

Question-7:

How to check your default gateway is reachable or not and understand about default gateway

steps to check whether the default gateway is reachable or not

- You can use the "ping" command in your command prompt, typing in the IP address of your default gateway
- If you receive a response, it means your gateway is reachable

What is Default gateway:

A "default gateway" is essentially the address of your router, which acts as the intermediary between your local network and the wider internet,

directing traffic to the appropriate destination when you try to access a website outside your network.

```
C:\WINDOWS\system32\cmd. x + v
Microsoft Windows [Version 10.0.26100.3194]
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C:\Users\Manoj>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet 2:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::a5f:c9be:7a2:f10e%7
    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  . : 
    IPv6 Address. . . . . : 2409:408d:4e9a:c2af:c078:f8a8:93d9:18df
    Temporary IPv6 Address. . . . . : 2409:408d:4e9a:c2af:c0f:5289:495e:656b
    Link-local IPv6 Address . . . . . : fe80::71b9:429:dd22:4e79%16
    IPv4 Address. . . . . : 192.168.76.151
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : fe80::802f:59ff:febe:9865%16
                                192.168.76.173
```

Using the ping command with the ip(192.168.56.1)

```
C:\Users\Manoj>ping 192.168.56.1

Pinging 192.168.56.1 with 32 bytes of data:
Reply from 192.168.56.1: bytes=32 time<1ms TTL=128
Reply from 192.168.56.1: bytes=32 time<1ms TTL=128
Reply from 192.168.56.1: bytes=32 time<1ms TTL=128
Reply from 192.168.56.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.56.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Now it is found that the default gateway is reachable