Project : Vulner

This project focuses on penetration testing and vulnerability assessment using automated tools. It includes:

Brute-Forcing:

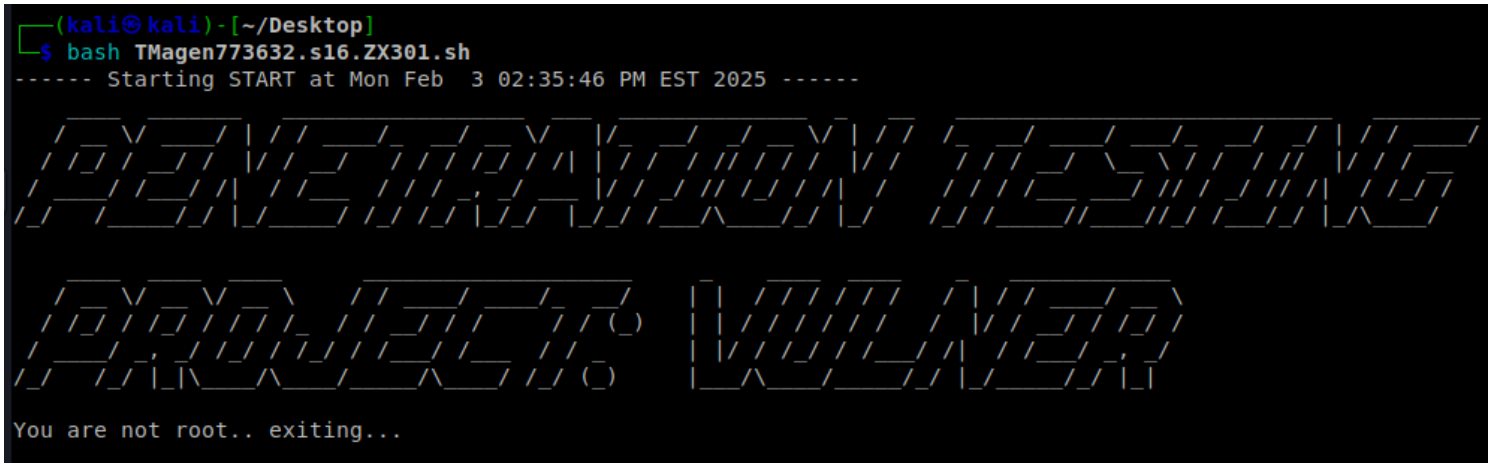
- Allows the user to choose from:
  - rockyou.txt list.
  - Default weak passwords list.
  - A user-supplied list.
- Includes a specific function for brute-forcing RDP using Hydra tool.

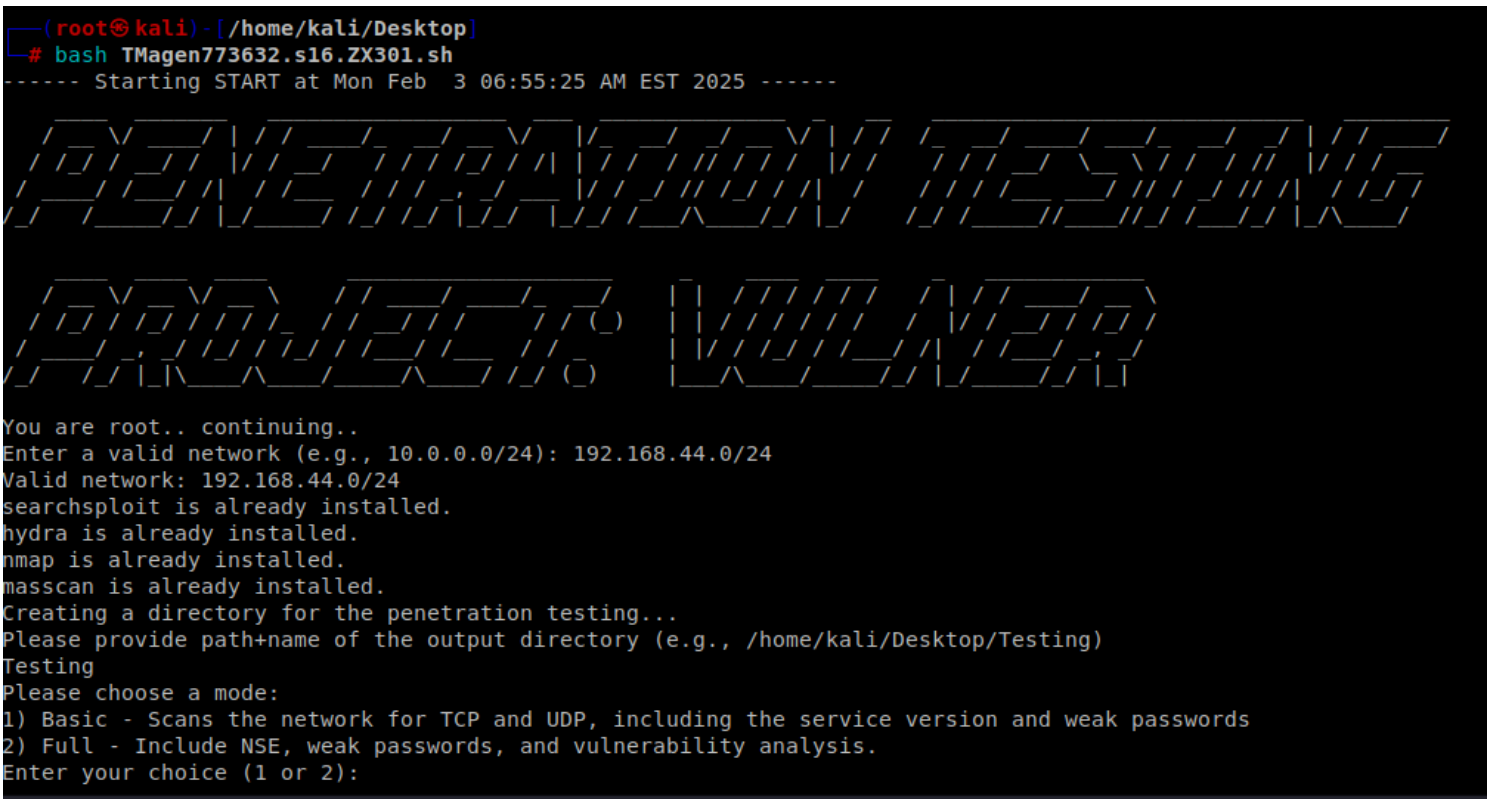
Tool Checks and Installation:

- Verifies the presence of tools like nmap, hydra, masscan, and searchsploit and installs them if missing.

Post-Processing:

- Compresses results into a .zip archive for easier sharing or reporting.
- Offers an optional search function within the results.





The script checks Root Permission:

- Ensures the script runs with root privileges for proper functionality.

Network Validation:

- Prompts the user to input a valid network range (e.g., 10.0.0.0/24) and validates it.

Two Modes of Testing:

Basic Mode:

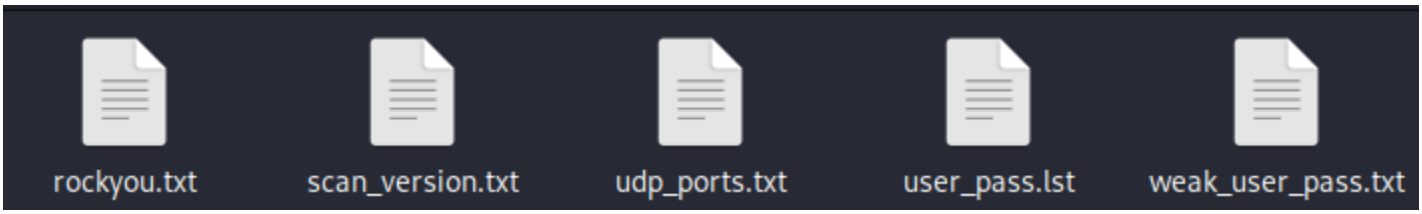
- Performs a simple scan for open TCP/UDP ports using nmap and masscan.
- Attempts basic brute-forcing for weak credentials.

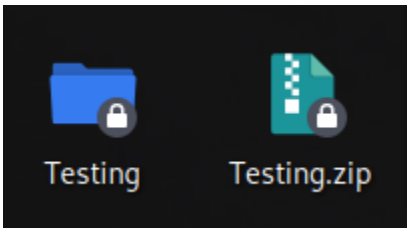
Full Mode:

- Includes vulnerability scanning with NSE scripts (nmap --script vuln) and uses searchsploit for exploit matching.
- Offers an option to brute-force login services like RDP, FTP, SSH, and Telnet.

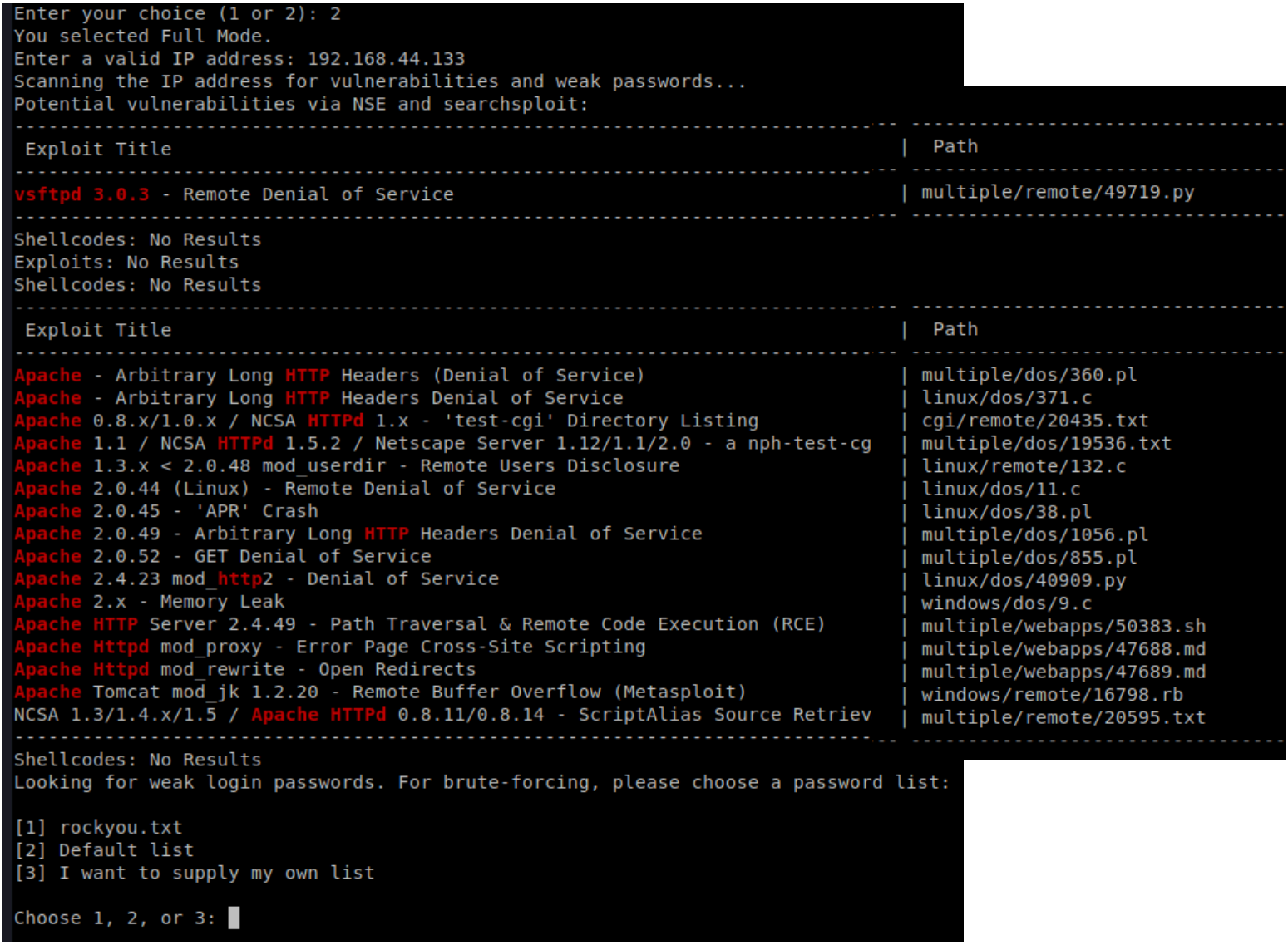
```
Enter your choice (1 or 2): 1
You selected Basic Mode.
Scanning the network...
Starting masscan 1.3.2 (http://bit.ly/14GZzcT) at 2025-02-03 15:31:13 GMT
Initiating SYN Stealth Scan
Scanning 256 hosts [65535 ports/host]
Detecting weak passwords...
------ Finished at Mon Feb  3 11:04:38 AM EST 2025 ------
The result saved into text files. Would you like to search inside the results? [Y/N]
y
You chose to search in the results files. What keyword would you like to use?
vsftpd
Testing/scan_version.txt:21/tcp open  ftp     vsftpd 3.0.3
Testing/user_pass.lst:21/tcp open  ftp     vsftpd 3.0.3
Now proceeding to save the files into a ZIP archive.
------ Output directory has been zipped to Testing.zip ------
```

● After selecting basic mode, the script runs nmap on the given network with -sV flag to save the services version. Furthermore it extracts weak passwords with NSE brute force. Finally in basic mode the user can search a keyword from every file that has been saved into the diractory.





The files, directory and the zip file that has been saved.



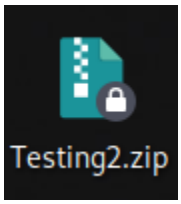
- In Full Mode, the script performs a detailed penetration test by:
  1. Service Detection: Using nmap -sV to identify open ports and service versions.
  2. Brute-Force Testing: Running NSE scripts (e.g., ftp-brute, ssh-brute) to test for weak credentials.
  3. Vulnerability Search: Using searchsploit to identify known exploits for detected services.
  4. For the brute force the user has 3 list options: rockyou.txt, default list (weak credentials) and the last option is to supply a full path to the list.

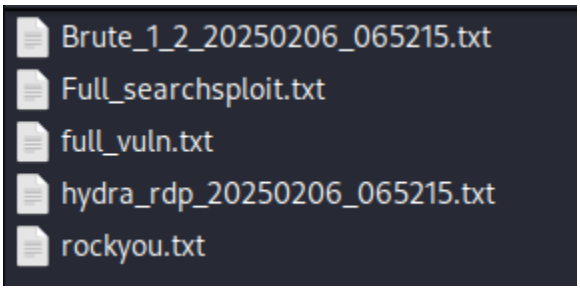
```
Choose 1, 2, or 3: 1
Using rockyou.txt for brute-forcing.
Would you like to brute-force RDP service? [y/n] y
You chose to brute force RDP service. Please wait.
Starting Hydra brute-force for RDP service... Do you want to use rockyou.txt file or your own? p
/home/kali/Desktop/rockyou.txt
Hydra v9.5 (c) 2023 by van Hauser/THC & David Maciejak - Please do not use in military or secret

Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2025-02-06 07:13:13
[WARNING] the rdp module is experimental. Please test, report - and if possible, fix.
[DATA] max 4 tasks per 1 server, overall 4 tasks, 205761782671201 login tries (l:14344399/p:1434
[DATA] attacking rdp://192.168.44.133:3389/
[3389][rdp] account on 192.168.44.133 might be valid but account not active for remote desktop:
[3389][rdp] account on 192.168.44.133 might be valid but account not active for remote desktop:
```

● The script in the brute force phase, asks the user if he/she would like to brute-rdp service. Therefore the script uses hydra to brute force rdp service. The user needs to choose a list to brute force with.

```
^CHydra brute-force completed. Results saved in Testing2/hydra_rdp_20250206_065215.txt
------ Finished at Thu Feb  6 10:40:22 AM EST 2025 ------
The result saved into text files. Would you like to search inside the results? [Y/N]
y
You chose to search in the results files. What keyword would you like to use?
vsftpd
Testing2/Brute_1_2_20250206_065215.txt:21/tcp open  ftp     vsftpd 3.0.3
Testing2/Brute_1_2_20250206_065215.txt:21/tcp open  ftp     vsftpd 3.0.3
Testing2/Brute_1_2_20250206_065215.txt:21/tcp open  ftp     vsftpd 3.0.3
Testing2/Full_searchsploit.txt:vsftpd 3.0.3 - Remote Denial of Service
ultiple/remote/49719.py
Testing2/full_vuln.txt:21/tcp open  ftp     vsftpd 3.0.3
Now proceeding to save the files into a ZIP archive.
------ Output directory has been zipped to Testing2.zip ------
```

● After performing brute force, the user can search keyword in all of the files created.





●The directory is compressed into a ZIP file with all the data that has been investigated.