

A thick blue vertical bar runs down the left side of the page. A blue arrow points to the right, overlapping the bar, with the text 'Chapter 4' inside it.

Chapter 4

Enumeration

Lab Manual

Several thin, curved lines in blue and grey originate from the bottom left and sweep upwards and to the right.

**THIS DOCUMENT INCLUDES ADDITIONAL PRACTICALS WHICH
MAY OR MAY NOT BE COVERED DURING CLASSROOM TRAINING.
FOR MORE DETAILS APPROACH LAB COORDINATORS**

INDEX

S. No.	Practical Name	Page No.
1	NetBIOS Enumeration	1
2	Enumerating Linux operating system with enum4linux tool	2
3	Nmap enumeration commands	6
4	DNS Enumeration	8
5	DNS Enumeration with dnsrecon	9
6	DNS dictionary attack	10
7	DNS enumeration with fierce	11
8	Creating wordlist using CUPP (Common User Password Profiler)	12
9	Creating wordlist using crunch	14
10	Cracking Login Credentials using Hydra tool	15

Practical 1: NetBIOS Enumeration

In windows execute the following command.

nbtstat -A target IP

This command will display the connected devices NetBIOS names.

```
C:\Users\CSPL>nbtstat -A 192.168.0.139
Wireless Network Connection:
Node IpAddress: [192.168.0.109] Scope Id: []

        NetBIOS Remote Machine Name Table

    Name                 Type                  Status
    -----
    2K3                   <00> UNIQUE            Registered
    VICTIM                 <00> GROUP             Registered
    VICTIM                 <1C> GROUP             Registered
    2K3                   <20> UNIQUE            Registered
    VICTIM                 <1B> UNIQUE            Registered
    VICTIM                 <1E> GROUP             Registered
    VICTIM                 <1D> UNIQUE            Registered
    .._MSBROWSE_.         <01> GROUP             Registered

    MAC Address = 00-0C-29-A8-A9-FA
```

The following command is used to display cached information of NETBIOS

nbtstat -c

```
C:\Users\CSPL>nbtstat -c
Wireless Network Connection:
Node IpAddress: [192.168.0.109] Scope Id: []

        NetBIOS Remote Cache Name Table

    Name                 Type                  Host Address    Life [sec]
    -----
    2K3                   <20> UNIQUE            192.168.0.139    550
```

In Kali Linux open a terminal and execute the below command

nbtscan <network range>

```
root@kali:~# nbtscan 192.168.0.0/24
Doing NBT name scan for addresses from 192.168.0.0/24

  folders sh
IP address  NetBIOS Name  Server  User  MAC address
-----
192.168.0.0  Sendto failed: Permission denied
192.168.0.109 <unknown> <server> <unknown> 74:de:2b:90:31:d4
192.168.0.105 ROUTER-X <server> <unknown> 44:6d:57:29:cb:f2
192.168.0.106 DESKTOP-6E59HTK <server> <unknown> 84:ef:18:a4:7a:31
192.168.0.139 2K3 <server> <unknown> 00:0c:29:a8:a9:fa
192.168.0.131 WIN-KKMVR607Q21 <server> <unknown> 08:00:27:c9:0a:82
192.168.0.255 Sendto failed: Permission denied
```

