

1. ipconfig command

> ipconfig

```
Select Command Prompt
Media State . . . . . : Media disconnected
Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 11:

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

Wireless LAN adapter Local Area Connection* 12:

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

Ethernet adapter VMware Network Adapter VMnet1:

Connection-specific DNS Suffix  . :
Link-local IPv6 Address . . . . . : fe80::a1e7:82f2:d153:17de%9
IPv4 Address. . . . . : 192.168.232.1
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :

Ethernet adapter VMware Network Adapter VMnet8:

Connection-specific DNS Suffix  . :
Link-local IPv6 Address . . . . . : fe80::dffa:81df:1cfd:b0bf%8
IPv4 Address. . . . . : 192.168.139.1
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :

Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix  . : home
Link-local IPv6 Address . . . . . : fe80::e4ae:cfd7:d249:34ac%18
IPv4 Address. . . . . : 192.168.1.249
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.1.1

C:\Users\Zienab Atef>
```

> ipconfig /all

```
Select Command Prompt
DHCPv6 Client DUID. . . . . : 00-01-00-01-27-8C-01-12-2C-60-0C-90-EE-17
DNS Servers . . . . . : fec0:0:0:ffff::1%1
                        fec0:0:0:ffff::2%1
                        fec0:0:0:ffff::3%1
NetBIOS over Tcpip. . . . . : Enabled

Ethernet adapter VMware Network Adapter VMnet8:

    Connection-specific DNS Suffix  . : 
    Description . . . . . : VMware Virtual Ethernet Adapter for VMnet8
    Physical Address. . . . . : 00-50-56-C0-00-08
    DHCP Enabled. . . . . : No
    Autoconfiguration Enabled . . . . : Yes
    Link-local IPv6 Address . . . . . : fe80::dff:81df:1cfd:b0bf%8(Preferred)
    IPv4 Address. . . . . : 192.168.139.1(Preferred)
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 
    DHCPv6 IAID . . . . . : 1040207958
    DHCPv6 Client DUID. . . . . : 00-01-00-01-27-8C-01-12-2C-60-0C-90-EE-17
    DNS Servers . . . . . : fec0:0:0:ffff::1%1
                        fec0:0:0:ffff::2%1
                        fec0:0:0:ffff::3%1
    NetBIOS over Tcpip. . . . . : Enabled

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . : home
    Description . . . . . : Qualcomm Atheros AR956x Wireless Network Adapter
    Physical Address. . . . . : AC-E0-10-87-1B-FF
    DHCP Enabled. . . . . : Yes
    Autoconfiguration Enabled . . . . : Yes
    Link-local IPv6 Address . . . . . : fe80::e4ae:cfd:d249:34ac%18(Preferred)
    IPv4 Address. . . . . : 192.168.1.249(Preferred)
    Subnet Mask . . . . . : 255.255.255.0
    Lease Obtained. . . . . : Thursday, October 23, 2025 1:19:49 PM
    Lease Expires . . . . . : Friday, October 24, 2025 1:31:45 PM
    Default Gateway . . . . . : 192.168.1.1
    DHCP Server . . . . . : 192.168.1.1
    DHCPv6 IAID . . . . . : 497868816
    DHCPv6 Client DUID. . . . . : 00-01-00-01-27-8C-01-12-2C-60-0C-90-EE-17
    DNS Servers . . . . . : 192.168.1.1
    NetBIOS over Tcpip. . . . . : Enabled

C:\Users\Zienab Atef>
```

```
> ipconfig /release
```

```
Select Command Prompt

Unknown adapter OpenVPN Connect DCO Adapter:

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

Wireless LAN adapter Local Area Connection* 10:

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

Wireless LAN adapter Local Area Connection* 11:

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

Wireless LAN adapter Local Area Connection* 12:

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

Ethernet adapter VMware Network Adapter VMnet1:

Connection-specific DNS Suffix  . :
Link-local IPv6 Address . . . . . : fe80::a1e7:82f2:d153:17de%9
IPv4 Address. . . . . : 192.168.232.1
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :

Ethernet adapter VMware Network Adapter VMnet8:

Connection-specific DNS Suffix  . :
Link-local IPv6 Address . . . . . : fe80::dff:81df:1cfd:b0bf%8
IPv4 Address. . . . . : 192.168.139.1
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :

Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix  . :
Link-local IPv6 Address . . . . . : fe80::e4ae:cfdf:d249:34ac%18
Default Gateway . . . . . :

C:\Users\Zienab Atef>
```

```
> ipconfig /renew
```

```
Select Command Prompt
Wireless LAN adapter Local Area Connection* 10:

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

Wireless LAN adapter Local Area Connection* 11:

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

Ethernet adapter VMware Network Adapter VMnet1:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::a1e7:82f2:d153:17de%9
    IPv4 Address. . . . . : 192.168.232.1
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . :

Ethernet adapter VMware Network Adapter VMnet8:

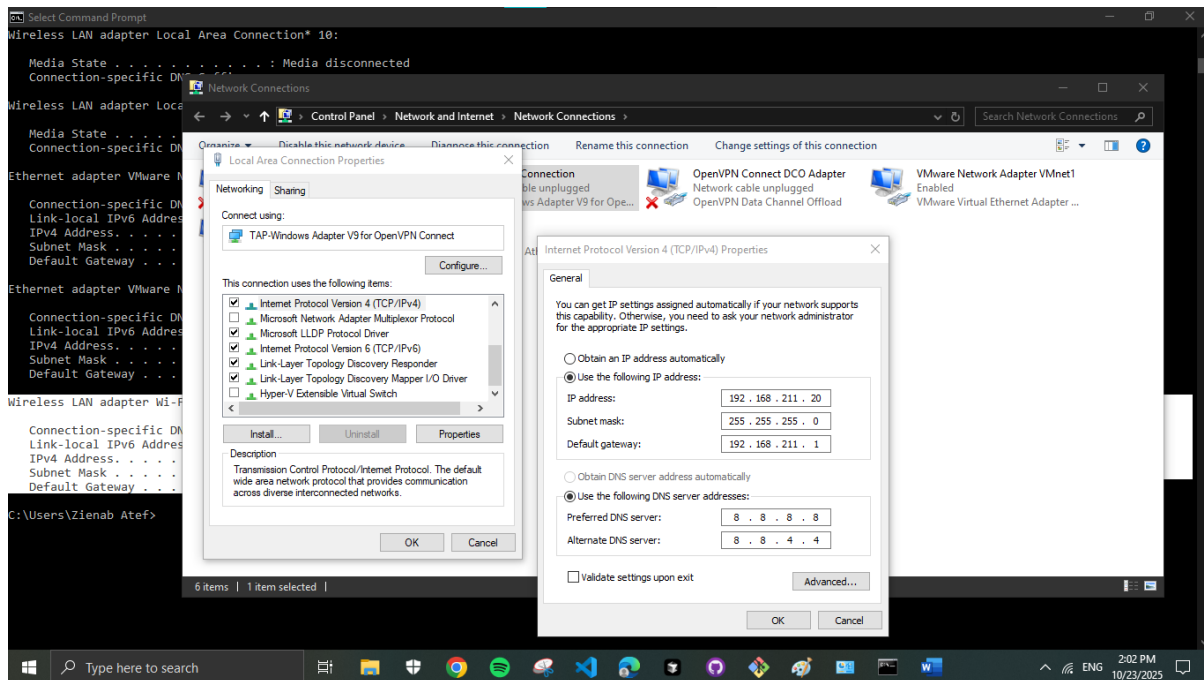
    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::dff:81df:1cfd:b0bf%8
    IPv4 Address. . . . . : 192.168.139.1
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . :

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . : home
    Link-local IPv6 Address . . . . . : fe80::e4ae:cfdf:d249:34ac%18
    IPv4 Address. . . . . : 192.168.1.249
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1

C:\Users\Zienab Atef>
```

