

HARSHIT SRIVASTAVA 19BCE0382

LAB ASSIGNMENT 1 [07/02/2022]- INFORMATION SECURITY MANAGEMENT

CSE 3502 PROF. SIVA SHANMUGAM G

1. IP CONFIG

```
c:\ Command Prompt
Microsoft Windows [Version 10.0.19042.1110]
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C:\Users\HARSHIT>ipconfig

Windows IP Configuration

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

Ethernet adapter VirtualBox Host-Only Network:
  Connection-specific DNS Suffix . . . . . : fe80::4cc3:ac37:22aa:2457%2
  IPv4 Address . . . . . : 192.168.56.1
  Subnet Mask . . . . . : 255.255.255.0
  Default Gateway . . . . . : 

Wireless LAN adapter Local Area Connection* 1:
  Media State . . . . . : Media disconnected
  Connection-specific DNS Suffix . . . . . : 

Wireless LAN adapter Local Area Connection* 10:
  Media State . . . . . : Media disconnected
  Connection-specific DNS Suffix . . . . . : 

Wireless LAN adapter Wi-Fi:
  Connection-specific DNS Suffix . . . . . : fe80::2433:25c8:9dd9:2ae1%7
  Link-local IPv6 Address . . . . . : 192.168.1.9
  IPv4 Address . . . . . : 192.168.1.1
  Subnet Mask . . . . . : 255.255.255.0
  Default Gateway . . . . . : fe80::ed:bf:fe94:6183%7
  192.168.1.1

Ethernet adapter Bluetooth Network Connection:
  Media State . . . . . : Media disconnected
  Connection-specific DNS Suffix . . . . . : 

C:\Users\HARSHIT>
```

IPCONFIG/ALL

```
c:\ Command Prompt
C:\Users\HARSHIT>ipconfig/all

Windows IP Configuration

 Host Name . . . . . : LAPTOP-UE4331SF
 Primary Dns Suffix . . . . . : 
 Node Type . . . . . : Hybrid
 IP Routing Enabled. . . . . : No
 WINS Proxy Enabled. . . . . : No

Ethernet adapter Ethernet:
  Media State . . . . . : Media disconnected
  Connection-specific DNS Suffix . . . . . : 
  Description . . . . . : Realtek Gaming GbE Family Controller
  Physical Address . . . . . : 00-68-EB-78-72-36
  DHCP Enabled. . . . . : Yes
  Autoconfiguration Enabled . . . . . : Yes

Ethernet adapter VirtualBox Host-Only Network:
  Connection-specific DNS Suffix . . . . . : VirtualBox Host-Only Ethernet Adapter
  Description . . . . . : Intel PRO/100 MT Desktop
  Physical Address . . . . . : 0A-00-27-00-00-02
  DHCP Enabled. . . . . : No
  Autoconfiguration Enabled . . . . . : Yes
  Link-local IPv6 Address . . . . . : fe80::acc3:ac37:22aa:2457%2(PREFERRED)
  IPv4 Address . . . . . : 192.168.56.1(PREFERRED)
  Subnet Mask . . . . . : 255.255.255.0
  Default Gateway . . . . . : 839516199
  DHCPv6 IAID . . . . . : 00-01-00-01-25-56-F4-48-00-68-EB-78-72-36
  DHCPv6 Client DUID. . . . . : fec0:0:0:ffff::1%1
  DNS Servers . . . . . : fec0:0:0:ffff::2%1
                           fec0:0:0:ffff::3%1
  NetBIOS over Tcpip. . . . . : Enabled

Wireless LAN adapter Local Area Connection* 1:
  Media State . . . . . : Media disconnected
  Connection-specific DNS Suffix . . . . . : 
  Description . . . . . : Microsoft Wi-Fi Direct Virtual Adapter
  Physical Address . . . . . : 28-7F-CF-9D-B0-03
  DHCP Enabled. . . . . : Yes
  Autoconfiguration Enabled . . . . . : Yes

Wireless LAN adapter Local Area Connection* 10:
  Media State . . . . . : Media disconnected
```

```
cd Command Prompt
Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . . . . . : Microsoft Wi-Fi Direct Virtual Adapter
Description . . . . . : Microsoft Wi-Fi Direct Virtual Adapter
Physical Address . . . . . : 28-7F-CF-9D-B0-03
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . . : Yes

Wireless LAN adapter Local Area Connection* 10:
Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . . . . . : Microsoft Wi-Fi Direct Virtual Adapter #2
Description . . . . . : Microsoft Wi-Fi Direct Virtual Adapter #2
Physical Address . . . . . : 2A-7F-CF-9D-B0-02
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . . : Yes

Wireless LAN adapter Wi-Fi:
Connection-specific DNS Suffix . . . . . : Intel(R) Wireless-AC 9560 160MHz
Description . . . . . : Intel(R) Wireless-AC 9560 160MHz
Physical Address . . . . . : FA-08-0D-7B-FD-42
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::2433:25c8:9dd9:2ae1%7(PREFERRED)
IPv4 Address . . . . . : 192.168.1.9(PREFERRED)
Subnet Mask . . . . . : 255.255.255.0
Lease Obtained. . . . . : 11 August 2021 14:55:26
Lease Expires . . . . . : 14 August 2021 14:55:31
Default Gateway . . . . . : fe80::e2d:b5ff:fe94:6183%7
                           192.168.1.1
DHCP Server . . . . . : 192.168.1.1
DHCPv6 IAID . . . . . : 133826573
DHCPv6 Client DUID. . . . . : 00-03-00-01-FA-08-0D-7B-FD-42
DNS Servers . . . . . : 8.8.8.8
                           8.8.4.4
NetBIOS over Tcpip. . . . . : Enabled

Ethernet adapter Bluetooth Network Connection:
Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . . . . . : Bluetooth Device (Personal Area Network)
Description . . . . . : Bluetooth Device (Personal Area Network)
Physical Address . . . . . : 28-7F-CF-9D-B0-06
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . . : Yes

C:\Users\HARSHIT>
```

IPCONFIG/DISPLAYDNS

```
cd Command Prompt
C:\Users\HARSHIT>ipconfig/displaydns

Windows IP Configuration

northcentralus1-mediacap.svc.ms
-----
Record Name . . . . . : northcentralus1-mediacap.svc.ms
Record Type . . . . . : 5
Time To Live . . . . . : 20
Data Length . . . . . : 8
Section . . . . . : Answer
CNAME Record . . . . . : svc-ms.spo-0008.spo-msedge.net

Record Name . . . . . : svc-ms.spo-0008.spo-msedge.net
Record Type . . . . . : 5
Time To Live . . . . . : 20
Data Length . . . . . : 8
Section . . . . . : Answer
CNAME Record . . . . . : spo-0008.spo-msedge.net

Record Name . . . . . : spo-0008.spo-msedge.net
Record Type . . . . . : 1
Time To Live . . . . . : 20
Data Length . . . . . : 4
Section . . . . . : Answer
A (Host) Record . . . . . : 13.107.136.13

1.0.0.127.in-addr.arpa
-----
Record Name . . . . . : 1.0.0.127.in-addr.arpa.
Record Type . . . . . : 12
Time To Live . . . . . : 597409
Data Length . . . . . : 8
Section . . . . . : Answer
PTR Record . . . . . : kubernetes.docker.internal

assignments.onenote.com
-----
Record Name . . . . . : assignments.onenote.com
Record Type . . . . . : 5
Time To Live . . . . . : 133
Data Length . . . . . : 8
Section . . . . . : Answer
CNAME Record . . . . . : prod.assignments-onenote.com.akadns.net
```

