Exp 1

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Microsoft Windows [Version 10.0.26100.4770]
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C:\Users\Lenovo>ipconfig /all

Windows IP Configuration

   Host Name . . . . . . . . . . . . : LAPTOP-J2KE70G3
   Primary Dns Suffix  . . . . . . . :
   Node Type . . . . . . . . . . . . : Hybrid
   IP Routing Enabled. . . . . . . . : No
   WINS Proxy Enabled. . . . . . . . : No

Wireless LAN adapter Local Area Connection* 1:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :
   Description . . . . . . . . . . . : Microsoft Wi-Fi Direct Virtual Adapter
   Physical Address. . . . . . . . . : 02-45-E2-6C-46-03
   DHCP Enabled. . . . . . . . . . . : Yes
   Autoconfiguration Enabled . . . . : Yes

Wireless LAN adapter Local Area Connection* 2:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :
   Description . . . . . . . . . . . : Microsoft Wi-Fi Direct Virtual Adapter #2
   Physical Address. . . . . . . . . : 82-45-E2-6C-46-03
   DHCP Enabled. . . . . . . . . . . : Yes
   Autoconfiguration Enabled . . . . : Yes

Ethernet adapter VMware Network Adapter VMnet1:

   Connection-specific DNS Suffix  . :
   Description . . . . . . . . . . . : VMware Virtual Ethernet Adapter for VMnet1
   Physical Address. . . . . . . . . : 00-50-56-C0-00-01
   DHCP Enabled. . . . . . . . . . . : Yes
   Autoconfiguration Enabled . . . . : Yes
   Link-local IPv6 Address . . . . . : fe80::1c28:8db2:ec44:e347%19(Preferred)
   IPv4 Address. . . . . . . . . . . : 192.168.32.1(Preferred)
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
```

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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. . . . . . . . . . . : Yes
   Autoconfiguration Enabled . . . . : Yes
   Link-local IPv6 Address . . . . . : fe80::9921:5b2a:1887:2e85%12(Preferred)
   IPv4 Address. . . . . . . . . . . : 192.168.247.1(Preferred)
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Lease Obtained. . . . . . . . . . : 17 August 2025 20:19:46
   Lease Expires . . . . . . . . . . : 17 August 2025 20:49:45
   Default Gateway . . . . . . . . . :
   DHCP Server . . . . . . . . . . . : 192.168.247.254
   DHCPv6 IAID . . . . . . . . . . . : 637554774
   DHCPv6 Client DUID. . . . . . . . : 00-01-00-01-2E-36-1E-9A-00-45-E2-6C-46-03
   Primary WINS Server . . . . . . . : 192.168.247.2
   NetBIOS over Tcpip. . . . . . . . : Enabled

Wireless LAN adapter Wi-Fi:

   Connection-specific DNS Suffix  . :
   Description . . . . . . . . . . . : Realtek 8822CE Wireless LAN 802.11ac PCI-E NIC
   Physical Address. . . . . . . . . : 00-45-E2-6C-46-03
   DHCP Enabled. . . . . . . . . . . : Yes
   Autoconfiguration Enabled . . . . : Yes
   IPv6 Address. . . . . . . . . . . : 2401:4900:88e4:8e10:946a:dc69:1f38:da47(Preferred)
   Temporary IPv6 Address. . . . . . : 2401:4900:88e4:8e10:8854:4579:d1de:19ae(Preferred)
   Link-local IPv6 Address . . . . . : fe80::14a6:2b11:8d63:87aa%13(Preferred)
   IPv4 Address. . . . . . . . . . . : 192.168.1.7(Preferred)
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Lease Obtained. . . . . . . . . . : 14 August 2025 14:25:17
   Lease Expires . . . . . . . . . . : 18 August 2025 20:19:48
   Default Gateway . . . . . . . . . : fe80::1%13
                                       192.168.1.1
   DHCP Server . . . . . . . . . . . : 192.168.1.1
   DHCPv6 IAID . . . . . . . . . . . : 117458402
   DHCPv6 Client DUID. . . . . . . . : 00-01-00-01-2E-36-1E-9A-00-45-E2-6C-46-03
   DNS Servers . . . . . . . . . . . : fe80::1%13
                                       192.168.1.1
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   DNS Servers . . . . . . . . . . . : fe80::1%13
                                       192.168.1.1
                                       fe80::1%13
   NetBIOS over Tcpip. . . . . . . . : Enabled

Ethernet adapter Bluetooth Network Connection:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :
   Description . . . . . . . . . . . : Bluetooth Device (Personal Area Network)
   Physical Address. . . . . . . . . : 00-45-E2-6C-46-04
   DHCP Enabled. . . . . . . . . . . : Yes
   Autoconfiguration Enabled . . . . : Yes

C:\Users\Lenovo>ipconfig /release

Windows IP Configuration

No operation can be performed on Local Area Connection* 1 while it has its media disconnected.
No operation can be performed on Local Area Connection* 2 while it has its media disconnected.
No operation can be performed on Bluetooth Network Connection while it has its media disconnected.

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  . :

Ethernet adapter VMware Network Adapter VMnet1:

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::1c28:8db2:ec44:e347%19
   Default Gateway . . . . . . . . . :
```

```
No operation can be performed on Local Area Connection* 1 while it has its media disconnected.
No operation can be performed on Local Area Connection* 2 while it has its media disconnected.
No operation can be performed on Bluetooth Network Connection while it has its media disconnected.

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  . :

Ethernet adapter VMware Network Adapter VMnet1:

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::1c28:8db2:ec44:e347%19
   Default Gateway . . . . . . . . . :

Ethernet adapter VMware Network Adapter VMnet8:

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::9921:5b2a:1887:2e85%12
   Default Gateway . . . . . . . . . :

Wireless LAN adapter Wi-Fi:

   Connection-specific DNS Suffix  . :
   IPv6 Address. . . . . . . . . . . : 2401:4900:88e4:8e10:946a:dc69:1f38:da47
   Temporary IPv6 Address. . . . . . : 2401:4900:88e4:8e10:8854:4579:d1de:19ae
   Link-local IPv6 Address . . . . . : fe80::14a6:2b11:8d63:87aa%13
   Default Gateway . . . . . . . . . : fe80::1%13

Ethernet adapter Bluetooth Network Connection:

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

C:\Users\Lenovo>ipconfig /renew
```