2. Configure IP address manually



My real IP (static) address

The screenshot shows the homepage of the website <https://whatismyipaddress.com>. The page features a navigation bar with links to [ABOUT](#), [PRESS](#), [PODCAST](#), and [SUPPORT](#). Below the navigation bar, there are tabs for [MY IP](#), [IP LOOKUP](#), [HIDE MY IP](#), [VPNS](#), [TOOLS](#), and [LEARN](#).

The main content area displays the user's IP information:

- My IP Address is:**
 - IPv4: [197.48.46.99](#)
 - IPv6: [Not detected](#)
- My IP Information:**
 - ISP: TE Data
 - City: Alexandria
 - Region: Al Iskandariyah
 - Country: Egypt
- Your location may be exposed!** (Warning message)
- [HIDE MY IP ADDRESS NOW](#) (Red button)
- [Show Complete IP Details](#) (Link)
- [Update My IP Location](#) (Link)

A world map is shown on the right side of the page, with a red dot indicating the location. A tooltip above the map says "Click for more details about 197.48.46.99". Below the map, it says "Location not accurate?" and provides the [Update My IP Location](#) link.

The browser's address bar shows the URL <https://whatismyipaddress.com>. The Windows taskbar at the bottom shows the time as 3:12 PM on 10/23/2025.

3. ping command

> ping 192.168.1.1

```
Command Prompt

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . : home
    Link-local IPv6 Address . . . . . : fe80::e4ae:cfdf:d249:34ac%18
    IPv4 Address. . . . . : 192.168.1.249
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1

C:\Users\Zienab Atef>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\Users\Zienab Atef>
```

> ping Yahoo.com

```
Command Prompt
C:\Users\Zienab Atef>ping Yahoo.com

Pinging Yahoo.com [98.137.11.163] with 32 bytes of data:
Reply from 98.137.11.163: bytes=32 time=212ms TTL=49
Request timed out.
Reply from 98.137.11.163: bytes=32 time=214ms TTL=49
Reply from 98.137.11.163: bytes=32 time=212ms TTL=49

Ping statistics for 98.137.11.163:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 212ms, Maximum = 214ms, Average = 212ms

C:\Users\Zienab Atef>
```

```
> ping 192.168.1.1 -t
```

```
Command Prompt
C:\Users\Zienab Atef>ping 192.168.1.1 -t

Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time=1ms TTL=64
Reply from 192.168.1.1: bytes=32 time=1ms TTL=64
Reply from 192.168.1.1: bytes=32 time=1ms TTL=64
Reply from 192.168.1.1: bytes=32 time=2ms TTL=64
Reply from 192.168.1.1: bytes=32 time=1ms TTL=64
Reply from 192.168.1.1: bytes=32 time=1ms TTL=64
Reply from 192.168.1.1: bytes=32 time=3ms TTL=64
Reply from 192.168.1.1: bytes=32 time=1ms TTL=64
Reply from 192.168.1.1: bytes=32 time=1ms TTL=64
Reply from 192.168.1.1: bytes=32 time=3ms TTL=64
Reply from 192.168.1.1: bytes=32 time=1ms TTL=64
Reply from 192.168.1.1: bytes=32 time=1ms TTL=64

Ping statistics for 192.168.1.1:
    Packets: Sent = 14, Received = 14, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 3ms, Average = 1ms
Control-C
^C
C:\Users\Zienab Atef>
```

```
> ping 192.168.1.1 -n 7
```

```
Command Prompt
C:\Users\Zienab Atef>ping 192.168.1.1 -n 7

Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time=2ms TTL=64

Ping statistics for 192.168.1.1:
    Packets: Sent = 7, Received = 7, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 2ms, Average = 0ms

C:\Users\Zienab Atef>
```

