Module – 1

DOS Commands

1.

20181CSE0621

MODULE - 1

DOS COMMANDS

1] PING Command :- To check whether your internet connections work you can use command prompt to test your connection to a certain website or internet location. To check connectivity with GOOGLE we type "ping www.google.com".

- Type c:\> ping x.x.x.x .

By default ping sends 4 ICMP packets each of 32 bytes. The response packets are called ICMP echo reply packets.

- Type c:\> ping x.x.x.x -t

-t switch will continue to send packets to the destination until user stops by pressing ctrl+C.

```
Command Prompt

C:\Users\ram10>ping 192.168.0.103

Pinging 192.168.0.103 with 32 bytes of data:
Reply from 192.168.0.103: bytes=32 time<1ms TTL=128
Reply from 192.168.0.103: bytes=32 time<1ms TTL=128
Reply from 192.168.0.103: bytes=32 time<1ms TTL=128
Reply from 192.168.0.103: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.103:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\ram10>
```

2.

2) IPCONFIG Command : Displays full TCP/IP configuration of all network adapters installed in your system.

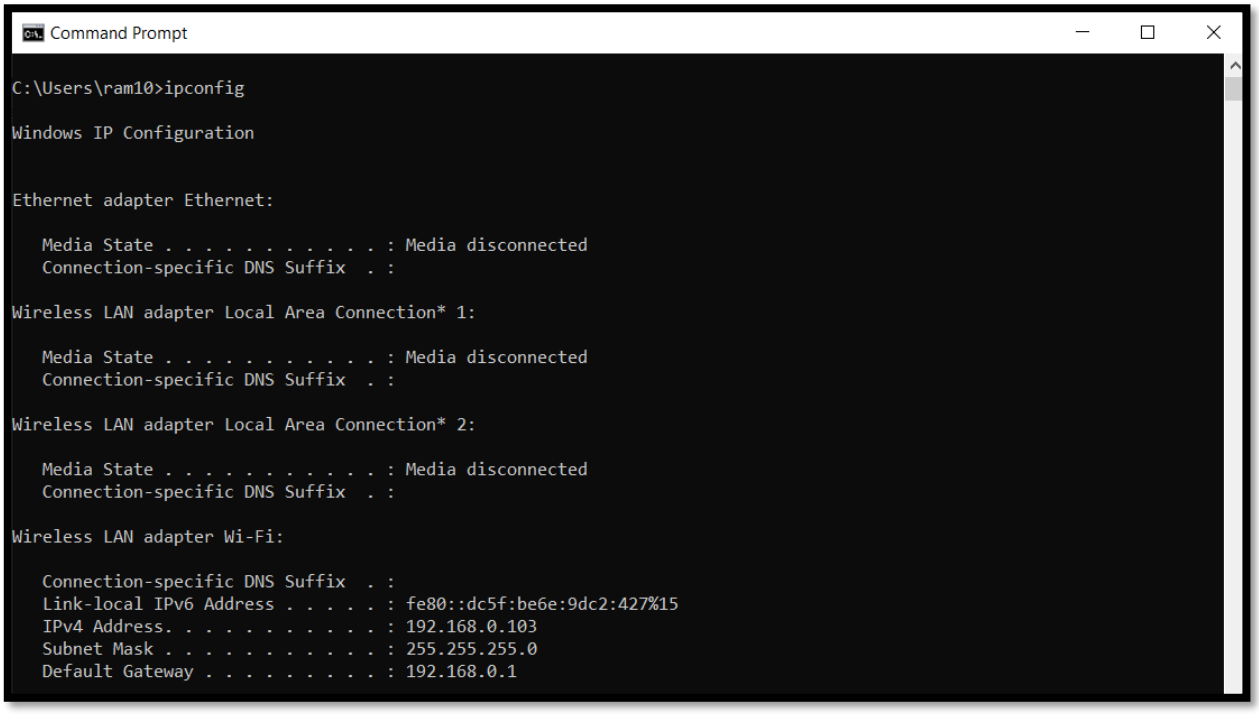
Type c:\>ipconfig

If you add /all switch to the command you can get a whole new level of details. The DNS, MAC and other information about each network component.

