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

1.View all network setting

```
vyshnavi@vyshnavi-X541UJ:~$ ifconfig
```

```
enp2s0f2  Link encap:Ethernet  HWaddr 88:d7:f6:1a:d2:e8  
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:1626 errors:0 dropped:0 overruns:0 frame:0  
TX packets:1626 errors:0 dropped:0 overruns:0 carrier:0  
collisions:0 txqueuelen:1000  
RX bytes:124226 (124.2 KB)  TX bytes:124226 (124.2 KB)
```

```
wlp3s0    Link encap:Ethernet  HWaddr 3c:95:09:1b:1e:a8  
inet addr:192.168.43.116  Bcast:192.168.43.255  Mask:255.255.255.0  
inet6 addr: 2405:204:d203:9200:6039:f234:85e0:12c3/64 Scope:Global  
inet6 addr: fe80::ce95:1173:8977:5742/64 Scope:Link  
inet6 addr: 2405:204:d203:9200:cb55:bbf5:72ee:7dee/64 Scope:Global  
UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1  
RX packets:7286 errors:0 dropped:0 overruns:0 frame:0  
TX packets:4907 errors:0 dropped:0 overruns:0 carrier:0
```

```
collisions:0 txqueuelen:1000
RX bytes:8717797 (8.7 MB) TX bytes:591351 (591.3 KB)
```

2.Display information of all network interfaces.

```
vyshnavi@vyshnavi-X541UJ:~$ ifconfig -a
enp2s0f2 Link encap:Ethernet HWaddr 88:d7:f6:1a:d2:e8
    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:1626 errors:0 dropped:0 overruns:0 frame:0
    TX packets:1626 errors:0 dropped:0 overruns:0 carrier:0
    collisions:0 txqueuelen:1000
    RX bytes:124226 (124.2 KB) TX bytes:124226 (124.2 KB)

wlp3s0 Link encap:Ethernet HWaddr 3c:95:09:1b:1e:a8
    inet addr:192.168.43.116 Bcast:192.168.43.255 Mask:255.255.255.0
    inet6 addr: 2405:204:d203:9200:6039:f234:85e0:12c3/64 Scope:Global
    inet6 addr: fe80::ce95:1173:8977:5742/64 Scope:Link
    inet6 addr: 2405:204:d203:9200:cb55:bbf5:72ee:7dee/64 Scope:Global
    UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
    RX packets:7286 errors:0 dropped:0 overruns:0 frame:0
    TX packets:4907 errors:0 dropped:0 overruns:0 carrier:0
    collisions:0 txqueuelen:1000
    RX bytes:8717797 (8.7 MB) TX bytes:591351 (591.3 KB)
```

3.View network settings of specific interface.

```
vyshnavi@vyshnavi-X541UJ:~$ ifconfig wlp3s0
wlp3s0 Link encap:Ethernet HWaddr 3c:95:09:1b:1e:a8
```

```
inet addr:192.168.43.116 Bcast:192.168.43.255 Mask:255.255.255.0
inet6 addr: 2405:204:d203:9200:6039:f234:85e0:12c3/64 Scope:Global
inet6 addr: fe80::ce95:1173:8977:5742/64 Scope:Link
inet6 addr: 2405:204:d203:9200:cb55:bbf5:72ee:7dee/64 Scope:Global
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
RX packets:7286 errors:0 dropped:0 overruns:0 frame:0
TX packets:4908 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:8717797 (8.7 MB) TX bytes:591458 (591.4 KB)
```

4.How to enable an network interface.

```
vyshnavi@vyshnavi-X541UJ:~$ sudo ifconfig wlp3s0 up
[sudo] password for vyshnavi:
vyshnavi@vyshnavi-X541UJ:~$ ifconfig
enp2s0f2  Link encap:Ethernet HWaddr 88:d7:f6:1a:d2:e8
          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:1626 errors:0 dropped:0 overruns:0 frame:0
          TX packets:1626 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:124226 (124.2 KB) TX bytes:124226 (124.2 KB)
```

```
wlp3s0    Link encap:Ethernet HWaddr 3c:95:09:1b:1e:a8
          inet addr:192.168.43.116 Bcast:192.168.43.255 Mask:255.255.255.0
          inet6 addr: 2405:204:d203:9200:6039:f234:85e0:12c3/64 Scope:Global
          inet6 addr: fe80::ce95:1173:8977:5742/64 Scope:Link
          inet6 addr: 2405:204:d203:9200:cb55:bbf5:72ee:7dee/64 Scope:Global
          UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
          RX packets:7286 errors:0 dropped:0 overruns:0 frame:0
          TX packets:4909 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
```

RX bytes:8717797 (8.7 MB) TX bytes:591585 (591.5 KB)