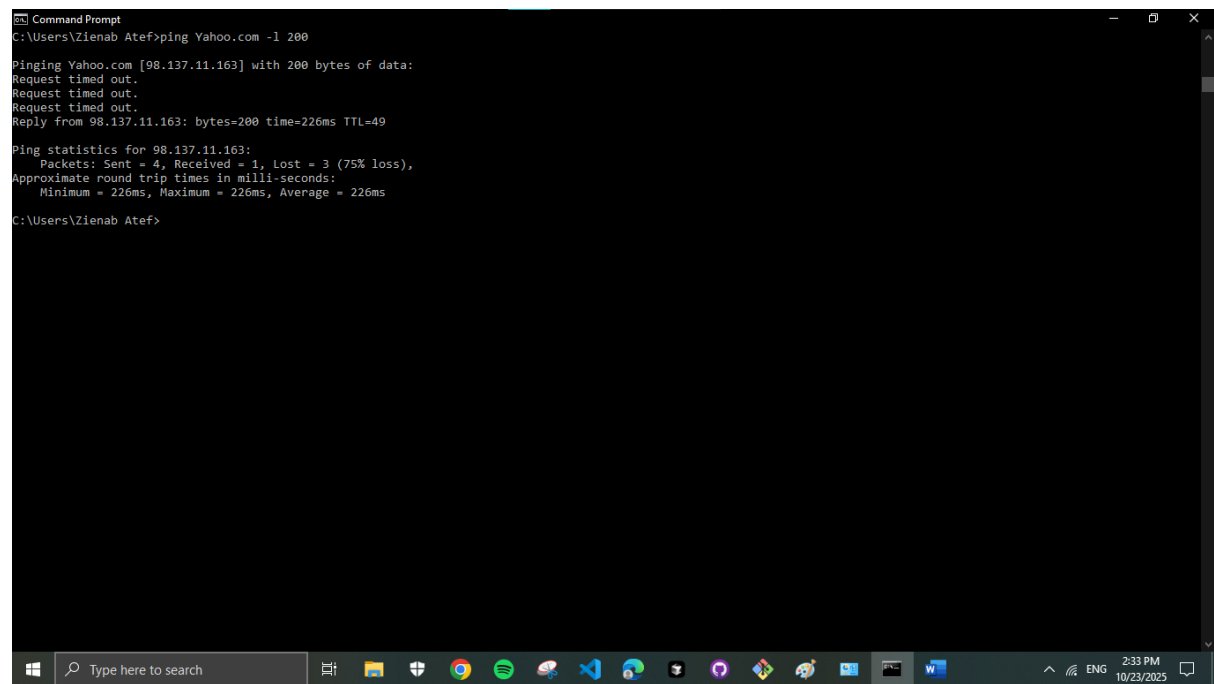
```
> ping Yahoo.com -l 200
```

```
Command Prompt
C:\Users\Zienab Atef>ping Yahoo.com -l 200

Pinging Yahoo.com [98.137.11.163] with 200 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Reply from 98.137.11.163: bytes=200 time=226ms TTL=49

Ping statistics for 98.137.11.163:
    Packets: Sent = 4, Received = 1, Lost = 3 (75% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 226ms, Maximum = 226ms, Average = 226ms

C:\Users\Zienab Atef>
```



```
> ping Yahoo.com -l 200 -n 7
```

```
Command Prompt
C:\Users\Zienab Atef>ping Yahoo.com -l 200 -n 7

Pinging Yahoo.com [74.6.143.26] with 200 bytes of data:
Reply from 74.6.143.26: bytes=200 time=180ms TTL=49
Reply from 74.6.143.26: bytes=200 time=180ms TTL=49
Reply from 74.6.143.26: bytes=200 time=179ms TTL=49
Request timed out.
Reply from 74.6.143.26: bytes=200 time=180ms TTL=50
Reply from 74.6.143.26: bytes=200 time=194ms TTL=49
Reply from 74.6.143.26: bytes=200 time=194ms TTL=49

Ping statistics for 74.6.143.26:
    Packets: Sent = 7, Received = 6, Lost = 1 (14% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 179ms, Maximum = 194ms, Average = 184ms

C:\Users\Zienab Atef>
```

4. MAC address

> ipconfig /all

```
Select Command Prompt
Physical Address. . . . . : 00-50-56-C0-00-08
DHCP Enabled. . . . . : No
Autoconfiguration Enabled. . . . . : Yes
Link-Local IPv6 Address. . . . . : fe80::dff:81df:1cfd:b0bf%8(Preferred)
IPv4 Address. . . . . : 192.168.139.1(Preferred)
Subnet Mask. . . . . : 255.255.255.0
Default Gateway. . . . . :
DHCPv6 IAID. . . . . : 1040207958
DHCPv6 Client DUID. . . . . : 00-01-00-01-27-8C-01-12-2C-60-0C-90-EE-17
DNS Servers. . . . . : fec0:0:0:ffff::1%1
                       fec0:0:0:ffff::2%1
                       fec0:0:0:ffff::3%1
NetBIOS over Tcpip. . . . . : Enabled

Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix . : home
Description . . . . . : Qualcomm Atheros AR956x Wireless Network Adapter
Physical Address. . . . . : AC-E0-10-87-1B-FF
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled. . . . . : Yes
Link-Local IPv6 Address. . . . . : fe80::e4ae:cfdf:d249:34ac%18(Preferred)
IPv4 Address. . . . . : 192.168.1.249(Preferred)
Subnet Mask. . . . . : 255.255.255.0
Lease Obtained. . . . . : Thursday, October 23, 2025 2:20:48 PM
Lease Expires. . . . . : Friday, October 24, 2025 2:20:49 PM
Default Gateway . . . . . : 192.168.1.1
DHCP Server . . . . . : 192.168.1.1
DHCPv6 IAID . . . . . : 497868816
DHCPv6 Client DUID. . . . . : 00-01-00-01-27-8C-01-12-2C-60-0C-90-EE-17
DNS Servers . . . . . : 192.168.1.1
NetBIOS over Tcpip. . . . . : Enabled

C:\Users\Zienab Atef>
```

