

Lab 3

Assigning Static IP Address in windows

Objective

To assign static IP address and practice the commands used to assign static IP address

Apparatus

Command Prompt

Background

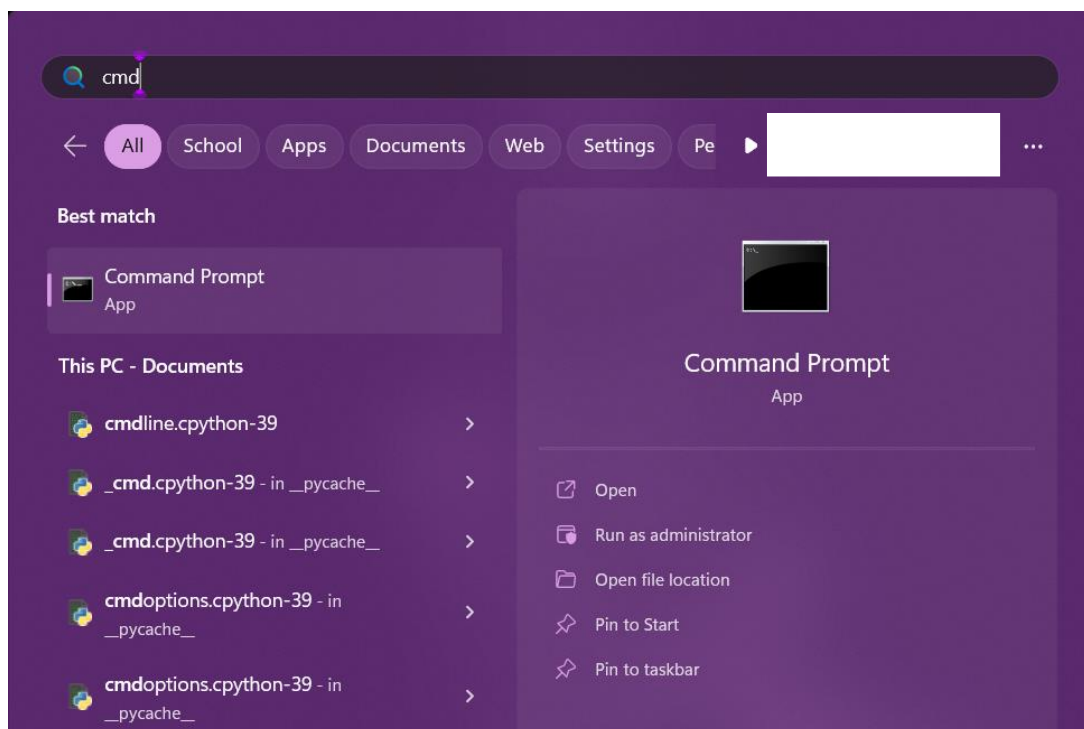
A static IP address is an unchanging number assigned to a computer by an Internet service provider (ISP) and is used to identify with a specific address instead of one that is assigned temporarily. Dynamic Host Configuration Protocol (DHCP) is a handy way for devices to connect to user network more easily, because user don't have to configure IP addressing for each new device themselves. The downside to automatic addressing is that it's possible for a device's IP address to change from time to time, which is why people choose static IPs for certain types of devices.

