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EXERCISE 15

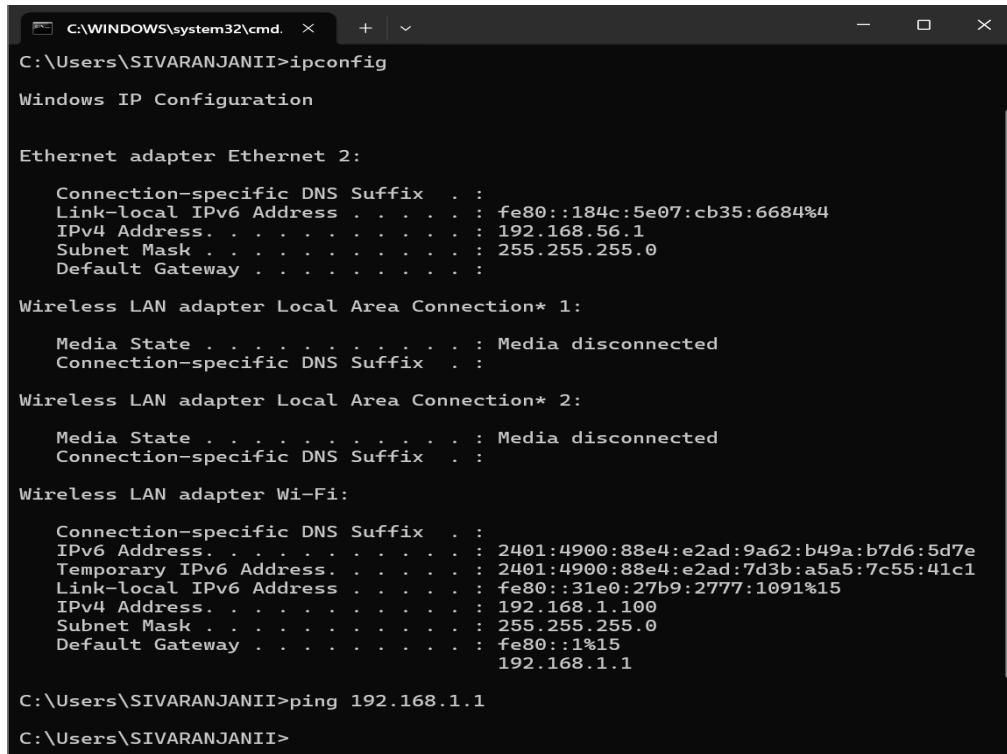
LEARNING AND ASSIGNMENT OF IP ADDRESS MANUALLY TO COMPUTERS

AIM:

Learn to assign fixed IP addresses manually on a LAN, understand IP address basics, and test network connectivity.

ALGORITHM:

1. Open network adapter settings on the computer.
2. Choose Internet Protocol Version 4 (TCP/IPv4) properties.
3. Select “Use the following IP address.”
4. Enter a unique IP address, subnet mask, default gateway, and DNS servers.
5. Save settings.
6. Repeat on other computers with different IP’s in the same subnet.
7. Test connectivity by pinging between computers.



The screenshot shows a Windows Command Prompt window titled 'cmd' with the path 'C:\WINDOWS\system32\cmd'. The command 'ipconfig' is run, displaying the Windows IP Configuration. It lists three network adapters: Ethernet adapter Ethernet 2, Wireless LAN adapter Local Area Connection* 1, and Wireless LAN adapter Local Area Connection* 2. The Ethernet adapter shows a connection-specific DNS suffix, a link-local IPv6 address, and an IPv4 address of 192.168.56.1 with a subnet mask of 255.255.255.0. The other two adapters show a media state of 'Media disconnected' and a connection-specific DNS suffix. The final command shown is 'ping 192.168.1.1'.

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C:\WINDOWS\system32\cmd. x + v
C:\Users\SIVARANJANII>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet 2:

  Connection-specific DNS Suffix . . . .
  Link-local IPv6 Address . . . . . : fe80::184c:5e07:cb35:6684%4
  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 . . . . . : 2401:4900:88e4:e2ad:9a62:b49a:b7d6:5d7e
  Temporary IPv6 Address. . . . . : 2401:4900:88e4:e2ad:7d3b:a5a5:7c55:41c1
  Link-local IPv6 Address . . . . . : fe80::31e0:27b9:2777:1091%15
  IPv4 Address. . . . . : 192.168.1.100
  Subnet Mask . . . . . : 255.255.255.0
  Default Gateway . . . . . : fe80::1%15
                                192.168.1.1

C:\Users\SIVARANJANII>ping 192.168.1.1

C:\Users\SIVARANJANII>
```

RESULT:

Manually assigned IP addresses allow reliable communication on the LAN. Successful connectivity tests (e.g., ping) confirm correct configuration. This method provides control over network addressing rather than dynamic assignment.