

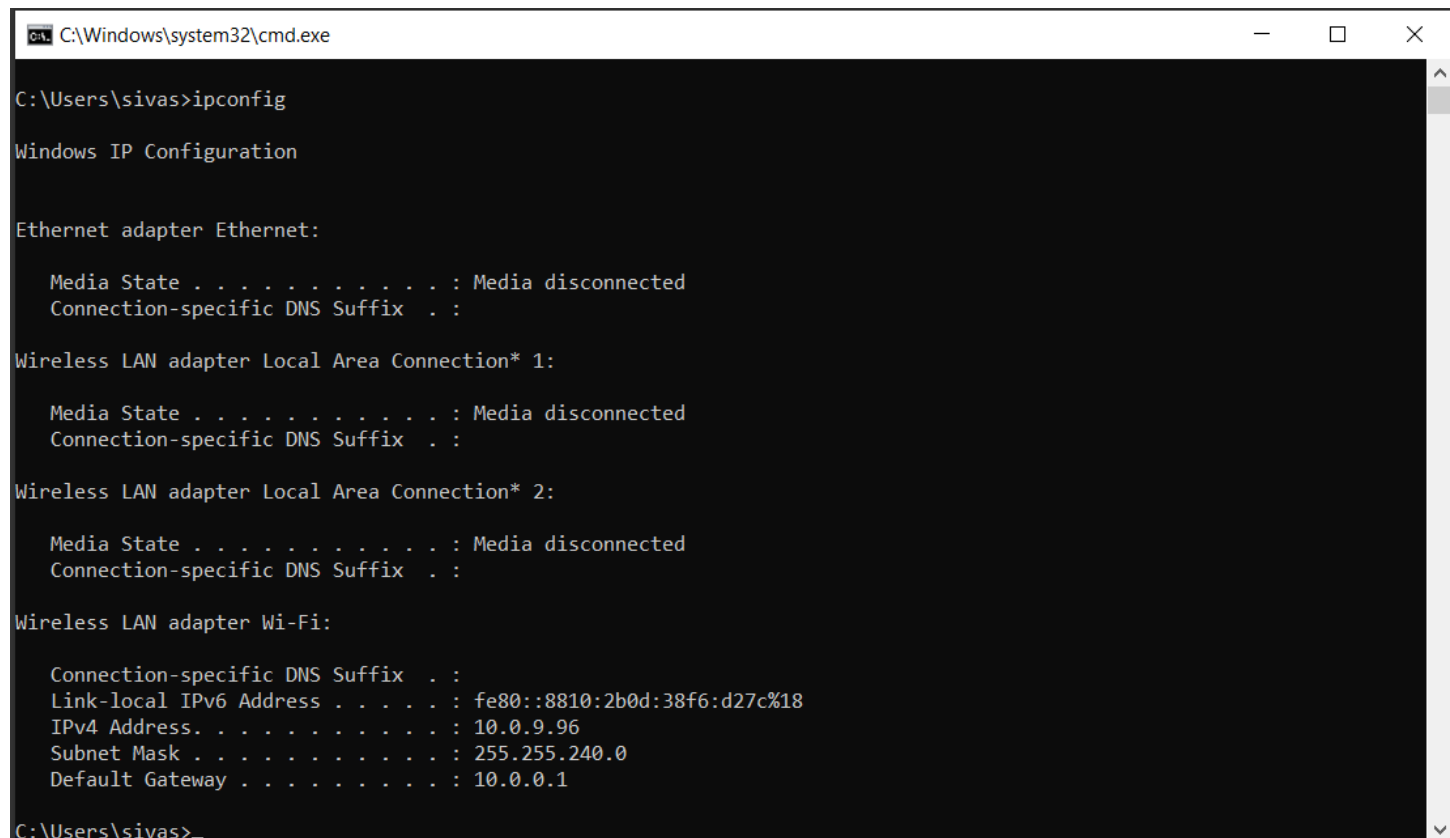
Windows commands

1. Ipconfig

Syntax: ipconfig

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

More details: [Refer Microsoft Learn](#)

Example:A screenshot of a Windows Command Prompt window. The title bar shows the path 'C:\Windows\system32\cmd.exe'. The command prompt shows the user 'sivas' at the 'C:\Users\sivas' directory. The command 'ipconfig' has been entered, and the output displays the IP configuration for various network adapters. The output shows that the Ethernet adapter is disconnected, while the Wireless LAN adapter 'Local Area Connection* 1' is also disconnected. The 'Local Area Connection* 2' is also disconnected. The 'Wi-Fi' adapter is connected and shows an IPv4 address of 10.0.9.96, a subnet mask of 255.255.240.0, and a default gateway of 10.0.0.1. The link-local IPv6 address is fe80::8810:2b0d:38f6:d27c%18.

```
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

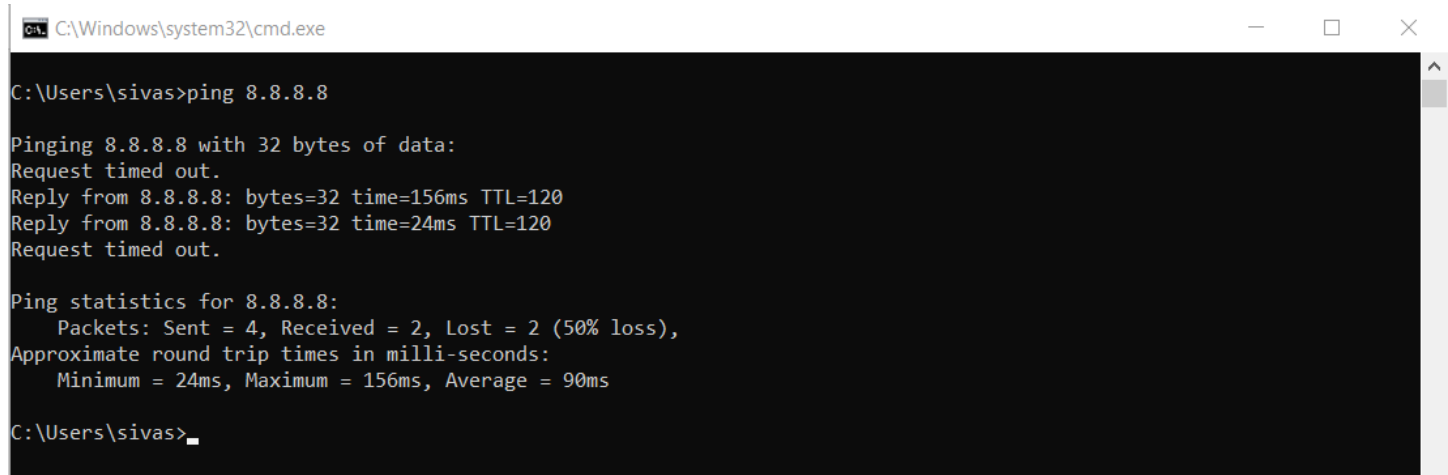
Ping:

Syntax: `ping <ip address>`

Function: cmd to check whether the destination computer is reachable or not.

More details: [Refer Microsoft Learn](#)

Example:



```

C:\Windows\system32\cmd.exe

C:\Users\sivas>ping 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:
Request timed out.
Reply from 8.8.8.8: bytes=32 time=156ms TTL=120
Reply from 8.8.8.8: bytes=32 time=24ms TTL=120
Request timed out.

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 2, Lost = 2 (50% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 24ms, Maximum = 156ms, Average = 90ms

C:\Users\sivas>

```

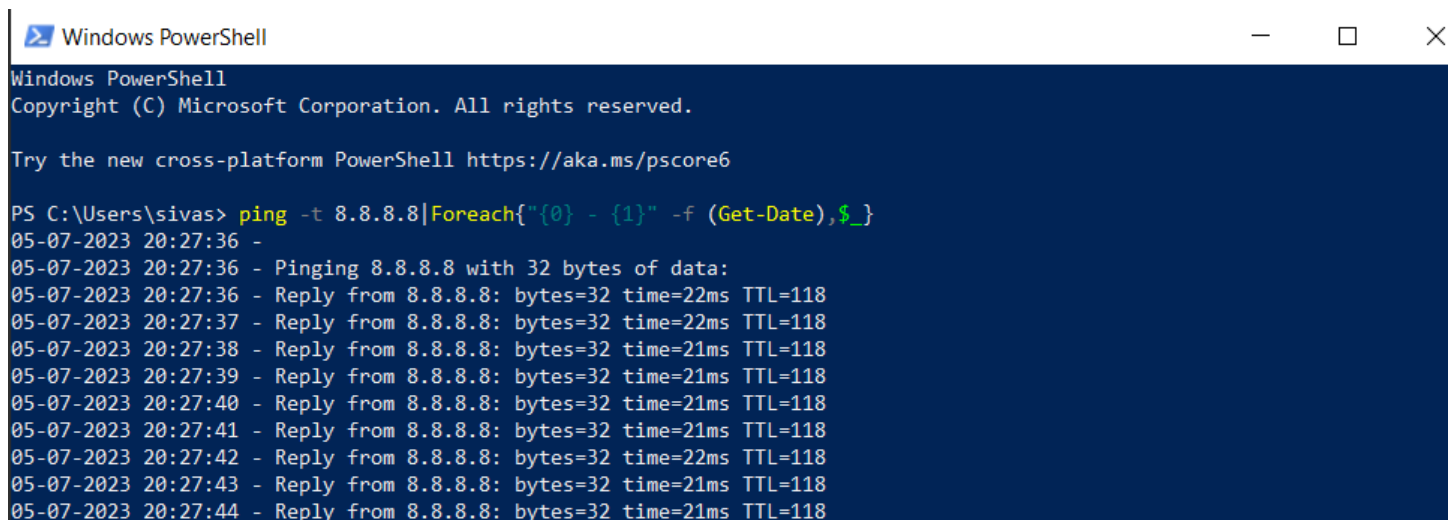
Ping with timestamp:

Syntax: `ping -t <ip address> | Foreach{"{0} - {1}" -f (Get-Date),$_}`

Function: it will work in PowerShell. Normal ping cmd show the reply details of the destination computer but cmd will show the reply with timestamp.

More details: [Refer Spiceworks](#)

Example:



```

Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\sivas> ping -t 8.8.8.8 | Foreach{"{0} - {1}" -f (Get-Date),$_}
05-07-2023 20:27:36 -
05-07-2023 20:27:36 - Pinging 8.8.8.8 with 32 bytes of data:
05-07-2023 20:27:36 - Reply from 8.8.8.8: bytes=32 time=22ms TTL=118
05-07-2023 20:27:37 - Reply from 8.8.8.8: bytes=32 time=22ms TTL=118
05-07-2023 20:27:38 - Reply from 8.8.8.8: bytes=32 time=21ms TTL=118
05-07-2023 20:27:39 - Reply from 8.8.8.8: bytes=32 time=21ms TTL=118
05-07-2023 20:27:40 - Reply from 8.8.8.8: bytes=32 time=21ms TTL=118
05-07-2023 20:27:41 - Reply from 8.8.8.8: bytes=32 time=21ms TTL=118
05-07-2023 20:27:42 - Reply from 8.8.8.8: bytes=32 time=22ms TTL=118
05-07-2023 20:27:43 - Reply from 8.8.8.8: bytes=32 time=21ms TTL=118
05-07-2023 20:27:44 - Reply from 8.8.8.8: bytes=32 time=21ms TTL=118

```

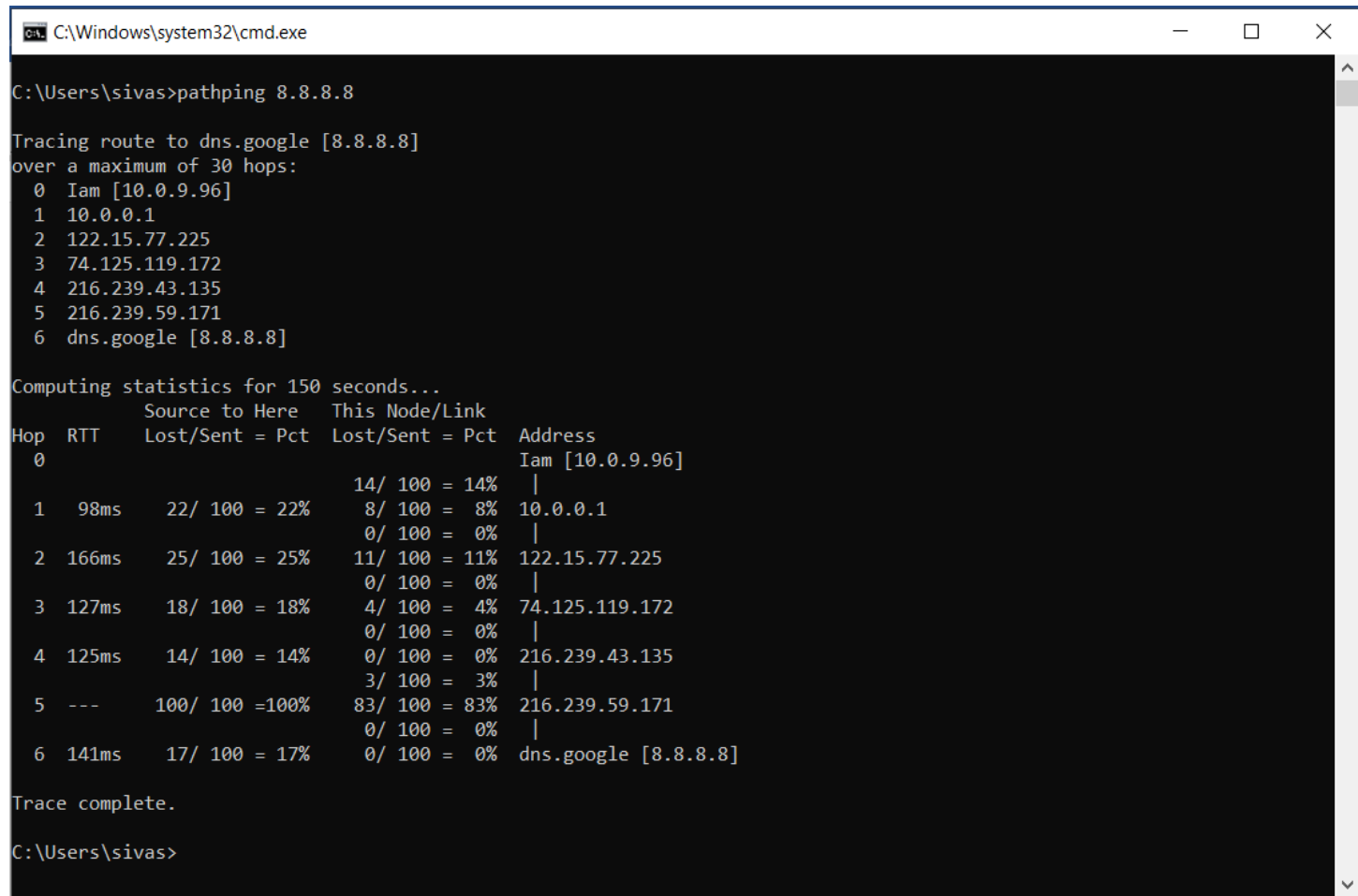
3. Path ping

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

Trace complete.

C:\Users\sivas>

```

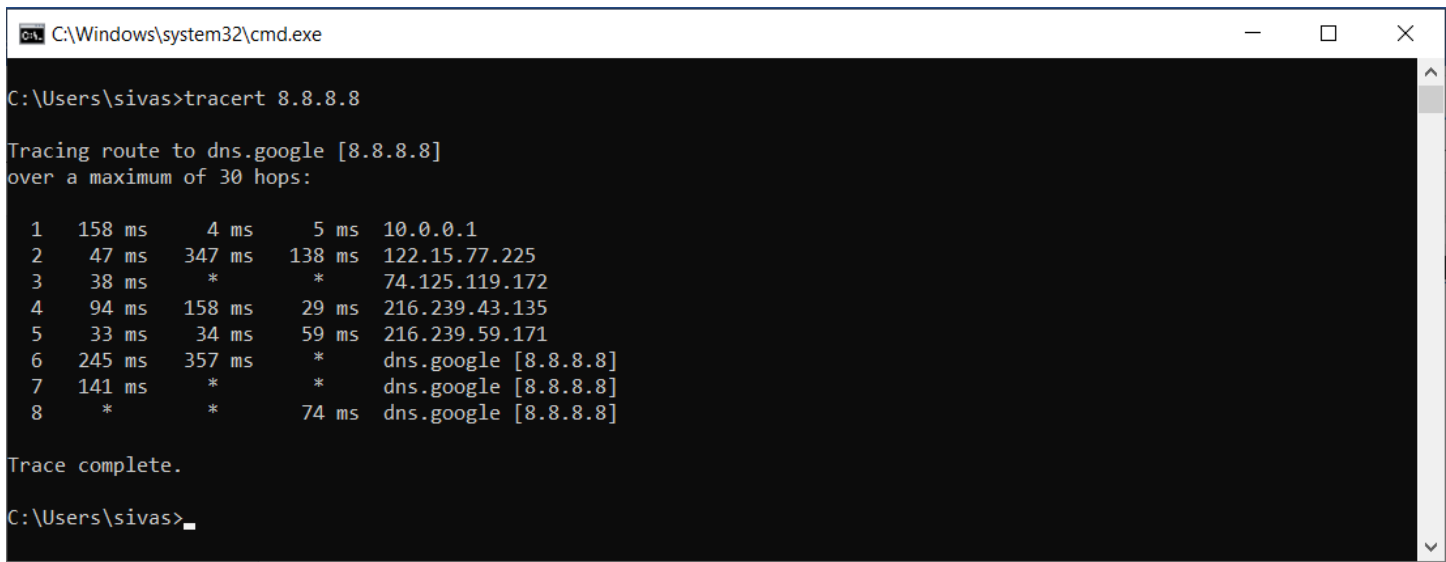
4. Tracert

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:

  0  158 ms    4 ms     5 ms  10.0.0.1
  1  47 ms    347 ms   138 ms 122.15.77.225
  2  38 ms     *        *     74.125.119.172
  3  94 ms    158 ms   29 ms  216.239.43.135
  4  33 ms    34 ms    59 ms  216.239.59.171
  5  245 ms   357 ms   *      dns.google [8.8.8.8]
  6  141 ms   *        *      dns.google [8.8.8.8]
  7   *      *        74 ms  dns.google [8.8.8.8]

Trace complete.

