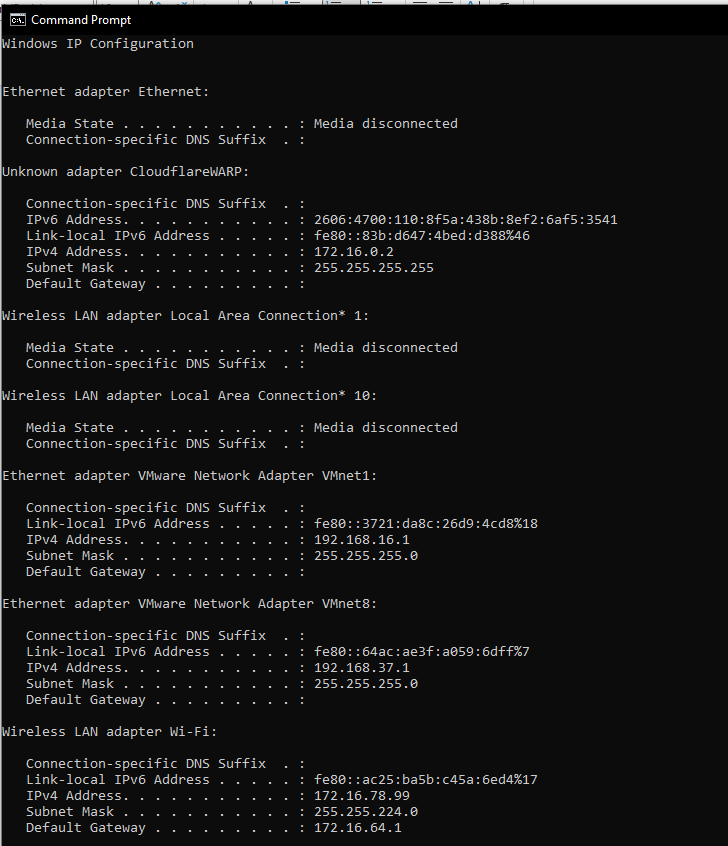
**Name – Mukul Jindal**

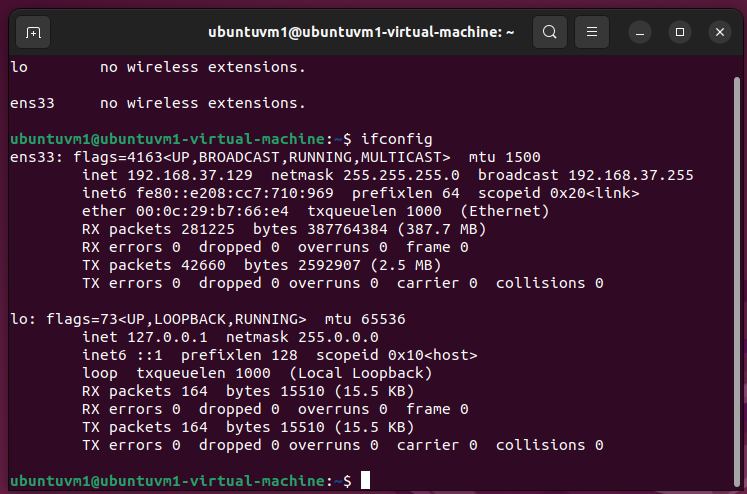
**Group – 3CS10**

**Roll No – 102116063**

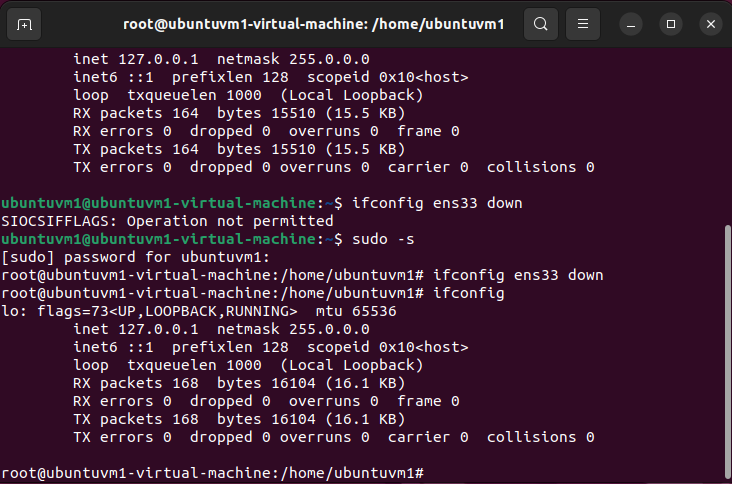
1. Ipconfig (Windows)