Exp 1

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Windows IP Configuration

No operation can be performed on Local Area Connection* 1 while it has its media disconnected.
No operation can be performed on Local Area Connection* 2 while it has its media disconnected.
No operation can be performed on Bluetooth Network Connection while it has its media disconnected.

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  . :

Ethernet adapter VMware Network Adapter VMnet1:

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::1c28:8db2:ec44:e347%19
   IPv4 Address. . . . . . . . . . . : 192.168.32.1
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . :

Ethernet adapter VMware Network Adapter VMnet8:

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::9921:5b2a:1887:2e85%12
   IPv4 Address. . . . . . . . . . . : 192.168.247.1
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . :

Wireless LAN adapter Wi-Fi:

   Connection-specific DNS Suffix  . :
   IPv6 Address. . . . . . . . . . . : 2401:4900:88e4:8e10:946a:dc69:1f38:da47
   Temporary IPv6 Address. . . . . . : 2401:4900:88e4:8e10:8854:4579:d1de:19ae
   Link-local IPv6 Address . . . . . : fe80::14a6:2b11:8d63:87aa%13
   IPv4 Address. . . . . . . . . . . : 192.168.1.7
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . : fe80::1%13
```

```
Ethernet adapter Bluetooth Network Connection:

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

C:\Users\Lenovo>netstat -an

Active Connections

  Proto  Local Address          Foreign Address        State
  TCP    0.0.0.0:135            0.0.0.0:0              LISTENING
  TCP    0.0.0.0:445            0.0.0.0:0              LISTENING
  TCP    0.0.0.0:903            0.0.0.0:0              LISTENING
  TCP    0.0.0.0:913            0.0.0.0:0              LISTENING
  TCP    0.0.0.0:3306           0.0.0.0:0              LISTENING
  TCP    0.0.0.0:5040           0.0.0.0:0              LISTENING
  TCP    0.0.0.0:33060          0.0.0.0:0              LISTENING
  TCP    0.0.0.0:49664          0.0.0.0:0              LISTENING
  TCP    0.0.0.0:49665          0.0.0.0:0              LISTENING
  TCP    0.0.0.0:49666          0.0.0.0:0              LISTENING
  TCP    0.0.0.0:49667          0.0.0.0:0              LISTENING
  TCP    0.0.0.0:49668          0.0.0.0:0              LISTENING
  TCP    0.0.0.0:49674          0.0.0.0:0              LISTENING
  TCP    0.0.0.0:57621          0.0.0.0:0              LISTENING
  TCP    127.0.0.1:7768         0.0.0.0:0              LISTENING
  TCP    127.0.0.1:19293        0.0.0.0:0              LISTENING
  TCP    127.0.0.1:49670        127.0.0.1:49671        ESTABLISHED
  TCP    127.0.0.1:49671        127.0.0.1:49670        ESTABLISHED
  TCP    127.0.0.1:49672        127.0.0.1:49673        ESTABLISHED
  TCP    127.0.0.1:49673        127.0.0.1:49672        ESTABLISHED
  TCP    192.168.1.7:139        0.0.0.0:0              LISTENING
  TCP    192.168.1.7:64736      20.190.145.142:443     TIME_WAIT
  TCP    192.168.1.7:64995      20.60.236.193:443      TIME_WAIT
  TCP    192.168.1.7:64997      20.189.173.25:443      TIME_WAIT
  TCP    192.168.1.7:64998      20.189.173.25:443      TIME_WAIT
  TCP    192.168.1.7:65001      52.105.246.39:443      TIME_WAIT
  TCP    192.168.1.7:65013      20.189.173.6:443       TIME_WAIT
  TCP    192.168.1.7:65030      52.182.143.208:443     TIME_WAIT