- Ipconfig has a number of switches, the most common:-
  - ipconfig /all : displays more information about the network setup on your system including the MAC address.

1

  - ipconfig /release : release the current IP address
  - ipconfig /renew : renew IP address
  - ipconfig /? : shows help
  - ipconfig /flushdns : flush the dns cache.



3.

3] Tracert Command :- It tells you the path a packet takes from your computer to the destination. It will list all the routers from which a packet passes until it reaches destination.

c:\> tracert google.com

```
C:\Users\ram10>tracert google.com

Tracing route to google.com [142.250.76.46]
over a maximum of 30 hops:

  1    <1 ms    <1 ms    <1 ms  192.168.0.1
  2     2 ms     1 ms     2 ms  10.232.0.1
  3     2 ms     *        *     broadband.actcorp.in [202.83.20.43]
  4     2 ms     2 ms     3 ms  14.141.145.5.static-Bangalore.vsnl.net.in [14.141.145.5]
  5     9 ms    11 ms     9 ms  ^C
C:\Users\ram10>
C:\Users\ram10>
```

4.

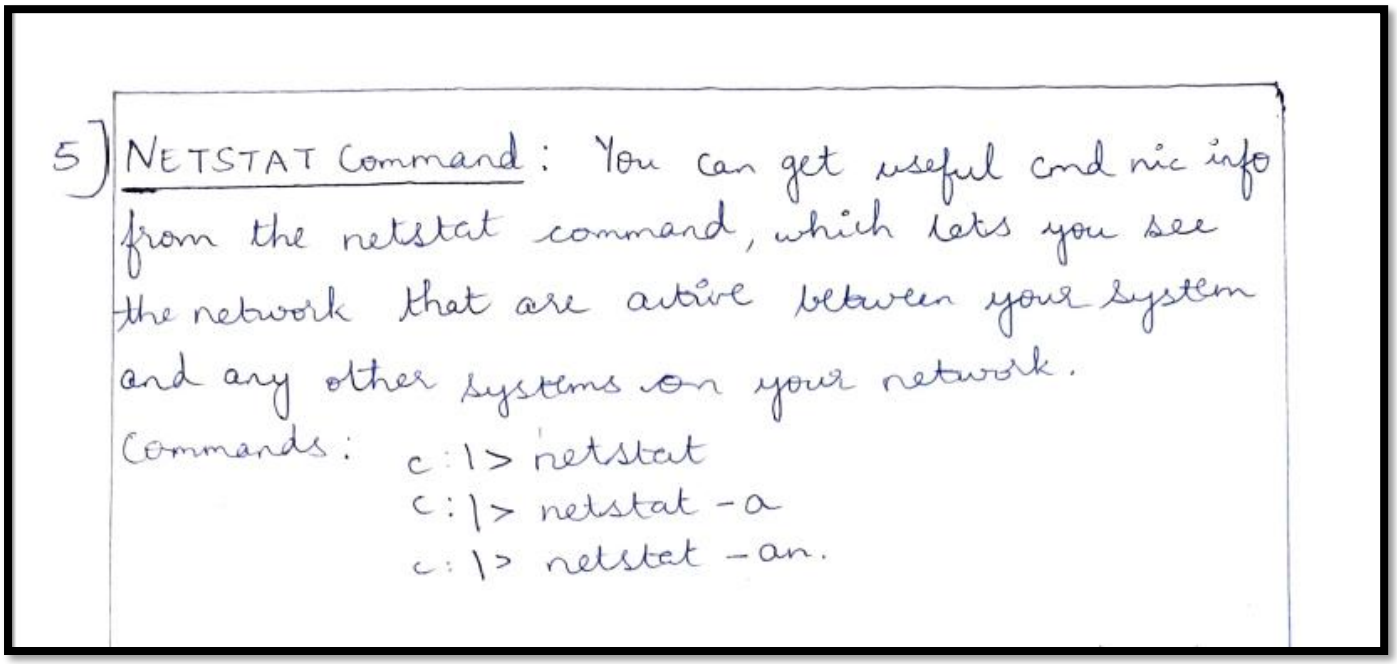
4] NS lookup command :

Displays the default DNS server information.

command :- c:\> nslookup


Command Prompt - nslookup
C:\Users\ram10>nslookup
Default Server: broadband.actcorp.in
Address: 49.205.72.130
>

5.