C:\Users\sivas>

```

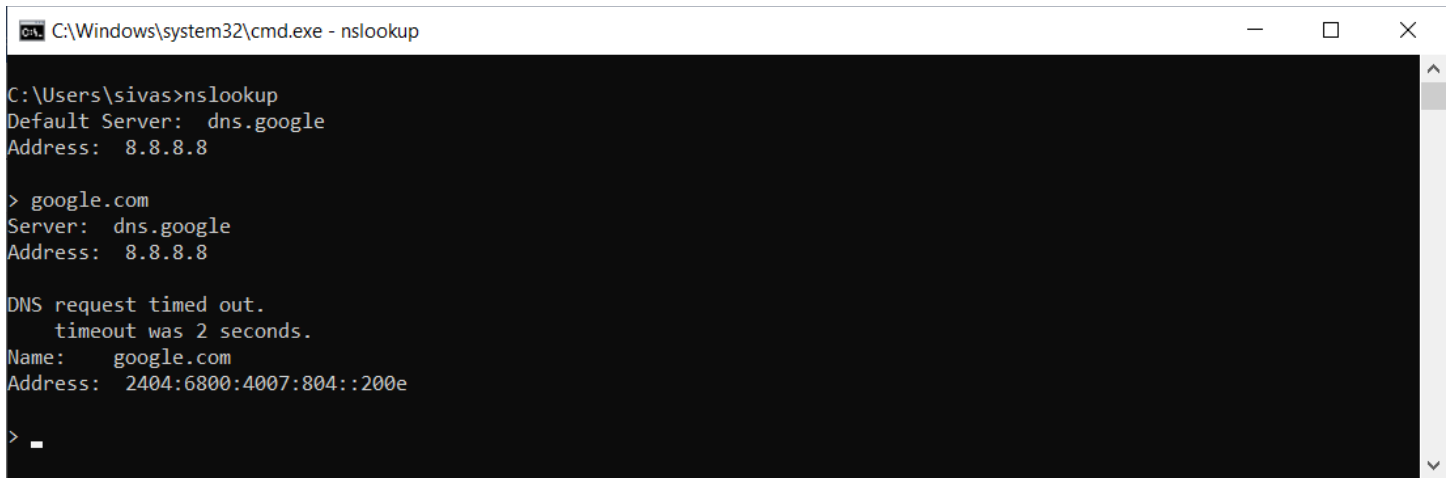
5. Nslookup

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 "<wifi name>" -Password "<wifi password>" -outpath "<file path location to save file>"`

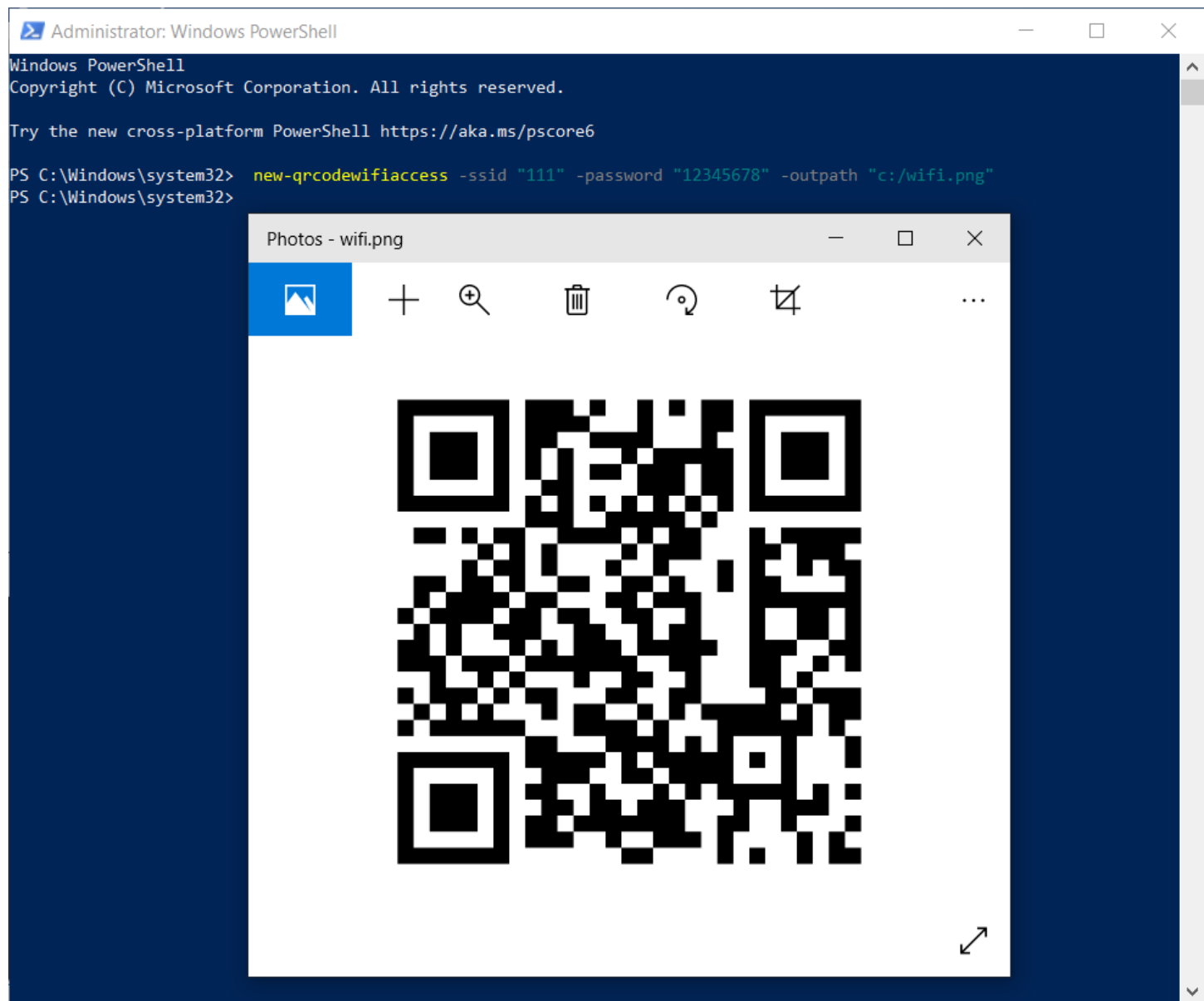
Function: cmd to genetratre wifi qrcode in powershell

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.

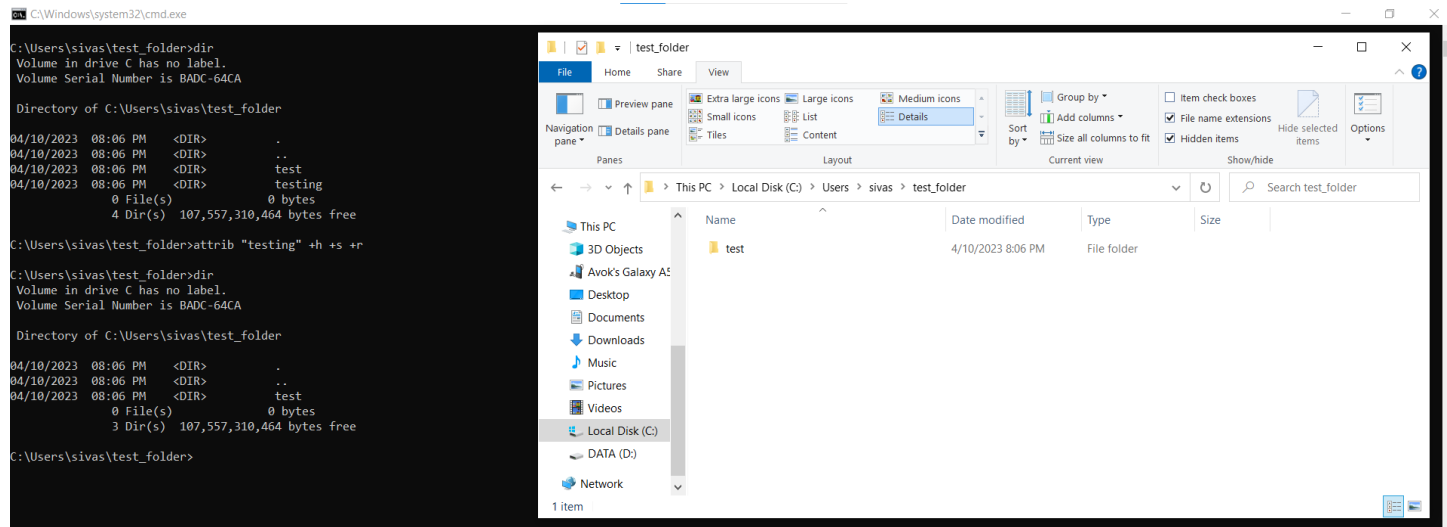
- s** System
- h** Hidden
- r** Read-only

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](http://www.c-sharpcorner.com)

Example:



8. Title

Syntax: `title <string>`

Function: To change the Command Prompt title.

More details: [Refer Microsoft Learn](https://learn.microsoft.com/en-us/windows/terminal/tutorials/change-title)

Example:



9. Prompt

Syntax: `prompt <text>`

Function: To change executing path name in command prompt.

More details: [Refer Microsoft Learn](https://learn.microsoft.com/en-us/windows/terminal/tutorials/change-prompt)

Example:

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.19045.2728]
(c) Microsoft Corporation. All rights reserved.

C:\Users\sivas>prompt SIVA

SIVAecho "hi"
"hi"

SIVA
```

10. Netsh wifi password**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
Microsoft Windows [Version 10.0.19045.2728]
(c) Microsoft Corporation. All rights reserved.

C:\Users\sivas>netsh wlan show profile

Profiles on interface Wi-Fi:

Group policy profiles (read only)
-----
    <None>

User profiles
-----
    All User Profile      : Redmi Note 9
    All User Profile      : SPEEDY
    All User Profile      : Kavitha_5G
    All User Profile      : SREC CAMPUS WIFI
    All User Profile      : 999

C:\Users\sivas>
```

```

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>

```

Syntax: netsh wlan show interface

Function: To show wifi interface details.

More details: [Refer Udemy video](#)

Example:


```
netsh wlan show interface

C:\Users\sivas>netsh wlan show interface

There is 1 interface on the system:

    Name                : WiFi
    Description          : 
    GUID                 : 
    Physical address     : 
    State                : disconnected
    Radio status         : Hardware On
                        : Software On

    Hosted network status : Not available

C:\Users\sivas>
```

Syntax: netsh wlan show wlanreport

Function: To create the wireless network report. For execute this cmd run the command prompt as administrator mode.

More details: [Refer Microsoft support](#)

Example:

```
Administrator: netsh wlan show wlanreport

C:\Windows\system32>netsh wlan show wlanreport
Generating report ...
Querying WLAN Events ...
Querying NCSI Events ...
Querying NDIS Events ...
Querying EAP Events ...
Querying WCM Events ...
Querying Kernel Events ...
Querying System Events ...
Running ipconfig ...
Running netsh wlan show all ...
Querying Wireless Profiles ...
Querying System and User Certificates ...
Querying User Info ...
Querying Network Devices ...