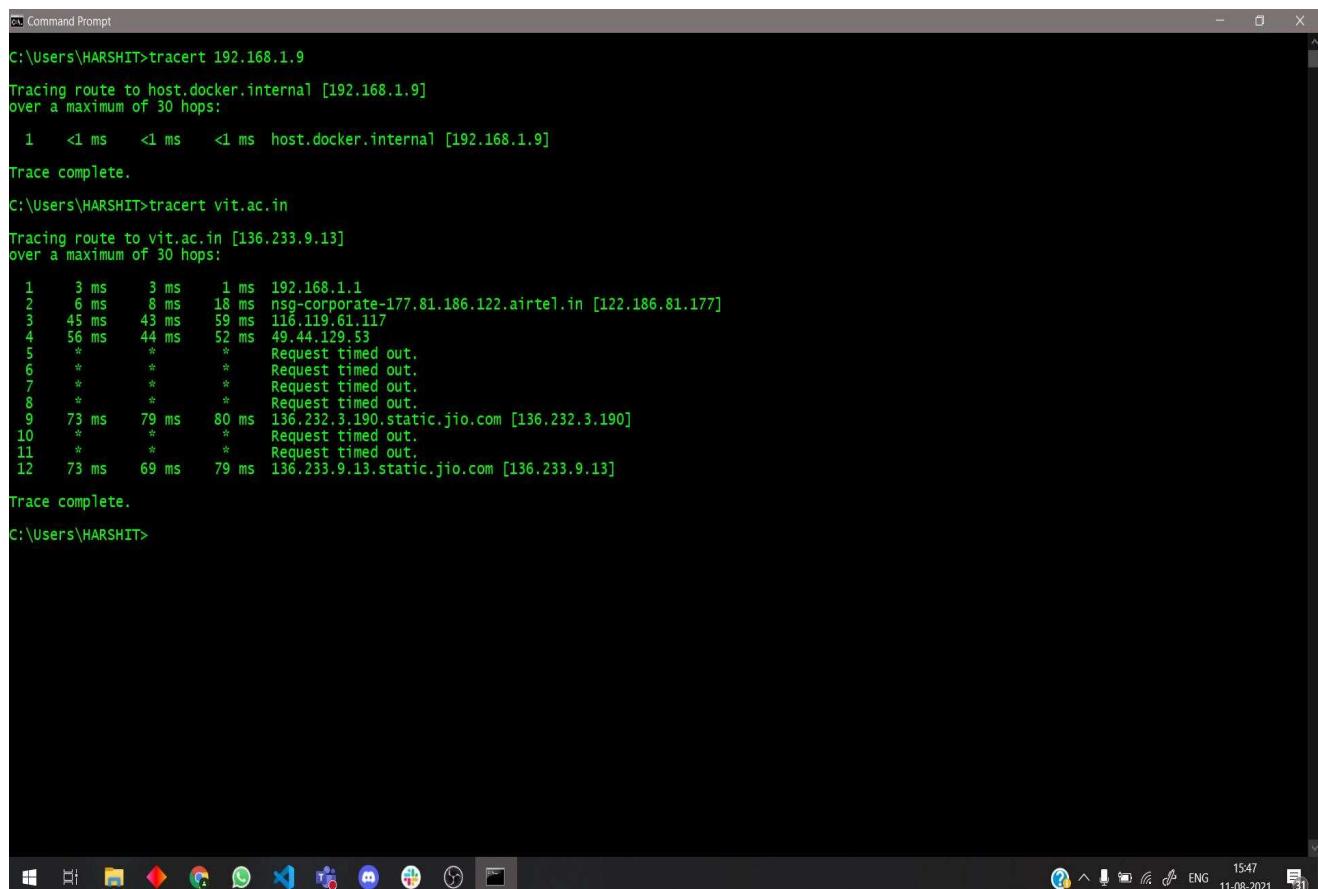
IPCONFIG/FLUSHDNS

```
Command Prompt  
C:\Users\HARSHIT>ipconfig/flushdns  
Windows IP Configuration  
Successfully flushed the DNS Resolver Cache.  
C:\Users\HARSHIT>
```

2.PING 127.0.0.1 AND PING 192.168.1.9

```
Command Prompt  
C:\Users\HARSHIT>ping 127.0.0.1  
Pinging 127.0.0.1 with 32 bytes of data:  
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128  
  
Ping statistics for 127.0.0.1:  
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),  
    Approximate round trip times in milli-seconds:  
        Minimum = 0ms, Maximum = 0ms, Average = 0ms  
  
C:\Users\HARSHIT>ping 192.168.1.9/24  
Ping request could not find host 192.168.1.9/24. Please check the name and try again.  
  
C:\Users\HARSHIT>ping 192.168.1.9  
  
Pinging 192.168.1.9 with 32 bytes of data:  
Reply from 192.168.1.9: bytes=32 time<1ms TTL=128  
  
Ping statistics for 192.168.1.9:  
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),  
    Approximate round trip times in milli-seconds:  
        Minimum = 0ms, Maximum = 0ms, Average = 0ms  
  
C:\Users\HARSHIT>
```