5.How to disable network interface.

```
vyshnavi@vyshnavi-X541UJ:~$ sudo ifconfig wlp3s0 down
vyshnavi@vyshnavi-X541UJ:~$ ifconfig
enp2s0f2  Link encap:Ethernet  HWaddr 88:d7:f6:1a:d2:e8
          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:1626 errors:0 dropped:0 overruns:0 frame:0
          TX packets:1626 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:124226 (124.2 KB)  TX bytes:124226 (124.2 KB)
```

6.How to assign an IP address to network interface.

```
vyshnavi@vyshnavi-X541UJ:~$ sudo ifconfig wlp3s0 192.168.43.116
vyshnavi@vyshnavi-X541UJ:~$ ifconfig
enp2s0f2  Link encap:Ethernet  HWaddr 88:d7:f6:1a:d2:e8
          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:1626 errors:0 dropped:0 overruns:0 frame:0
TX packets:1626 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:124226 (124.2 KB) TX bytes:124226 (124.2 KB)

wlp3s0 Link encap:Ethernet HWaddr 3c:95:09:1b:1e:a8
inet addr:192.168.43.116 Bcast:192.168.43.255 Mask:255.255.255.0
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
RX packets:7288 errors:0 dropped:0 overruns:0 frame:0
TX packets:4912 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:8718079 (8.7 MB) TX bytes:591980 (591.9 KB)

7.How to assign a netmask to network interface.

```
vyshnavi@vyshnavi-X541UJ:~$ sudo ifconfig wlp3s0 netmask  
255.255.255.224
```

```
vyshnavi@vyshnavi-X541UJ:~$ ifconfig  
enp2s0f2 Link encap:Ethernet HWaddr 88:d7:f6:1a:d2:e8  
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:1628 errors:0 dropped:0 overruns:0 frame:0  
TX packets:1628 errors:0 dropped:0 overruns:0 carrier:0  
collisions:0 txqueuelen:1000  
RX bytes:124410 (124.4 KB) TX bytes:124410 (124.4 KB)
```

```
wlp3s0 Link encap:Ethernet HWaddr 3c:95:09:1b:1e:a8  
inet addr:192.168.43.116 Bcast:192.168.43.127 Mask:255.255.255.224  
inet6 addr: 2405:204:d203:9200:6039:f234:85e0:12c3/64 Scope:Global  
inet6 addr: fe80::5dab:3db0:e4b5:7983/64 Scope:Link  
inet6 addr: 2405:204:d203:9200:cb55:bbf5:72ee:7dee/64 Scope:Global  
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
```

RX packets:7304 errors:0 dropped:0 overruns:0 frame:0
TX packets:4987 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:8719571 (8.7 MB) TX bytes:604840 (604.8 KB)

8.How to assign a broadcast to network interface.

```
vyshnavi@vyshnavi-X541UJ:~$ sudo ifconfig wlp3s0 broadcast 172.16.25.63
```

```
vyshnavi@vyshnavi-X541UJ:~$ ifconfig
```

```
enp2s0f2 Link encap:Ethernet HWaddr 88:d7:f6:1a:d2:e8  
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:1628 errors:0 dropped:0 overruns:0 frame:0  
TX packets:1628 errors:0 dropped:0 overruns:0 carrier:0  
collisions:0 txqueuelen:1000  
RX bytes:124410 (124.4 KB) TX bytes:124410 (124.4 KB)
```

```
wlp3s0 Link encap:Ethernet HWaddr 3c:95:09:1b:1e:a8  
inet addr:192.168.43.116 Bcast:172.16.25.63 Mask:255.255.255.224  
inet6 addr: 2405:204:d203:9200:6039:f234:85e0:12c3/64 Scope:Global  
inet6 addr: fe80::5dab:3db0:e4b5:7983/64 Scope:Link  
inet6 addr: 2405:204:d203:9200:cb55:bbf5:72ee:7dee/64 Scope:Global  
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1  
RX packets:7304 errors:0 dropped:0 overruns:0 frame:0  
TX packets:5000 errors:0 dropped:0 overruns:0 carrier:0  
collisions:0 txqueuelen:1000  
RX bytes:8719571 (8.7 MB) TX bytes:607382 (607.3 KB)
```

9.How to assign an IP,netmask and broadcast to network interface.

