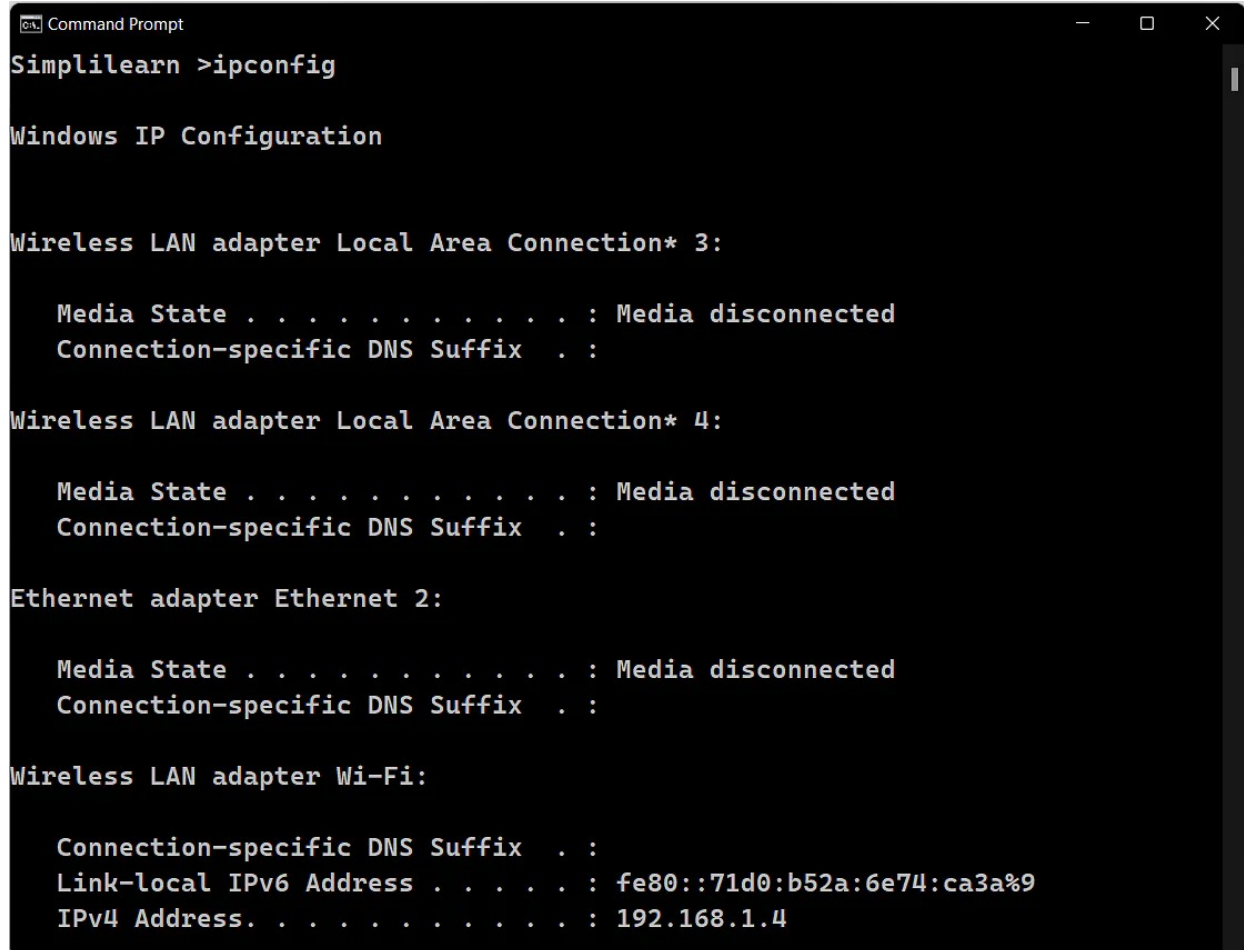


Experiment 8: Familiarization with basic Network Commands along with different configuration modes.

1. IP CONFIG



```
Command Prompt
Simplilearn >ipconfig

Windows IP Configuration

Wireless LAN adapter Local Area Connection* 3:

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

Wireless LAN adapter Local Area Connection* 4:

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

Ethernet adapter Ethernet 2:

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

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::71d0:b52a:6e74:ca3a%9
    IPv4 Address. . . . . : 192.168.1.4
```

2. NSLOOKUO

```
Command Prompt - nslookup

Simplilearn >nslookup
Default Server:  local.airtelfiber.com
Address:

> www.amazon.com
Server:  local.airtelfiber.com
Address:

Non-authoritative answer:
Name:      d3ag4hukkh62yn.cloudfront.net
Address:   13.224.16.126
Aliases:   www.amazon.com
           tp.47cf2c8c9-frontier.amazon.com

>
```