3.TRACERT 192.168.1.9 AND TRACERT VIT.AC.IN



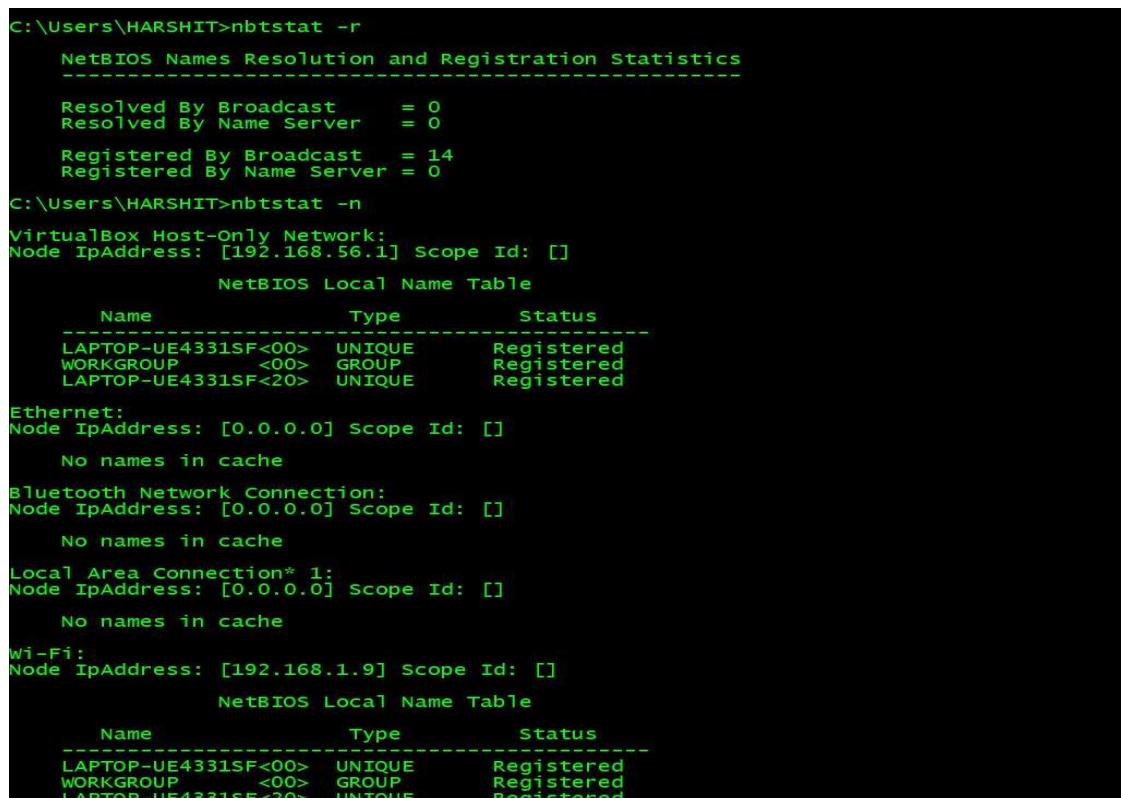
```
c:\ Command Prompt
C:\Users\HARSHIT>tracert 192.168.1.9
Tracing route to host.docker.internal [192.168.1.9]
over a maximum of 30 hops:
  1  <1 ms    <1 ms    <1 ms  host.docker.internal [192.168.1.9]
Trace complete.

C:\Users\HARSHIT>tracert vit.ac.in
Tracing route to vit.ac.in [136.233.9.13]
over a maximum of 30 hops:
  1    3 ms    3 ms    1 ms  192.168.1.1
  2    6 ms    8 ms   18 ms  nsg-corporate-177.81.186.122.airtel.in [122.186.81.177]
  3   45 ms   43 ms   59 ms  116.119.61.117
  4   56 ms   44 ms   52 ms  49.44.129.53
  5    *       *       * Request timed out.
  6    *       *       * Request timed out.
  7    *       *       * Request timed out.
  8    *       *       * Request timed out.
  9   73 ms   79 ms   80 ms  136.232.3.190.static.jio.com [136.232.3.190]
10    *       *       * Request timed out.
11    *       *       * Request timed out.
12   73 ms   69 ms   79 ms  136.233.9.13.static.jio.com [136.233.9.13]

Trace complete.

C:\Users\HARSHIT>
```

4.NBTSTAT -R AND NBTSTAT -N



```
C:\Users\HARSHIT>nbtstat -r
NetBIOS Names Resolution and Registration Statistics
-----
Resolved By Broadcast      = 0
Resolved By Name Server    = 0
Registered By Broadcast   = 14
Registered By Name Server = 0

C:\Users\HARSHIT>nbtstat -n
VirtualBox Host-Only Network:
NodeIpAddress: [192.168.56.1] Scope Id: []
    NetBIOS Local Name Table
        Name          Type          Status
        -----        ---          -----
LAPTOP-UE4331SF<00>    UNIQUE        Registered
WORKGROUP                <00>        GROUP        Registered
LAPTOP-UE4331SF<20>    UNIQUE        Registered

Ethernet:
NodeIpAddress: [0.0.0.0] Scope Id: []
    No names in cache

Bluetooth Network Connection:
NodeIpAddress: [0.0.0.0] Scope Id: []
    No names in cache

Local Area Connection* 1:
NodeIpAddress: [0.0.0.0] Scope Id: []
    No names in cache

Wi-Fi:
NodeIpAddress: [192.168.1.9] Scope Id: []
    NetBIOS Local Name Table
        Name          Type          Status
        -----        ---          -----
LAPTOP-UE4331SF<00>    UNIQUE        Registered
WORKGROUP                <00>        GROUP        Registered
LAPTOP-UE4331SF<20>    UNIQUE        Registered
```

NBTSTAT -A 192.168.1.0

```
C:\Users\HARSHIT>nbtstat -A 192.168.1.0

VirtualBox Host-Only Network:
NodeIpAddress: [192.168.56.1] Scope Id: []
    Host not found.

Ethernet:
NodeIpAddress: [0.0.0.0] Scope Id: []
    Host not found.

Bluetooth Network Connection:
NodeIpAddress: [0.0.0.0] Scope Id: []
    Host not found.

Local Area Connection* 1:
NodeIpAddress: [0.0.0.0] Scope Id: []
    Host not found.

Wi-Fi:
NodeIpAddress: [192.168.1.9] Scope Id: []
    Host not found.

Local Area Connection* 10:
NodeIpAddress: [0.0.0.0] Scope Id: []
    Host not found.

C:\Users\HARSHIT>
```

NBTSTAT -S

```
C:\Users\HARSHIT>nbtstat -S

VirtualBox Host-Only Network:
NodeIpAddress: [192.168.56.1] Scope Id: []
    No Connections

VMware Network Adapter VMnet1:
NodeIpAddress: [192.168.248.1] Scope Id: []
    No Connections

VMware Network Adapter VMnet8:
NodeIpAddress: [192.168.16.1] Scope Id: []
    No Connections

Ethernet:
NodeIpAddress: [0.0.0.0] Scope Id: []
    No Connections

Wi-Fi:
NodeIpAddress: [192.168.1.9] Scope Id: []
    No Connections

Local Area Connection* 1:
NodeIpAddress: [0.0.0.0] Scope Id: []
    No Connections

Local Area Connection* 10:
NodeIpAddress: [0.0.0.0] Scope Id: []
    No Connections

C:\Users\HARSHIT>
```

NBTSTAT -C

```
C:\Users\HARSHIT>nbtstat -c

VirtualBox Host-Only Network:
NodeIpAddress: [192.168.56.1] Scope Id: []
    No names in cache

VMware Network Adapter VMnet1:
NodeIpAddress: [192.168.248.1] Scope Id: []
    No names in cache

VMware Network Adapter VMnet8:
NodeIpAddress: [192.168.16.1] Scope Id: []
    No names in cache

Ethernet:
NodeIpAddress: [0.0.0.0] Scope Id: []
    No names in cache

Wi-Fi:
NodeIpAddress: [192.168.1.9] Scope Id: []
    No names in cache

Local Area Connection* 1:
NodeIpAddress: [0.0.0.0] Scope Id: []
    No names in cache

Local Area Connection* 10:
NodeIpAddress: [0.0.0.0] Scope Id: []
    No names in cache

C:\Users\HARSHIT>
```

NBTSTAT -RR

```
C:\WINDOWS\system32>nbtstat -RR
The NetBIOS names registered by this computer have been refreshed.

C:\WINDOWS\system32>
```

