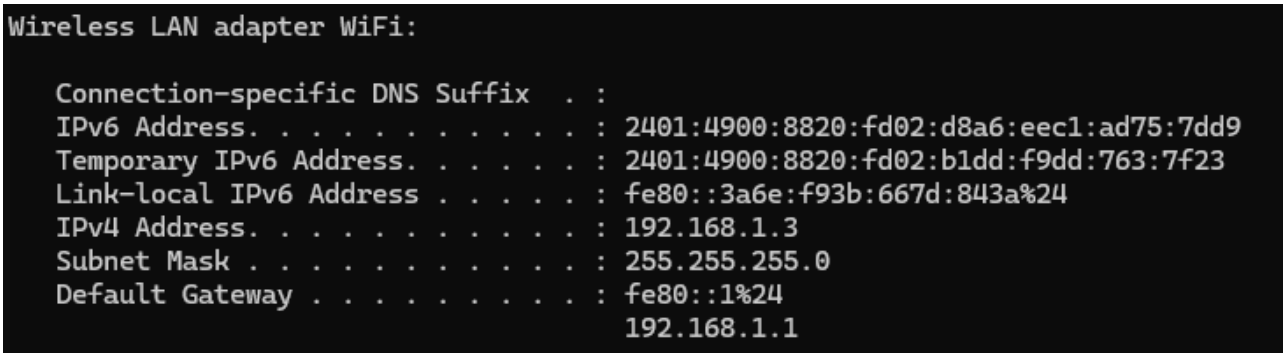
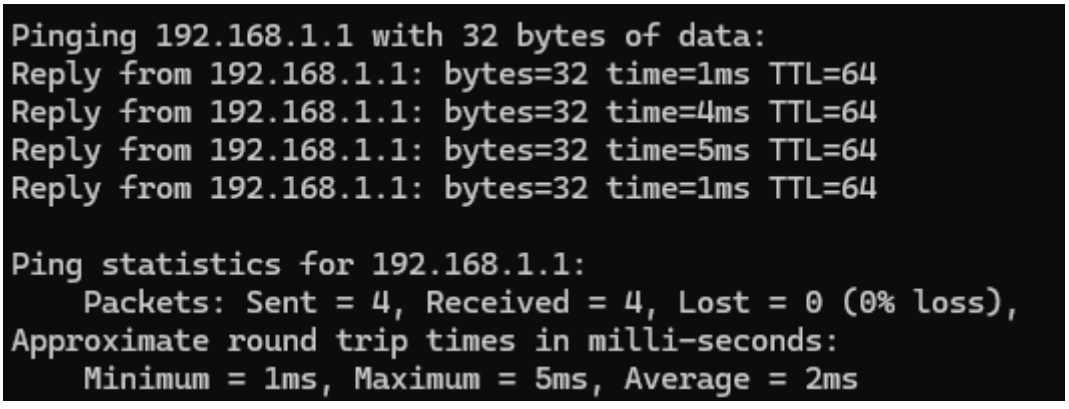
Assignment 5

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`
  - 

  - 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
  - 

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
  ```

Task 4: Ping the DNS Server

- Q - Attempt to ping the DNS server to verify its accessibility.
- Answer -
  - 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
    ```

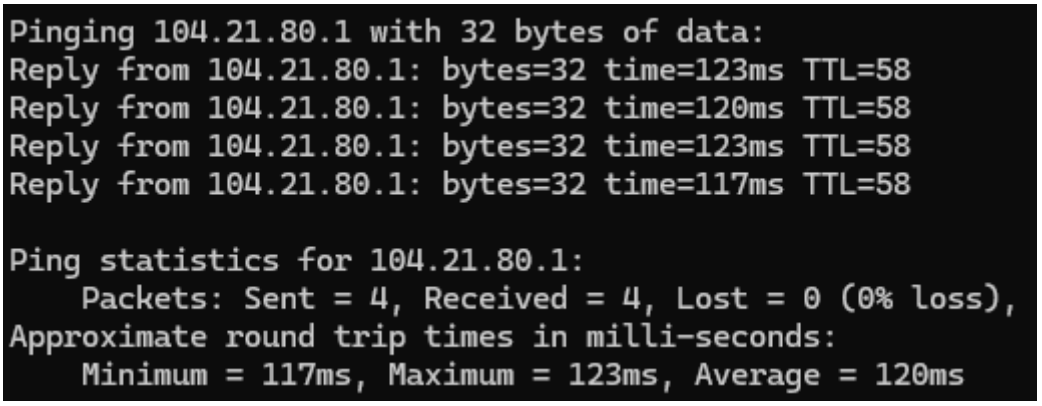
Task 5: Perform an NSLookup

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

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`
- 

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.