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Section: A

Lab Task: 1

Question 1:

Answer:

I've collected the following data by using the command ipconfig by typing in the command prompt.

Simply press Window+R button. Then type CMD there. And command prompt will open. In the command prompt type ipconfig. After it, you will get your Ip Address, Subnet Mask and Default Gateway.

IP Address: 172.16.4.234

Subnet Mask: 255.255.255.0

Default Gateway: 172.16.4.254

```
Ethernet adapter Ethernet:  
  
    Connection-specific DNS Suffix  . :  
    Link-local IPv6 Address . . . . . : fe80::c0b9:3d54:db3:1227%18  
    IPv4 Address. . . . . : 172.16.4.234  
    Subnet Mask . . . . . : 255.255.255.0  
    Default Gateway . . . . . : 172.16.4.254
```

Question 2:

Answer:

IP Address 1: 172.16.4.178 **Ethernet** The Ip address of the front Computer.

IP Address 2: 172.17.0.225 **Wi-Fi Adapter** The Ip address of the left Computer.

IP Address 3: 172.16.4.235 **Ethernet** The Ip address of the Right Computer.

Question 3:

Answer:

First Method: IP config:

Open up your command prompt by using CMD. In the command prompt, type the word ipconfig. There you will get all the details about your network. The required ip address is also present there.

```
C:\Users\et2022>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::c0b9:3d54:db3:1227%18
    IPv4 Address. . . . . : 172.16.4.234
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 172.16.4.254
```

Second Method: IP config /all:

Open up your command prompt. In the command prompt type the script ipconfig/all. All the details of your network adapter will be shown up to you. At there, you can check your network properties and the Ip address.

```

C:\Users\et2022>ipconfig /all

Windows IP Configuration

Host Name . . . . . : SRLAB-34
Primary Dns Suffix . . . . . : nu.edu.pk
Node Type . . . . . : Hybrid
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
DNS Suffix Search List. . . . . : nu.edu.pk

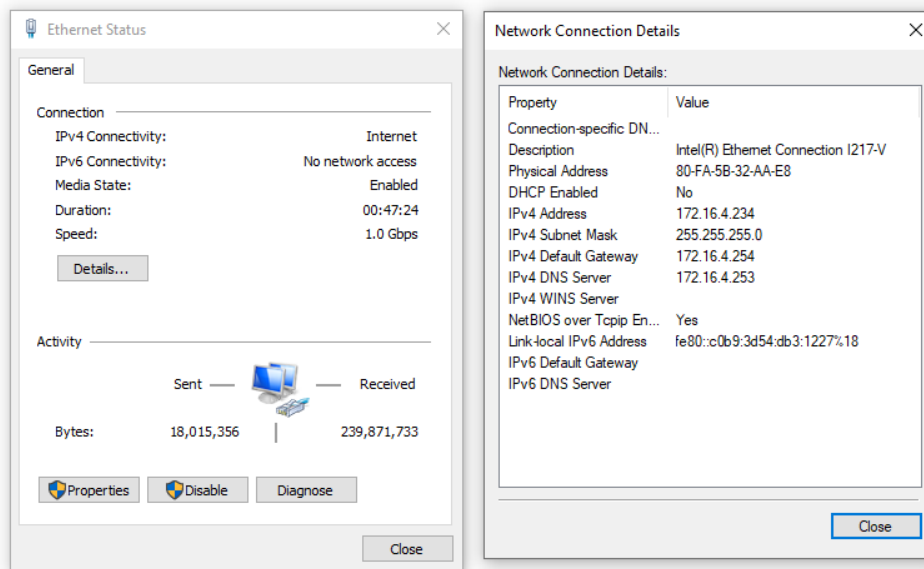
Ethernet adapter Ethernet:

Connection-specific DNS Suffix . :
Description . . . . . : Intel(R) Ethernet Connection I217-V
Physical Address. . . . . : 80-FA-5B-32-AA-E8
DHCP Enabled. . . . . : No
Autoconfiguration Enabled . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::c0b9:3d54:db3:1227%18(Preferred)
IPv4 Address. . . . . : 172.16.4.234(Preferred)
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 172.16.4.254
DHCPv6 IAID . . . . . : 209779291
DHCPv6 Client DUID. . . . . : 00-01-00-01-28-C8-AF-41-80-FA-5B-32-AA-E8
DNS Servers . . . . . : 172.16.4.253
NetBIOS over Tcpip. . . . . : Enabled

```

Third Method: By using Ethernet Status:

Open control panel, go to the network and internet option. Then to network and sharing center. In there, go to the Network Adapter mentioned in front of the connections. Then go to the properties of the Adapter and you will get your Ip address.



```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\et2022> gip

InterfaceAlias      : Npcap Loopback Adapter
InterfaceIndex      : 11
InterfaceDescription : Npcap Loopback Adapter
IPv4Address         : 169.254.5.203
IPv6DefaultGateway :
IPv4DefaultGateway :
DNSServer           : fec0:0:0:ffff::1
                   : fec0:0:0:ffff::2
                   : fec0:0:0:ffff::3

InterfaceAlias      : VMware Network Adapter VMnet1
InterfaceIndex      : 16
InterfaceDescription : VMware Virtual Ethernet Adapter for VMnet1
IPv4Address         : 192.168.121.1
IPv6DefaultGateway :
IPv4DefaultGateway :
DNSServer           : fec0:0:0:ffff::1
                   : fec0:0:0:ffff::2
                   : fec0:0:0:ffff::3

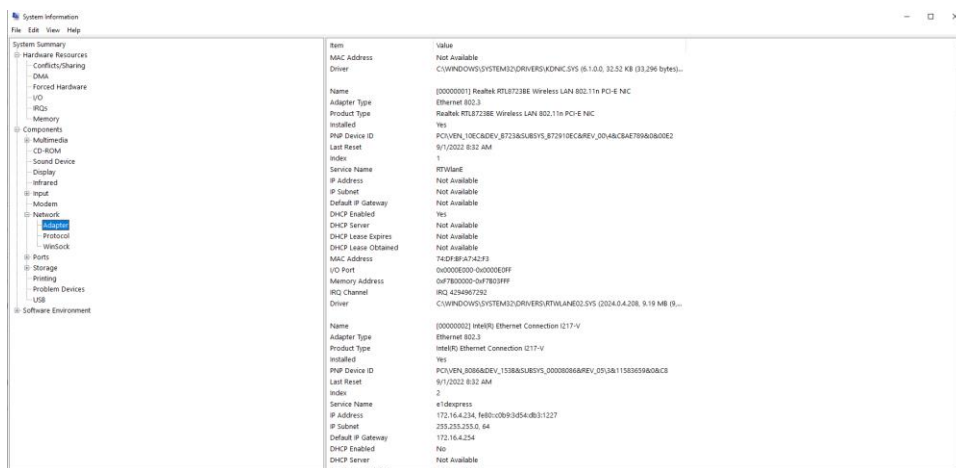
InterfaceAlias      : Ethernet
InterfaceIndex      : 18
InterfaceDescription : Intel(R) Ethernet Connection I217-V
NetProfile.Name     : nu.edu.pk
IPv4Address         : 172.16.4.234
IPv6DefaultGateway :
IPv4DefaultGateway : 172.16.4.254
DNSServer           : 172.16.4.253

InterfaceAlias      : VMware Network Adapter VMnet8
InterfaceIndex      : 20
InterfaceDescription : VMware Virtual Ethernet Adapter for VMnet8
IPv4Address         : 192.168.3.1
IPv6DefaultGateway :
IPv4DefaultGateway :
DNSServer           : fec0:0:0:ffff::1
                   : fec0:0:0:ffff::2
                   : fec0:0:0:ffff::3

InterfaceAlias      : Wi-Fi
InterfaceIndex      : 7
InterfaceDescription : Realtek RTL8723BE Wireless LAN 802.11n PCI-E NIC
```

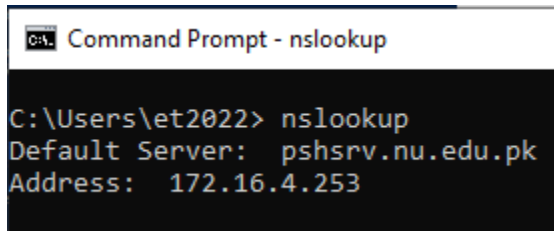
Fifth Method: Using System Information:

Open up the System Information by searching in the search bar. In system information go to the components options. Then to Network option. In network, choose the Adapter option. In the adapter option choose the specific network adapter and you will get the Required Ip Address from there.



Fifth Method: Using NS-Lookup:

Press the Window+R key, then type CMD there. In the CMD, write this simple command nslookup. Open the Command Prompt and type Nslookup in it. You'll get the required ip address.



```
Command Prompt - nslookup

C:\Users\et2022> nslookup
Default Server:  pshsrv.nu.edu.pk
Address:  172.16.4.253
```

Sixth Method: Using Task-Manager:

Open the task manager by pressing right click on the task bar and going to task manager option. In the task manager go to performance bar. In the performance bar, select the Network Adapter or Ethernet Tab from the options mentioned in the Left. In the Ethernet option, you will get your IPv4 and IPv6 Addresses from there.