> getmac

```
Command Prompt
C:\Users\Zienab Atef>getmac

Physical Address    Transport Name
-----
AC-E0-10-87-1B-FF  \Device\NPF{956F3D45-8B61-44E5-A777-2F3C85184EA7}
2C-60-0C-90-EE-17  Media disconnected
00-50-56-C0-00-01  \Device\NPF{54C9A239-5DCE-4F3E-8589-D4E4D499F732}
00-50-56-C0-00-08  \Device\NPF{2F9C3A9C-410E-45C6-98CA-D083BBB9F874}
00-FF-90-68-9F-D7  Media disconnected
N/A                Media disconnected

C:\Users\Zienab Atef>
```

5. arp command

> arp -a

```
Command Prompt
C:\Users\Zienab Atef>arp -a

Interface: 192.168.139.1 --- 0x8
Internet Address      Physical Address      Type
192.168.139.255       ff-ff-ff-ff-ff-ff    static
224.0.0.2             01-00-5e-00-00-02    static
224.0.0.22            01-00-5e-00-00-16    static
224.0.0.251           01-00-5e-00-00-fb    static
224.0.0.252           01-00-5e-00-00-fc    static
239.255.255.250       01-00-5e-7f-ff-fa    static

Interface: 192.168.232.1 --- 0x9
Internet Address      Physical Address      Type
192.168.232.255       ff-ff-ff-ff-ff-ff    static
224.0.0.2             01-00-5e-00-00-02    static
224.0.0.22            01-00-5e-00-00-16    static
224.0.0.251           01-00-5e-00-00-fb    static
224.0.0.252           01-00-5e-00-00-fc    static
239.255.255.250       01-00-5e-7f-ff-fa    static
255.255.255.255       ff-ff-ff-ff-ff-ff    static

Interface: 192.168.1.249 --- 0x12
Internet Address      Physical Address      Type
192.168.1.1           7c-77-16-f1-c0-60    dynamic
192.168.1.255         ff-ff-ff-ff-ff-ff    static
224.0.0.2             01-00-5e-00-00-02    static
224.0.0.22            01-00-5e-00-00-16    static
224.0.0.251           01-00-5e-00-00-fb    static
224.0.0.252           01-00-5e-00-00-fc    static
239.255.255.250       01-00-5e-7f-ff-fa    static
255.255.255.255       ff-ff-ff-ff-ff-ff    static

C:\Users\Zienab Atef>
```

> arp -d

```
Administrator: Command Prompt
C:\WINDOWS\system32>arp -d
C:\WINDOWS\system32>arp -a

Interface: 192.168.139.1 --- 0x8
Internet Address      Physical Address      Type
224.0.0.22            01-00-5e-00-00-16    static

Interface: 192.168.232.1 --- 0x9
Internet Address      Physical Address      Type
224.0.0.22            01-00-5e-00-00-16    static

Interface: 192.168.1.249 --- 0x12
Internet Address      Physical Address      Type
192.168.1.1           7c-77-16-f1-c0-60    dynamic
224.0.0.2             01-00-5e-00-00-02    static
224.0.0.22            01-00-5e-00-00-16    static

C:\WINDOWS\system32>
```

6. Opened ports and sessions

> netstat -n

```
Command Prompt
C:\Users\Zienab Atef>netstat -n

Active Connections

Proto Local Address          Foreign Address         State
TCP    127.0.0.1:49684          127.0.0.1:49691        ESTABLISHED
TCP    127.0.0.1:49681          127.0.0.1:49684        ESTABLISHED
TCP    192.168.1.249:53631      98.66.133.184:443      ESTABLISHED
TCP    192.168.1.249:53665      74.242.255.116:443     ESTABLISHED
TCP    192.168.1.249:53944      13.107.246.43:443      CLOSE_WAIT
TCP    192.168.1.249:53946      23.61.250.22:443       CLOSE_WAIT
TCP    192.168.1.249:53947      23.61.250.22:443       CLOSE_WAIT
TCP    192.168.1.249:53948      150.171.70.254:443     ESTABLISHED
TCP    192.168.1.249:53956      52.98.163.34:443       ESTABLISHED
TCP    192.168.1.249:53958      13.107.246.254:443     CLOSE_WAIT
TCP    192.168.1.249:53962      150.171.84.254:443     ESTABLISHED
TCP    192.168.1.249:54006      52.111.243.56:443      ESTABLISHED
TCP    192.168.1.249:54106      104.85.248.72:80       ESTABLISHED
TCP    192.168.1.249:54133      199.232.82.172:80      ESTABLISHED
TCP    192.168.1.249:54174      151.101.134.172:80     ESTABLISHED
TCP    192.168.1.249:54182      199.232.82.172:80      ESTABLISHED
TCP    192.168.1.249:54183      52.111.231.21:443      ESTABLISHED
TCP    192.168.1.249:54185      146.75.54.172:80       ESTABLISHED
TCP    192.168.1.249:54188      104.85.248.80:80       ESTABLISHED
TCP    192.168.1.249:54189      199.232.82.172:80      ESTABLISHED
TCP    192.168.1.249:54193      20.42.73.30:443        TIME_WAIT
TCP    192.168.1.249:54195      20.242.39.171:443      TIME_WAIT
TCP    192.168.1.249:54196      146.75.54.172:80       ESTABLISHED
TCP    192.168.1.249:54197      52.109.89.19:443       ESTABLISHED
TCP    192.168.1.249:54200      199.232.82.172:80      ESTABLISHED
TCP    192.168.1.249:54201      199.232.82.172:80      ESTABLISHED
TCP    [::]:49672              [::]:49673             ESTABLISHED
TCP    [::]:49673              [::]:49672             ESTABLISHED
TCP    [::]:49676              [::]:49677             ESTABLISHED
TCP    [::]:49677              [::]:49676             ESTABLISHED
TCP    [::]:49678              [::]:49679             ESTABLISHED
TCP    [::]:49679              [::]:49678             ESTABLISHED
TCP    [::]:49687              [::]:49688             ESTABLISHED
TCP    [::]:49688              [::]:49687             ESTABLISHED
TCP    [::]:49695              [::]:49696             ESTABLISHED
TCP    [::]:49696              [::]:49695             ESTABLISHED

C:\Users\Zienab Atef>
```