5) NETSTAT Command: You can get useful cmd nic info from the netstat command, which lets you see the network that are active between your system and any other systems on your network.
Commands:
c:\> netstat
c:\> netstat -a
c:\> netstat -an.

```
C:\Users\ram10>
C:\Users\ram10>netstat

Active Connections

  Proto  Local Address          Foreign Address        State
  TCP    192.168.0.103:49674    52.139.250.253:https   ESTABLISHED
  TCP    192.168.0.103:49694    broadband:https        ESTABLISHED
  TCP    192.168.0.103:49695    broadband:https        ESTABLISHED
  TCP    192.168.0.103:49696    broadband:https        ESTABLISHED
  TCP    192.168.0.103:49701    broadband:http         ESTABLISHED
  TCP    192.168.0.103:49702    broadband:http         CLOSE_WAIT
  TCP    192.168.0.103:49703    broadband:http         ESTABLISHED
  TCP    192.168.0.103:49704    broadband:http         ESTABLISHED
  TCP    192.168.0.103:49705    52.139.250.253:https   ESTABLISHED
  TCP    192.168.0.103:49709    broadband:http         ESTABLISHED
  TCP    192.168.0.103:49730    broadband:https        ESTABLISHED
  TCP    192.168.0.103:50223    broadband:https        ESTABLISHED
^C
C:\Users\ram10>
```

```
C:\Users\ram10>netstat -n

Active Connections

  Proto  Local Address          Foreign Address        State
  TCP    192.168.0.103:49674    52.139.250.253:443     ESTABLISHED
  TCP    192.168.0.103:49694    106.51.145.136:443     ESTABLISHED
  TCP    192.168.0.103:49695    106.51.145.136:443     ESTABLISHED
  TCP    192.168.0.103:49696    106.51.145.136:443     ESTABLISHED
  TCP    192.168.0.103:49701    106.51.146.30:80       ESTABLISHED
  TCP    192.168.0.103:49702    106.51.146.30:80       CLOSE_WAIT
  TCP    192.168.0.103:49703    106.51.146.30:80       ESTABLISHED
  TCP    192.168.0.103:49704    106.51.146.30:80       ESTABLISHED
  TCP    192.168.0.103:49705    52.139.250.253:443     ESTABLISHED
  TCP    192.168.0.103:49709    106.51.146.30:80       ESTABLISHED
  TCP    192.168.0.103:49730    106.51.145.136:443     ESTABLISHED
  TCP    192.168.0.103:50223    106.51.144.8:443       ESTABLISHED
  TCP    192.168.0.103:50305    52.114.14.231:443      ESTABLISHED
  TCP    192.168.0.103:50329    52.114.40.55:443       ESTABLISHED
  TCP    192.168.0.103:50362    52.111.252.0:443       ESTABLISHED
  TCP    192.168.0.103:50364    52.114.6.215:443       ESTABLISHED
  TCP    192.168.0.103:50375    52.114.133.60:443      ESTABLISHED
  TCP    192.168.0.103:50876    20.44.232.74:443       TIME_WAIT
  TCP    192.168.0.103:50880    20.44.232.74:443       ESTABLISHED
  TCP    192.168.0.103:50881    52.109.124.51:443      TIME_WAIT
  TCP    192.168.0.103:50882    52.114.32.111:443      ESTABLISHED
  TCP    192.168.0.103:50883    52.113.194.132:443     ESTABLISHED
  TCP    192.168.0.103:50884    52.114.158.91:443      ESTABLISHED
```

