

## Q9. Describe how you would configure a basic LAN interface using the ip command in Linux

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sarimila@sarimila-VMware-Virtual-Platform:~$ ip link show
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN mode DEFAULT group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP mode DEFAULT group default qlen 1000
    link/ether 00:0c:29:f1:3b:f4 brd ff:ff:ff:ff:ff:ff
    altname enp2s1
sarimila@sarimila-VMware-Virtual-Platform:~$ ip addr add 192.168.1.100/24 dev ens33
RTNETLINK answers: Operation not permitted
sarimila@sarimila-VMware-Virtual-Platform:~$ sudo ip addr add 192.168.1.100/24 dev ens33
[sudo] password for sarimila:
Error: ipv4: Address already assigned.
sarimila@sarimila-VMware-Virtual-Platform:~$ ip addr show ens33
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 00:0c:29:f1:3b:f4 brd ff:ff:ff:ff:ff:ff
    altname enp2s1
    inet 192.168.1.100/24 brd 192.168.1.255 scope global noprefixroute ens33
        valid_lft forever preferred_lft forever
    inet 192.168.224.128/24 brd 192.168.224.255 scope global dynamic noprefixroute ens33
        valid_lft 1429sec preferred_lft 1429sec
    inet6 fe80::20c:29ff:fef1:3bf4/64 scope link
        valid_lft forever preferred_lft forever
sarimila@sarimila-VMware-Virtual-Platform:~$ ip route show
default via 192.168.1.1 dev ens33 proto static metric 20100
default via 192.168.224.2 dev ens33 proto dhcp src 192.168.224.128 metric 20100
192.168.1.0/24 dev ens33 proto kernel scope link src 192.168.1.100 metric 100
192.168.224.0/24 dev ens33 proto kernel scope link src 192.168.224.128 metric 100
sarimila@sarimila-VMware-Virtual-Platform:~$
```

Linux machine has an Ethernet interface (ens33).

default via 192.168.1.1 dev ens33 proto static metric 20100

My system sends internet traffic through gateway 192.168.1.1. ( LAN router)