3. HOSTNAME

```
Command Prompt

Simplilearn >hostname
LAPTOP-

Simplilearn >
```

4. PING

```
Command Prompt

Simplilearn >ping www.google.com

Pinging www.google.com [142.250.194.4] with 32 bytes of data:
Reply from 142.250.194.4: bytes=32 time=26ms TTL=118
Reply from 142.250.194.4: bytes=32 time=27ms TTL=118
Reply from 142.250.194.4: bytes=32 time=26ms TTL=118
Reply from 142.250.194.4: bytes=32 time=27ms TTL=118

Ping statistics for 142.250.194.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 26ms, Maximum = 27ms, Average = 26ms

Simplilearn >
```

5. TRACERT

```
Command Prompt

Simplilearn >tracert www.facebook.com

Tracing route to star-mini.c10r.facebook.com [157.240.16.35]
over a maximum of 30 hops:

  1    1 ms    1 ms    1 ms    local.airtelfiber.com [192.168.1.1]
  2   15 ms   12 ms   22 ms   abts-mh-dynamic-001.33.169.122.airtelbroadband.in [122.169.33.1]
  3    6 ms    7 ms    7 ms   nsg-corporate-45.78.186.122.airtel.in [122.186.78.45]
  4   48 ms   48 ms   48 ms   116.119.104.148
  5   55 ms   55 ms   57 ms   ae18.pr03.bom1.tfbnw.net [157.240.67.48]
  6   46 ms   47 ms   47 ms   po103.psw02.bom1.tfbnw.net [157.240.53.69]
  7   54 ms   54 ms   54 ms   173.252.67.85
  8   42 ms   41 ms   42 ms   edge-star-mini-shv-01-bom1.facebook.com [157.240.16.35]

Trace complete.

Simplilearn >
```

6. NETSTAT

```
Command Prompt - netstat

Simplilearn >netstat

Active Connections

Proto Local Address Foreign Address State
TCP [REDACTED] ESTABLISHED
TCP [REDACTED] ESTABLISHED
TCP [REDACTED] SYN_SENT
TCP [REDACTED] ESTABLISHED
TCP [REDACTED] ESTABLISHED
TCP [REDACTED] ESTABLISHED
TCP [REDACTED] ESTABLISHED
```

7. ARP (Address Resolution Protocol)

```
Command Prompt

Simplilearn >arp

Displays and modifies the IP-to-Physical address translation tables used by
address resolution protocol (ARP).

ARP -s inet_addr eth_addr [if_addr]
ARP -d inet_addr [if_addr]
ARP -a [inet_addr] [-N if_addr] [-v]

-a          Displays current ARP entries by interrogating the current
            protocol data. If inet_addr is specified, the IP and Physical
            addresses for only the specified computer are displayed. If
            more than one network interface uses ARP, entries for each ARP
            table are displayed.

-g          Same as -a.

-v          Displays current ARP entries in verbose mode. All invalid
            entries and entries on the loop-back interface will be shown.

inet_addr   Specifies an internet address.

-N if_addr  Displays the ARP entries for the network interface specified
            by if_addr.

-d          Deletes the host specified by inet_addr. inet_addr may be
            wildcarded with * to delete all hosts.

-s          Adds the host and associates the Internet address inet_addr
            with the Physical address eth_addr. The Physical address is
            given as 6 hexadecimal bytes separated by hyphens. The entry
```

8. SYSTEMINFO

```
Command Prompt

Simplilearn >systeminfo

Host Name: Simplilearn
OS Name: Microsoft Windows 11 Home Single Language
OS Version: 22H2 (22H2.0.22000.1913)
OS Manufacturer: Microsoft Corporation
OS Configuration: Standalone Workstation
OS Build Type: Multiprocessor Free
Registered Owner:
Registered Organization:
Product ID: 00327-38967-50001-AA084
Original Install Date: 28-10-2021 19:58:37
System Boot Time: 05-03-2022 00:20:57
System Manufacturer: LENOVO
System Model: 7440
System Type: x64-based PC
Processor(s): 1 Processor(s) Installed.
[01]- Intel(R) Family 6 Model 142 Stepping 12 GenuineIntel ~1600 Mhz
BIOS Version: Lenovo N100A2QWH, 1.20, 06/28/2021
Windows Directory: C:\WINDOWS
System Directory: C:\WINDOWS\system32
Boot Device: \Device\HarddiskVolume3
System Locale: en-us;English (United States)
```

Reference : <https://www.simplilearn.com/tutorials/cyber-security-tutorial/understanding-the-networking-commands>