Practical 2: Enumerating Linux operating system with enum4linux tool

Enum4linux is used to enumerate Linux machines. This tool works only in a LAN environment. It is used to extract a number of user accounts, user names, length of the password and last time when password changed. Let us consider Metasploitable OS (Linux) as a target and perform enumeration.

```
root@kali:~# enum4linux 192.168.0.125
Starting enum4linux v0.8.9 ( http://labs.portcullis.co.uk/application/enum4linux/ ) on
Sun Jul 15 17:15:19 2018

=====
|   Target Information   |
=====
Target ..... 192.168.0.125
RID Range ..... 500-550,1000-1050
Username ..... ''
Password ..... ''
Known Usernames .. administrator, guest, krbtgt, domain admins, root, bin, none

=====
| Enumerating Workgroup/Domain on 192.168.0.125 |
=====
[+] Got domain/workgroup name: KUMAR7

=====
|   Nbtstat Information for 192.168.0.125   |
=====
Looking up status of 192.168.0.125
KUMAR       <00> -      M <ACTIVE>  Workstation Service
KUMAR7      <00> - <GROUP> M <ACTIVE>  Domain/Workgroup Name
KUMAR7      <1c> - <GROUP> M <ACTIVE>  Domain Controllers
KUMAR       <20> -      M <ACTIVE>  File Server Service
KUMAR7      <1b> -      M <ACTIVE>  Domain Master Browser
KUMAR7      <1e> - <GROUP> M <ACTIVE>  Browser Service Elections
KUMAR7      <1d> -      M <ACTIVE>  Master Browser
.._MSBROWSE_ <01> - <GROUP> M <ACTIVE>  Master Browser

MAC Address = 08-00-27-B6-C3-FB
```

```

=====
|   Session Check on 192.168.0.125   |
=====
[+] Server 192.168.0.125 allows sessions using username '', password ''

=====
|   Getting domain SID for 192.168.0.125   |
=====
Domain Name: KUMAR7
Domain Sid: S-1-5-21-1928287797-289972450-5230789
[+] Host is part of a domain (not a workgroup)

=====
|   OS information on 192.168.0.125   |
=====
[+] Got OS info for 192.168.0.125 from smbclient: Domain=[KUMAR7] OS=[Windows Server
2003 R2 3790 Service Pack 2] Server=[Windows Server 2003 R2 5.2]
[+] Got OS info for 192.168.0.125 from srvinfo:
Could not initialise srvsvc. Error was NT_STATUS_ACCESS_DENIED

=====
|   Users on 192.168.0.125   |
=====
[E] Couldn't find users using querydispinfo: NT_STATUS_ACCESS_DENIED
[E] Couldn't find users using enumdomusers: NT_STATUS_ACCESS_DENIED

```

This command is used to grab users list of targeted machine.

```
root@kali:~# enum4linux -U 192.168.1.107
```

```

user:[mail] rid:[0x3f8]
user:[distccd] rid:[0x4c6]
user:[proftpd] rid:[0x4ca]
user:[dhcp] rid:[0x4b2]
user:[daemon] rid:[0x3ea]
user:[sshd] rid:[0x4b8]
user:[man] rid:[0x3f4]
user:[lp] rid:[0x3f6]
user:[mysql] rid:[0x4c2]
user:[gnats] rid:[0x43a]
user:[libuuid] rid:[0x4b0]
user:[backup] rid:[0x42c]
user:[msfadmin] rid:[0xbb8]
user:[telnetd] rid:[0x4c8]
user:[sys] rid:[0x3ee]
user:[klog] rid:[0x4b6]
user:[postfix] rid:[0x4bc]
user:[service] rid:[0xbbc]
user:[list] rid:[0x434]
user:[irc] rid:[0x436]
user:[ftp] rid:[0x4be]
user:[tomcat55] rid:[0x4c4]
user:[sync] rid:[0x3f0]
user:[uucp] rid:[0x3fc]
enum4linux complete on Sat Jun  9 02:55:34 2018

```

We can use **-S** option to extract file sharing details from the target system


```

root@kali:~# enum4linux -S 192.168.1.107
Starting enum4linux v0.8.9 ( http://labs.portcullis.co.uk/application/enum4linux/ ) on Sat Jun 9 03:02:19 2018

=====
|   Target Information   |
=====
Target ..... 192.168.1.107
RID Range ..... 500-550,1000-1050
Username ..... ''
Password ..... ''
Known Usernames .. administrator, guest, krbtgt, domain admins, root, bin, none

=====
|   Enumerating Workgroup/Domain on 192.168.1.107   |
=====
[+] Got domain/workgroup name: WORKGROUP

=====
|   Session Check on 192.168.1.107   |
=====
[+] Server 192.168.1.107 allows sessions using username '', password ''

