Windows commands

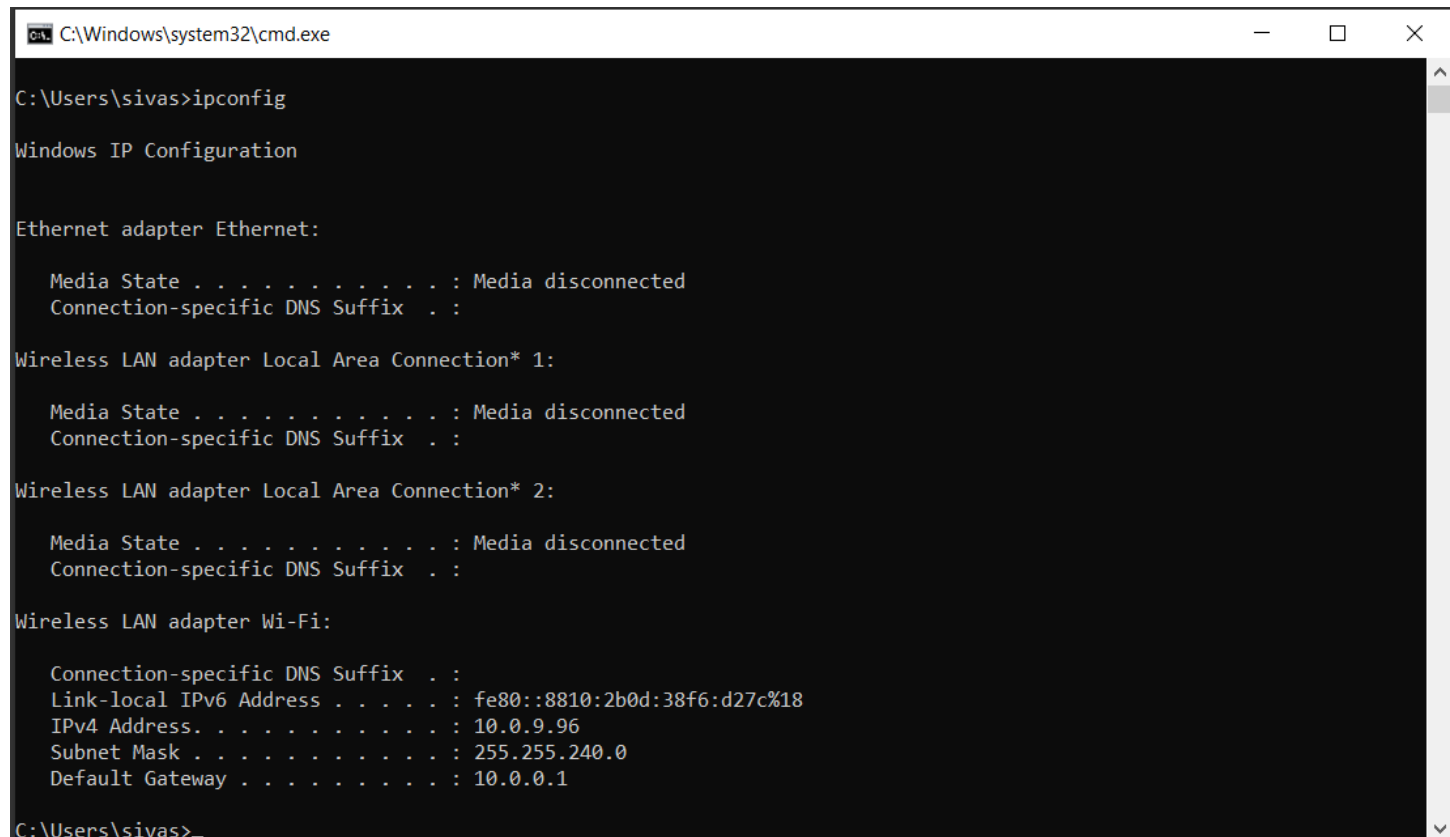## 1. Ipconfig

Syntax: ipconfig

Function: cmd to show the NIC ip config and basic details.