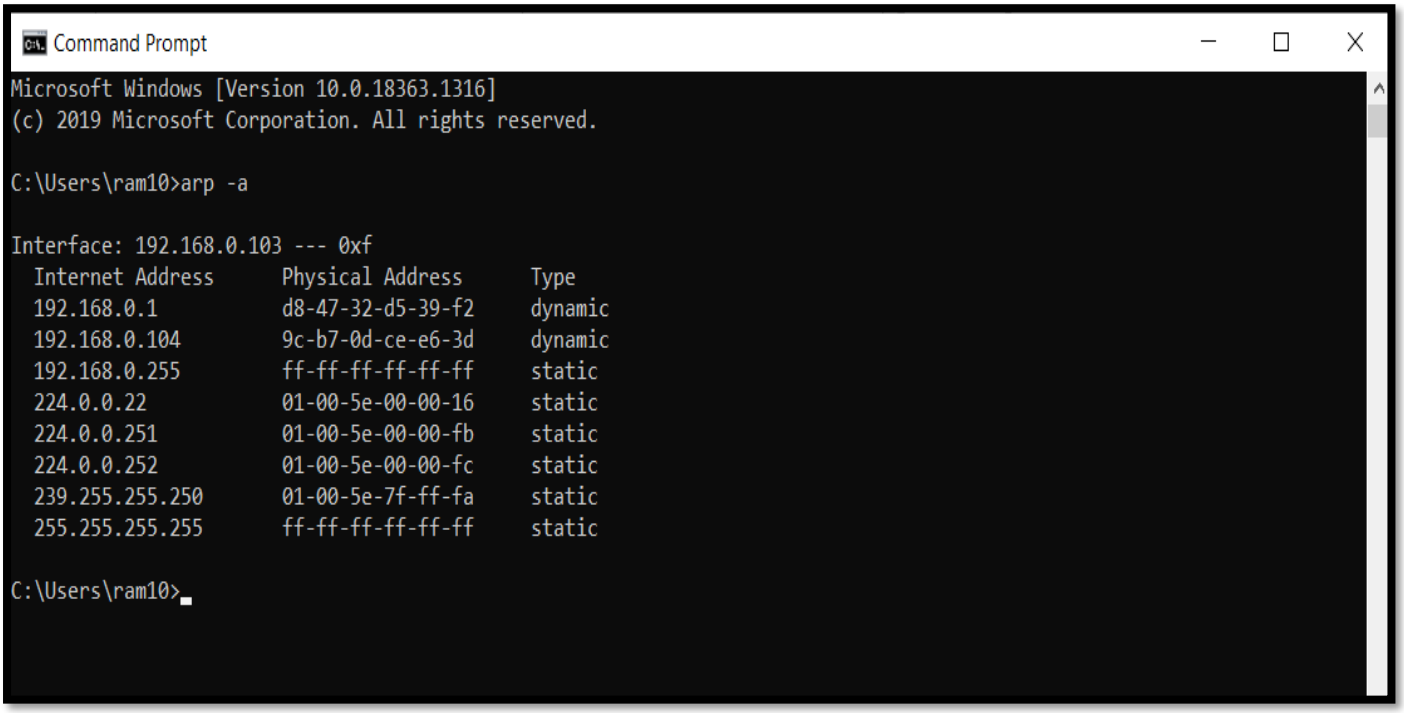
```
C:\Users\ram10>netstat -an

Active Connections

  Proto  Local Address          Foreign Address        State
  TCP    0.0.0.0:135            0.0.0.0:0              LISTENING
  TCP    0.0.0.0:445            0.0.0.0:0              LISTENING
  TCP    0.0.0.0:808            0.0.0.0:0              LISTENING
  TCP    0.0.0.0:5040           0.0.0.0:0              LISTENING
  TCP    0.0.0.0:5357           0.0.0.0:0              LISTENING
  TCP    0.0.0.0:7680           0.0.0.0:0              LISTENING
  TCP    0.0.0.0:49664          0.0.0.0:0              LISTENING
  TCP    0.0.0.0:49665          0.0.0.0:0              LISTENING
  TCP    0.0.0.0:49666          0.0.0.0:0              LISTENING
  TCP    0.0.0.0:49667          0.0.0.0:0              LISTENING
  TCP    0.0.0.0:49668          0.0.0.0:0              LISTENING
  TCP    0.0.0.0:49670          0.0.0.0:0              LISTENING
  TCP    192.168.0.103:139      0.0.0.0:0              LISTENING
  TCP    192.168.0.103:49674    52.139.250.253:443     ESTABLISHED
  TCP    192.168.0.103:49694    106.51.145.136:443     ESTABLISHED
  TCP    192.168.0.103:49695    106.51.145.136:443     ESTABLISHED
  TCP    192.168.0.103:49696    106.51.145.136:443     ESTABLISHED
  TCP    192.168.0.103:49701    106.51.146.30:80       ESTABLISHED
  TCP    192.168.0.103:49702    106.51.146.30:80       CLOSE_WAIT
  TCP    192.168.0.103:49703    106.51.146.30:80       ESTABLISHED
  TCP    192.168.0.103:49704    106.51.146.30:80       ESTABLISHED
  TCP    192.168.0.103:49705    52.139.250.253:443     ESTABLISHED
  TCP    192.168.0.103:49709    106.51.146.30:80       ESTABLISHED
  TCP    192.168.0.103:49730    106.51.145.136:443     ESTABLISHED
  TCP    192.168.0.103:50223    106.51.144.8:443       ESTABLISHED
  TCP    192.168.0.103:50305    52.114.14.231:443      ESTABLISHED
  TCP    192.168.0.103:50329    52.114.40.55:443       ESTABLISHED
  TCP    192.168.0.103:50362    52.111.252.0:443       ESTABLISHED
  TCP    192.168.0.103:50364    52.114.6.215:443       ESTABLISHED
  TCP    192.168.0.103:50375    52.114.133.60:443      ESTABLISHED
  TCP    192.168.0.103:50880    20.44.232.74:443       ESTABLISHED
  TCP    192.168.0.103:50881    52.109.124.51:443      TIME_WAIT
  TCP    192.168.0.103:50882    52.114.32.111:443      ESTABLISHED
  TCP    192.168.0.103:50883    52.113.194.132:443     ESTABLISHED
  TCP    192.168.0.103:50884    52.114.158.91:443      ESTABLISHED
  TCP    [::]:135               [::]:0                 LISTENING
  TCP    [::]:445               [::]:0                 LISTENING
  TCP    [::]:808               [::]:0                 LISTENING
  TCP    [::]:5357              [::]:0                 LISTENING
  TCP    [::]:7680              [::]:0                 LISTENING
  TCP    [::]:49664             [::]:0                 LISTENING
```

