Lab No: 08
Lab report name: Laboratory on linux basics.
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Theory: Because 1 byte is equal to 8 bit is most accepted standard on Internet and with 8 bits you can't write number more than 255 I'm binary. Binary is number system made from 0s and 1s so maximum binary 8 bit number is
1 1 1 1 1 1 1 1
To convert in to decimal
2^0+2^1+.....+2^7=255
So that you can't have more than 255.
As, 255 is reserved as broadcast address so you can say that you can't have ip bigger than 254 on your system .

IP & MAC address :

IP address: For most of us who are everyday computer users, our IP addresses are provided by an Internet Service Provider (ISP), typically a cable company such as Cox Communications, Time-Warner Cable or a phone company such as AT&T. Once you set up an account with an ISP, they will automatically assign you a unique IP address.

MAC address : A MAC address is given to a network adapter when it is manufactured. It is hardwired or hard-coded onto your computer's network interface card (NIC) and is unique to it.

My laptop having this address:

IPv4 address:	192.168.0.102
IPv4 DNS servers:	192.168.0.1
Manufacturer:	Realtek Semiconductor Corp.
Description:	Realtek RTL8723BE Wireless LAN 802.11n PCI-E NIC
Driver version:	2023.70.213.2018
Physical address (MAC):	A8-A7-95-8B-0D-CB

Routing table basis: open command prompt & type " netstat –r "

New Interface: ip address 192.168.32.2 net mask 255.2.55.255.0 result is null.