> netstat -a 192.168.1.1

```
Command Prompt - netstat -a 192.168.1.1
C:\Users\Zienab Atef>netstat -a 192.168.1.1

Active Connections

Proto Local Address           Foreign Address         State
TCP 0.0.0.0:135             DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:445             DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:903             DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:913             DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:2343            DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:3389            DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:3580            DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:3582            DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:5040            DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:5357            DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:7680            DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:8080            DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:49664           DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:49665           DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:49666           DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:49667           DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:49668           DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:49671           DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:49693           DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:59110           DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:59111           DESKTOP-QONJRA3:0      LISTENING
TCP 0.0.0.0:59112           DESKTOP-QONJRA3:0      LISTENING
TCP 127.0.0.1:49684          DESKTOP-QONJRA3:0      LISTENING
TCP 127.0.0.1:49684          kubernetes:49691       ESTABLISHED
TCP 127.0.0.1:49691          kubernetes:49684       ESTABLISHED
TCP 192.168.1.249:139         DESKTOP-QONJRA3:0      LISTENING
TCP 192.168.1.249:53631      98.66.133.184:https    ESTABLISHED
TCP 192.168.1.249:53665      74.242.255.116:https   ESTABLISHED
TCP 192.168.1.249:53944      13.107.246.43:https    CLOSE_WAIT
TCP 192.168.1.249:53946      a23-61-250-22:https    CLOSE_WAIT
TCP 192.168.1.249:53947      a23-61-250-22:https    CLOSE_WAIT
TCP 192.168.1.249:53948      150.171.70.254:https    ESTABLISHED
TCP 192.168.1.249:53956      52.98.163.34:https     ESTABLISHED
TCP 192.168.1.249:53958      13.107.246.254:https    CLOSE_WAIT
TCP 192.168.1.249:53962      150.171.84.254:https    ESTABLISHED
TCP 192.168.1.249:54006      52.111.243.56:https    ESTABLISHED
TCP 192.168.1.249:54202      199.232.82.172:http    ESTABLISHED
TCP 192.168.1.249:54203      199.232.82.172:http    TIME_WAIT
TCP 192.168.1.249:54211      52.111.243.73:https    ESTABLISHED
```

Why nslookup command is returning only one IP address of google.com?

The reason for that lies in the DNS lookup process. Google's IP addresses are used to perform load balancing, where the load balancer server's IP remains the same, and the internal server forwards the request to a particular server with the least load based on the load balancing algorithm. In contrast, Yahoo's IP addresses do not change and are used for authoritative DNS server queries.

7. Domain name system

> nslookup Yahoo.com

```
Select Command Prompt
C:\Users\Zienab Atef>nslookup Yahoo.com
Server:     home
Address:    192.168.1.1

Non-authoritative answer:
Name:       Yahoo.com
Addresses:  2001:4998:24:120d::1:0
            2001:4998:44:3507::8000
            2001:4998:24:120d::1:1
            2001:4998:124:1507::f001
            2001:4998:44:3507::8001
            2001:4998:124:1507::f000
            74.6.143.26
            74.6.143.25
            98.137.11.164
            98.137.11.163
            74.6.231.21
            74.6.231.20

C:\Users\Zienab Atef>
```

```
> nslookup 87.248.113.14
```

```
Select Command Prompt

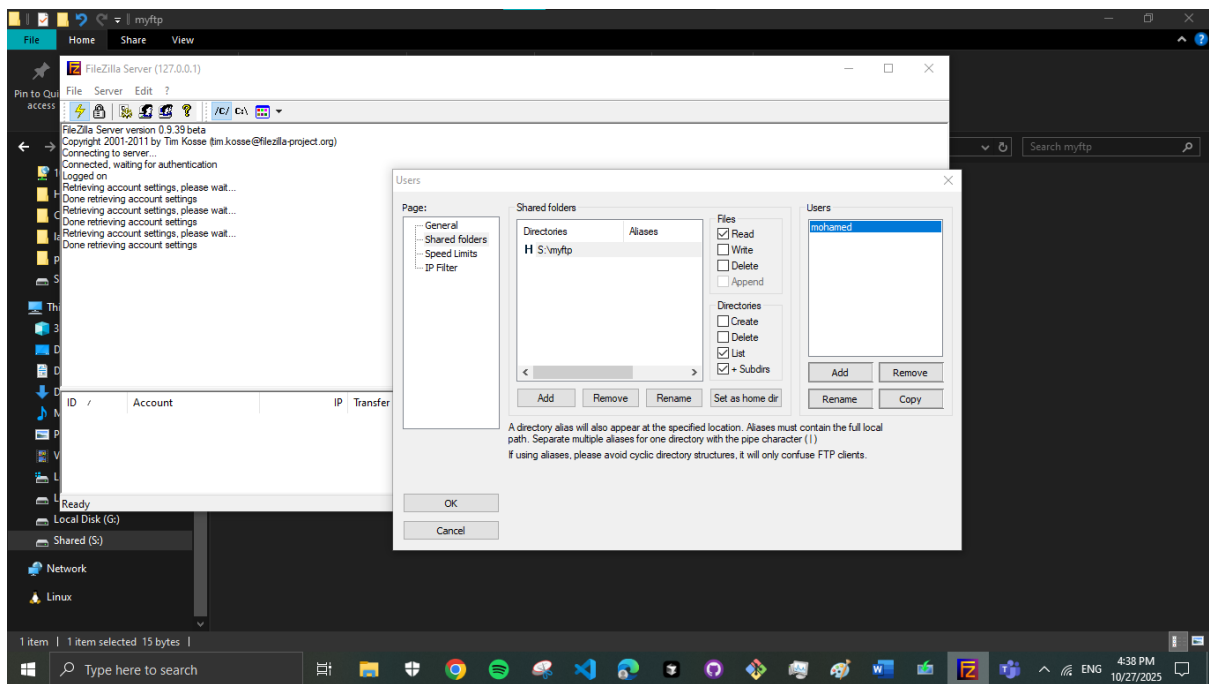
C:\Users\Zienab Atef>nslookup 87.248.113.14
Server: home
Address: 192.168.1.1

Name:      et23-1.bas1-1-edg.amb.yahoo.com
Address: 87.248.113.14

C:\Users\Zienab Atef>
```