More details: Refer Microsoft Learn

Example:

```
C:\Windows\system32\cmd.exe                                    —   □   ✕

C:\Users\sivas>ipconfig

Windows IP Configuration


Ethernet adapter Ethernet:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

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  . :
   Link-local IPv6 Address . . . . . : fe80::8810:2b0d:38f6:d27c%18
   IPv4 Address. . . . . . . . . . . : 10.0.9.96
   Subnet Mask . . . . . . . . . . . : 255.255.240.0
   Default Gateway . . . . . . . . . : 10.0.0.1

C:\Users\sivas>_
```

1.1 ipconfig /all

Syntax: ipconfig /all

Function: cmd to show the all NIC details.

1.2 ipconfig /flushdns

Syntax: ipconfig /flushdns
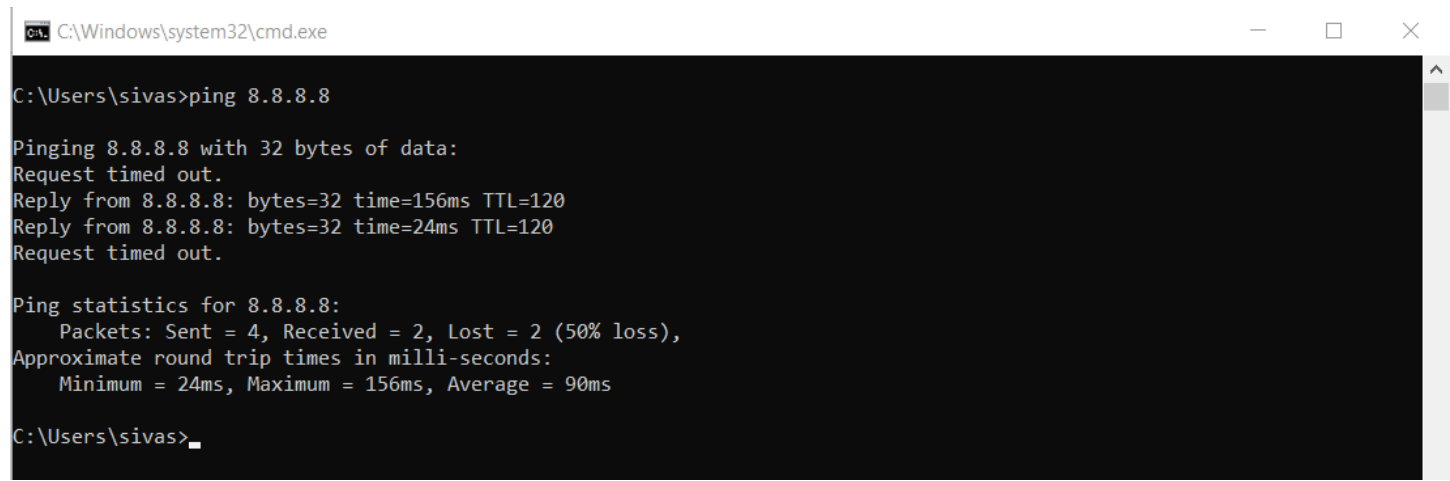
Function: cmd to clear the DNS cache.