```

```

=====
|   Share Enumeration on 192.168.1.107   |
=====
WARNING: The "syslog" option is deprecated

  Sharename      Type      Comment
  -----
  print$         Disk      Printer Drivers
  tmp            Disk      oh noes!
  opt            Disk
  IPC$           IPC       IPC Service (metasploitable server (Samba 3.0.20-Debian))
  ADMIN$         IPC       IPC Service (metasploitable server (Samba 3.0.20-Debian))
Reconnecting with SMB1 for workgroup listing.

  Server        Comment
  -----
  Workgroup      Master
  WORKGROUP      DESKTOP-H80MKLU

[+] Attempting to map shares on 192.168.1.107
//192.168.1.107/print$ Mapping: DENIED, Listing: N/A
//192.168.1.107/tmp Mapping: OK, Listing: OK
//192.168.1.107/opt Mapping: DENIED, Listing: N/A
//192.168.1.107/IPC$ [E] Can't understand response:
WARNING: The "syslog" option is deprecated
NT STATUS_NETWORK_ACCESS_DENIED listing \*
//192.168.1.107/ADMIN$ Mapping: DENIED, Listing: N/A
enum4linux complete on Sat Jun 9 03:02:20 2018

```

here, it identifies few shared files. but only one is vulnerable through which we can able to access the shared files without authentication details.

-P option of enum4linux helps in identifying target system's password length(Password policy information).

```

root@kali:~# enum4linux -P 192.168.1.107

```

[+] Password Info for Domain: METASPLOITABLE

[+] Minimum password length: 5

for target pc, password length is 5

[+] Password history length: None

[+] Maximum password age: Not Set

[+] Password Complexity Flags: 000000

If it shows password complexity is 000000
then password will be in alphabets only

[+] Domain Refuse Password Change: 0

[+] Domain Password Store Cleartext: 0

[+] Domain Password Lockout Admins: 0

[+] Domain Password No Clear Change: 0

[+] Domain Password No Anon Change: 0

[+] Domain Password Complex: 0

[+] Minimum password age: None

[+] Reset Account Lockout Counter: 30 minutes

[+] Locked Account Duration: 30 minutes

[+] Account Lockout Threshold: None

Practical 3: Nmap enumeration commands

In the terminal, execute ***locate *.nse***

The above command lists nmap scripts that can be used to perform enumeration.

SMB enumeration with NMAP Script

```
root@kali:~# nmap -p445 192.168.0.132 --script=smb-enum-sessions.nse

Starting Nmap 6.47 ( http://nmap.org ) at 2015-08-05 15:10 IST
Nmap scan report for 192.168.0.132
Host is up (0.00020s latency).
PORT      STATE SERVICE
445/tcp    open  microsoft-ds
MAC Address: 08:00:27:82:FF:00 (Cadmus Computer Systems)

Host script results:
| smb-enum-sessions:
|   Users logged in
|_  KUMAR7\Administrator since <unknown>

Nmap done: 1 IP address (1 host up) scanned in 0.29 seconds
```

Shares Enumeration with NMAP Script

```
root@kali:~# nmap --script=smb-enum-shares.nse 192.168.0.132 -p445,139

Starting Nmap 6.47 ( http://nmap.org ) at 2015-08-05 15:07 IST
Nmap scan report for 192.168.0.132
Host is up (0.00028s latency).
PORT      STATE SERVICE
139/tcp    open  netbios-ssn
445/tcp    open  microsoft-ds
MAC Address: 08:00:27:82:FF:00 (Cadmus Computer Systems)

Host script results:
| smb-enum-shares:
|   ADMIN$
|     Anonymous access: <none>
|     Current user ('guest') access: <none>
|   C$
|     Anonymous access: <none>
|     Current user ('guest') access: <none>
|   IPC$
|     Anonymous access: READ <not a file share>
|     Current user ('guest') access: READ <not a file share>
|   NETLOGON
|     Anonymous access: <none>
|     Current user ('guest') access: READ
|   SYSVOL
|     Anonymous access: <none>
|     Current user ('guest') access: READ
|   Share
|     Anonymous access: <none>
|     Current user ('guest') access: READ
|_

Nmap done: 1 IP address (1 host up) scanned in 0.63 seconds
```