Procedure

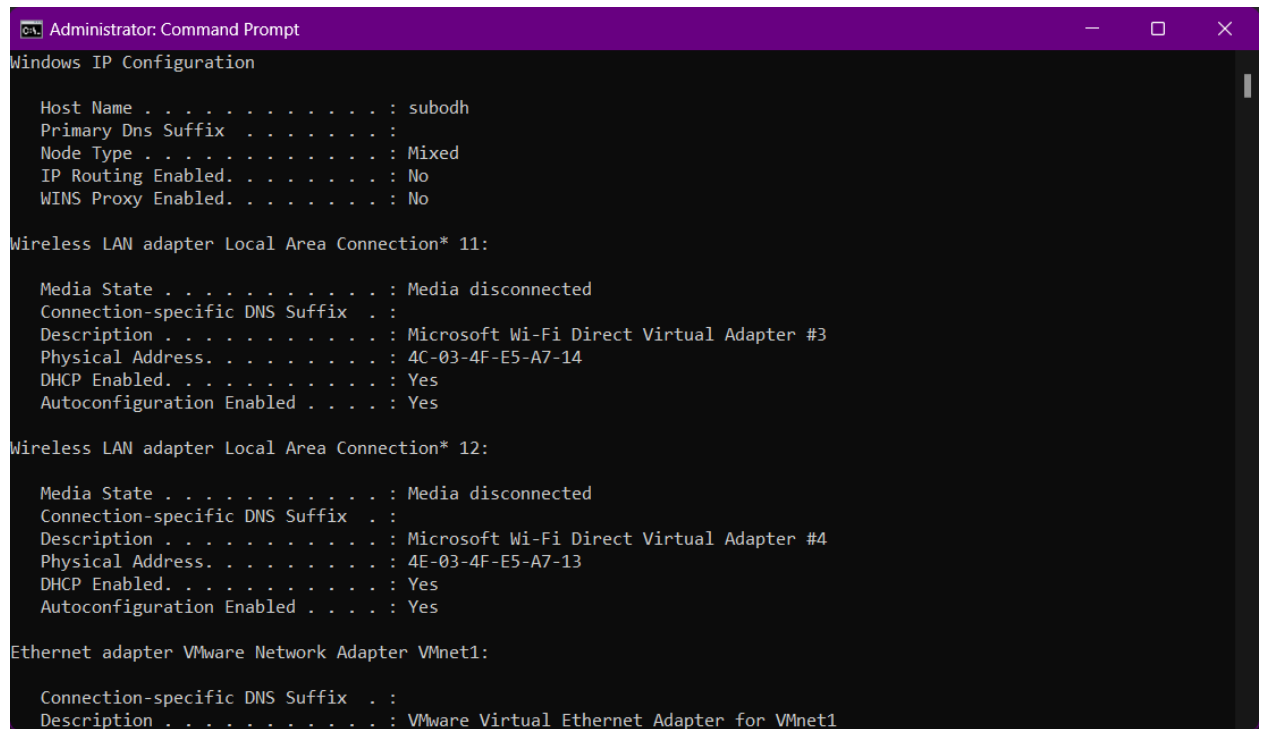
To do these practical following steps should be done:

Step 1: Press the windows key and type cmd in search bar.

Step 2: Select Command Prompt and click run as administrator.



Step 3: Run command “ipconfig /all”



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Administrator: Command Prompt
Windows IP Configuration

Host Name . . . . . : subodh
Primary Dns Suffix . . . . . :
Node Type . . . . . : Mixed
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No

Wireless LAN adapter Local Area Connection* 11:

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . :
Description . . . . . : Microsoft Wi-Fi Direct Virtual Adapter #3
Physical Address. . . . . : 4C-03-4F-E5-A7-14
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes

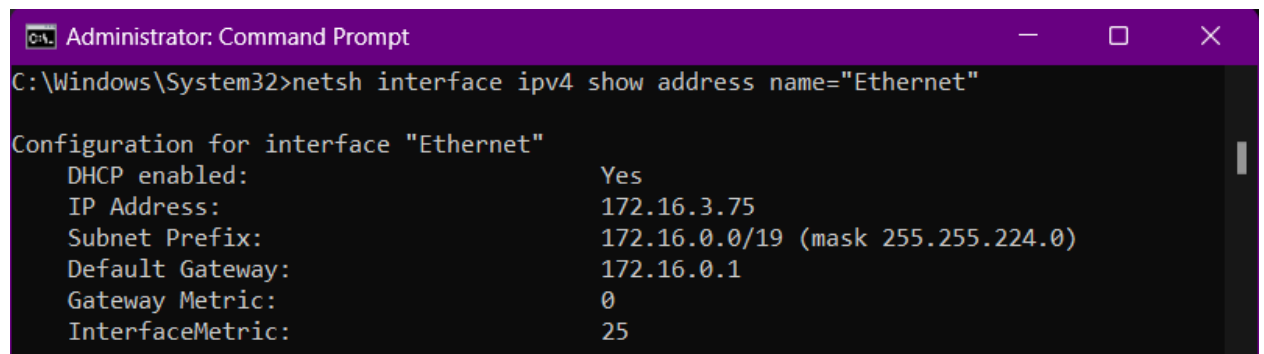
Wireless LAN adapter Local Area Connection* 12:

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . :
Description . . . . . : Microsoft Wi-Fi Direct Virtual Adapter #4
Physical Address. . . . . : 4E-03-4F-E5-A7-13
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes

Ethernet adapter VMware Network Adapter VMnet1:

Connection-specific DNS Suffix . :
Description . . . . . : VMware Virtual Ethernet Adapter for VMnet1
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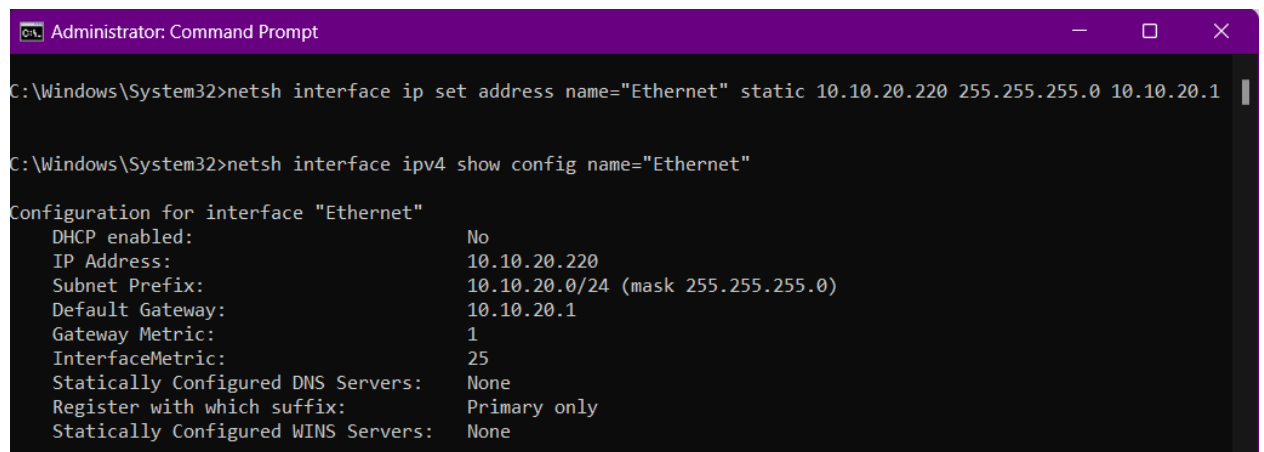
Step 4: Run command “netsh interface ipv4 show address name="Ethernet"”



```
Administrator: Command Prompt
C:\Windows\System32>netsh interface ipv4 show address name="Ethernet"

Configuration for interface "Ethernet"
    DHCP enabled:                Yes
    IP Address:                  172.16.3.75
    Subnet Prefix:               172.16.0.0/19 (mask 255.255.224.0)
    Default Gateway:             172.16.0.1
    Gateway Metric:              0
    InterfaceMetric:             25
```

Step 5: Run command “netsh interface ip set address name="Ethernet" static 10.10.20.220 255.255.255.0 10.10.20.1”



```
Administrator: Command Prompt
C:\Windows\System32>netsh interface ip set address name="Ethernet" static 10.10.20.220 255.255.255.0 10.10.20.1

C:\Windows\System32>netsh interface ipv4 show config name="Ethernet"

Configuration for interface "Ethernet"
    DHCP enabled:                No
    IP Address:                  10.10.20.220
    Subnet Prefix:               10.10.20.0/24 (mask 255.255.255.0)
    Default Gateway:             10.10.20.1
    Gateway Metric:              1
    InterfaceMetric:             25
    Statically Configured DNS Servers:  None
    Register with which suffix:   Primary only
    Statically Configured WINS Servers:  None
```

Step 6: Finally, run command “netsh interface ip add dns name="Ethernet" 5.5.5.5 index=2” to assign an alternate DNS address.

```
C:\Windows\System32>netsh interface ip add dns name="Ethernet" 5.5.5.5 index=2  
The configured DNS server is incorrect or does not exist.
```

Conclusion

After assigning Static IP it's not possible for a device's IP address to change from time to time until it is manually changed by the user.