5.NETSTAT -a

Active Connections			
Proto	Local Address	Foreign Address	State
TCP	0.0.0.0:135	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:445	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:2343	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:3306	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:3580	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:5040	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:5357	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:5432	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:7680	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:17500	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:33060	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:49664	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:49665	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:49666	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:49667	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:49668	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:49669	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:49705	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:59110	LAPTOP-UE4331SF:0	LISTENING
TCP	0.0.0.0:59111	LAPTOP-UE4331SF:0	LISTENING
TCP	127.0.0.1:6463	LAPTOP-UE4331SF:0	LISTENING
TCP	127.0.0.1:27015	LAPTOP-UE4331SF:0	LISTENING
TCP	127.0.0.1:27017	LAPTOP-UE4331SF:0	LISTENING
TCP	127.0.0.1:49676	LAPTOP-UE4331SF:0	LISTENING
TCP	127.0.0.1:49686	LAPTOP-UE4331SF:0	LISTENING
TCP	127.0.0.1:49686	kubernetes:49693	ESTABLISHED
TCP	127.0.0.1:49686	kubernetes:49694	ESTABLISHED
TCP	127.0.0.1:49686	kubernetes:49695	ESTABLISHED
TCP	127.0.0.1:49686	kubernetes:49697	ESTABLISHED
TCP	127.0.0.1:49686	kubernetes:49700	ESTABLISHED
TCP	127.0.0.1:49693	kubernetes:49686	ESTABLISHED
TCP	127.0.0.1:49694	kubernetes:49686	ESTABLISHED
TCP	127.0.0.1:49694	kubernetes:49686	ESTABLISHED
TCP	127.0.0.1:49695	kubernetes:49686	ESTABLISHED
TCP	127.0.0.1:49697	kubernetes:49686	ESTABLISHED
TCP	127.0.0.1:49700	kubernetes:49704	ESTABLISHED
TCP	127.0.0.1:49701	kubernetes:49703	ESTABLISHED
TCP	127.0.0.1:49702	kubernetes:49704	ESTABLISHED
TCP	127.0.0.1:49703	kubernetes:49703	ESTABLISHED
TCP	127.0.0.1:49704	kubernetes:49706	ESTABLISHED
TCP	127.0.0.1:49707	kubernetes:49718	ESTABLISHED
TCP	127.0.0.1:49718	kubernetes:49707	ESTABLISHED
TCP	127.0.0.1:49727	kubernetes:49728	ESTABLISHED
TCP	127.0.0.1:65001	kubernetes:49706	ESTABLISHED
TCP	192.168.1.9:55891	52.114.15.102:https	ESTABLISHED
TCP	192.168.1.9:55893	20.197.71.89:https	ESTABLISHED
TCP	192.168.1.9:55894	20.197.71.89:https	ESTABLISHED
TCP	192.168.1.9:55907	20.197.71.89:https	ESTABLISHED
TCP	192.168.1.9:55942	52.113.206.135:https	ESTABLISHED
TCP	192.168.1.9:56010	a104-91-64-10.deploy.static.akamaitechnologies.com:https	CLOSE_WAIT
TCP	192.168.1.9:57623	de112502-in-f10.1e100.net:https	CLOSE_WAIT
TCP	192.168.1.9:57627	117.18.237.29:https	CLOSE_WAIT
TCP	192.168.1.9:57628	52.98.34.194:https	ESTABLISHED
TCP	192.168.1.9:57631	52.98.34.194:https	ESTABLISHED
TCP	192.168.1.9:57633	de103s16-in-f1.1e100.net:https	CLOSE_WAIT
TCP	192.168.1.9:57635	52.98.34.194:https	ESTABLISHED

NETSTAT -e AND NETSTAT -f

Interface Statistics			
	Received	Sent	
Bytes	45688762	208749078	
Unicast packets	7947855	1321740	
Non-unicast packets	44595	9621	
Discards	0	0	
Errors	0	0	
Unknown protocols	0		
Active Connections			
Proto	Local Address	Foreign Address	State
TCP	127.0.0.1:49686	kubernetes.docker.internal:49693	ESTABLISHED
TCP	127.0.0.1:49686	kubernetes.docker.internal:49694	ESTABLISHED
TCP	127.0.0.1:49686	kubernetes.docker.internal:49695	ESTABLISHED
TCP	127.0.0.1:49686	kubernetes.docker.internal:49697	ESTABLISHED
TCP	127.0.0.1:49686	kubernetes.docker.internal:49700	ESTABLISHED
TCP	127.0.0.1:49693	kubernetes.docker.internal:49686	ESTABLISHED
TCP	127.0.0.1:49694	kubernetes.docker.internal:49686	ESTABLISHED
TCP	127.0.0.1:49695	kubernetes.docker.internal:49686	ESTABLISHED
TCP	127.0.0.1:49697	kubernetes.docker.internal:49686	ESTABLISHED
TCP	127.0.0.1:49700	kubernetes.docker.internal:49686	ESTABLISHED
TCP	127.0.0.1:49701	kubernetes.docker.internal:49701	ESTABLISHED
TCP	127.0.0.1:49703	kubernetes.docker.internal:49704	ESTABLISHED
TCP	127.0.0.1:49704	kubernetes.docker.internal:49703	ESTABLISHED
TCP	127.0.0.1:49706	kubernetes.docker.internal:65001	ESTABLISHED
TCP	127.0.0.1:49707	kubernetes.docker.internal:49718	ESTABLISHED
TCP	127.0.0.1:49718	kubernetes.docker.internal:49707	ESTABLISHED
TCP	127.0.0.1:49727	kubernetes.docker.internal:49728	ESTABLISHED
TCP	127.0.0.1:49728	kubernetes.docker.internal:49727	ESTABLISHED
TCP	127.0.0.1:65001	kubernetes.docker.internal:49706	ESTABLISHED
TCP	192.168.1.9:55891	52.114.15.102:https	ESTABLISHED
TCP	192.168.1.9:55893	20.197.71.89:https	ESTABLISHED
TCP	192.168.1.9:55894	20.197.71.89:https	ESTABLISHED
TCP	192.168.1.9:55907	20.197.71.89:https	ESTABLISHED
TCP	192.168.1.9:55942	52.113.206.135:https	ESTABLISHED
TCP	192.168.1.9:56010	a104-91-64-10.deploy.static.akamaitechnologies.com:https	CLOSE_WAIT
TCP	192.168.1.9:57623	de112502-in-f10.1e100.net:https	CLOSE_WAIT
TCP	192.168.1.9:57627	117.18.237.29:https	CLOSE_WAIT
TCP	192.168.1.9:57628	52.98.34.194:https	ESTABLISHED
TCP	192.168.1.9:57631	52.98.34.194:https	ESTABLISHED
TCP	192.168.1.9:57633	de103s16-in-f1.1e100.net:https	CLOSE_WAIT
TCP	192.168.1.9:57635	52.98.34.194:https	ESTABLISHED