6.

6] ARP command : ARP command corresponds to the address resolution protocol, it is easy to understand of network communications in term of IP addressing. packet delivery is ultimately dependent on the MAC address of the device's network adapter. This is where ARP comes into play. Its job is to map IP address to MAC address. It shows the contents of this cache by using the ARP -a command. If any problems communicating with one specific host, you can append the remote host's IP address to the ARP - A command.



7.

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1] Nbstat -n Command :-

The nbstat -n command for example shows the NetBIOS names that are in use by a devices. The nbstat -r command shows how many netBIOS names the device has been able to resolve recently.

```
Command Prompt

C:\Users\ram10>nbtstat -n

Ethernet:
Node IpAddress: [0.0.0.0] Scope Id: []

    No names in cache

Wi-Fi:
Node IpAddress: [192.168.0.104] Scope Id: []

               NetBIOS Local Name Table

       Name               Type         Status
    ---------------------------------------------
    LAPTOP-MVFDFOVD<00>  UNIQUE      Registered
    WORKGROUP      <00>  GROUP       Registered
    LAPTOP-MVFDFOVD<20>  UNIQUE      Registered

Local Area Connection* 1:
Node IpAddress: [0.0.0.0] Scope Id: []

    No names in cache

Local Area Connection* 2:
Node IpAddress: [0.0.0.0] Scope Id: []

    No names in cache

C:\Users\ram10>
```

```
C:\Users\ram10>nbtstat -r

    NetBIOS Names Resolution and Registration Statistics
    ----------------------------------------------------

    Resolved By Broadcast     = 0
    Resolved By Name Server   = 0

    Registered By Broadcast   = 3
    Registered By Name Server = 0

C:\Users\ram10>
```

8.

8) Route command :-

Ip networks using the routing table to direct packets from one subnet to another. The windows route utility allows to view the device's routing tables. The route command is that it not only shows you the routing table, it lets you make changes. Commands such as route add, delete and route change are used for such modifications.