Report written to: C:\ProgramData\Microsoft\Windows\WlanReport\wlan-report-latest.html
done.

C:\Windows\system32>
```

11. Manage-bde Bitlocker

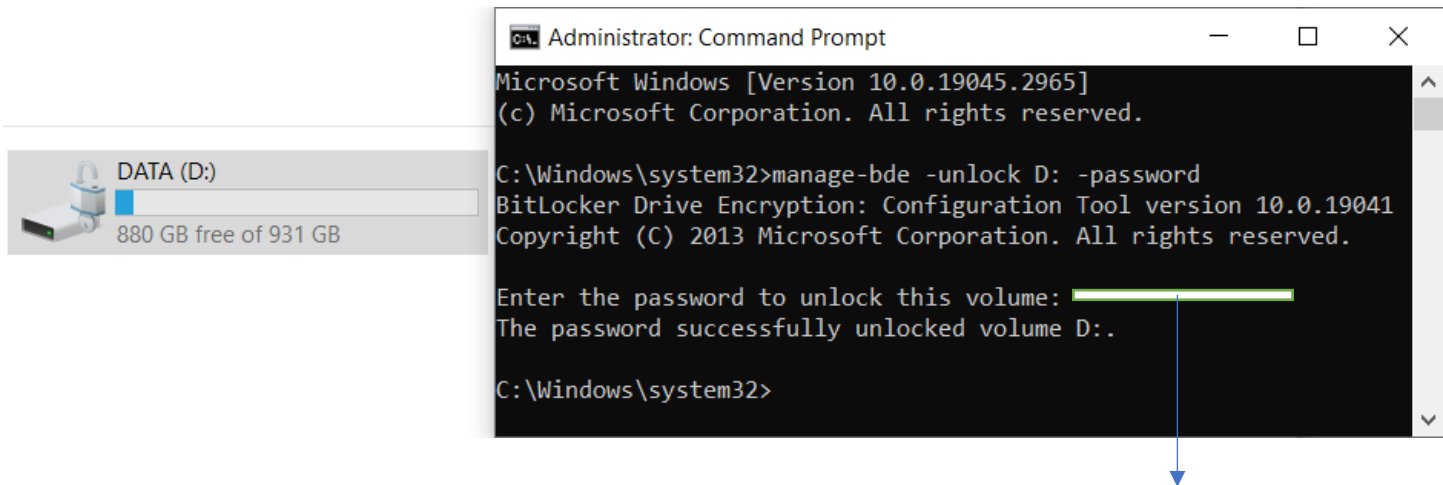
Unlock:

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.

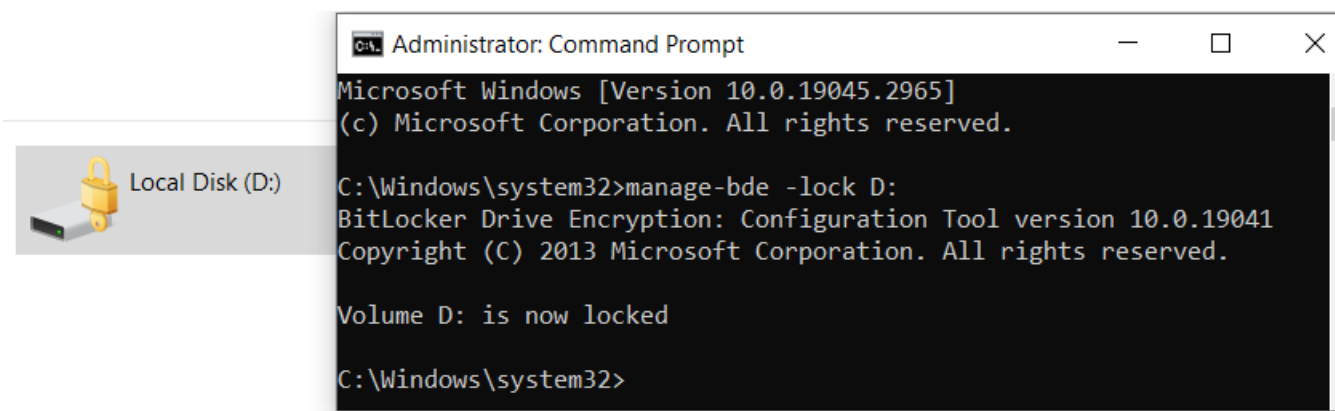
Lock:

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:



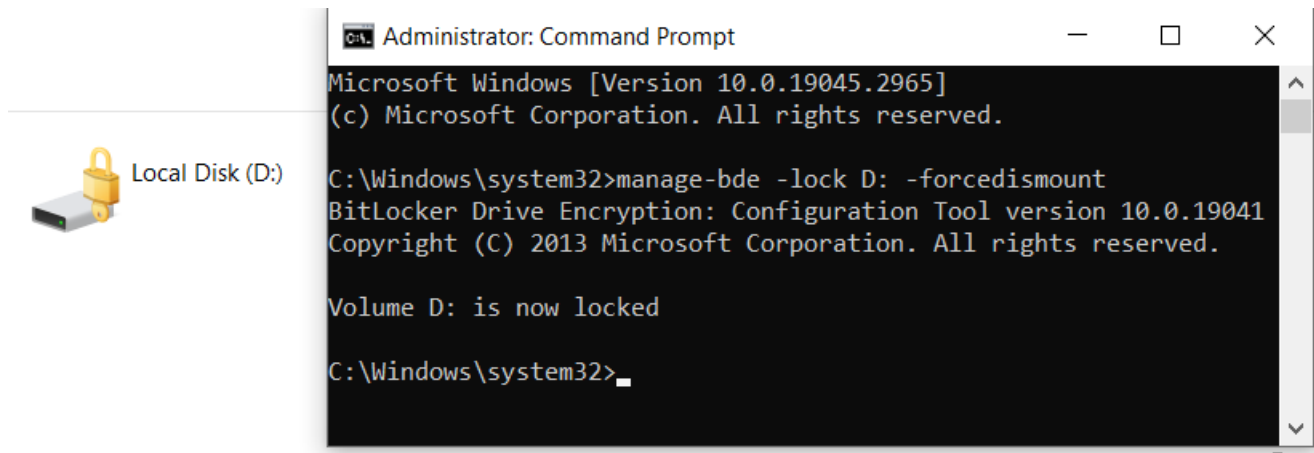
Force lock:

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:



12. Activate Windows watermark temporary remove

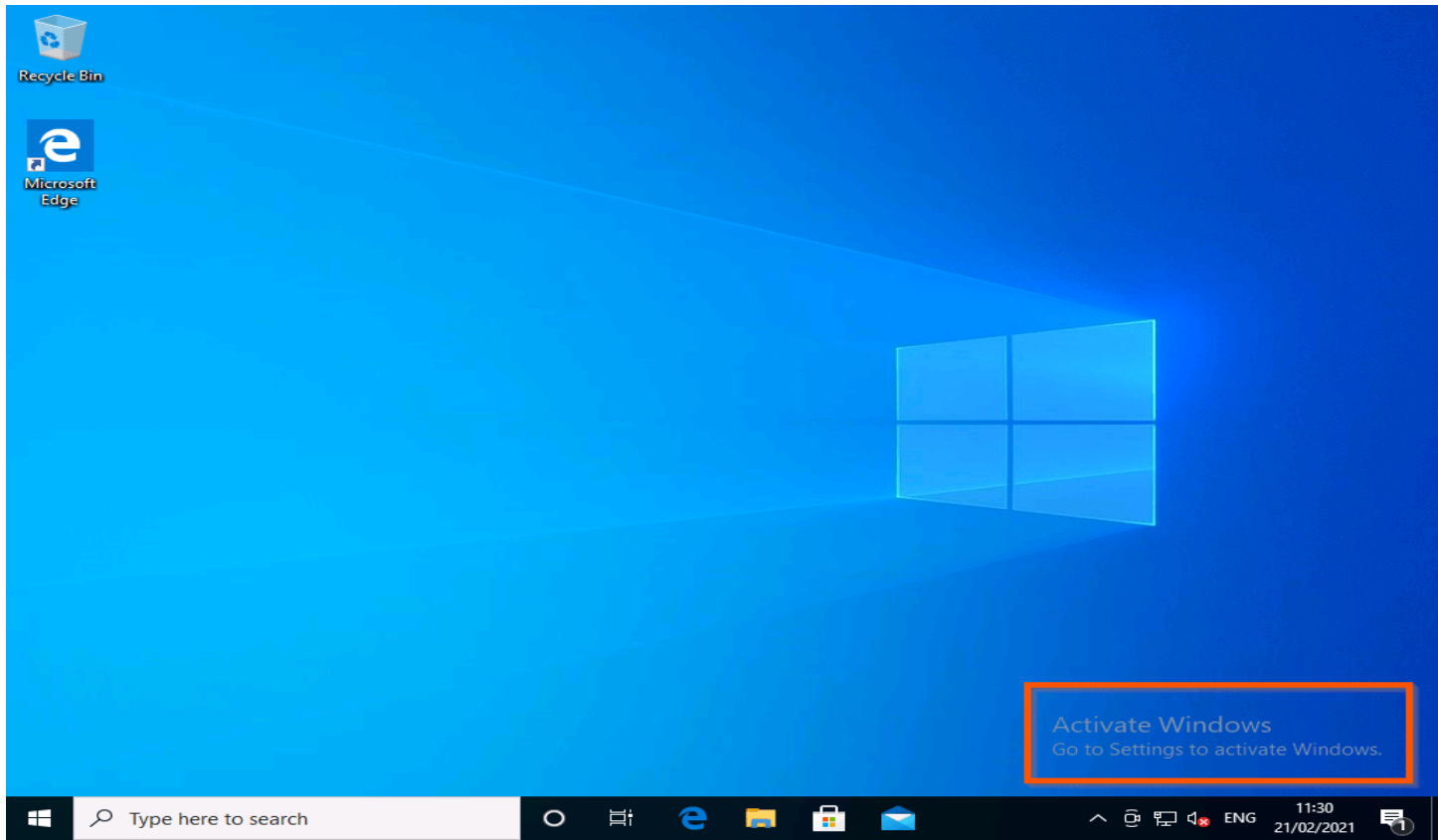
Syntax: `bcdedit -set TESTSIGNING OFF`

