Name: Aswath S

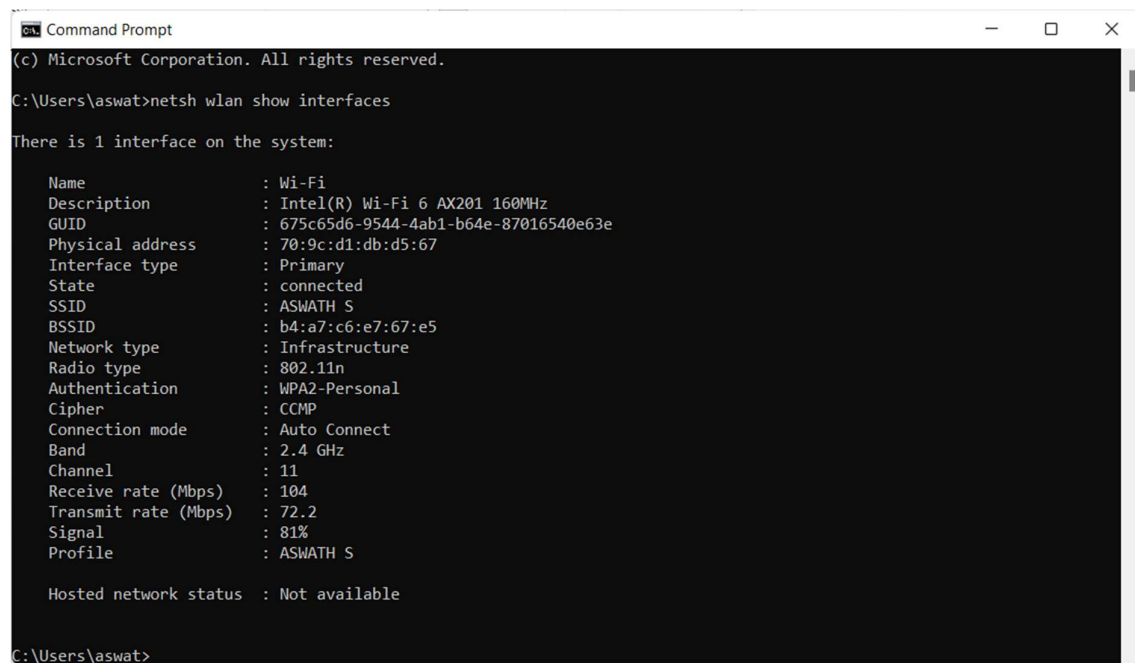**University: VIT Vellore**

Reg.No: 21BEC2188

Question-2:

Can you share the Wi-Fi devices that you are using day to day life, share that device's wireless capability/properties after connecting to network. Match your device to corresponding Wi-Fi Generations based on properties.


```
Command Prompt                                                    —    □    ×
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C:\Users\aswat>netsh wlan show interfaces

There is 1 interface on the system:

    Name                   : Wi-Fi
    Description            : Intel(R) Wi-Fi 6 AX201 160MHz
    GUID                   : 675c65d6-9544-4ab1-b64e-87016540e63e
    Physical address       : 70:9c:d1:db:d5:67
    Interface type         : Primary
    State                  : connected
    SSID                   : ASWATH S
    BSSID                  : b4:a7:c6:e7:67:e5
    Network type           : Infrastructure
    Radio type             : 802.11n
    Authentication         : WPA2-Personal
    Cipher                 : CCMP
    Connection mode        : Auto Connect
    Band                   : 2.4 GHz
    Channel                : 11
    Receive rate (Mbps)    : 104
    Transmit rate (Mbps)   : 72.2
    Signal                 : 81%
    Profile                : ASWATH S

    Hosted network status  : Not available

C:\Users\aswat>
```

Property	Description
Name: Wi-Fi	The name of the network adapter (Intel Wi-Fi 6 AX201).
Description: Intel(R) Wi-Fi 6 AX201 160MHz	Your network adapter supports **Wi-Fi 6 (802.11ax)** with a 160 MHz channel width, but you're currently connected using an older standard (**802.11n**).
State: Connected	Your device is actively connected to a Wi-Fi network.
SSID: ASWATH S	The name of the Wi-Fi network (SSID) you're connected to.
BSSID: b4:a7:c6:e7:67:e5	The MAC address of your router/access point.
Network Type: Infrastructure	This means you are connected to a **standard Wi-Fi router** (not ad-hoc or direct device-to-device).

Property	Description
Radio Type: 802.11n	Your connection is currently using **Wi-Fi 4 (802.11n)**, even though your adapter supports **Wi-Fi 6 (802.11ax)**.
Authentication: WPA2-Personal	Your Wi-Fi is secured using **WPA2**, a strong encryption protocol.
Cipher: CCMP	**AES-based encryption** is being used, which is more secure than TKIP.
Connection Mode: Auto Connect	Your device automatically connects to this network when available.
Band: 2.4 GHz	You are connected to the **2.4 GHz band**, which has better range but lower speed than 5 GHz.
Channel: 11	Your router is broadcasting on **Wi-Fi Channel 11** (standard for 2.4 GHz).
Receive Rate: 104 Mbps	Your device is **receiving data** at a **maximum speed of 104 Mbps**.
Transmit Rate: 72.2 Mbps	Your device is **sending data** at a **maximum speed of 72.2 Mbps**.
Signal: 81%	Your Wi-Fi **signal strength is strong** (above 75% is good).
Profile: ASWATH S	The saved Wi-Fi profile on your system.

For iphone 13:

Wi-Fi Standard: 802.11ax (**Wi-Fi 6**)

Maximum Speed: 9.6 Gbps (theoretical)

Frequency Bands: 2.4 GHz & 5 GHz

MIMO Support: 2x2 MIMO (Multiple-Input Multiple-Output)

Security: WPA3 Compatible