  TCP    192.168.1.7:65034      20.43.150.84:443       TIME_WAIT
  TCP    192.168.1.7:65037      20.247.162.75:443      TIME_WAIT
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TCP    192.168.1.7:64997        20.189.173.25:443        TIME_WAIT
TCP    192.168.1.7:64998        20.189.173.25:443        TIME_WAIT
TCP    192.168.1.7:65001        52.105.246.39:443        TIME_WAIT
TCP    192.168.1.7:65013        20.189.173.6:443         TIME_WAIT
TCP    192.168.1.7:65030        52.182.143.208:443       TIME_WAIT
TCP    192.168.1.7:65034        20.43.150.84:443         TIME_WAIT
TCP    192.168.1.7:65037        20.247.162.75:443        TIME_WAIT
TCP    192.168.1.7:65089        20.189.173.25:443        TIME_WAIT
TCP    192.168.1.7:65102        20.190.145.142:443       TIME_WAIT
TCP    192.168.1.7:65131        40.99.34.146:443         TIME_WAIT
TCP    192.168.1.7:65132        40.79.173.40:443         TIME_WAIT
TCP    192.168.1.7:65168        192.168.1.3:8009         SYN_SENT
TCP    192.168.32.1:139         0.0.0.0:0                LISTENING
TCP    192.168.247.1:139        0.0.0.0:0                LISTENING
TCP    [::]:135                 [::]:0                   LISTENING
TCP    [::]:445                 [::]:0                   LISTENING
TCP    [::]:3306                [::]:0                   LISTENING
TCP    [::]:33060               [::]:0                   LISTENING
TCP    [::]:49664               [::]:0                   LISTENING
TCP    [::]:49665               [::]:0                   LISTENING
TCP    [::]:49666               [::]:0                   LISTENING
TCP    [::]:49667               [::]:0                   LISTENING
TCP    [::]:49668               [::]:0                   LISTENING
TCP    [::]:49674               [::]:0                   LISTENING
TCP    [::1]:24642              [::]:0                   LISTENING
TCP    [::1]:49669              [::]:0                   LISTENING
TCP    [2401:4900:88e4:8e10:8854:4579:d1de:19ae]:64795  [2a03:2880:f36a:121:face:b00c:0:7260]:443  TIME_WAIT
TCP    [2401:4900:88e4:8e10:8854:4579:d1de:19ae]:64859  [2603:1040:a06:6::1]:443   ESTABLISHED
TCP    [2401:4900:88e4:8e10:8854:4579:d1de:19ae]:64957  [2606:4700:9761:d8b7:9afd:83c:ccf5:ac50]:443  ESTABLISHED
TCP    [2401:4900:88e4:8e10:8854:4579:d1de:19ae]:65003  [2603:1046:c06:c17::2]:443  TIME_WAIT
TCP    [2401:4900:88e4:8e10:8854:4579:d1de:19ae]:65004  [2603:1046:c06:c17::2]:443  TIME_WAIT
TCP    [2401:4900:88e4:8e10:8854:4579:d1de:19ae]:65015  [2603:1040:603:c::e]:443  ESTABLISHED
TCP    [2401:4900:88e4:8e10:8854:4579:d1de:19ae]:65031  [2600:9000:2354:e200:11:f728:3040:93a1]:443  TIME_WAIT
TCP    [2401:4900:88e4:8e10:8854:4579:d1de:19ae]:65067  [2600:1901:1:304::]:443  ESTABLISHED
TCP    [2401:4900:88e4:8e10:8854:4579:d1de:19ae]:65078  [2600:1901:1:388::]:443  TIME_WAIT
TCP    [2401:4900:88e4:8e10:8854:4579:d1de:19ae]:65079  [2404:6800:4007:830::2002]:443  TIME_WAIT
TCP    [2401:4900:88e4:8e10:8854:4579:d1de:19ae]:65082  [2404:6800:4007:805::2001]:443  TIME_WAIT
TCP    [2401:4900:88e4:8e10:8854:4579:d1de:19ae]:65087  [2600:1901:1:7c5::]:443  TIME_WAIT
TCP    [2401:4900:88e4:8e10:8854:4579:d1de:19ae]:65090  [2404:6800:4007:830::2002]:443  TIME_WAIT
TCP    [2401:4900:88e4:8e10:8854:4579:d1de:19ae]:65096  [2600:1901:1:7c5::]:443  TIME_WAIT
TCP    [2401:4900:88e4:8e10:8854:4579:d1de:19ae]:65097  [2620:1ec:33::11]:443  TIME_WAIT
```