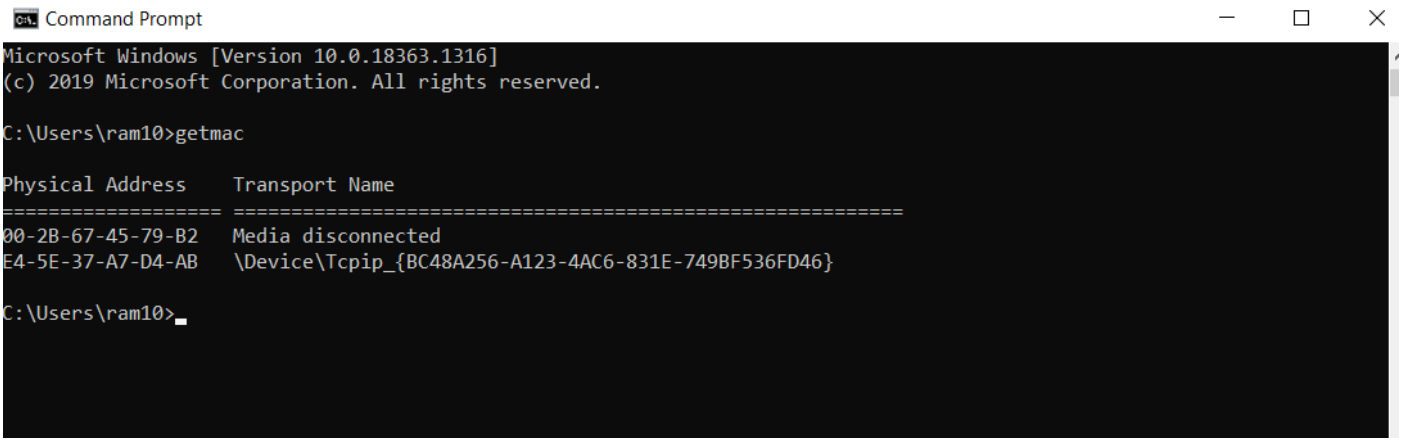
```
C:\Users\ram10>route -4

Manipulates network routing tables.

ROUTE [-f] [-p] [-4|-6] command [destination]
                  [MASK netmask]  [gateway] [METRIC metric]  [IF interface]

  -f           Clears the routing tables of all gateway entries.  If this is
               used in conjunction with one of the commands, the tables are
               cleared prior to running the command.

  -p           When used with the ADD command, makes a route persistent across
               boots of the system. By default, routes are not preserved
               when the system is restarted. Ignored for all other commands,
               which always affect the appropriate persistent routes.

  -4           Force using IPv4.

  -6           Force using IPv6.

  command      One of these:
                 PRINT     Prints  a route
                 ADD       Adds    a route
                 DELETE    Deletes a route
```

9.

20181CSE0621

9] Getmac Command :