NETSTAT -r

```
C:\Users\HARSHIT>netstat -r
=====
Interface List
10...00 68 eb 78 72 36 ....Realtek Gaming GbE Family Controller
2...0a 00 27 00 00 02 ....VirtualBox Host-Only Ethernet Adapter
17...28 7f cf 9d b0 03 ....Microsoft Wi-Fi Direct Virtual Adapter
4...2a 7f cf 9d b0 02 ....Microsoft Wi-Fi Direct Virtual Adapter #2
7...fa 08 0d 7b fd 42 ....Intel(R) Wireless-AC 9560 160MHz
18...28 7f cf 9d b0 06 ....Bluetooth Device (Personal Area Network)
1..... ....Software Loopback Interface 1
=====

IPv4 Route Table
=====
Active Routes:
Network Destination      Netmask     Gateway       Interface Metric
          0.0.0.0        0.0.0.0   192.168.1.1  192.168.1.9    50
          127.0.0.0       255.0.0.0   On-link        127.0.0.1    331
          127.0.0.1       255.255.255.255  On-link        127.0.0.1    331
 127.255.255.255       255.255.255.255  On-link        127.0.0.1    331
 192.168.1.0        255.255.255.0   On-link        192.168.1.9    306
 192.168.1.9        255.255.255.255  On-link        192.168.1.9    306
 192.168.1.255       255.255.255.255  On-link        192.168.1.9    306
 192.168.56.0        255.255.255.0   On-link        192.168.56.1   281
 192.168.56.1        255.255.255.255  On-link        192.168.56.1   281
 192.168.56.255       255.255.255.255  On-link        192.168.56.1   281
 224.0.0.0          240.0.0.0    On-link        127.0.0.1    331
 224.0.0.0          240.0.0.0    On-link        192.168.56.1   281
 224.0.0.0          240.0.0.0    On-link        192.168.1.9    306
 255.255.255.255       255.255.255.255  On-link        127.0.0.1    331
 255.255.255.255       255.255.255.255  On-link        192.168.56.1   281
 255.255.255.255       255.255.255.255  On-link        192.168.1.9    306
=====
Persistent Routes:
 None
=====
IPv6 Route Table
=====
Active Routes:
 If Metric Network Destination      Gateway
  7   306 ::/0           fe80:::ed2:b5ff:fe94:6183
  1   331 ::1/128        On-link
  2   281 fe80::/64       On-link
  7   306 fe80::/64       On-link
  7   306 fe80::2433:25c8:9dd9:2ae1/128
  2   281 fe80::4cc3:ac37:22aa:2457/128
  1   331 ff00::/8        On-link
=====
```

NETSTAT -S

```
C:\Users\HARSHIT>netstat -s
=====
IPv4 Statistics
Packets Received          = 4187817
Received Header Errors    = 0
Received Address Errors   = 0
Datagrams Forwarded       = 0
Unknown Protocols Received= 0
Received Packets Discarded= 4567
Received Packets Delivered= 4335196
Output Requests           = 1214495
Routing Discards          = 0
Discarded Output Packets  = 181
Output Packet No Route    = 340
Reassembly Required       = 0
Reassembly Successful     = 0
Reassembly Failures      = 0
Datagrams Successfully Fragmented= 0
Datagrams Failing Fragmentation= 0
Fragments Created         = 0
=====
IPv6 Statistics
Packets Received          = 2705
Received Header Errors    = 0
Received Address Errors   = 345
Datagrams Forwarded       = 0
Unknown Protocols Received= 0
Received Packets Discarded= 32
Received Packets Delivered= 123053
Output Requests           = 124772
Routing Discards          = 0
Discarded Output Packets  = 0
Output Packet No Route    = 1
Reassembly Required       = 0
Reassembly Successful     = 0
Reassembly Failures      = 0
Datagrams Successfully Fragmented= 0
Datagrams Failing Fragmentation= 0
Fragments Created         = 0
=====
```

NETSTAT -T

```
C:\Users\HARSHIT>netstat -t

Active Connections

  Proto  Local Address          Foreign Address        State           Offload State
  TCP    127.0.0.1:49673        kubernetes:49674      ESTABLISHED   InHost
  TCP    127.0.0.1:49674        kubernetes:49673      ESTABLISHED   InHost
  TCP    127.0.0.1:49675        kubernetes:49676      ESTABLISHED   InHost
  TCP    127.0.0.1:49676        kubernetes:49675      ESTABLISHED   InHost
  TCP    127.0.0.1:59571        kubernetes:65001      ESTABLISHED   InHost
  TCP    127.0.0.1:59631        kubernetes:59647      ESTABLISHED   InHost
  TCP    127.0.0.1:59647        kubernetes:59631      ESTABLISHED   InHost
  TCP    127.0.0.1:65001        kubernetes:59571      ESTABLISHED   InHost
  TCP    192.168.1.9:59554      20.197.71.89:https  ESTABLISHED   InHost
  TCP    192.168.1.9:59557      20.197.71.89:https  ESTABLISHED   InHost
  TCP    192.168.1.9:59603      52.98.123.226:https ESTABLISHED   InHost
  TCP    192.168.1.9:59658      netblock-72-25-64-32:https ESTABLISHED   InHost
  TCP    192.168.1.9:59680      20.198.162.76:https  ESTABLISHED   InHost
  TCP    192.168.1.9:59683      20.198.162.76:https  ESTABLISHED   InHost
  TCP    192.168.1.9:59709      s3-us-west-2-r-w:https CLOSE_WAIT    InHost
  TCP    192.168.1.9:59716      a104-108-158-33:https CLOSE_WAIT    InHost
  TCP    192.168.1.9:59762      52.113.206.50:https  ESTABLISHED   InHost
  TCP    192.168.1.9:59797      52.114.32.217:https ESTABLISHED   InHost
  TCP    192.168.1.9:60016      52.114.32.3:https   ESTABLISHED   InHost
  TCP    192.168.1.9:60027      52.109.20.57:https  ESTABLISHED   InHost
^C
C:\Users\HARSHIT>
```