8. Dealing with FTP

Configure FTP server 127.0.0.1:14147



Configure FTP clients

Method 2 (using CMD)

```
C:\Windows\System32\cmd.exe - ftp
Microsoft Windows [Version 10.0.19045.4651]
(c) Microsoft Corporation. All rights reserved.

S:\client>ftp
ftp> open 127.0.0.1
Connected to 127.0.0.1.
220-FileZilla Server version 0.9.39 beta
220-written by Tim Kosse (Tim.Kosse@gmx.de)
220 Please visit http://sourceforge.net/projects/filezilla/
530 Please log in with USER and PASS first.
User (127.0.0.1:(none)): mohamed
331 Password required for mohamed
Password:
230 Logged on
ftp> dir
200 Port command successful
150 Opening data channel for directory list.
-rw-r--r-- 1 ftp ftp      15 Oct 27 16:32 a.txt
226 Transfer OK
ftp> lcd
Local directory now S:\client.
ftp> put b.txt
200 Port command successful
150 Opening data channel for file transfer.
226 Transfer OK
ftp> dir
200 Port command successful
150 Opening data channel for directory list.
-rw-r--r-- 1 ftp ftp      15 Oct 27 16:32 a.txt
-rw-r--r-- 1 ftp ftp      7 Oct 27 17:15 b.txt
226 Transfer OK
ftp>
115 bytes received in 0.00Seconds 115000.00Kbytes/sec.
ftp>
```

FileZilla Server (127.0.0.1)

File Server Edit ?

Connected, waiting for authentication

Logged on

(000008)10/27/2025 17:14:10 PM - (not logged in) (127.0.0.1)> Connected, sending welcome message ...

(000008)10/27/2025 17:14:10 PM - (not logged in) (127.0.0.1)> 220-FileZilla Server version 0.9.39 beta

(000008)10/27/2025 17:14:10 PM - (not logged in) (127.0.0.1)> 220-written by Tim Kosse (Tim.Kosse@gmx.de)

(000008)10/27/2025 17:14:10 PM - (not logged in) (127.0.0.1)> 220 Please visit http://sourceforge.net/projects/filezilla/

(000008)10/27/2025 17:14:10 PM - (not logged in) (127.0.0.1)> 530 Please log in with USER and PASS first.

(000008)10/27/2025 17:14:14 PM - (not logged in) (127.0.0.1)> USER mohamed

(000008)10/27/2025 17:14:14 PM - (not logged in) (127.0.0.1)> 331 Password required for mohamed

(000008)10/27/2025 17:14:17 PM - (not logged in) (127.0.0.1)> PASS *****

(000008)10/27/2025 17:14:17 PM - mohamed (127.0.0.1)> 230 Logged on

(000008)10/27/2025 17:14:24 PM - mohamed (127.0.0.1)> PORT 127.0.0.1,246,236

(000008)10/27/2025 17:14:24 PM - mohamed (127.0.0.1)> 200 Port command successful

(000008)10/27/2025 17:14:24 PM - mohamed (127.0.0.1)> LIST

(000008)10/27/2025 17:14:24 PM - mohamed (127.0.0.1)> 150 Opening data channel for directory list.

(000008)10/27/2025 17:14:24 PM - mohamed (127.0.0.1)> 226 Transfer OK

(000008)10/27/2025 17:15:15 PM - mohamed (127.0.0.1)> PORT 127.0.0.1,246,240

(000008)10/27/2025 17:15:15 PM - mohamed (127.0.0.1)> 200 Port command successful

(000008)10/27/2025 17:15:15 PM - mohamed (127.0.0.1)> STOR b.txt

(000008)10/27/2025 17:15:15 PM - mohamed (127.0.0.1)> 150 Opening data channel for file transfer.