OS Enumeration with NMAP Script

```
root@kali:~# nmap -p445 --script=/usr/share/nmap/scripts/smb-os-discovery.nse 192.168.0.141
Starting Nmap 7.70 ( https://nmap.org ) at 2018-06-09 08:25 EDT
Nmap scan report for 192.168.0.141
Host is up (0.0050s latency).

PORT      STATE SERVICE
445/tcp   open  microsoft-ds
MAC Address: B4:B6:76:6B:B3:40 (Intel Corporate)

Host script results:
| smb-os-discovery:
|   OS: Unix (Samba 3.0.20-Debian)
|   NetBIOS computer name:
|   Workgroup: WORKGROUP\x00
|_  System time: 2018-06-09T08:25:01-04:00

Nmap done: 1 IP address (1 host up) scanned in 0.81 seconds
root@kali:~#
```

Enumerating Algorithms with NMAP script

```
root@kali:~# nmap --script=ssh2-enum-algos.nse 192.168.0.131 --open -p22
Starting Nmap 6.47 ( http://nmap.org ) at 2015-08-05 15:05 IST
Nmap scan report for 192.168.0.131
Host is up (0.00021s latency).
PORT      STATE SERVICE
22/tcp    open  ssh
| ssh2-enum-algos:
|   kex_algorithms: (7)
|     ecdh-sha2-nistp256
|     ecdh-sha2-nistp384
|     ecdh-sha2-nistp521
|     diffie-hellman-group-exchange-sha256
|     diffie-hellman-group-exchange-sha1
|     diffie-hellman-group14-sha1
|     diffie-hellman-group1-sha1
|   server_host_key_algorithms: (3)
|     ssh-rsa
|     ssh-dss
|     ecdsa-sha2-nistp256
|   encryption_algorithms: (13)
|     aes128-ctr
|     aes192-ctr
|     aes256-ctr
|     arcfour256
|     arcfour128
|     aes128-cbc
|     3des-cbc
|     blowfish-cbc
|     cast128-cbc
|     aes192-cbc
|     aes256-cbc
|     arcfour
|     rijndael-cbc@lysator.liu.se
|_  mac_algorithms: (11)
```

Practical 4: DNS Enumeration

Execute the following command to perform DNS enumeration on given domain.

dnsenum example.com

```
root@kali:~# dnsenum example.com example.com
Smartmatch is experimental at /usr/bin/dnsenum line 698.
Smartmatch is experimental at /usr/bin/dnsenum line 698.
dnsenum VERSION:1.2i4 a.iana-servers.net. => 199.43.135.53
NS of example.com. is b.iana-servers.net. => 199.43.133.53
IPv4 example.com MX-entries found in DNS for domain example.com.

Starting enumerating example.com. - creating 8 threads for 1420 words...
Host addresses: completion: 1 to 2 minutes

```

example.com.	84700	IN	A	93.184.216.34
--------------	-------	----	---	---------------

```
Name Servers:

```

b.iana-servers.net.	86400	IN	A	199.43.133.53
a.iana-servers.net.	86400	IN	A	199.43.135.53

```
Mail (MX) Servers:

```

Practical 5: DNS Enumeration with dnsrecon

Execute the following command to extract VOIP server's information.