NETSTAT -n

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

Active Connections

  Proto  Local Address          Foreign Address        State
  TCP    127.0.0.1:49673        127.0.0.1:49674      ESTABLISHED
  TCP    127.0.0.1:49674        127.0.0.1:49673      ESTABLISHED
  TCP    127.0.0.1:49675        127.0.0.1:49676      ESTABLISHED
  TCP    127.0.0.1:49676        127.0.0.1:49675      ESTABLISHED
  TCP    127.0.0.1:59571        127.0.0.1:65001      ESTABLISHED
  TCP    127.0.0.1:59631        127.0.0.1:59647      ESTABLISHED
  TCP    127.0.0.1:59647        127.0.0.1:59631      ESTABLISHED
  TCP    127.0.0.1:65001        127.0.0.1:59571      ESTABLISHED
  TCP    192.168.1.9:59554      20.197.71.89:443   ESTABLISHED
  TCP    192.168.1.9:59557      20.197.71.89:443   ESTABLISHED
  TCP    192.168.1.9:59603      52.98.123.226:443  ESTABLISHED
  TCP    192.168.1.9:59658      72.25.64.32:443   ESTABLISHED
  TCP    192.168.1.9:59680      20.198.162.76:443  ESTABLISHED
  TCP    192.168.1.9:59683      20.198.162.76:443  ESTABLISHED
  TCP    192.168.1.9:59709      52.218.244.65:443  CLOSE_WAIT
  TCP    192.168.1.9:59716      104.108.158.33:443  CLOSE_WAIT
  TCP    192.168.1.9:59762      52.113.206.50:443  ESTABLISHED
  TCP    192.168.1.9:59797      52.114.32.217:443  ESTABLISHED
  TCP    192.168.1.9:60016      52.114.32.3:443   ESTABLISHED
  TCP    192.168.1.9:60027      52.109.20.57:443   ESTABLISHED
  TCP    192.168.1.9:60030      149.56.72.190:443  CLOSE_WAIT
  TCP    192.168.1.9:60179      40.97.128.226:443  ESTABLISHED
  TCP    192.168.1.9:60203      20.50.73.10:443   ESTABLISHED
  TCP    192.168.1.9:60206      52.114.133.157:443 TIME_WAIT
  TCP    192.168.1.9:60208      52.114.40.120:443  TIME_WAIT
  TCP    192.168.1.9:60209      23.48.245.123:443  ESTABLISHED
  TCP    192.168.1.9:60210      23.48.245.123:443  ESTABLISHED
  TCP    192.168.1.9:60213      20.150.77.100:443  ESTABLISHED
  TCP    192.168.1.9:60214      52.114.142.209:443 ESTABLISHED
  TCP    192.168.1.9:60215      52.114.142.209:443 ESTABLISHED
  TCP    192.168.1.9:60216      40.90.136.166:443  ESTABLISHED
  TCP    192.168.1.9:60217      20.60.178.4:443   ESTABLISHED
  TCP    192.168.1.9:60218      104.208.16.88:443  ESTABLISHED
  TCP    192.168.1.9:60219      20.42.65.84:443   ESTABLISHED
  TCP    192.168.1.9:60220      104.108.243.106:80  ESTABLISHED
C:\Users\HARSHIT>
```

6.TASKLIST

Image Name	PID	Session Name	Session#	Mem Usage
System Idle Process	0	Services	0	8 K
System	4	Services	0	4,812 K
Secure System	88	Services	0	40,536 K
Registry	156	Services	0	76,316 K
smss.exe	572	Services	0	1,016 K
csrss.exe	812	Services	0	4,372 K
wininit.exe	900	Services	0	5,220 K
csrss.exe	948	Console	1	4,936 K
services.exe	972	Services	0	11,344 K
LsaIso.exe	992	Services	0	2,556 K
Tsass.exe	1000	Services	0	21,148 K
svchost.exe	1064	Services	0	29,932 K
fontdryhost.exe	1092	Services	0	2,412 K
svchost.exe	1152	Services	0	21,432 K
svchost.exe	1200	Services	0	9,000 K
winlogon.exe	1276	Console	1	9,848 K
fontdryhost.exe	1336	Console	1	7,060 K
dwm.exe	1440	Console	1	63,124 K
WUDFHost.exe	1484	Services	0	9,928 K
svchost.exe	1568	Services	0	9,836 K
svchost.exe	1604	Services	0	4,652 K
svchost.exe	1620	Services	0	8,576 K
svchost.exe	1628	Services	0	8,252 K
svchost.exe	1652	Services	0	11,204 K
svchost.exe	1660	Services	0	4,772 K
svchost.exe	1816	Services	0	9,156 K
svchost.exe	1824	Services	0	9,496 K
svchost.exe	1952	Services	0	16,536 K
svchost.exe	1988	Services	0	14,532 K
svchost.exe	112	Services	0	7,436 K
svchost.exe	1376	Services	0	5,724 K
svchost.exe	2088	Services	0	11,548 K
svchost.exe	2104	Services	0	8,260 K
svchost.exe	2140	Services	0	11,208 K
svchost.exe	2152	Services	0	6,912 K
svchost.exe	2276	Services	0	5,528 K
svchost.exe	2412	Services	0	6,684 K
svchost.exe	2448	Services	0	10,076 K
svchost.exe	2616	Services	0	9,724 K
svchost.exe	2704	Services	0	10,816 K
svchost.exe	2716	Services	0	5,916 K
svchost.exe	2772	Services	0	35,388 K
AppHelperCap.exe	2784	Services	0	15,776 K
SysInfoCap.exe	2792	Services	0	18,440 K
DiagsCap.exe	2800	Services	0	5,860 K

7.GETMAC AND 8.HOSTNAME

```
C:\ Command Prompt
C:\Users\HARSHIT>getmac
Physical Address      Transport Name
=====
0A-00-27-00-00-02    \Device\Tcpip_{0048F5EE-A0BD-4DD9-B7AD-7C2FAAFD2BA}
FA-08-0D-7B-FD-42    \Device\Tcpip_{092FD6E1-E409-4C5E-BE42-FB7635FFF631}
00-68-EB-78-72-36    Media disconnected
28-7F-CF-9D-B0-06    Media disconnected

C:\Users\HARSHIT>hostname
LAPTOP-UE4331SF

C:\Users\HARSHIT>
```

9.ROUTE PRINT

```
C:\Users\HARSHIT>route PRINT
=====
Interface List
 10...00 68 eb 78 72 36 ....Realtek Gaming GbE Family Controller
 2...0a 00 27 00 00 02 ....VirtualBox Host-Only Ethernet Adapter
 17...28 7f cf 9d b0 03 ....Microsoft Wi-Fi Direct Virtual Adapter
 4...2a 7f cf 9d b0 02 ....Microsoft Wi-Fi Direct Virtual Adapter #2
 18...28 7f cf 9d b0 06 ....Bluetooth Device (Personal Area Network)
 7...fa 08 0d 7b fd 42 ....Intel(R) Wireless-AC 9560 160MHz
 1.....Software Loopback Interface 1
=====

IPv4 Route Table
=====
Active Routes:
Network Destination      Netmask     Gateway       Interface Metric
          0.0.0.0        0.0.0.0   192.168.1.1  192.168.1.9    65
          127.0.0.0       255.0.0.0   On-link        127.0.0.1    331
          127.0.0.1       255.255.255.255  On-link        127.0.0.1    331
 127.255.255.255       255.255.255.255  On-link        127.0.0.1    331
          192.168.1.0       255.255.255.0   On-link        192.168.1.9    321
          192.168.1.9       255.255.255.255  On-link        192.168.1.9    321
 192.168.1.255       255.255.255.255  On-link        192.168.1.9    321
          192.168.56.0       255.255.255.0   On-link        192.168.56.1    281
          192.168.56.1       255.255.255.255  On-link        192.168.56.1    281
 192.168.56.255       255.255.255.255  On-link        192.168.56.1    281
          224.0.0.0         240.0.0.0   On-link        127.0.0.1    331
          224.0.0.0         240.0.0.0   On-link        192.168.56.1    281
          224.0.0.0         240.0.0.0   On-link        192.168.1.9    321
 255.255.255.255       255.255.255.255  On-link        127.0.0.1    331
 255.255.255.255       255.255.255.255  On-link        192.168.56.1    281
 255.255.255.255       255.255.255.255  On-link        192.168.1.9    321
=====

Persistent Routes:
  None

IPv6 Route Table
=====
Active Routes:
 If Metric Network Destination      Gateway
  7   321 ::/0           fe80::ed2:b5ff:fe94:6183
  1   331 ::1/128        On-link
  2   281 fe80::/64       On-link
  7   321 fe80::/64       On-link
  7   321 fe80::2433:25c8:9dd9:2ae1/128
  2   281 fe80::4cc3:ac37:22aa:2457/128
  1   331 ff00::/8        On-link
=====
```

ROUTE -P -4 PRINT

```
C:\ Command Prompt
C:\Users\HARSHIT>route -p -4 print
=====
Interface List
 12...00 68 eb 78 72 36 ....Realtek Gaming GbE Family Controller
 2...0a 00 27 00 00 02 ....VirtualBox Host-Only Ethernet Adapter
 17...28 7f cf 9d b0 03 ....Microsoft Wi-Fi Direct Virtual Adapter
 3...2a 7f cf 9d b0 02 ....Microsoft Wi-Fi Direct Virtual Adapter #2
 7...00 50 56 c0 00 01 ....VMware Virtual Ethernet Adapter for VMnet1
 19...00 50 56 c0 00 08 ....VMware Virtual Ethernet Adapter for VMnet8
 5...fa 08 0d 7b fd 42 ....Intel(R) Wireless-AC 9560 160MHz
 1.....Software Loopback Interface 1
=====