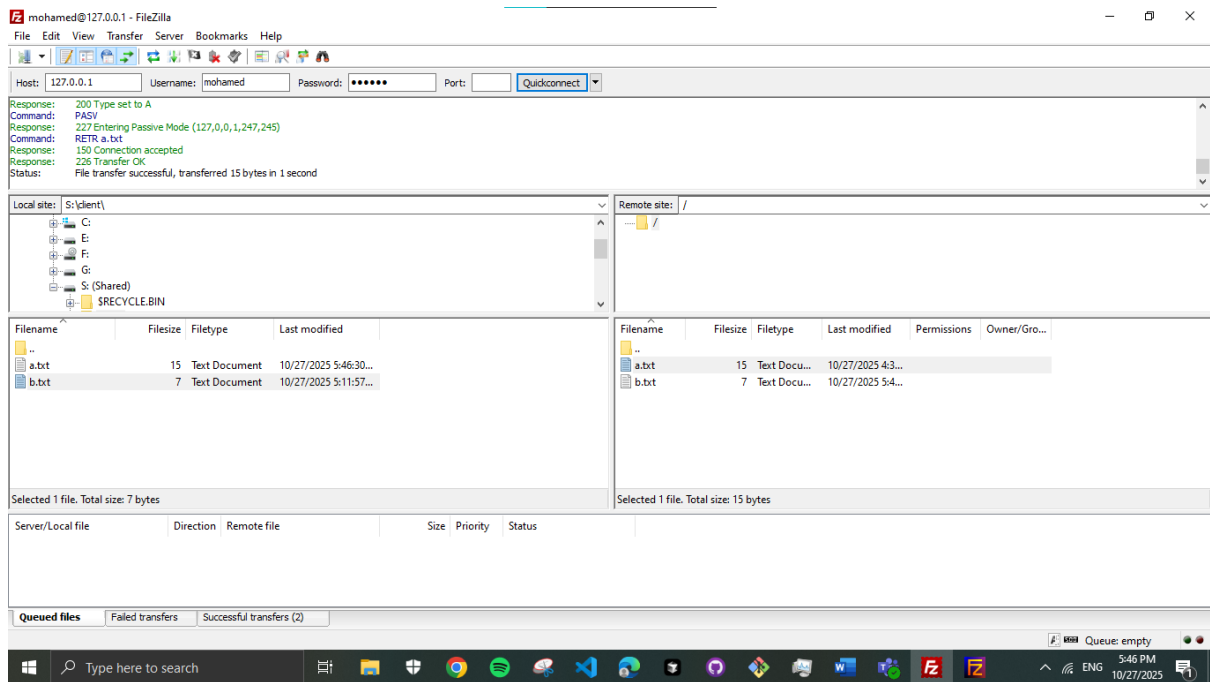
(000008)10/27/2025 17:15:15 PM - mohamed (127.0.0.1)> 226 Transfer OK

(000008)10/27/2025 17:15:46 PM - mohamed (127.0.0.1)> PORT 127.0.0.1,246,242

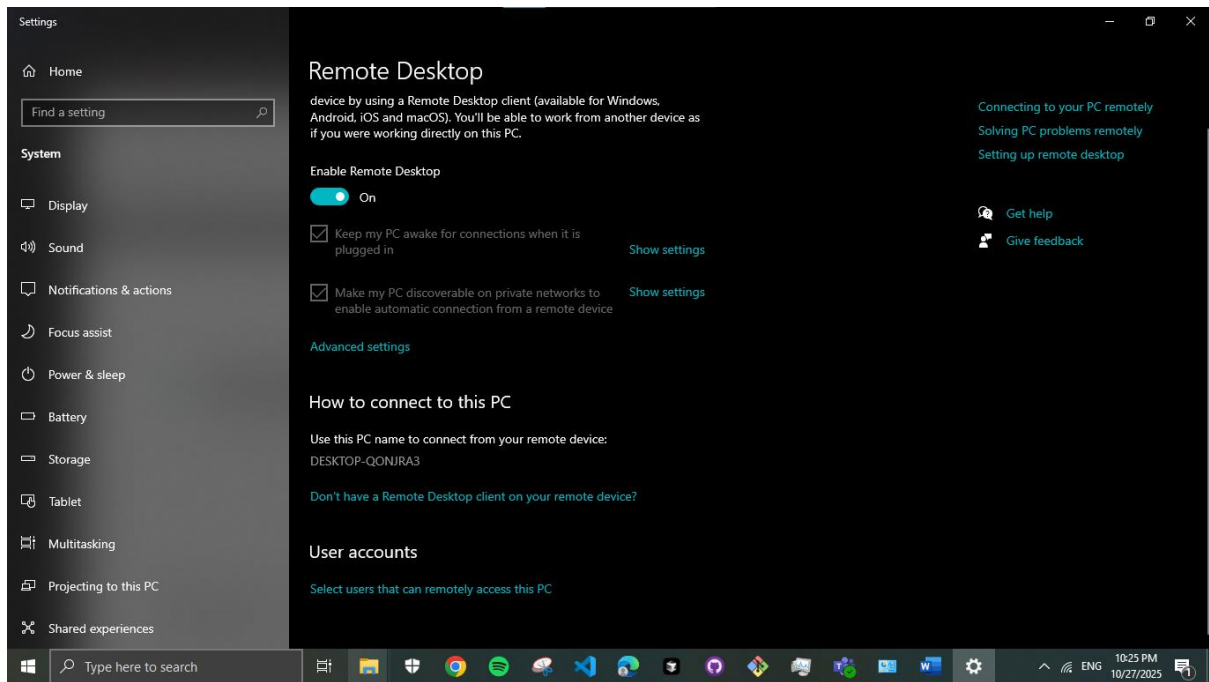
ID	/	Account	IP	Transfer	Progress	Speed
000008	/	mohamed	127.0.0.1			