```
C:\Users\Lenovo>tracert www.google.com

Tracing route to www.google.com [2404:6800:4007:82f::2004]
over a maximum of 30 hops:

  1     3 ms     3 ms     3 ms  2401:4900:88e4:8e10::1
  2     *        *        *     Request timed out.
  3     *        *        *     Request timed out.
  4    12 ms     6 ms     5 ms  2404:a800:3a00:1::9e5
  5    17 ms     9 ms   184 ms  2404:a800::92
  6    14 ms     8 ms    18 ms  2404:6800:8202:140::1
  7     6 ms     8 ms     5 ms  2404:6800:8202:140::1
  8    10 ms    11 ms     9 ms  2001:4860:0:1::5656
  9     *       17 ms     6 ms  2001:4860:0:1::564f
 10    14 ms     6 ms    21 ms  pnmaaa-be-in-x04.1e100.net [2404:6800:4007:82f::2004]

Trace complete.

C:\Users\Lenovo>ping www.google.com

Pinging www.google.com [2404:6800:4007:82e::2004] with 32 bytes of data:
Reply from 2404:6800:4007:82e::2004: time=13ms
Reply from 2404:6800:4007:82e::2004: time=16ms
Reply from 2404:6800:4007:82e::2004: time=15ms
Reply from 2404:6800:4007:82e::2004: time=15ms

Ping statistics for 2404:6800:4007:82e::2004:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 13ms, Maximum = 16ms, Average = 14ms

C:\Users\Lenovo>
```