IPv4 Route Table
=====
Active Routes:
Network Destination      Netmask     Gateway       Interface Metric
          0.0.0.0        0.0.0.0   192.168.1.1  192.168.1.9    50
          127.0.0.0       255.0.0.0   On-link        127.0.0.1    331
          127.0.0.1       255.255.255.255  On-link        127.0.0.1    331
 127.255.255.255       255.255.255.255  On-link        127.0.0.1    331
          192.168.1.0       255.255.255.0   On-link        192.168.1.9    306
          192.168.1.9       255.255.255.255  On-link        192.168.1.9    306
 192.168.1.255       255.255.255.255  On-link        192.168.1.9    306
          192.168.16.0       255.255.255.0   On-link        192.168.16.1    291
          192.168.16.1       255.255.255.255  On-link        192.168.16.1    291
 192.168.16.255       255.255.255.255  On-link        192.168.16.1    291
          192.168.56.0       255.255.255.0   On-link        192.168.56.1    281
          192.168.56.1       255.255.255.255  On-link        192.168.56.1    281
 192.168.56.255       255.255.255.255  On-link        192.168.56.1    281
          192.168.248.0       255.255.255.0   On-link        192.168.248.1    291
          192.168.248.1       255.255.255.255  On-link        192.168.248.1    291
 192.168.248.255       255.255.255.255  On-link        192.168.248.1    291
          224.0.0.0         240.0.0.0   On-link        127.0.0.1    331
          224.0.0.0         240.0.0.0   On-link        192.168.56.1    281
          224.0.0.0         240.0.0.0   On-link        192.168.1.9    306
          224.0.0.0         240.0.0.0   On-link        192.168.248.1    291
          224.0.0.0         240.0.0.0   On-link        192.168.16.1    291
 255.255.255.255       255.255.255.255  On-link        127.0.0.1    331
 255.255.255.255       255.255.255.255  On-link        192.168.56.1    281
 255.255.255.255       255.255.255.255  On-link        192.168.1.9    306
 255.255.255.255       255.255.255.255  On-link        192.168.248.1    291
 255.255.255.255       255.255.255.255  On-link        192.168.16.1    291
=====

Persistent Routes:
  None

C:\Users\HARSHIT>
```

10.FC [FILE1] [FILE2]

```
C:\Users\HARSHIT>fc Untitled1.ipynb Untitled2.ipynb
Comparing files Untitled1.ipynb and UNTITLED2.IPYNB
***** Untitled1.ipynb
{
  "cells": [
    {
      "cell_type": "code",
      "execution_count": 1,
      "metadata": {},
      "outputs": [],
      "source": [
        "my_l = [1,2,3]"
      ]
    },
    {
      "cell_type": "code",
      "execution_count": 2,
      "metadata": {},
      "outputs": [
        {
          "data": {
            "text/plain": [
              "[1, 2, 3]"
            ]
          },
          "execution_count": 2,
          "metadata": {},
          "output_type": "execute_result"
        }
      ],
      "source": [
        "my_l"
      ]
    },
    {
      "cell_type": "code",
      "execution_count": 3,
      "metadata": {},
      "outputs": [],
      "source": [
        "import numpy as np"
      ]
    },
    {
      "cell_type": "code",
      "execution_count": 6,
      "metadata": {},
      "outputs": [],
      "source": [

```

11.ARP -a AND ARP -d

```
C:\Users\HARSHIT>arp -a
Interface: 192.168.56.1 --- 0x2
  Internet Address      Physical Address      Type
  192.168.56.255        ff-ff-ff-ff-ff-ff      static
  224.0.0.2               01-00-5e-00-00-02      static
  224.0.0.22              01-00-5e-00-00-16      static
  224.0.0.251             01-00-5e-00-00-fb      static
  224.0.0.252             01-00-5e-00-00-fc      static
  239.255.255.250         01-00-5e-7f-ff-fa      static
  255.255.255.255         ff-ff-ff-ff-ff-ff      static

Interface: 192.168.1.9 --- 0x7
  Internet Address      Physical Address      Type
  192.168.1.1            0c-d2-b5-94-61-83      dynamic
  192.168.1.4            5c-ea-1d-67-b7-67      dynamic
  192.168.1.255           ff-ff-ff-ff-ff-ff      static
  224.0.0.2               01-00-5e-00-00-02      static
  224.0.0.22              01-00-5e-00-00-16      static
  224.0.0.251             01-00-5e-00-00-fb      static
  224.0.0.252             01-00-5e-00-00-fc      static
  239.255.255.250         01-00-5e-7f-ff-fa      static
  255.255.255.255         ff-ff-ff-ff-ff-ff      static

C:\Users\HARSHIT>arp -d
The ARP entry deletion failed: The requested operation requires elevation.

C:\Users\HARSHIT>
```

12.PATHPING

```
C:\Users\HARSHIT>pathping 136.233.9.13

Tracing route to 136.233.9.13.static.jio.com [136.233.9.13]
over a maximum of 30 hops:
  0 host.docker.internal [192.168.1.9]
  1 192.168.1.1
  2 223.177.143.255
  3 116.119.61.117
  4 49.44.129.53
  5 *           *

Computing statistics for 100 seconds...
          Source to Here   This Node/Link
Hop  RTT      Lost/Sent = Pct  Lost/Sent = Pct  Address
  0          0/ 100 = 0%        0/ 100 = 0%  host.docker.internal [192.168.1.9]
  1    4ms      0/ 100 = 0%        0/ 100 = 0%  192.168.1.1
  2   14ms      1/ 100 = 1%        1/ 100 = 1%  223.177.143.255
  3   45ms      0/ 100 = 0%        0/ 100 = 0%  116.119.61.117
  4   50ms      0/ 100 = 0%        0/ 100 = 0%  49.44.129.53

Trace complete.

C:\Users\HARSHIT>
```

13.CIPHER/B

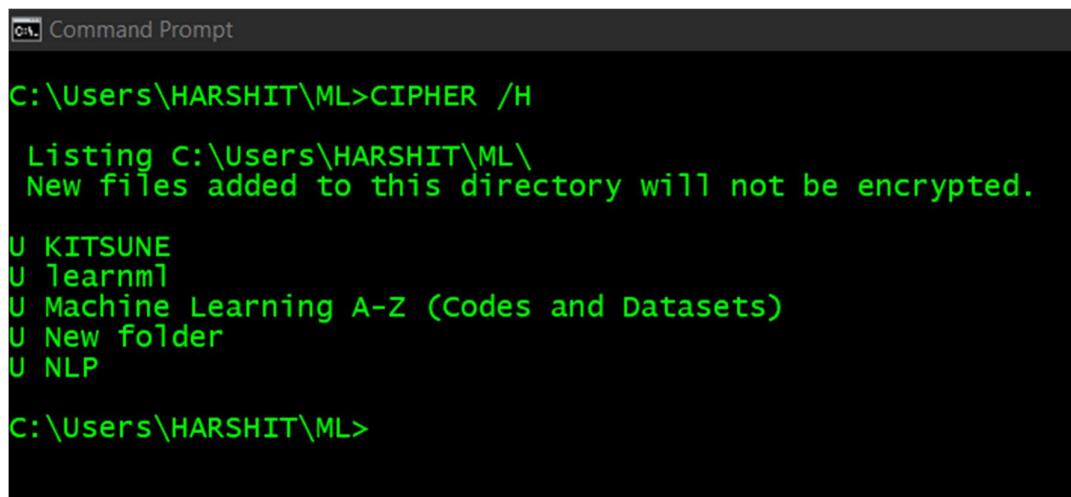
```
Microsoft Windows [Version 10.0.19042.1110]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HARSHIT>cipher/b

  Listing C:\Users\HARSHIT\
  New files added to this directory will not be encrypted.