2. Ping

Syntax: ping [ip address]

Function: cmd to check weather the destination computer is reachable or not.
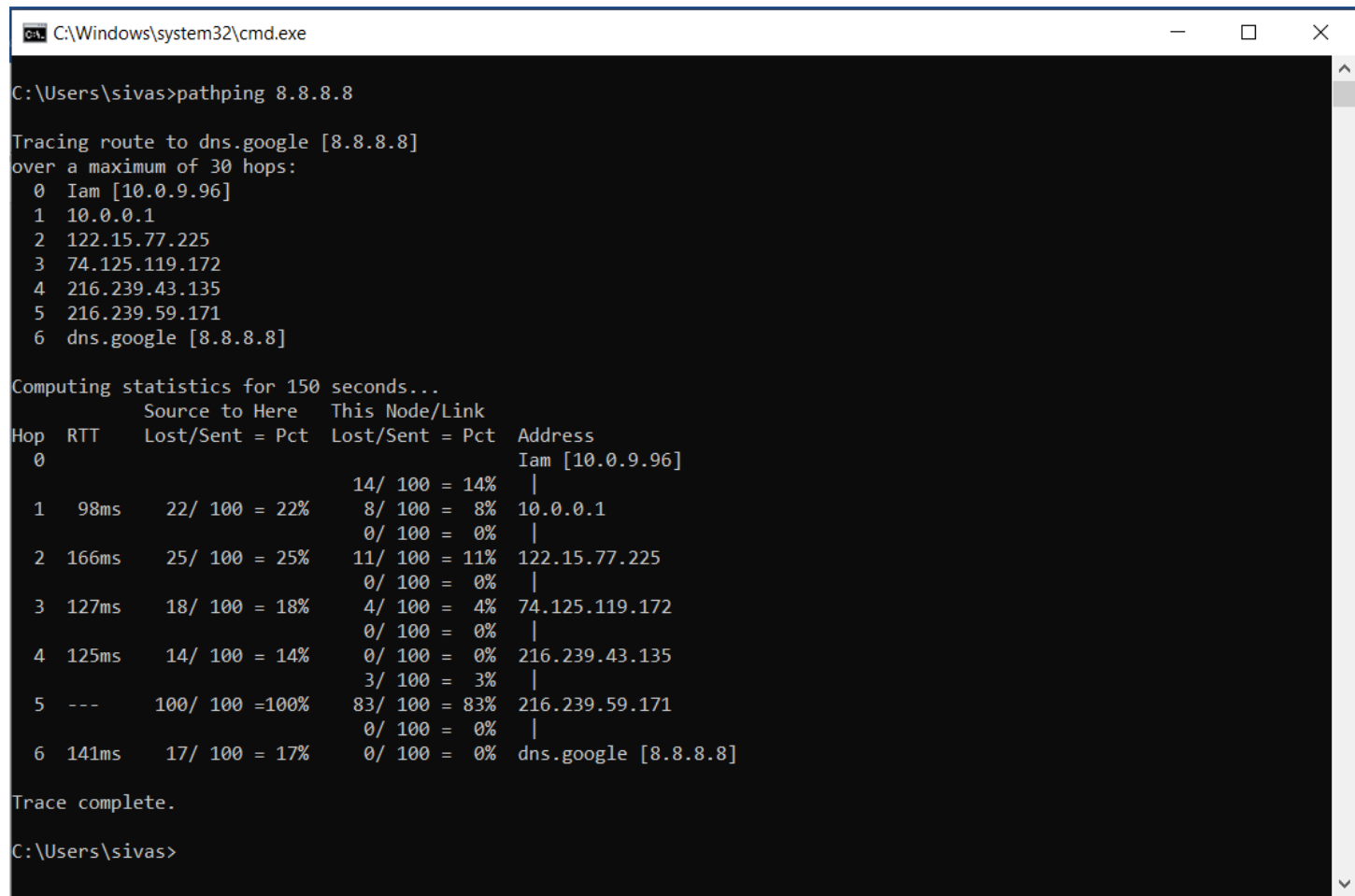
More details: Refer Microsoft Learn

Example:

3. Path ping

Syntax: pathping [ip address]

Function: cmd to check the packet loss and no of hops between source and destination.