Function: run command prompt in Admin mode, enter the command and reboot the computer. use this command to temporarily hide the Activate Windows watermark.

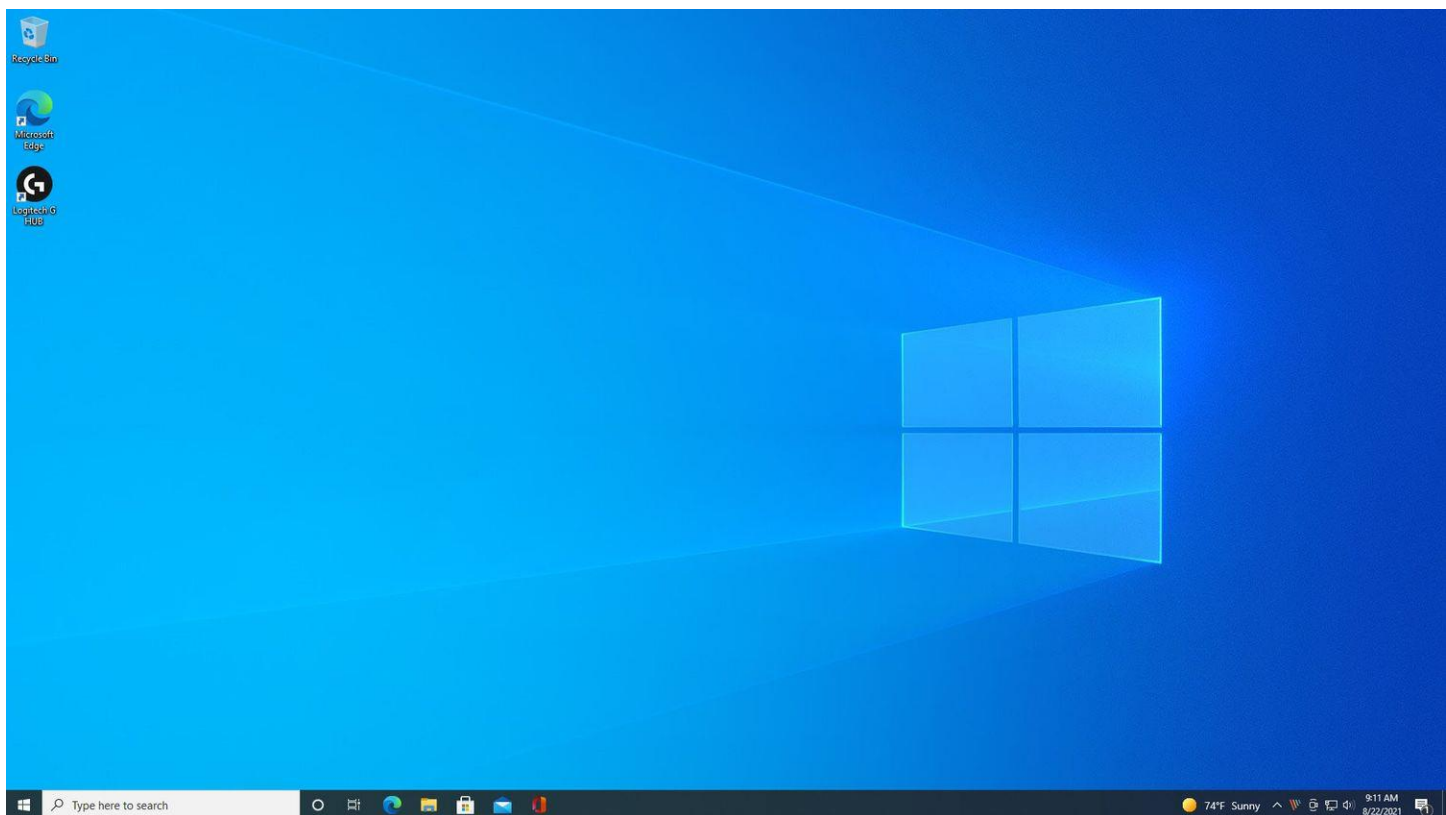
More details: [I find in YT](#)

Example:

Before



After



13. Display the content of a file in Command Prompt and PowerShell

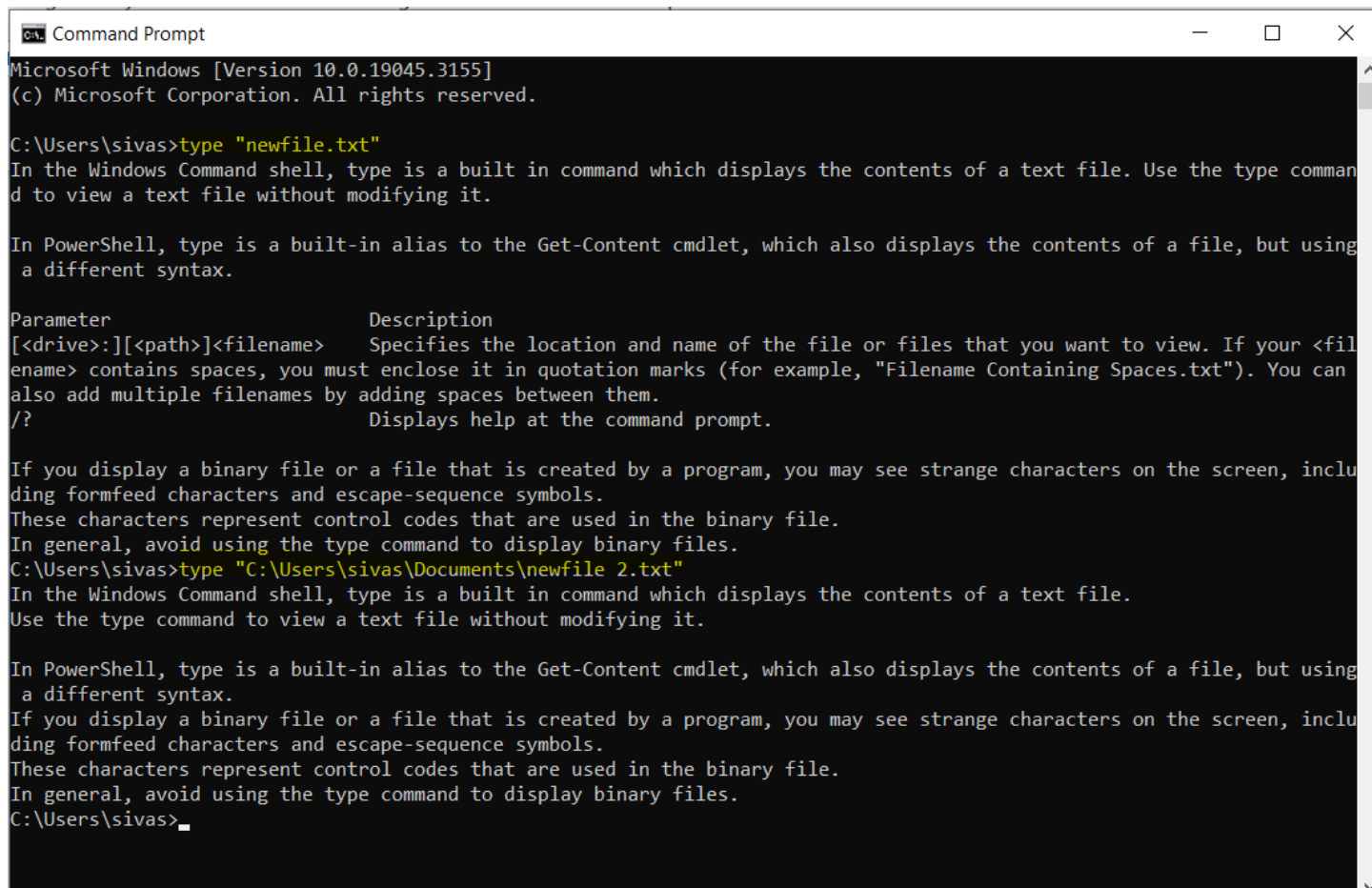
Using Command Prompt:

Syntax: `type "[<drive>:] [<path>] <file name.extension>"`

Function: To view a text file without modifying it and show the file content in the CMD prompt. It limit the lines while display file content. Use MORE cmd with pipe symbol now now press spacebar to shows all the line in the large file.

More details: [Refer Microsoft Learn](#)

Example:



```

C:\Users\sivas>type "newfile.txt"
In the Windows Command shell, type is a built in command which displays the contents of a text file. Use the type command to view a text file without modifying it.

In PowerShell, type is a built-in alias to the Get-Content cmdlet, which also displays the contents of a file, but using a different syntax.

Parameter                Description
[<drive>:][<path><filename> Specifies the location and name of the file or files that you want to view. If your <filename> contains spaces, you must enclose it in quotation marks (for example, "Filename Containing Spaces.txt"). You can also add multiple filenames by adding spaces between them.
/?                        Displays help at the command prompt.

If you display a binary file or a file that is created by a program, you may see strange characters on the screen, including formfeed characters and escape-sequence symbols.
These characters represent control codes that are used in the binary file.
In general, avoid using the type command to display binary files.
C:\Users\sivas>type "C:\Users\sivas\Documents\newfile 2.txt"
In the Windows Command shell, type is a built in command which displays the contents of a text file.
Use the type command to view a text file without modifying it.

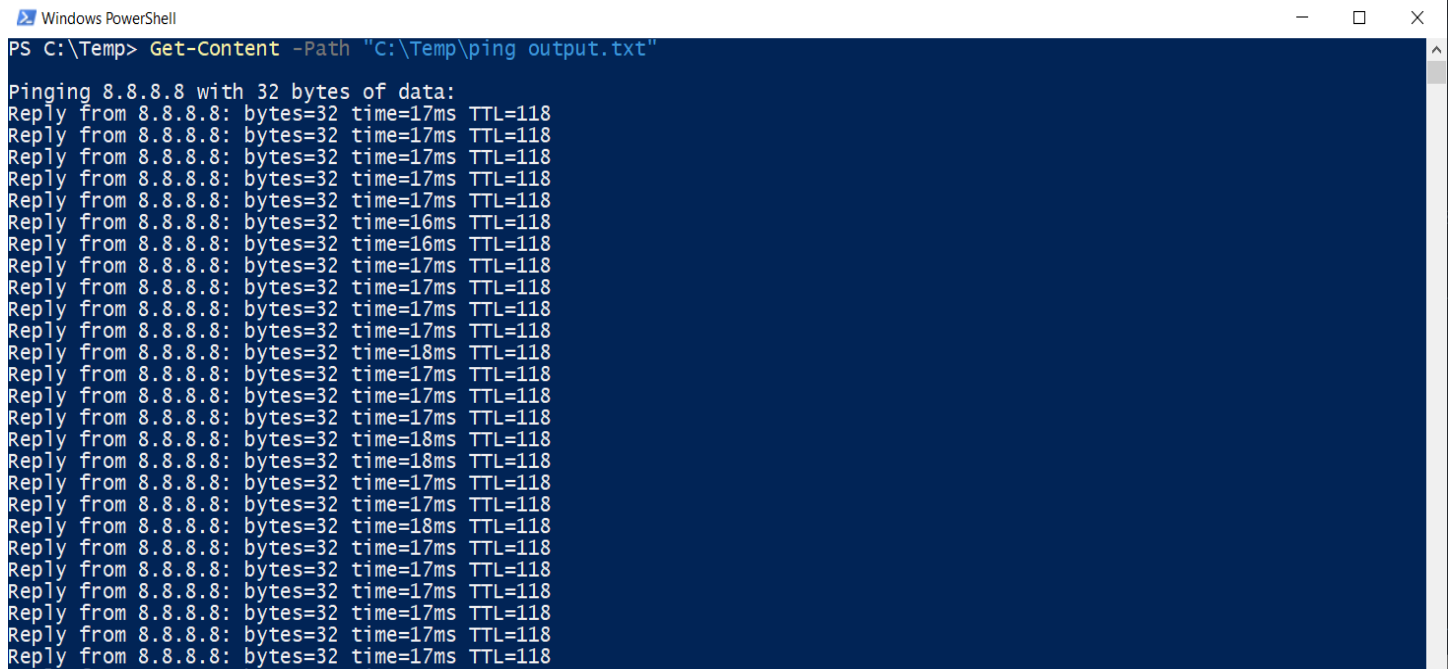
In PowerShell, type is a built-in alias to the Get-Content cmdlet, which also displays the contents of a file, but using a different syntax.
If you display a binary file or a file that is created by a program, you may see strange characters on the screen, including formfeed characters and escape-sequence symbols.
These characters represent control codes that are used in the binary file.
In general, avoid using the type command to display binary files.
C:\Users\sivas>
  
```

Using PowerShell:

Syntax: `Get -content -Path "[<drive>:] [<path>] <file name.extension>"`

Function: To view a text file without modifying it and show the file content in PowerShell Window. It show's the all line of the file it doesn't limit lines while display. Use MORE command with pipe symbol now press spacebar to shows all the line in the large file.

More details: [Refer Microsoft Learn](#)

Example:


```

PS C:\Temp> Get-Content -Path "C:\Temp\ping output.txt"

Pinging 8.8.8.8 with 32 bytes of data:
Reply from 8.8.8.8: bytes=32 time=17ms TTL=118
Reply from 8.8.8.8: bytes=32 time=17ms TTL=118
Reply from 8.8.8.8: bytes=32 time=17ms TTL=118
Reply from 8.8.8.8: bytes=32 time=17ms TTL=118
Reply from 8.8.8.8: bytes=32 time=16ms TTL=118
Reply from 8.8.8.8: bytes=32 time=16ms TTL=118
Reply from 8.8.8.8: bytes=32 time=17ms TTL=118
Reply from 8.8.8.8: bytes=32 time=17ms TTL=118
Reply from 8.8.8.8: bytes=32 time=17ms TTL=118
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Reply from 8.8.8.8: bytes=32 time=17ms TTL=118
Reply from 8.8.8.8: bytes=32 time=17ms TTL=118
Reply from 8.8.8.8: bytes=32 time=18ms TTL=118
Reply from 8.8.8.8: bytes=32 time=18ms TTL=118
Reply from 8.8.8.8: bytes=32 time=17ms TTL=118
Reply from 8.8.8.8: bytes=32 time=17ms TTL=118
Reply from 8.8.8.8: bytes=32 time=17ms TTL=118
Reply from 8.8.8.8: bytes=32 time=17ms TTL=118
Reply from 8.8.8.8: bytes=32 time=17ms TTL=118
Reply from 8.8.8.8: bytes=32 time=17ms TTL=118
Reply from 8.8.8.8: bytes=32 time=17ms TTL=118
Reply from 8.8.8.8: bytes=32 time=17ms TTL=118

```

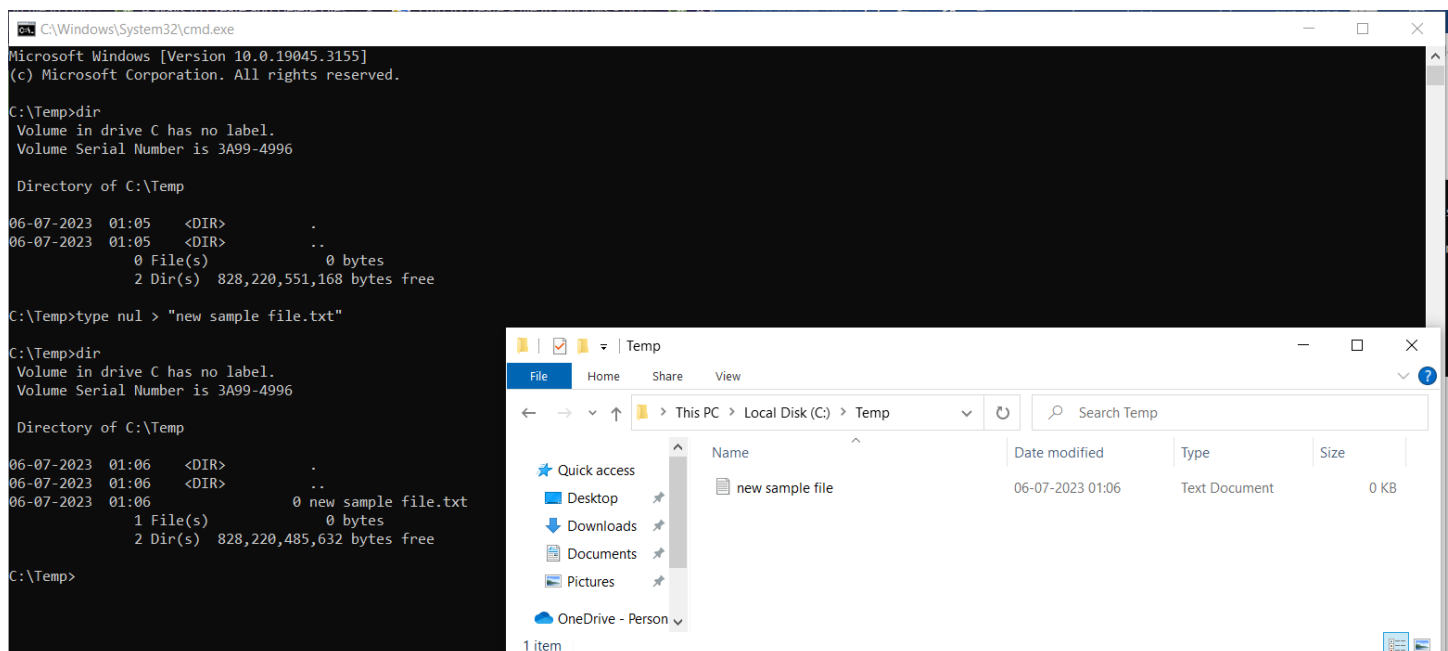
14. Create and Delete files and directories from windows command prompt

Create empty file:

Syntax: `type nul > "[<drive>:] [<path>] <filename>"`

Function: it create the empty file in using command prompt.

More details: [Refer wikihow](#)

Example:


```

C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3155]
(c) Microsoft Corporation. All rights reserved.

