

Assignment 5

Task 1: Check IP Address Assignment

- Q - Verify if your device has been assigned an IP address and note down the IP address.
- Answer -

- Command Used - `ipconfig`

Wireless LAN adapter WiFi:

```
Connection-specific DNS Suffix  . :  
IPv6 Address. . . . . : 2401:4900:8820:fd02:d8a6:eec1:ad75:7dd9  
Temporary IPv6 Address. . . . . : 2401:4900:8820:fd02:b1dd:f9dd:763:7f23  
Link-local IPv6 Address . . . . . : fe80::3a6e:f93b:667d:843a%24  
IPv4 Address. . . . . : 192.168.1.3  
Subnet Mask . . . . . : 255.255.255.0  
Default Gateway . . . . . : fe80::1%24  
                             192.168.1.1
```

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- My Private IPv4 address - 192.168.1.3

Task 2: Verify Gateway Accessibility

- Q - If an IP address is assigned, identify the gateway address and check if you can ping the gateway.
- Answer -

- Command used - `ipconfig`, `ping 192.168.1.1`
- Gateway Address - 192.168.1.1
- Yes we can ping gateway

```
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=4ms TTL=64  
Reply from 192.168.1.1: bytes=32 time=5ms 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 = 1ms, Maximum = 5ms, Average = 2ms
```

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Task 3: Check DNS Server Assignment

- Q - Identify the DNS server assigned to your device.
- Answer -

- Command used - `nslookup`
- Primary Default DNS server Address - 192.168.1.1

```
Default Server: local.airtelfiber.com
Address: 192.168.1.1
```

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Task 4: Ping the DNS Server

- Q - Attempt to ping the DNS server to verify its accessibility.
- Answer -
 - o Command used - `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=4ms TTL=64
Reply from 192.168.1.1: bytes=32 time=5ms 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 = 1ms, Maximum = 5ms, Average = 2ms
```

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Task 5: Perform an NSLookup

- Q - Use the NSLookup tool to resolve the domain name `www.purplesynapz.com` and document the IP address returned.
- Answer -
 - o Command used - `nslookup www.purplesynapz.com`

```
Server: local.airtelfiber.com
Address: 192.168.1.1

Non-authoritative answer:
Name: www.purplesynapz.com
Addresses: 2606:4700:3030::6815:2001
           2606:4700:3030::6815:1001
           2606:4700:3030::6815:3001
           2606:4700:3030::6815:7001
           2606:4700:3030::6815:5001
           2606:4700:3030::6815:4001
           2606:4700:3030::6815:6001
           104.21.80.1
           104.21.16.1
           104.21.64.1
           104.21.48.1
           104.21.96.1
           104.21.112.1
           104.21.32.1
```

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Task 6: Ping the Resolved IP Address

- Q - Using the IP address obtained from the NSLookup, attempt to ping the IP address.
- Answer -

- Command used - `ping 104.21.80.1`

```
Pinging 104.21.80.1 with 32 bytes of data:
Reply from 104.21.80.1: bytes=32 time=123ms TTL=58
Reply from 104.21.80.1: bytes=32 time=120ms TTL=58
Reply from 104.21.80.1: bytes=32 time=123ms TTL=58
Reply from 104.21.80.1: bytes=32 time=117ms TTL=58

Ping statistics for 104.21.80.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 117ms, Maximum = 123ms, Average = 120ms
```

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Task 7: Telnet to Port 80

- Q - Attempt to establish a Telnet connection to port 80 for `www.purplesynapz.com`. If the Telnet utility is not installed on your machine, install it and then perform the Telnet test.
- Answer -
 - Command used - `telnet www.purplesynapz.com 80`
 - After the connection attempt, the connection is refused from the server.