More details: Refer Microsoft Learn

Example:

```
C:\Windows\system32\cmd.exe                                          —   □   ×

C:\Users\sivas>pathping 8.8.8.8

Tracing route to dns.google [8.8.8.8]
over a maximum of 30 hops:
  0  Iam [10.0.9.96]
  1  10.0.0.1
  2  122.15.77.225
  3  74.125.119.172
  4  216.239.43.135
  5  216.239.59.171
  6  dns.google [8.8.8.8]

Computing statistics for 150 seconds...
            Source to Here   This Node/Link
Hop  RTT     Lost/Sent = Pct  Lost/Sent = Pct  Address
  0                                            Iam [10.0.9.96]
                               14/ 100 = 14%   |
  1   98ms     22/ 100 = 22%    8/ 100 =  8%  10.0.0.1
                                0/ 100 =  0%   |
  2  166ms     25/ 100 = 25%   11/ 100 = 11%  122.15.77.225
                                0/ 100 =  0%   |
  3  127ms     18/ 100 = 18%    4/ 100 =  4%  74.125.119.172
                                0/ 100 =  0%   |
  4  125ms     14/ 100 = 14%    0/ 100 =  0%  216.239.43.135
                                3/ 100 =  3%   |
  5  ---       100/ 100 =100%   83/ 100 = 83%  216.239.59.171
                                0/ 100 =  0%   |
  6  141ms     17/ 100 = 17%    0/ 100 =  0%  dns.google [8.8.8.8]

Trace complete.

C:\Users\sivas>
```

4. Tracert

Syntax: tracert [ip address]

Function: cmd to check the hops and no of router between source and destination.

More details: Refer Microsoft Learn

Example:

```
C:\Windows\system32\cmd.exe                                            —    □    ×

C:\Users\sivas>tracert 8.8.8.8

Tracing route to dns.google [8.8.8.8]
over a maximum of 30 hops:

  1    158 ms      4 ms      5 ms  10.0.0.1
  2     47 ms    347 ms    138 ms  122.15.77.225
  3     38 ms      *         *     74.125.119.172
  4     94 ms    158 ms     29 ms  216.239.43.135
  5     33 ms     34 ms     59 ms  216.239.59.171
  6    245 ms    357 ms      *     dns.google [8.8.8.8]
  7    141 ms      *         *     dns.google [8.8.8.8]
  8      *         *        74 ms  dns.google [8.8.8.8]

Trace complete.

C:\Users\sivas>_
```

5. Nslookup

Syntax: nslookup

Syntax: nslookup [domain name]

Function: cmd to resolve the dns name to ip.

More details: Refer Microsoft Learn

Example:

```
C:\Windows\system32\cmd.exe - nslookup                                 —    □    ×

C:\Users\sivas>nslookup
Default Server:  dns.google
Address:  8.8.8.8

> google.com
Server:  dns.google
Address:  8.8.8.8

DNS request timed out.
    timeout was 2 seconds.
Name:    google.com
Address:  2404:6800:4007:804::200e

> _
```