U .android
U .AndroidStudio3.5
U .astropy
U .atom
U .bash_history
U .conda
U .condarc
U .config
U .dbshell
U .dia
U .docker
U .dotnet
U .eclipse
U .emulator_console_auth_token
U .ganttproject
U .gitconfig
U .gradle
U .idlerc
U .ipython
U .jmc
U .jupyter
U .keras
U .kindle
U .m2
U .matplotlib
U .mongorc.js
U .nbi
U .node_repl_history
U .octave_hist
U .packettracer
U .python_history
U .react-native-cli
U .spyder-py3
U .ssh
U .tabnine
U .VirtualBox
U .vscode
U .yarnrc
U 3D Objects
U anaconda3
U AndroidStudioProjects
```

CIPHER /H



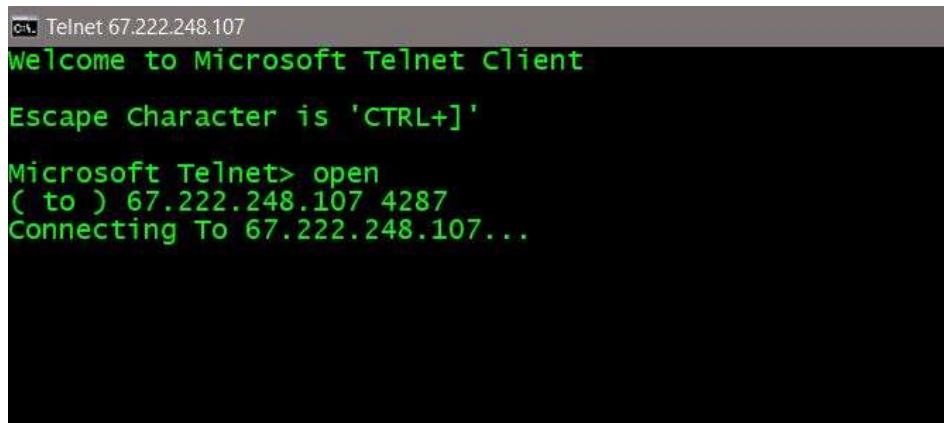
```
C:\Users\HARSHIT\ML>CIPHER /H
Listing C:\Users\HARSHIT\ML\
New files added to this directory will not be encrypted.

U KITSUNE
U Learnml
U Machine Learning A-Z (Codes and Datasets)
U New folder
U NLP

C:\Users\HARSHIT\ML>
```

14.TELNET

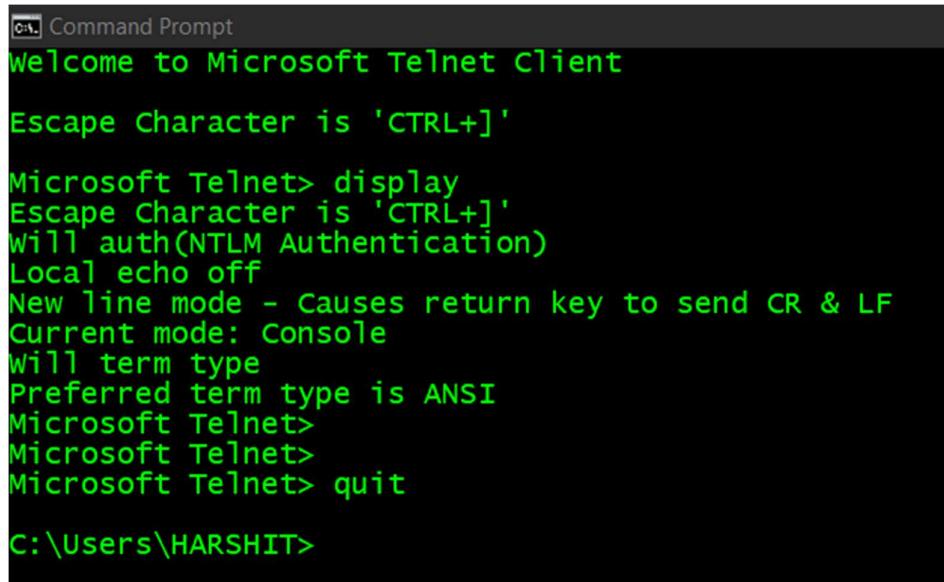
open



```
Telnet 67.222.248.107
Welcome to Microsoft Telnet Client
Escape Character is 'CTRL+]'

Microsoft Telnet> open
( to ) 67.222.248.107 4287
Connecting To 67.222.248.107...
```

Display and quit



```
Command Prompt
Welcome to Microsoft Telnet Client
Escape Character is 'CTRL+]'

Microsoft Telnet> display
Escape Character is 'CTRL+]'
Will auth(NTLM Authentication)
Local echo off
New line mode - Causes return key to send CR & LF
Current mode: Console
Will term type
Preferred term type is ANSI
Microsoft Telnet>
Microsoft Telnet>
Microsoft Telnet> quit

C:\Users\HARSHIT>
```

15.sfc

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.22000.469]
(c) Microsoft Corporation. All rights reserved.

C:\WINDOWS\system32>sfc /scannow

Beginning system scan. This process will take some time.

Beginning verification phase of system scan.
Verification 100% complete.

Windows Resource Protection did not find any integrity violations.

C:\WINDOWS\system32>
```

```
Administrator: Command Prompt
C:\WINDOWS\system32>sfc /verifyonly

Beginning system scan. This process will take some time.

Beginning verification phase of system scan.
Verification 100% complete.

Windows Resource Protection did not find any integrity violations.

C:\WINDOWS\system32>
```

16. NET accounts, statistics, user

```
C:\Users\HARSHIT>net
The syntax of this command is:

NET
  [ ACCOUNTS | COMPUTER | CONFIG | CONTINUE | FILE | GROUP | HELP |
    HELPMMSG | LOCALGROUP | PAUSE | SESSION | SHARE | START |
    STATISTICS | STOP | TIME | USE | USER | VIEW ]

C:\Users\HARSHIT>net accounts
Force user logoff how long after time expires?:      Never
Minimum password age (days):                      0
Maximum password age (days):                      42
Minimum password length:                          0
Length of password history maintained:          None
Lockout threshold:                                Never
Lockout duration (minutes):                      30
Lockout observation window (minutes):            30
Computer role:                                    WORKSTATION
The command completed successfully.

C:\Users\HARSHIT>net statistics
Statistics are available for the following running services:
  Workstation

The command completed successfully.

C:\Users\HARSHIT>net user
User accounts for \\LAPTOP-UE4331SF
-----
Administrator           DefaultAccount          Guest
HARSHIT                 postgres              WDAGUtilityAccount
The command completed successfully.
```

