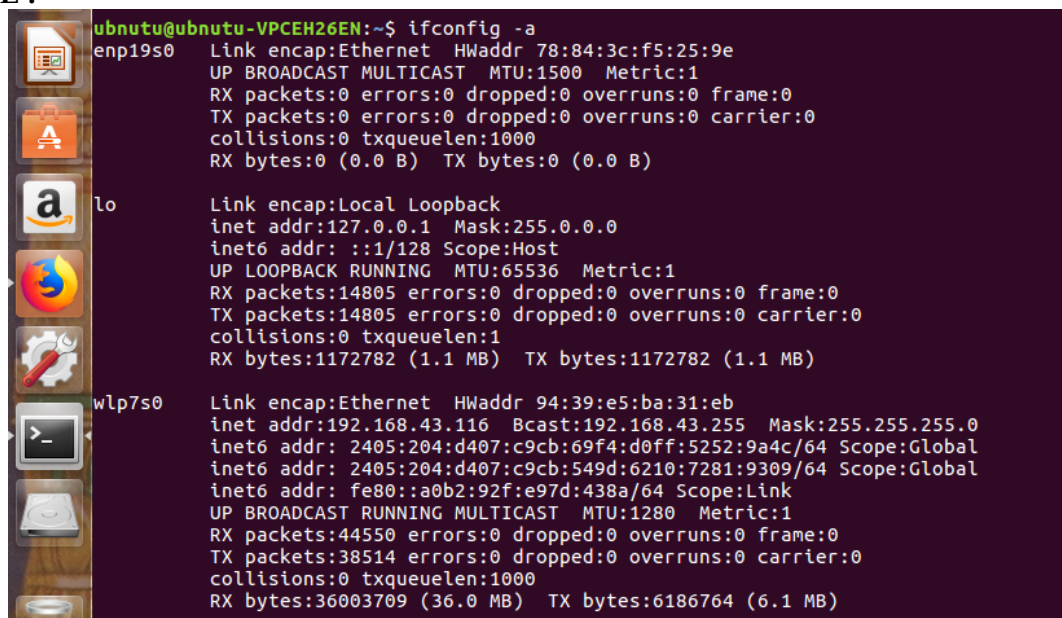
```
ubnutu@ubnutu-VPCEH26EN:~$ ifconfig
enp19s0  Link encap:Ethernet  HWaddr 78:84:3c:f5:25:9e
          UP BROADCAST MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          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:14436 errors:0 dropped:0 overruns:0 frame:0
          TX packets:14436 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1
          RX bytes:1145170 (1.1 MB)  TX bytes:1145170 (1.1 MB)

wlp7s0    Link encap:Ethernet  HWaddr 94:39:e5:ba:31:eb
          inet addr:192.168.43.116  Bcast:192.168.43.255  Mask:255.255.255.0
          inet6 addr: 2405:204:d280:d1a7:549d:6210:7281:9309/64 Scope:Global
          inet6 addr: fe80::1615:cd6d:c4ae:b5a7/64 Scope:Link
          inet6 addr: 2405:204:d280:d1a7:72d9:cdf6:102b:7288/64 Scope:Global
          UP BROADCAST RUNNING MULTICAST  MTU:1280  Metric:1
          RX packets:44371 errors:0 dropped:0 overruns:0 frame:0
          TX packets:38218 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:35972952 (35.9 MB)  TX bytes:6134294 (6.1 MB)
```

COMMAND 2:Display Information of All Network Interfaces

SAMPLE :



```
ubnutu@ubnutu-VPCEH26EN:~$ ifconfig -a
enp19s0  Link encap:Ethernet  HWaddr 78:84:3c:f5:25:9e
          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:14805 errors:0 dropped:0 overruns:0 frame:0
          TX packets:14805 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1
          RX bytes:1172782 (1.1 MB)  TX bytes:1172782 (1.1 MB)

wlp7s0    Link encap:Ethernet  HWaddr 94:39:e5:ba:31:eb
          inet addr:192.168.43.116  Bcast:192.168.43.255  Mask:255.255.255.0
          inet6 addr: 2405:204:d407:c9cb:69f4:d0ff:5252:9a4c/64 Scope:Global
          inet6 addr: 2405:204:d407:c9cb:549d:6210:7281:9309/64 Scope:Global
          inet6 addr: fe80::a0b2:92f:e97d:438a/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1280  Metric:1
          RX packets:44550 errors:0 dropped:0 overruns:0 frame:0
          TX packets:38514 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:36003709 (36.0 MB)  TX bytes:6186764 (6.1 MB)

wlan0     Link encap:Ethernet  HWaddr 82:50:00:00:00:00
          DOWN 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)

wlan1     Link encap:Ethernet  HWaddr 82:50:00:00:00:00
          DOWN 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)
```

COMMAND 3: Gateway configuration

SAMPLE

```
ubnutu@ubnutu-VPCEH26EN:~$ sudo route add default gw 192.168.43.1
ubnutu@ubnutu-VPCEH26EN:~$ ifconfig
enp19s0    Link encap:Ethernet  HWaddr 78:84:3c:f5:25:9e
           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:13763 errors:0 dropped:0 overruns:0 frame:0
           TX packets:13763 errors:0 dropped:0 overruns:0 carrier:0
           collisions:0 txqueuelen:1
           RX bytes:1092408 (1.0 MB)  TX bytes:1092408 (1.0 MB)

wlp7s0     Link encap:Ethernet  HWaddr 94:39:e5:ba:31:eb
           inet addr:192.168.43.116  Bcast:192.168.43.255  Mask:255.255.255.0
           inet6 addr: 2405:204:d407:c9cb:69f4:d0ff:5252:9a4c/64 Scope:Global
           inet6 addr: 2405:204:d407:c9cb:549d:6210:7281:9309/64 Scope:Global
           inet6 addr: fe80::a0b2:92f:e97d:438a/64 Scope:Link
           UP BROADCAST RUNNING MULTICAST  MTU:1280  Metric:1
           RX packets:43403 errors:0 dropped:0 overruns:0 frame:0
           TX packets:37174 errors:0 dropped:0 overruns:0 carrier:0
           collisions:0 txqueuelen:1000
           RX bytes:35771058 (35.7 MB)  TX bytes:5942085 (5.9 MB)
```

COMMAND 4 :IP Tables Listing

SAMPLE :

```
ubnutu@ubnutu-VPCEH26EN:~$ sudo iptables -L
[sudo] password for ubnutu:
Chain INPUT (policy ACCEPT)
target     prot opt source                destination
DROP      all  --  198.168.100.0          anywhere

Chain FORWARD (policy ACCEPT)
target     prot opt source                destination

Chain OUTPUT (policy ACCEPT)
target     prot opt source                destination
ubnutu@ubnutu-VPCEH26EN:~$
```

COMMAND 5 :DNS Configuration

SAMPLE :

```
ubnutu@ubnutu-VPCEH26EN:~$ sudo echo "nameserver 192.168.43.1" >> /etc/resolv.conf
bash: /etc/resolv.conf: Permission denied
ubnutu@ubnutu-VPCEH26EN:~$ nano /etc/resolv.conf
ubnutu@ubnutu-VPCEH26EN:~$ cat /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
```

CONCLUSION:

Set up the complete network interface by configuring services such as gateway, DNS, IP tables etc. using ifconfig have been done and result obtained as above.