6. Wifi Qrcode generator

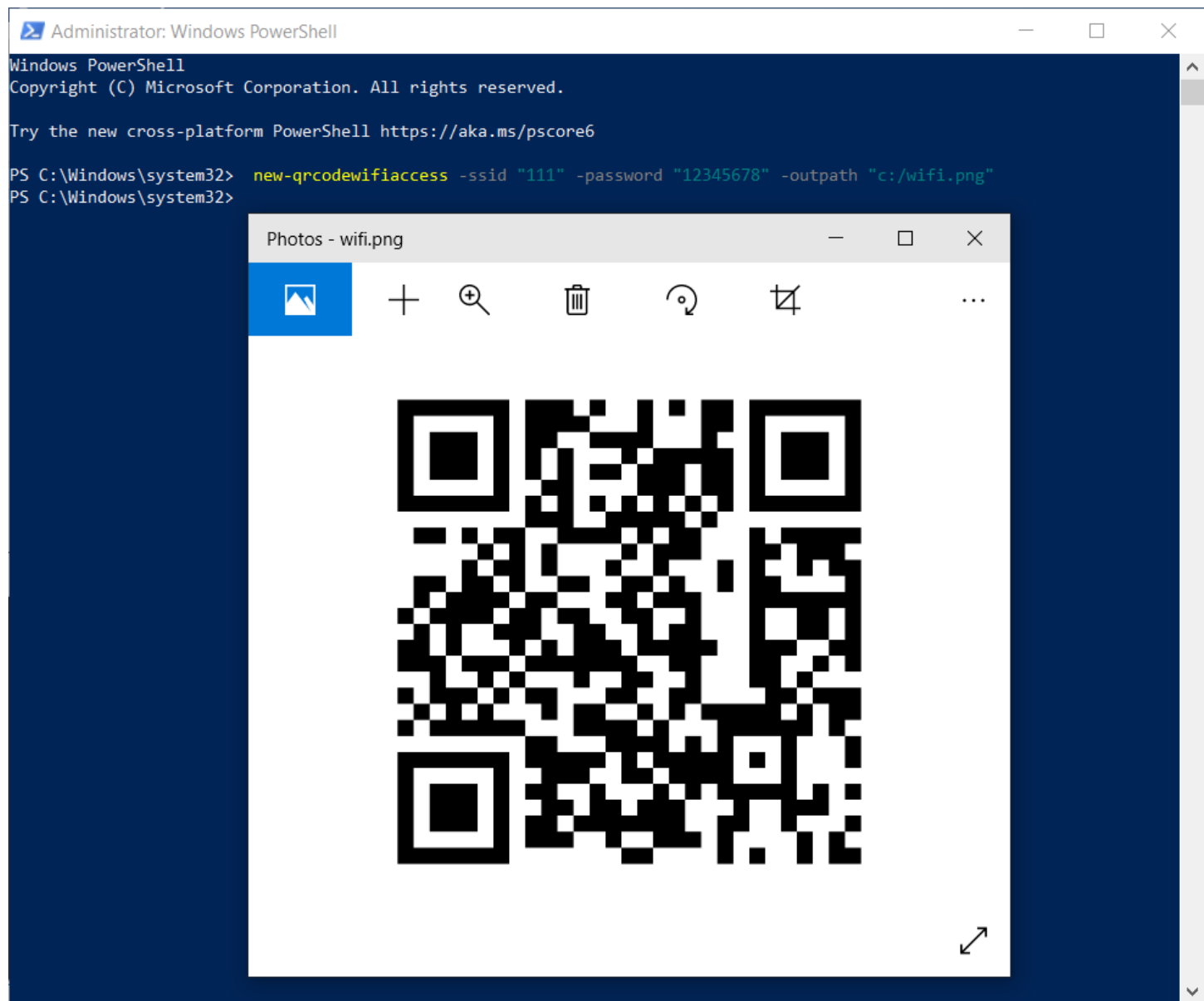**Syntax: new-qrcodewifiaccess -SSID "111" -Password "12345678" -outpath "C:/wifi.png"**

Function: cmd to genetrate wifi qrcode in powershell

Installation cmds: Install-Module -Name QRCodeGenerator

Import-Module QRCodeGenerator

More details: Refer Generate QR Code with PowerShell in Windows 10

Example:

7. Attrib Command

Syntax: attrib "folder_name" +s +h +r

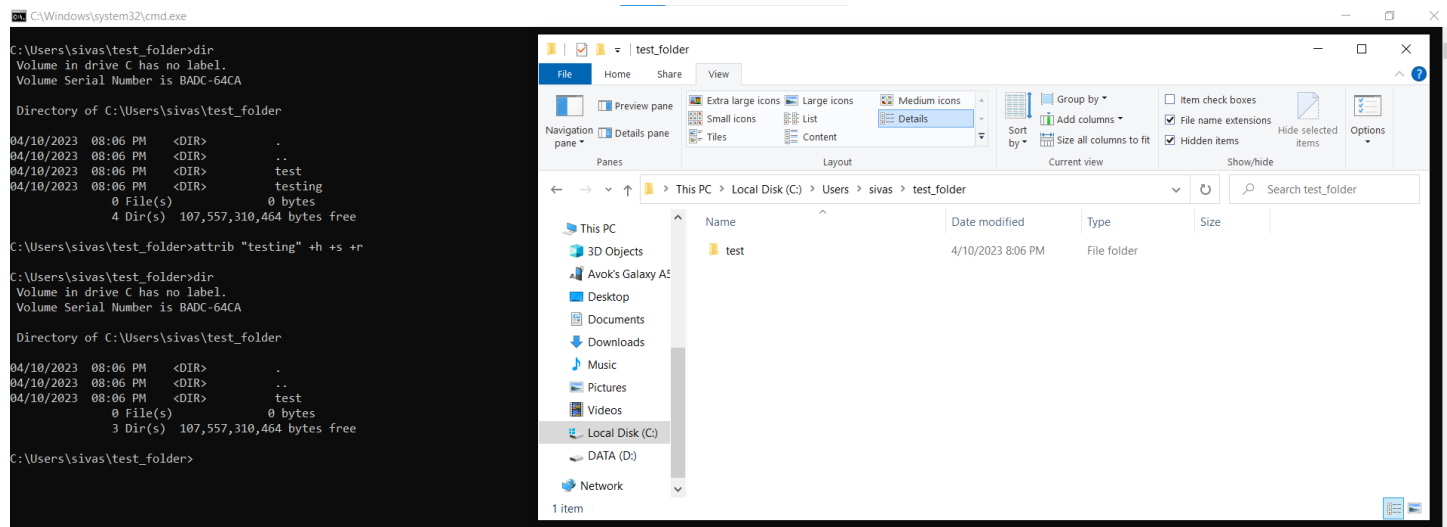**Function:** folder is hidden and isn't visible when we select to show all files and folders.

    s   System

    h   Hidden

    r   Read-only

Syntax: attrib "folder_name" -s -h -r

Function: folder is visible when we select to show all files and folders.

More details: Refer www.c-sharpcorner.com

Example:

8. Title

Syntax: title [string]

Function: To change the Command Prompt title.

More details: Refer Microsoft Learn

Example:

9. Prompt

Syntax: prompt [text]

Function: To change executing path name in command prompt.

More details: Refer Microsoft Learn
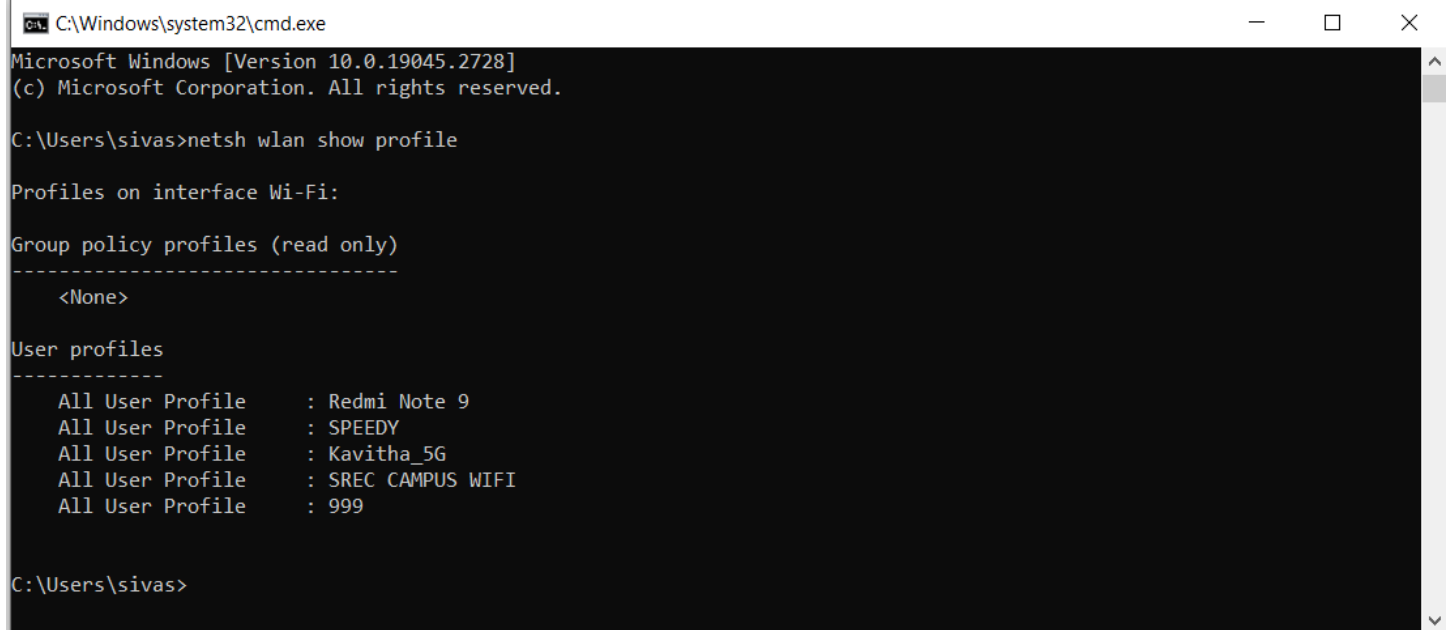
Example:

10. Netsh

Syntax: netsh wlan show profile

Function: To show a list of network names that we already connect to.

Syntax: netsh wlan show profile name= "Wi-Fi name" key=clear

Function: To show the password of the given wi-fi name

More details: Refer Microsoft Learn

Example:

```
C:\Windows\system32\cmd.exe                                              —    □    ✕

C:\Users\sivas>netsh wlan show profile "999" key=clear

Profile 999 on interface Wi-Fi:
=======================================================================

Applied: All User Profile

Profile information
-------------------
    Version             : 1
    Type                : Wireless LAN
    Name                : 999
    Control options     :
        Connection mode    : Connect automatically
        Network broadcast  : Connect only if this network is broadcasting
        AutoSwitch         : Do not switch to other networks
        MAC Randomization  : Enabled

Connectivity settings
---------------------
    Number of SSIDs     : 1
    SSID name           : "999"
    Network type        : Infrastructure
    Radio type          : [ Any Radio Type ]
    Vendor extension       : Not present

Security settings
-----------------
    Authentication      : WPA2-Personal
    Cipher              : CCMP
    Authentication      : WPA2-Personal
    Cipher              : GCMP
    Security key        : Present
    Key Content         : 12345678

Cost settings
-------------
    Cost                : Fixed
    Congested           : No
    Approaching Data Limit : No
    Over Data Limit     : No
    Roaming             : No
    Cost Source         : Operator


C:\Users\sivas>_
```
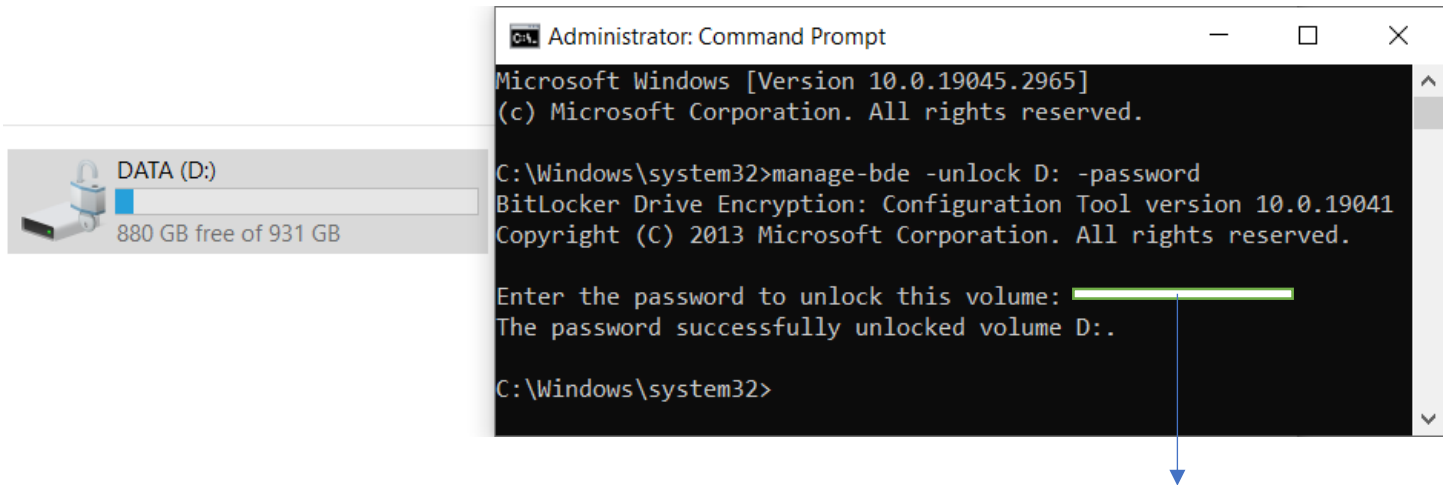
11. Manage-bde