dnsrecon -t srv -d example.com

-t option specifies the type of attack, **-d** specifies the domain name and **srv** is used to identify services running on target DNS server and **axfr** can identify zone transfer details of a given domain.

```
root@kali:~# dnsrecon -t srv -d ufone.com
[*] Enumerating Common SRV Records against ufone.com
[*] SRV _sipfederationtls._tcp.ufone.com access01.ufone.com 42.83.84.72
5061 10
[*] SRV _sipfederationtls._tcp.ufone.com access01.ufone.com 42.83.84.73
5061 10
[*] SRV _sip._tls.ufone.com access02.ufone.com 221.120.238.134 443 10
[*] SRV _sip._tls.ufone.com access02.ufone.com 221.120.238.133 443 10
[*] SRV _sip._tls.ufone.com access01.ufone.com 42.83.84.73 443 0
[*] SRV _sip._tls.ufone.com access01.ufone.com 42.83.84.72 443 0
[+] 6 Records Found
```

```
root@kali:~# dnsrecon -t axfr -d ufone.com
[*] Testing NS Servers for Zone Transfer
[*] Checking for Zone Transfer for ufone.com name servers
[*] Resolving SOA Record
[+] SOA ns01.ufonegsm.net 202.125.152.252
[*] Resolving NS Records
[*] NS Servers found:
[*] NS ns02.ufonegsm.net 202.125.152.195
[*] NS ns03.ufonegsm.net 42.83.87.31
[*] NS ns01.ufonegsm.net 202.125.152.252
[*] Removing any duplicate NS server IP Addresses...
[*]
[*] Trying NS server 202.125.152.195
[+] 202.125.152.195 Has port 53 TCP Open
[-] Zone Transfer Failed!
[-] No answer or RRset not for qname
[*]
[*] Trying NS server 202.125.152.252
[+] 202.125.152.252 Has port 53 TCP Open
[-] Zone Transfer Failed!
[-] No answer or RRset not for qname
[*]
[*] Trying NS server 42.83.87.31
[+] 42.83.87.31 Has port 53 TCP Open
[-] Zone Transfer Failed!
[-] No answer or RRset not for qname
root@kali:~#
```

Practical 6: DNS dictionary attack

atk6-dnsdict6 is used to extract sub-domains along with IP address details.

```
root@kali:~# atk6-dnsdict6 -d46 altoromutual.com
```

```
Starting DNS enumeration work on altoromutual.com. ...
Gathering NS and MX information...
NS of altoromutual.com. is ns1-206.akam.net. => 193.108.91.206
NS of altoromutual.com. is ns1-99.akam.net. => 193.108.91.99
Warning: no mail server (MX) information found

Starting enumerating altoromutual.com. - creating 8 threads for 1420 words...
Estimated time to completion: 1 to 2 minutes
dev.altoromutual.com. => 65.61.137.117
www.altoromutual.com. => 65.61.137.117 }

Found 2 domain names and 1 unique ipv4 address for altoromutual.com.
```


Practical 7: DNS enumeration with fierce

The fierce tool works as similar to the dnsdict6 tool and contains 2280 keywords to perform a brute-force attack on target and confirm sub-domains.

Execute the following command:

fierce -dns juggyboy.com

```
root@kali:~# fierce -dns juggyboy.com
DNS Servers for juggyboy.com:
    ns20.worldnic.com
    ns19.worldnic.com

Trying zone transfer first...
    Testing ns20.worldnic.com
        Request timed out or transfer not allowed.
    Testing ns19.worldnic.com
        Request timed out or transfer not allowed.

Unsuccessful in zone transfer (it was worth a shot)
Okay, trying the good old fashioned way... brute force

Checking for wildcard DNS...
    ** Found 94100749746.juggyboy.com at 162.144.199.103.
    ** High probability of wildcard DNS.
Now performing 2280 test(s)...
141.8.225.31    calendar.juggyboy.com
141.8.225.31    docs.juggyboy.com
□
```

Practical 8: Creating wordlist using CUPP(Common User Password Profiler)

To install **cupp** on Kali Linux, execute the following command

```
root@kali:~# git clone https://github.com/Mebus/cupp.git
Cloning into 'cupp'...
remote: Counting objects: 65, done.
remote: Total 65 (delta 0), reused 0 (delta 0), pack-reused 65
Unpacking objects: 100% (65/65), done.
```

```
root@kali:~# cd cupp
root@kali:~/cupp# ls
CHANGELOG.md  cupp3.py  cupp.cfg  cupp.py  LICENSE  README.md  test_cupp.py
root@kali:~/cupp#
```

```
root@kali:~/cupp# python3 cupp3.py -i

cupp.py!                                     # Common
                                              # User
                                              # Passwords
                                              # Profiler
(oo)____
( )_____) \
||--|| *  Muris Kurgas <j0rgan@remote-exploit.org>

[+] Insert the information about the victim to make a dictionary
[+] If you don't know all the info, just hit enter when asked! ;)
```

The above **cupp.py** command with option **-i** starts an interactive session for creating a wordlist based on information provided.

```
[+] Insert the information about the victim to make a dictionary
[+] If you don't know all the info, just hit enter when asked! ;)
```

```
First Name: Rahul
Surname: Sharma
Nickname: Share
Birthdate (DDMMYYYY): 01021990

Partner's name: Rohini
Partner's nickname: Tigress
Partner's birthdate (DDMMYYYY): 03041992
```

```
Child's name: Roman
Child's nickname: cisco
Child's birthdate (DDMMYYYY): 05062003
```

```
Pet's name: 
```

```
Pet's name: Krypto
Company name: Stark Industries
```

```
Do you want to add some key words about the victim? Y/[N]: Y
Please enter the words, comma-separated. [i.e. hacker,juice,black], spaces will be removed: superman,batman,ironman,quicksilver
```

GIVE Y, So you can add keywords about the target
Like below

```
Do you want to add some key words about the victim? Y/[N]: Y
Please enter the words, comma-separated. [i.e. hacker,juice,black], spaces will be removed: superman,batman,ironman,quicksilver
Do you want to add special characters at the end of words? Y/[N]: Y
Do you want to add some random numbers at the end of words? Y/[N]: Y
Leet mode? (i.e. leet = 1337) Y/[N]: Y
```

Give Y for them if you want to include them in
your dictionary

```
[+] Now making a dictionary...
[+] Sorting list and removing duplicates...
[+] Saving dictionary to rahul.txt, counting 37474 words.
[+] Now load your pistolero with rahul.txt and shoot! Good luck!
```

After creating the wordlist, we can find the wordlist file in cupp directory

```
root@kali:~/cupp# ls
CHANGELOG.md  cupp3.py  cupp.cfg  cupp.py  LICENSE  rahul.txt  README.md  test_cupp.py
```

Practical 9: Creating wordlist using crunch

a crunch is a popular tool for creating a wordlist based on given words, letters, numbers and specials characters.

In the following command, first **4** represents the minimum length of the word and second **4** represents the maximum length of the word

Note: Make sure to verify the number of lines and file size before crunch starts creating a wordlist.

```
root@kali:~# crunch 4 4 1234567890 -o Pins.txt
Crunch will now generate the following amount of data: 50000 bytes
0 MB
0 GB
0 TB
0 PB
Crunch will now generate the following number of lines: 10000
crunch: 100% completed generating output
```


Practical 10: Cracking Login Credentials using Hydra tool

After performing port scanning using nmap, we have identified that the target is running **ftp** service.

```
root@kali:~# nmap -p 21 192.168.0.103
Starting Nmap 7.70 ( https://nmap.org ) at 2018-06-07 08:59 EDT
Nmap scan report for 192.168.0.103
Host is up (0.0011s latency).

PORT      STATE SERVICE
21/tcp    open  ftp

Nmap done: 1 IP address (1 host up) scanned in 0.41 seconds
```

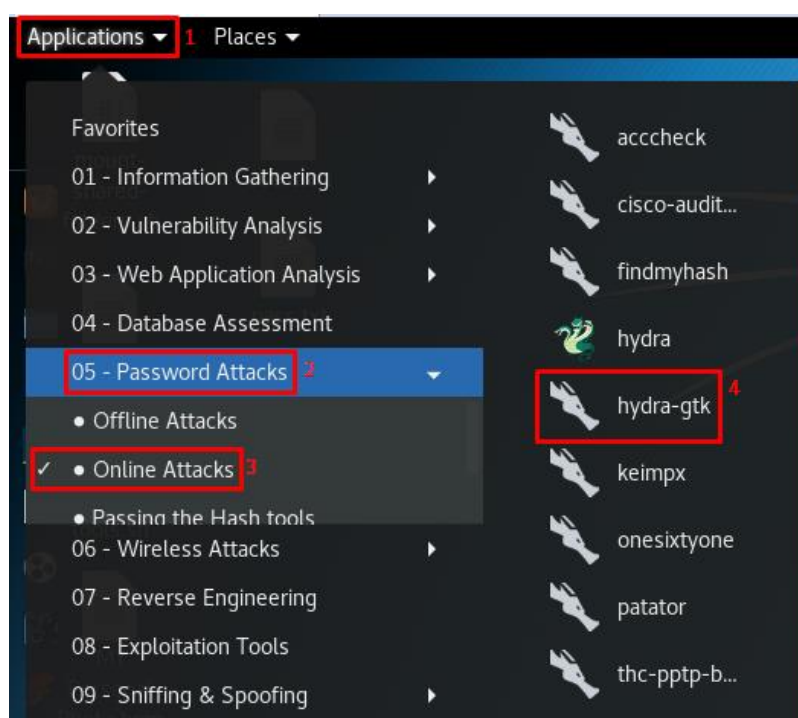
Execute the following command that starts hydra and performs a brute force attack using **username** and **password** files on the target.

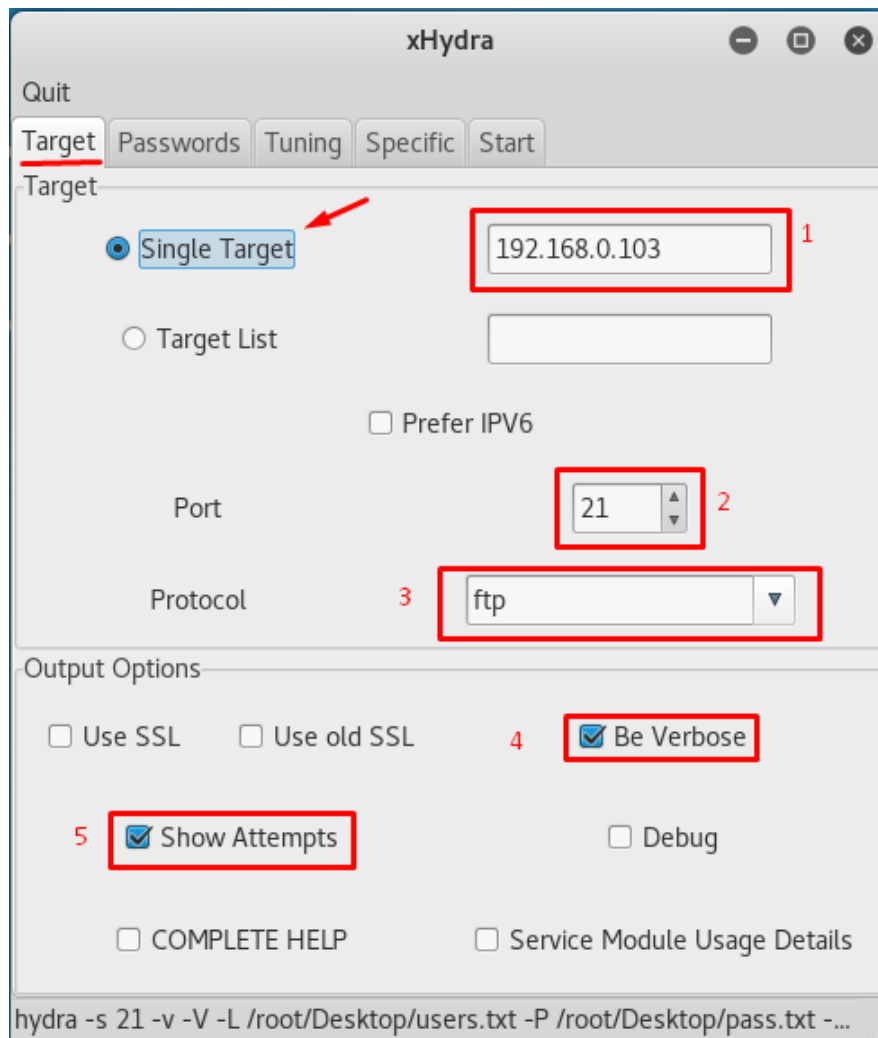
Hydra -s 21 -v -L /root/Desktop/users.txt -P /root/Desktop/pass.txt -t 60 192.168.0.103 ftp

On a successful match of the login id and password for a particular service, it displays a confirmation message as shown below.

```
[ATTEMPT] target 192.168.0.103 - login "anonymous" - pass "suomynona" - 107 of 117 [child 46] (0/0)
[ATTEMPT] target 192.168.0.103 - login "anonymous" - pass "password" - 108 of 117 [child 56] (0/0)
[ATTEMPT] target 192.168.0.103 - login "anonymous" - pass "12345" - 109 of 117 [child 22] (0/0)
[ATTEMPT] target 192.168.0.103 - login "anonymous" - pass "1234567" - 110 of 117 [child 24] (0/0)
[ATTEMPT] target 192.168.0.103 - login "anonymous" - pass "12345678" - 111 of 117 [child 27] (0/0)
[ATTEMPT] target 192.168.0.103 - login "anonymous" - pass "123456" - 112 of 117 [child 30] (0/0)
[21][ftp] host: 192.168.0.103 login: ftp password: ftp
[ATTEMPT] target 192.168.0.103 - login "anonymous" - pass "ftp" - 113 of 117 [child 19] (0/0)
[ATTEMPT] target 192.168.0.103 - login "anonymous" - pass "P@ssw0rd" - 114 of 117 [child 57] (0/0)
[ATTEMPT] target 192.168.0.103 - login "anonymous" - pass "admin" - 115 of 117 [child 58] (0/0)
[ATTEMPT] target 192.168.0.103 - login "anonymous" - pass "football" - 116 of 117 [child 59] (0/0)
[ATTEMPT] target 192.168.0.103 - login "anonymous" - pass "qwerty" - 117 of 117 [child 17] (0/0)
[STATUS] attack finished for 192.168.0.103 (waiting for children to complete tests)
1 of 1 target successfully completed, 1 valid password found
Hydra (http://www.thc.org/thc-hydra) finished at 2018-06-07 09:18:26
```

To run a graphical version of **Hydra**, follow the steps shown in below images





users.txt
~/Desktop

```
admin
administrator
user
test
root
cisco
windows
ftp
anonymous
```

pass.txt
~/Desktop

```
password
12345
1234567
12345678
123456
ftp
P@ssw0rd
admin
football
qwerty
```

xHydra

Quit Target **Passwords** Tuning Specific Start

Username

☐ Username

☒ Username List

☐ Loop around users ☐ Protocol does not require usernames

Password

☐ Password

1 ☒ Password List

☐ Generate

Colon separated file

☐ Use Colon separated file

☒ Try login as password ☒ Try empty password ☒ Try reversed login

hydra -s 21 -v -V -L /root/Desktop/users.txt -P -e nsr -t 60 192.168.0....

xHydra

Quit Target **Passwords** Tuning Specific Start

Username

☐ Username

☒ Username List

☐ Loop around users ☐ Protocol does not require usernames

Password

☐ Password

☒ Password List

☐ Generate

Colon separated file

☐ Use Colon separated file

CHECK ALL THESE 3 BOXES

☒ Try login as password ☒ Try empty password ☒ Try reversed login

hydra -s 21 -v -V -L /root/Desktop/users.txt -P /root/Desktop/pass.txt -...

xHydra

Quit Target Passwords **Tuning** Specific Start

Performance Options

Number of Tasks **Increase Upto 60** →

Timeout

☐ Exit after first found pair (per host)

☐ Exit after first found pair (global)

☐ Do not print messages about connection errors

Use a HTTP/HTTPS Proxy

☒ No Proxy ☐ HTTP Method ☐ CONNECT Method

Proxy

☐ Proxy needs authentication

Username

Password

hydra -s 21 -v -V -L /root/Desktop/users.txt -P /root/Desktop/pass.txt -...

xHydra

Quit Target Passwords **Tuning** Specific Start

Performance Options

Number of Tasks **1**

Timeout

☐ Exit after first found pair (per host)

☐ Exit after first found pair (global)

☐ Do not print messages about connection errors

Use a HTTP/HTTPS Proxy

☒ No Proxy ☐ HTTP Method ☐ CONNECT Method

Proxy

☐ Proxy needs authentication

Username

Password

hydra -s 21 -v -V -L /root/Desktop/users.txt -P /root/Desktop/pass.txt -...