```
vyshnavi@vyshnavi-X541UJ:~$ sudo ifconfig wlp3s0 netmask  
255.255.255.224 broadcast 172.16.25.63
```

```
vyshnavi@vyshnavi-X541UJ:~$ ifconfig  
enp2s0f2  Link encap:Ethernet  HWaddr 88:d7:f6:1a:d2:e8  
        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:1635 errors:0 dropped:0 overruns:0 frame:0  
        TX packets:1635 errors:0 dropped:0 overruns:0 carrier:0  
        collisions:0 txqueuelen:1000  
        RX bytes:125014 (125.0 KB)  TX bytes:125014 (125.0 KB)
```

```
wlp3s0    Link encap:Ethernet  HWaddr 3c:95:09:1b:1e:a8  
        inet addr:192.168.43.116  Bcast:172.16.25.63  Mask:255.255.255.224  
        inet6 addr: 2405:204:d203:9200:6039:f234:85e0:12c3/64 Scope:Global  
        inet6 addr: fe80::5dab:3db0:e4b5:7983/64 Scope:Link  
        inet6 addr: 2405:204:d203:9200:cb55:bbf5:72ee:7dee/64 Scope:Global  
        UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1  
        RX packets:7320 errors:0 dropped:0 overruns:0 frame:0  
        TX packets:5020 errors:0 dropped:0 overruns:0 carrier:0  
        collisions:0 txqueuelen:1000  
        RX bytes:8721226 (8.7 MB)  TX bytes:609714 (609.7 KB)
```

10.How to change MTU for an network interface.

```
vyshnavi@vyshnavi-X541UJ:~$ sudo ifconfig wlp3s0 mtu 1000
```

```
vyshnavi@vyshnavi-X541UJ:~$ ifconfig  
enp2s0f2  Link encap:Ethernet  HWaddr 88:d7:f6:1a:d2:e8  
        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:1635 errors:0 dropped:0 overruns:0 frame:0
      TX packets:1635 errors:0 dropped:0 overruns:0 carrier:0
      collisions:0 txqueuelen:1000
      RX bytes:125014 (125.0 KB)  TX bytes:125014 (125.0 KB)

wlp3s0  Link encap:Ethernet HWaddr 3c:95:09:1b:1e:a8
      inet addr:192.168.43.116 Bcast:172.16.25.63 Mask:255.255.255.224
      UP BROADCAST RUNNING MULTICAST MTU:1000 Metric:1
      RX packets:7320 errors:0 dropped:0 overruns:0 frame:0
      TX packets:5023 errors:0 dropped:0 overruns:0 carrier:0
      collisions:0 txqueuelen:1000
      RX bytes:8721226 (8.7 MB)  TX bytes:610239 (610.2 KB)
```

11.How to enable promiscuous mode.

```
vyshnavi@vyshnavi-X541UJ:~$ sudo ifconfig wlp3s0 promisc
vyshnavi@vyshnavi-X541UJ:~$ ifconfig
enp2s0f2  Link encap:Ethernet HWaddr 88:d7:f6:1a:d2:e8
      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:1635 errors:0 dropped:0 overruns:0 frame:0
      TX packets:1635 errors:0 dropped:0 overruns:0 carrier:0
      collisions:0 txqueuelen:1000
      RX bytes:125014 (125.0 KB)  TX bytes:125014 (125.0 KB)

wlp3s0  Link encap:Ethernet HWaddr 3c:95:09:1b:1e:a8
      inet addr:192.168.43.116 Bcast:172.16.25.63 Mask:255.255.255.224
```



```
UP BROADCAST RUNNING PROMISC MULTICAST MTU:1000
Metric:1
RX packets:7320 errors:0 dropped:0 overruns:0 frame:0
TX packets:5023 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:8721226 (8.7 MB) TX bytes:610239 (610.2 KB)
```

12.How to disable promiscuous mode.

```
vyshnavi@vyshnavi-X541UJ:~$ sudo ifconfig wlp3s0 -promisc
vyshnavi@vyshnavi-X541UJ:~$ ifconfig
enp2s0f2 Link encap:Ethernet HWaddr 88:d7:f6:1a:d2:e8
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:1635 errors:0 dropped:0 overruns:0 frame:0
TX packets:1635 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:125014 (125.0 KB) TX bytes:125014 (125.0 KB)
```

```
wlp3s0 Link encap:Ethernet HWaddr 3c:95:09:1b:1e:a8
inet addr:192.168.43.116 Bcast:172.16.25.63 Mask:255.255.255.224
UP BROADCAST RUNNING MULTICAST MTU:1000 Metric:1
RX packets:7320 errors:0 dropped:0 overruns:0 frame:0
TX packets:5023 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:8721226 (8.7 MB) TX bytes:610239 (610.2 KB)
```

13.How to add new alias to network interface.

