

Assignment 2.0

Configure your PC for LAN in Windows and LINUX environment (Configuration of Ethernet Card for subnetting).

ipconfig:

The ipconfig command in windows is used to display information about your network configuration and refresh DHCP and DNS Settings. By default, the ipconfig command displays your IP Address, Subnet Mask, and default gateway.

For Windows: -

Before Changes :-

Automatic (DHCP):

```
C:\Users\SUPRATIM NAG>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet 2:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Ethernet adapter Ethernet 3:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::656f:e5cb:48d6:5b46%15
    IPv4 Address. . . . . : 192.168.56.1
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . :

Wireless LAN adapter Local Area Connection* 1:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 2:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::87bc:4f3a:56d9:833a%9
    IPv4 Address. . . . . : 192.168.0.149
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : fe80::360a:33ff:fe71:2be2%9
                                192.168.0.1

Ethernet adapter Bluetooth Network Connection:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

C:\Users\SUPRATIM NAG>
```

After Changes :

Start -> Settings -> Network & Internet -> Properties -> IP assignment -> Edit -> Manual;

Turn on IPv4 and Changes are given below:

IP address	192.168.70.24
Subnet mask	255.255.255.0
Gateway	192.168.0.1
Preferred DNS	8.8.8.8

Manual

IPv4

☒ On

IP address

192.168.56.1

Subnet mask

255.255.255.0

Gateway

192.168.0.1

Preferred DNS

8.8.8.8

DNS over HTTPS

```
C:\Users\SUPRATIM NAG>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet 2:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Ethernet adapter Ethernet 3:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::656f:e5cb:48d6:5b46%15
    IPv4 Address. . . . . : 192.168.56.1
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . :

Wireless LAN adapter Local Area Connection* 1:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 2:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::87bc:4f3a:56d9:833a%9
    Default Gateway . . . . . : fe80::360a:33ff:fe71:2be2%9
                                192.168.0.1

Ethernet adapter Bluetooth Network Connection:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

C:\Users\SUPRATIM NAG>
```

For Linux: -
Before Changes=>

```
(snsupratim@kali) - [~/Desktop]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.0.199 netmask 255.255.255.0 broadcast 192.168.0.255
    inet6 fe80::a00:27ff:fe6e:e584 prefixlen 64 scopeid 0x20<link>
    inet6 fd01::a00:27ff:fe6e:e584 prefixlen 64 scopeid 0x0<global>
    inet6 fd01::f1fa:be26:cdfe:e59c prefixlen 64 scopeid 0x0<global>
    ether 08:00:27:6e:e5:84 txqueuelen 1000 (Ethernet)
    RX packets 8 bytes 982 (982.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 27 bytes 4818 (4.7 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 4 bytes 240 (240.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 4 bytes 240 (240.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

(snsupratim@kali) - [~/Desktop]
```

After Changes =>

In gnome click Settings -> WIFI -> Connection Settings -> IPv4 -> Manual -> Edit -> Apply ;

Turn on IPv4 and Changes are given below:

IP address	192.168.0.199
Subnet mask	255.255.255.0
Gateway	192.168.0.255
Preferred DNS	8.8.8.8

```
(snsupratim@kali)-[~/Desktop]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.0.199 netmask 255.255.255.0 broadcast 192.168.0.255
    inet6 fe80::a00:27ff:fe6e:e584 prefixlen 64 scopeid 0x20<link>
    inet6 fd01::a00:27ff:fe6e:e584 prefixlen 64 scopeid 0x0<global>
    inet6 fd01::f1fa:be26:cdfe:e59c prefixlen 64 scopeid 0x0<global>
    ether 08:00:27:6e:e5:84 txqueuelen 1000 (Ethernet)
    RX packets 58 bytes 4897 (4.7 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 46 bytes 6398 (6.2 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 4 bytes 240 (240.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 4 bytes 240 (240.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```