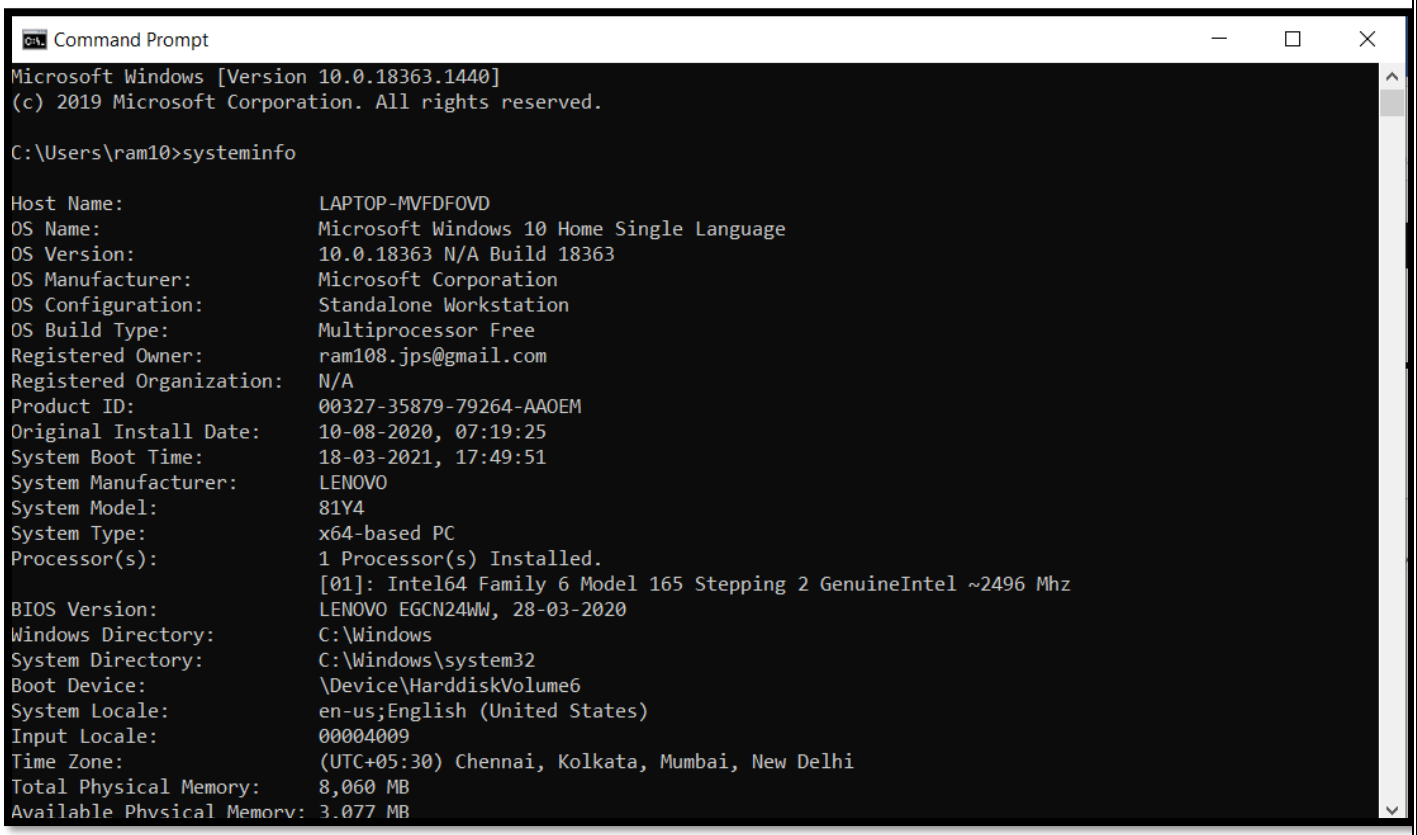
Getmac is a windows command that used to display the MAC addresses for each network adapter. One of the fastest way to obtain the MAC address is by using getmac command.



10.

10] Systeminfo Command :-

If you need to know what brand of network you have, processor details, or exact version of OS this command helps. This command polls your system & pulls the most important information & lists in a easy form to read.


Command Prompt
Microsoft Windows [Version 10.0.18363.1440]
(c) 2019 Microsoft Corporation. All rights reserved.
C:\Users\ram10>systeminfo
Host Name: LAPTOP-MVFDFOVD
OS Name: Microsoft Windows 10 Home Single Language
OS Version: 10.0.18363 N/A Build 18363
OS Manufacturer: Microsoft Corporation
OS Configuration: Standalone Workstation
OS Build Type: Multiprocessor Free
Registered Owner: ram108.jps@gmail.com
Registered Organization: N/A
Product ID: 00327-35879-79264-AAOEM
Original Install Date: 10-08-2020, 07:19:25
System Boot Time: 18-03-2021, 17:49:51
System Manufacturer: LENOVO
System Model: 81Y4
System Type: x64-based PC
Processor(s): 1 Processor(s) Installed.
[01]: Intel64 Family 6 Model 165 Stepping 2 GenuineIntel ~2496 Mhz
BIOS Version: LENOVO EGCN24WW, 28-03-2020
Windows Directory: C:\Windows
System Directory: C:\Windows\system32
Boot Device: \Device\HarddiskVolume6
System Locale: en-us;English (United States)
Input Locale: 00004009
Time Zone: (UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi
Total Physical Memory: 8,060 MB
Available Physical Memory: 3,077 MB