```
vyshnavi@vyshnavi-X541UJ:~$ sudo ifconfig wlp3s0:0 172.16.25.127
vyshnavi@vyshnavi-X541UJ:~$ ifconfig
```

```

enp2s0f2 Link encap:Ethernet HWaddr 88:d7:f6:1a:d2:e8
    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:1635 errors:0 dropped:0 overruns:0 frame:0
    TX packets:1635 errors:0 dropped:0 overruns:0 carrier:0
    collisions:0 txqueuelen:1000
    RX bytes:125014 (125.0 KB) TX bytes:125014 (125.0 KB)

wlp3s0 Link encap:Ethernet HWaddr 3c:95:09:1b:1e:a8
    inet addr:192.168.43.116 Bcast:172.16.25.63 Mask:255.255.255.224
    UP BROADCAST RUNNING MULTICAST MTU:1000 Metric:1
    RX packets:7320 errors:0 dropped:0 overruns:0 frame:0
    TX packets:5029 errors:0 dropped:0 overruns:0 carrier:0
    collisions:0 txqueuelen:1000
    RX bytes:8721226 (8.7 MB) TX bytes:611101 (611.1 KB)

wlp3s0:0 Link encap:Ethernet HWaddr 3c:95:09:1b:1e:a8
    inet addr:172.16.25.127 Bcast:172.16.255.255 Mask:255.255.0.0
    UP BROADCAST RUNNING MULTICAST MTU:1000 Metric:1

```

14.how to remove alias to network interface.

```

vyshnavi@vyshnavi-X541UJ:~$ sudo ifconfig wlp3s0:0 down
vyshnavi@vyshnavi-X541UJ:~$ ifconfig
enp2s0f2 Link encap:Ethernet HWaddr 88:d7:f6:1a:d2:e8
    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:1635 errors:0 dropped:0 overruns:0 frame:0
        TX packets:1635 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:125014 (125.0 KB)  TX bytes:125014 (125.0 KB)

wlp3s0  Link encap:Ethernet  HWaddr 3c:95:09:1b:1e:a8
        inet addr:192.168.43.116  Bcast:172.16.25.63  Mask:255.255.255.224
        UP BROADCAST RUNNING MULTICAST  MTU:1000  Metric:1
        RX packets:7320 errors:0 dropped:0 overruns:0 frame:0
        TX packets:5033 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:8721226 (8.7 MB)  TX bytes:611693 (611.6 KB)

```

15.How to change the MAC adress of network interface.

```

vyshnavi@vyshnavi-X541UJ:~$ sudo ifconfig wlp3s0 hw wired
AA:BB:CC:DD:EE:FF
[sudo] password for vyshnavi:
Usage:
ifconfig [-a] [-v] [-s] <interface> [[<AF>] <address>]
[add <address>[/<prefixlen>]]
[del <address>[/<prefixlen>]]
[[-]broadcast [<address>]] [[-]pointopoint [<address>]]
[netmask <address>] [dstaddr <address>] [tunnel <address>]
[outfill <NN>] [keepalive <NN>]
[hw <HW> <address>] [metric <NN>] [mtu <NN>]
[[-]trailers] [[-]arp] [[-]allmulti]
[multicast] [[-]promisc]
[mem_start <NN>] [io_addr <NN>] [irq <NN>] [media <type>]
[txqueuelen <NN>]
[[-]dynamic]
[up|down] ...

```

<HW>=Hardware Type.

List of possible hardware types:

loop (Local Loopback) slip (Serial Line IP) cslip (VJ Serial Line IP)
slip6 (6-bit Serial Line IP) cslip6 (VJ 6-bit Serial Line IP) adaptive (Adaptive
Serial Line IP)
ash (Ash) ether (Ethernet) ax25 (AMPR AX.25)
netrom (AMPR NET/ROM) rose (AMPR ROSE) tunnel (IPIP Tunnel)
ppp (Point-to-Point Protocol) hdlc ((Cisco)-HDLC) lapb (LAPB)
arcnet (ARCnet) dlci (Frame Relay DLCI) frad (Frame Relay Access Device)
sit (IPv6-in-IPv4) fddi (Fiber Distributed Data Interface) hippi (HIPPI)
irda (IrLAP) ec (Econet) x25 (generic X.25)
eui64 (Generic EUI-64)
<AF>=Address family. Default: inet
List of possible address families:
unix (UNIX Domain) inet (DARPA Internet) inet6 (IPv6)
ax25 (AMPR AX.25) netrom (AMPR NET/ROM) rose (AMPR ROSE)
ipx (Novell IPX) ddp (Appletalk DDP) ec (Econet)
ash (Ash) x25 (CCITT X.25)

IP TABLES

```
vyshnavi@vyshnavi-X541UJ:~$ sudo root add default gw
```

```
[sudo] password for vyshnavi:
```

```
sudo: root: command not found
```

```
vyshnavi@vyshnavi-X541UJ:~$ sudo iptables -L
```

```
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
```

CONFIGURE DNS

```
vyshnavi@vyshnavi-X541UJ:~$ sudo echo "nameserver 192.168.11.1"  
nameserver 192.168.11.1
```

```
vyshnavi@vyshnavi-X541UJ:~$ sudo echo "nameserver 192.168.11.1"
>>/etc/resolve.conf
bash: /etc/resolve.conf: Permission denied
```



```
vyshnavi@vyshnavi-X541UJ: ~
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
```