C:\Temp>dir
Volume in drive C has no label.
Volume Serial Number is 3A99-4996

Directory of C:\Temp

06-07-2023  01:05    <DIR>          .
06-07-2023  01:05    <DIR>          ..
               0 File(s)            0 bytes
               2 Dir(s)  828,220,551,168 bytes free

C:\Temp>type nul > "new sample file.txt"

C:\Temp>dir
Volume in drive C has no label.
Volume Serial Number is 3A99-4996

Directory of C:\Temp

06-07-2023  01:06    <DIR>          .
06-07-2023  01:06    <DIR>          ..
06-07-2023  01:06                0 new sample file.txt
               1 File(s)            0 bytes
               2 Dir(s)  828,220,485,632 bytes free

C:\Temp>

```

The File Explorer window shows the 'Temp' directory with the following details:

Name	Date modified	Type	Size
new sample file	06-07-2023 01:06	Text Document	0 KB

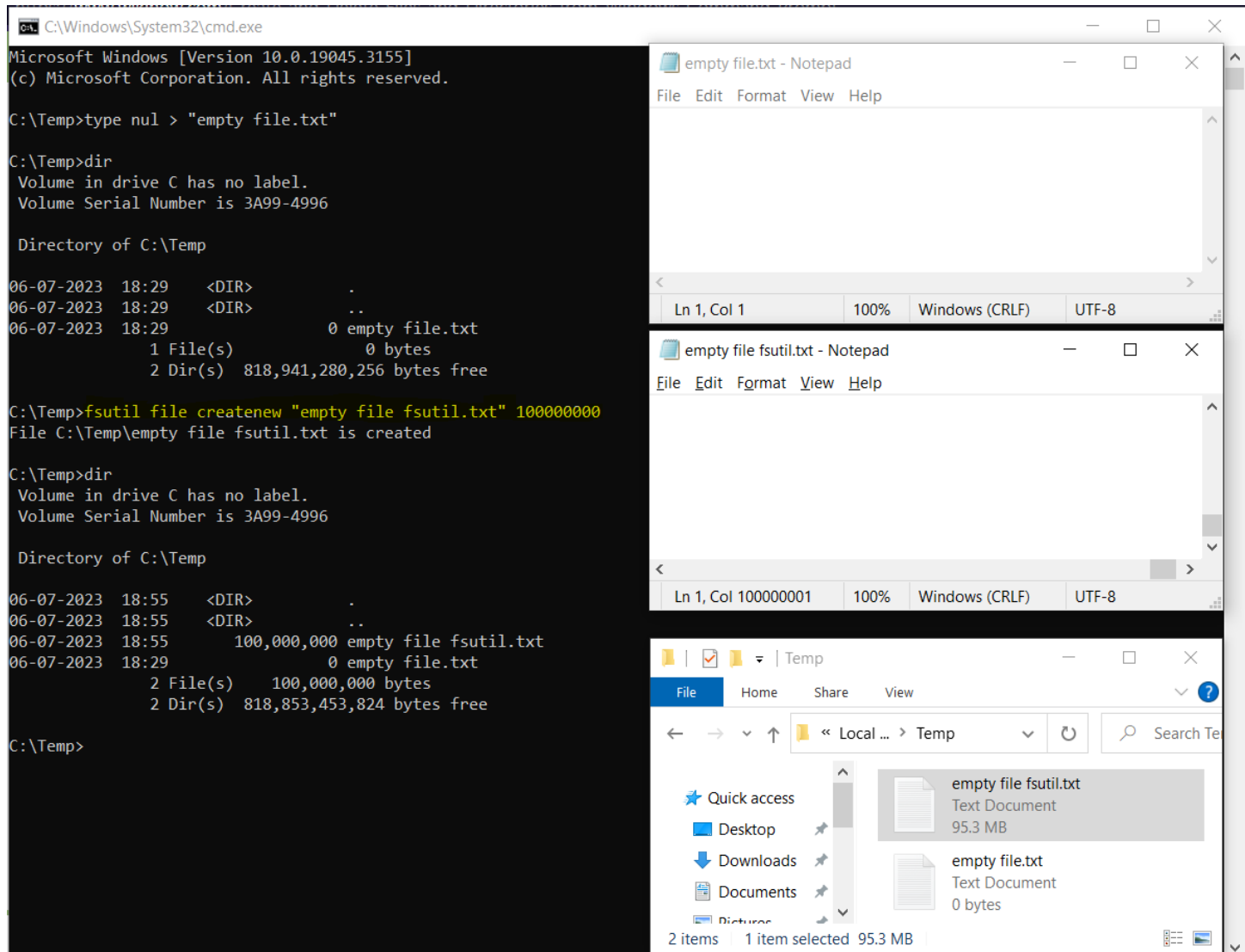
Create a blank file in certain size:

Syntax: `fsutil file createnew "[<drive>:] [<path>] <filename>" <length>`

Function: To create a blank text file based on byte size.

More details: [Refer Wikihow](#)

Example:



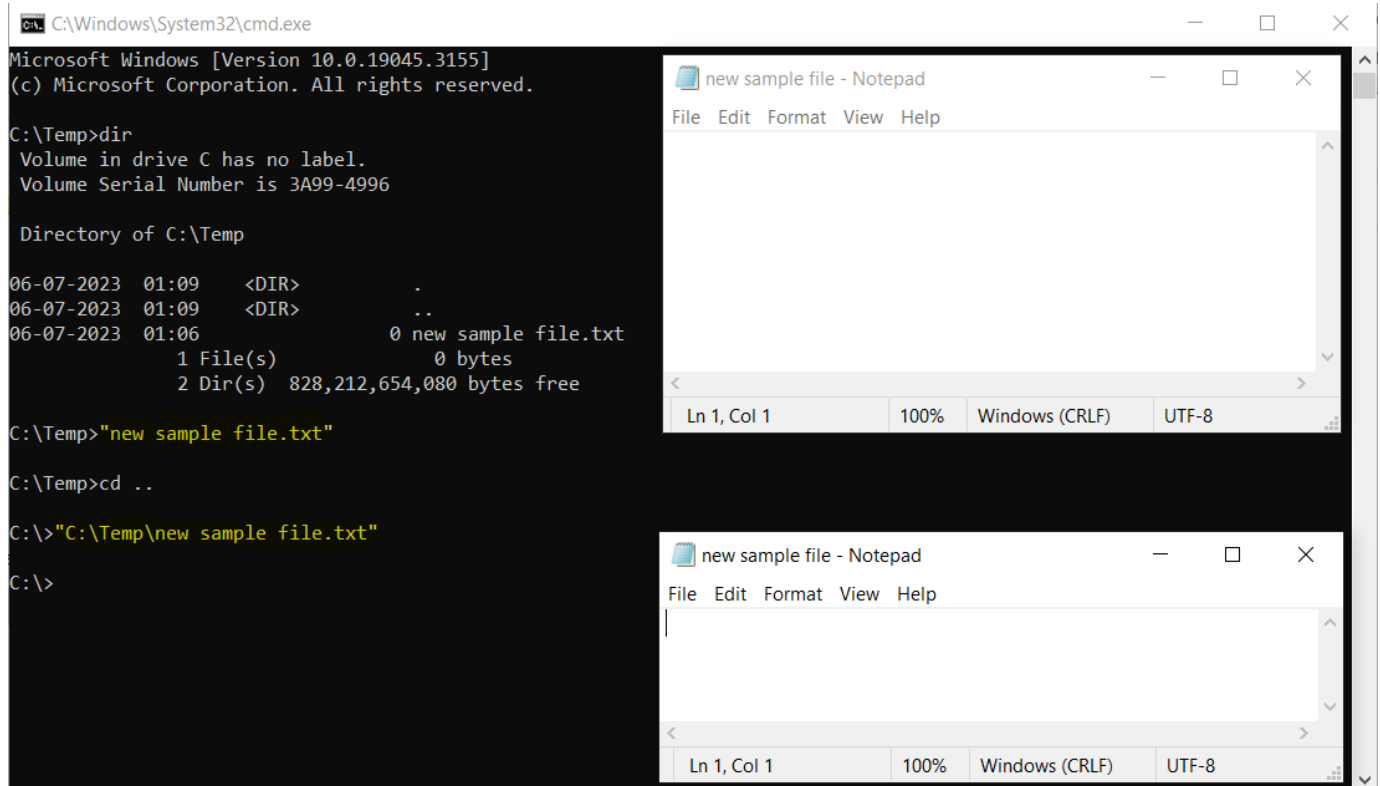
15. Open files using command prompt

Syntax: `"[<drive>:] [<path>] <filename>"`

Function: type the file path in command to open any type of file using command prompt with default application which is installed in computer.

More details: Google Search

Example:



16. Command output save to a file using Command Prompt and PowerShell

Using Command Prompt:

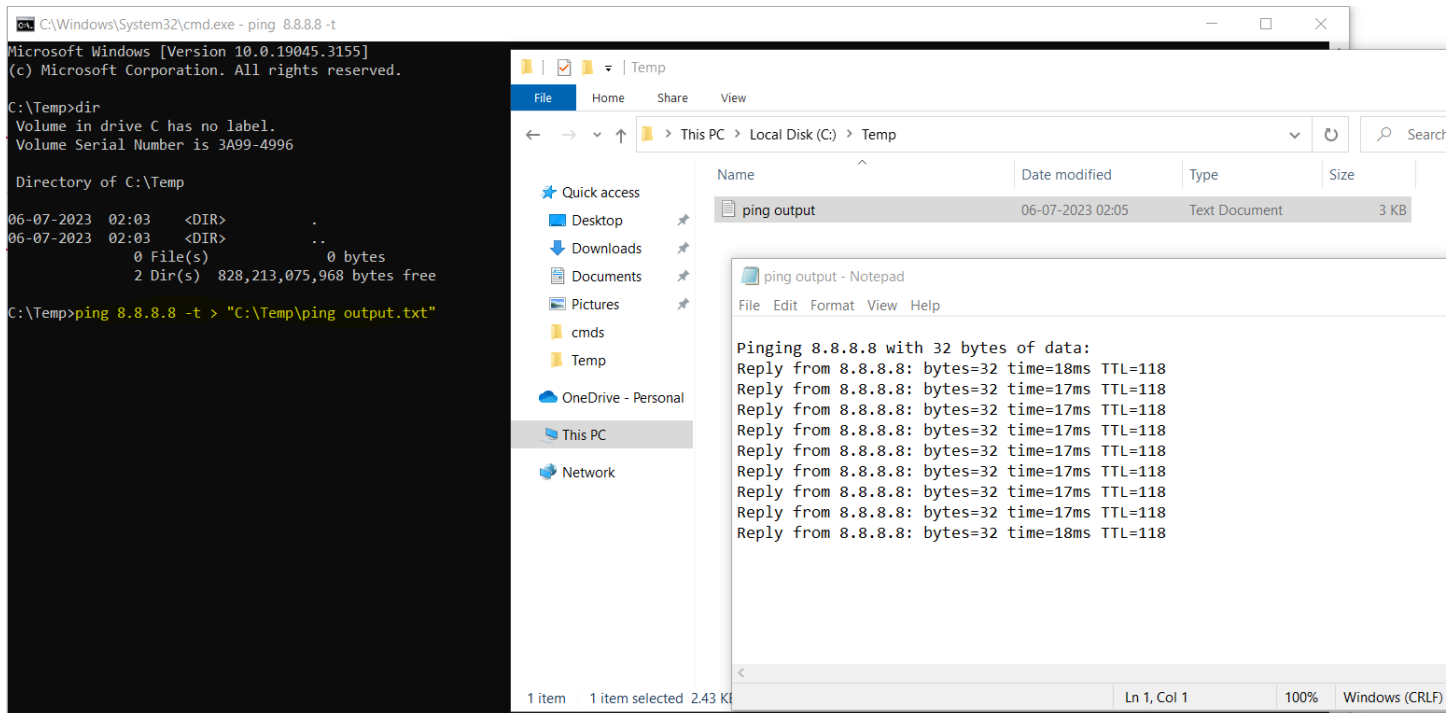
Create new output file:

Syntax: <your-command> > "[<drive>:] [<path>] <filename>"

Function: command to save the command output to a text file. > is the symbol for create a new text file or over write in existing file to save the output.

More details: [Refer Windows Central](#)

Example:



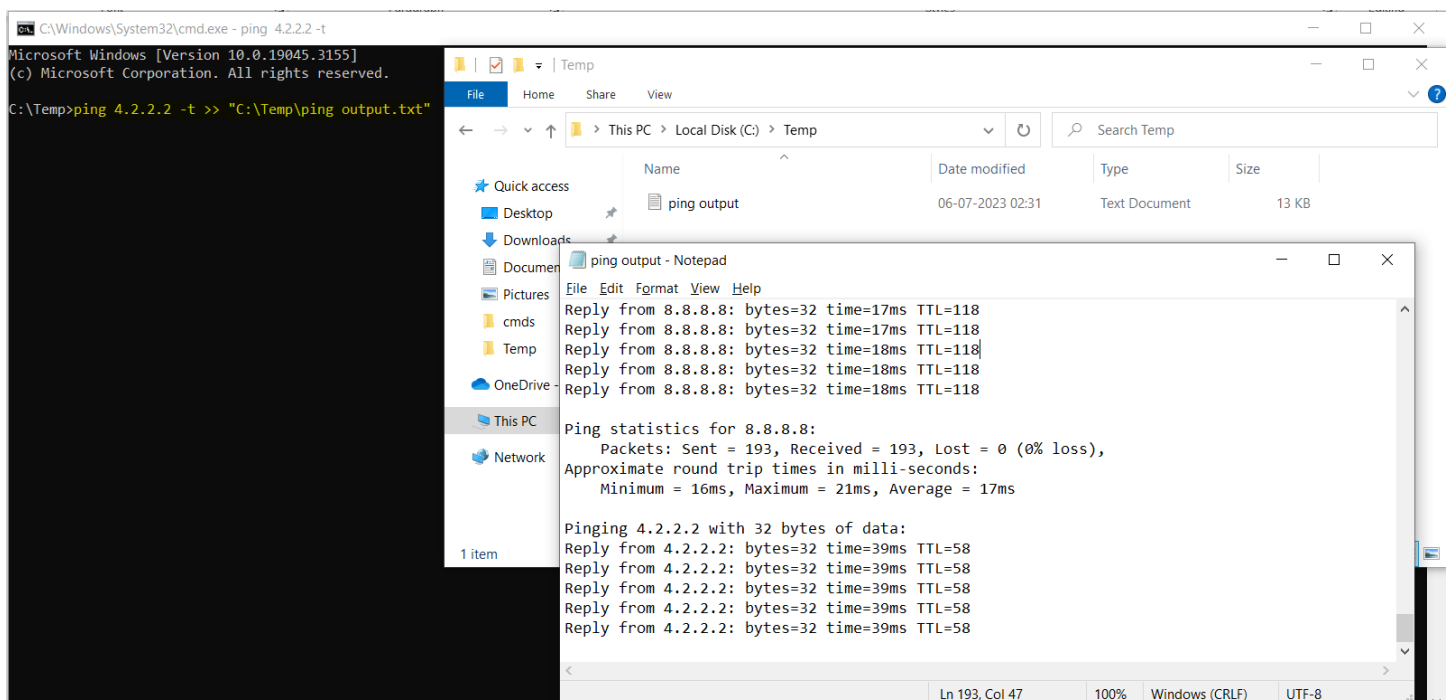
Continue output in existing file:

Syntax: <your-command> >> "[<drive>:] [<path>] <filename>"

Function: : command to save the command output to a text file. >> is the symbol for write existing file to save the output.

More details: [Refer Windows Central](#)

Example:



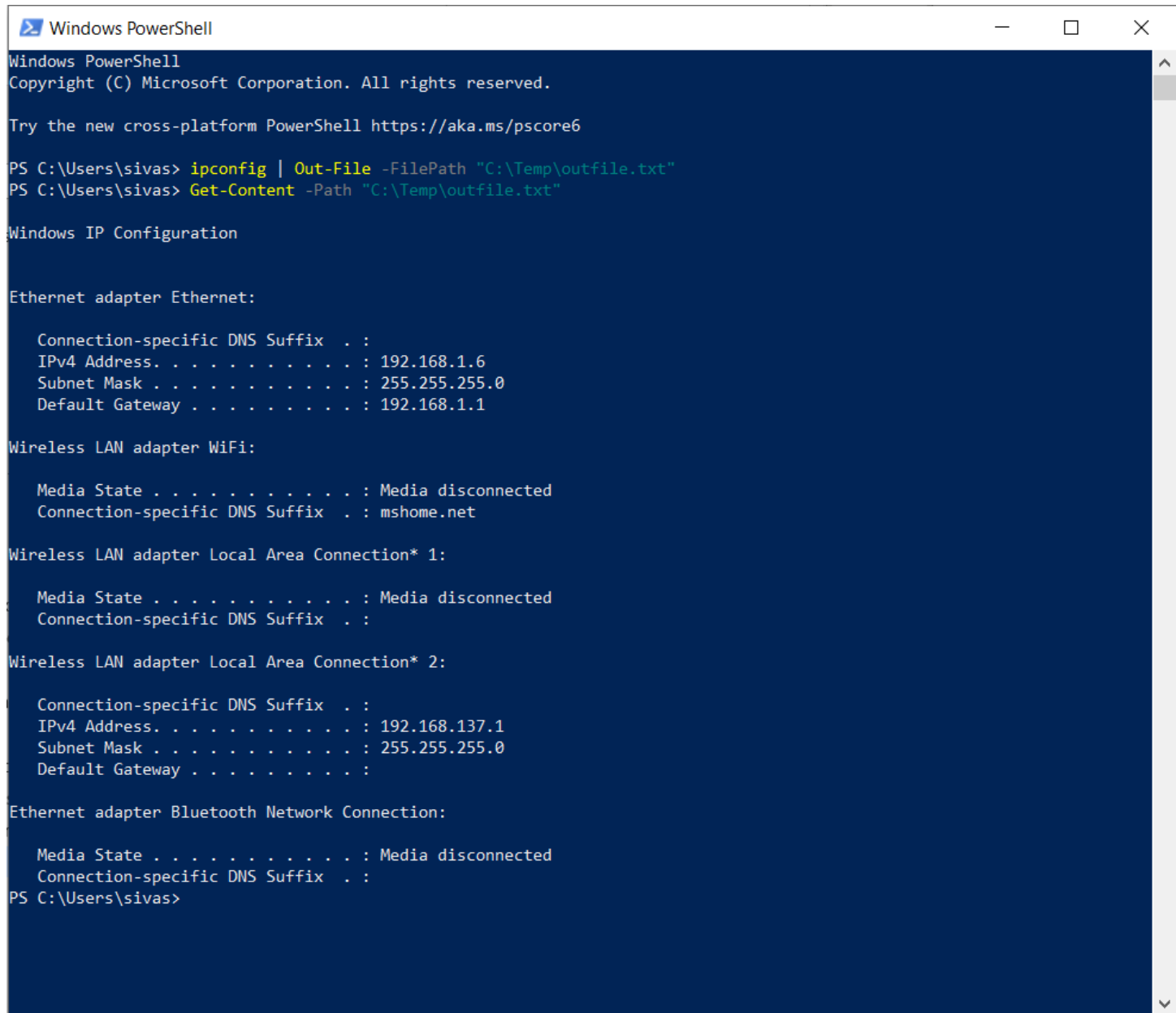
Using PowerShell:

Syntax: `ipconfig | Out-File -FilePath "[<drive>:] [<path>] <filename>"`

Function: To save the command output to a text file with PowerShell. It will over write the existing file.

More details: [Refer Windows Central](#)

Example:



```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\sivas> ipconfig | Out-File -FilePath "C:\Temp\outfile.txt"
PS C:\Users\sivas> Get-Content -Path "C:\Temp\outfile.txt"

Windows IP Configuration

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : 
    IPv4 Address. . . . . : 192.168.1.6
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1

Wireless LAN adapter Wi-Fi:

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

Wireless LAN adapter Local Area Connection* 1:

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

Wireless LAN adapter Local Area Connection* 2:

    Connection-specific DNS Suffix  . : 
    IPv4 Address. . . . . : 192.168.137.1
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 

Ethernet adapter Bluetooth Network Connection:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 
PS C:\Users\sivas>
```