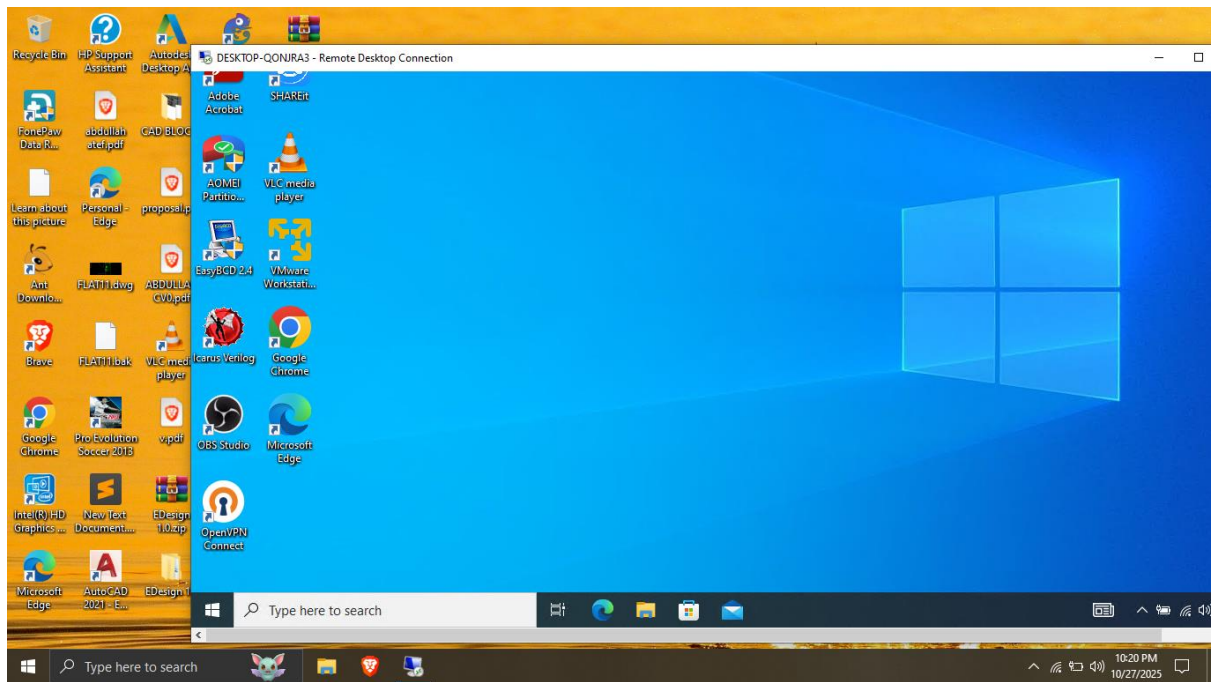
Ready 144 bytes received 0

Method 3 (using Third party tool)

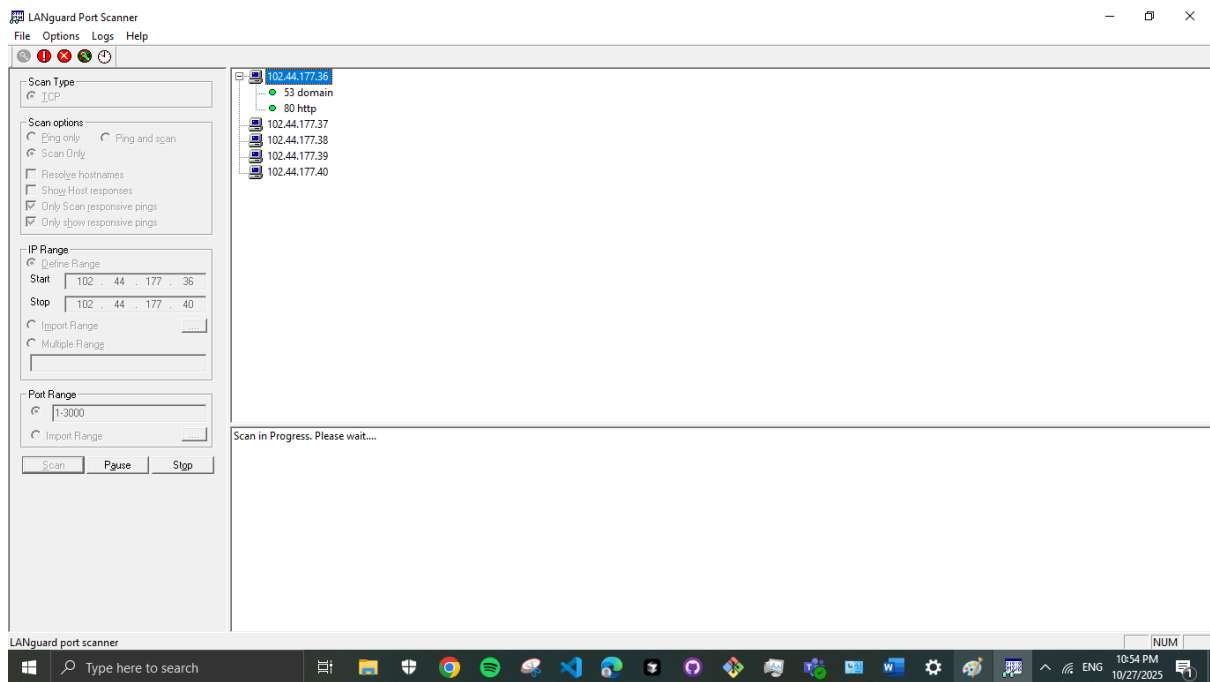


9. Remote Administration (using RDP)





10. LANguard port scanner



11. Advanced firewall options