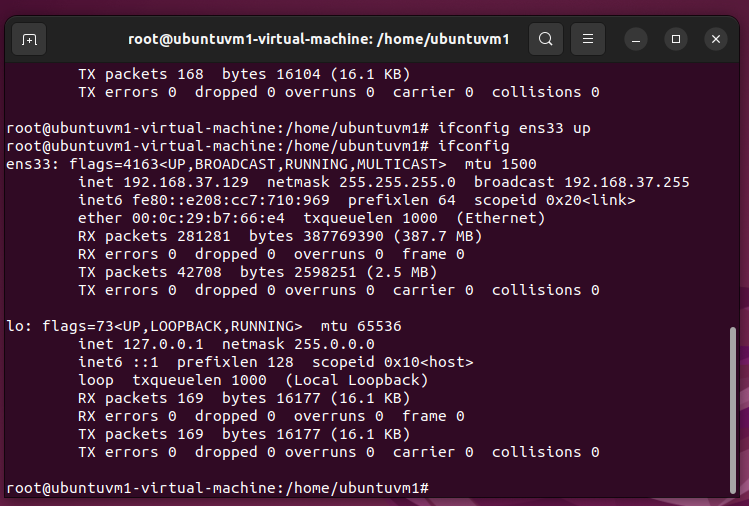
1. ifconfig (Linux)



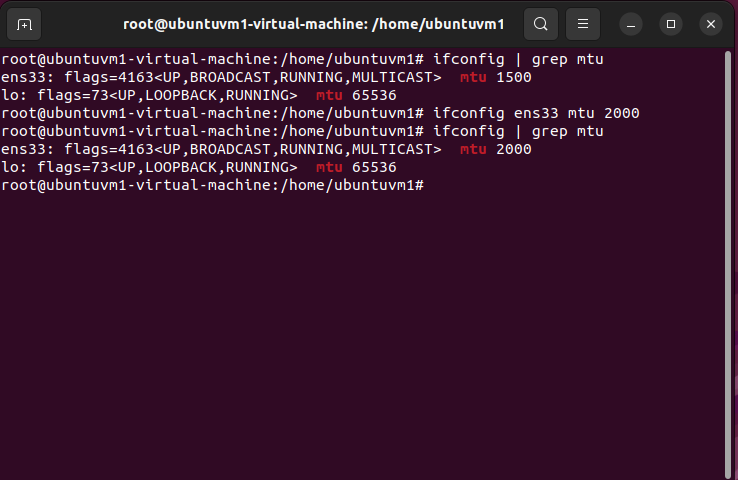
1. ifconfig [hardware\_name] down (Linux)



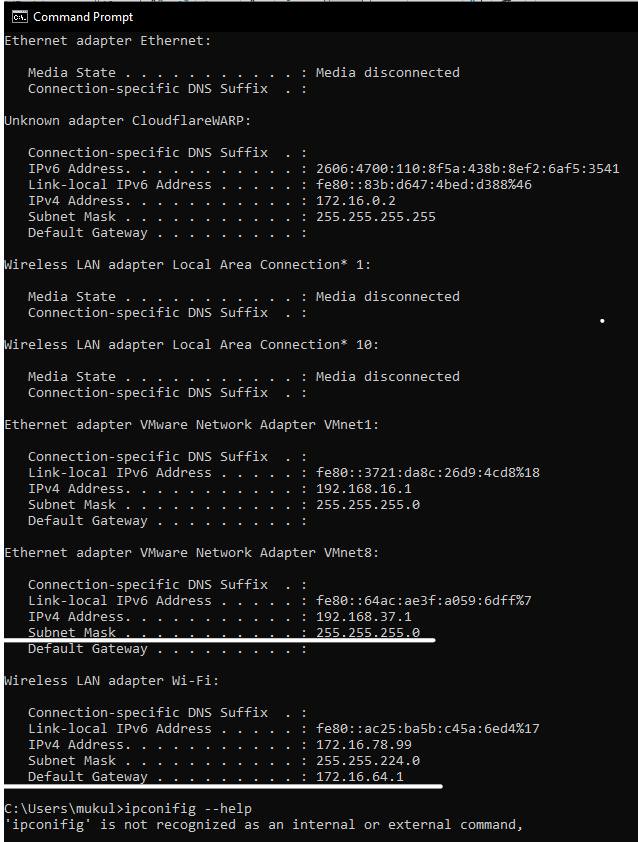
1. ifconfig [hardware\_name] up (Linux)



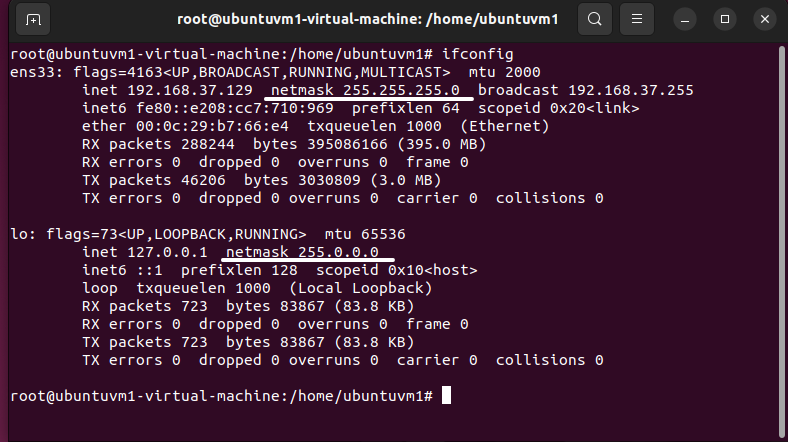
1. ifconfig [hardware\_name] mtu [new\_size] up



1. ifconfig (Windows)



1. ifconifg(Linux)



1. Calculating number of host Id’s

In Windows we get subnet mask as 255.255.224.0 i.e., we get number of reserved bits = 19 bits, so remaining bits are 32 – 19 i.e., 13 bits. So, number of host id can be 213, out of which first Id is considered as network address and last address as broadcast address

1. Calculating network address

Step1: Write the given IP address in binary format.

Step 2: Write the subnet mask in binary form.

Step3: Perform the logical  ANDing operation between the corresponding octets of the IP address and the subnet mask.

Step 4: Convert the result back to the decimal format and this will be the network address.

Ip address: 172 16 78 99

Binary - 10101100 00010000 01001110 01100011

Subnet(Binary)- 11111111 11111111 11100000 00000000

Logical AND 10101100 00010000 01000000 00000000

Decimal 172 16 64 0

Therefore, Network address is 172.16.64.0

1. Calculating broadcast address

Step1: Write the given IP address in binary format.

Step 2: Write the inverse of the subnet mask in binary form.

Step: Perform the logical  ORing operation between the corresponding octets of the IP address and the inverse of the subnet mask.

Step 4: Convert the result back to the decimal format and this will be the network address.

Ip address: 172 16 78 99

Binary - 10101100 00010000 01001110 01100011

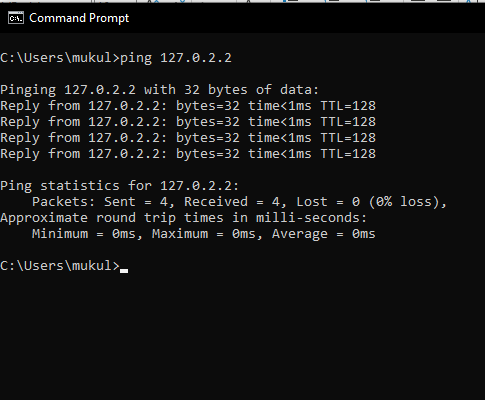
Subnet(Binary)- 00000000 00000000 00011111 11111111

Logical OR 10101100 00010000 01011111 11111111

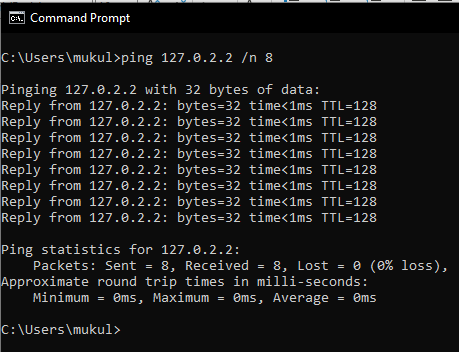
Decimal 172 16 95 255

Therefore, Broadcast address is 172.16.95.255

1. Ping
2. ping [IP\_Address/Domain\_name]



1. ping [IP\_Address/Domain\_name] /n[no\_of\_packets]



1. ping [IP\_Address/Domain\_name] /n[no\_of\_packets] /l [size\_of\_packet]