Syntax: Manage-bde -unlock [drive letter]**: -password**

Function: run command prompt in Admin mode to unlock the bitlocker drive.
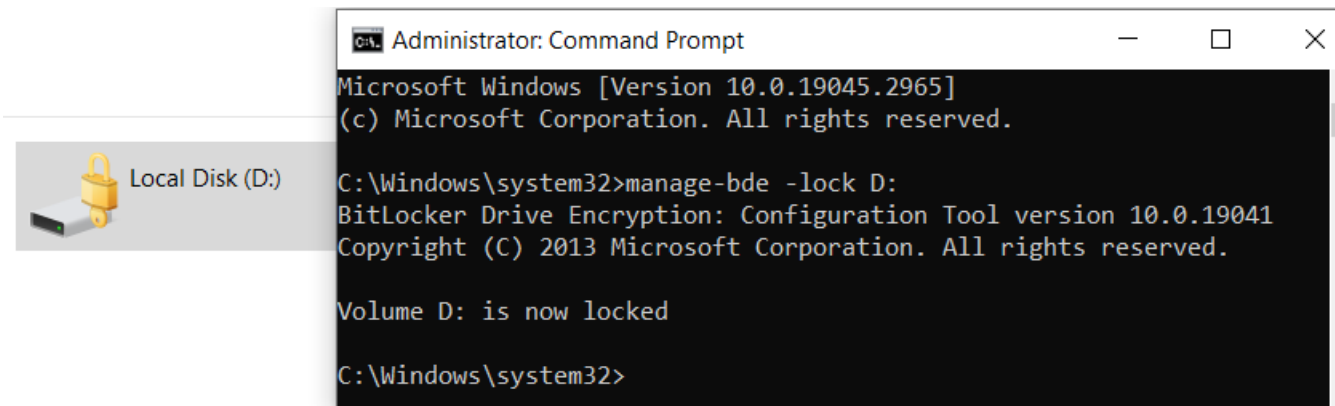
More details: Refer Microsoft Learn

Example:

Here enter the password of Bitlocker dirve.

Syntax: Manage-bde -lock [drive letter]**:**

Function: run command prompt in Admin mode to lock the bitlocker drive. If any application or file is opened in that drive location it will not lock.

More details: Refer Microsoft Learn

Example:

9

Syntax: Manage-bde -lock [drive letter]**: -forcedismount**

Function: run command prompt in Admin mode to lock the bitlocker drive. If any application or file is opened in that drive location then also it will lock the drive.

More details: Refer Microsoft Learn

Example: