

ITA1471-ETHICAL HACKING

LAB MANUAL

Exercise No 1: Nmap Scan

Aim:

To install and perform Nmap scan (note :- you may use ip address or website name)

Procedure:

Step 1: Open Nmap from Kali Linux (Goto Applications->select Information Gathering->select Nmap)

Step 2: Perform different types of scan
(Tcp, Udp, Ack, Syn, Fin, Null, Xmas, Rpc, Idle)- scan types

Scanning Techniques

Flag	Use	Example
-sS	TCP syn port scan	nmap -sS 192.168.1.1
-sT	TCP connect port scan	nmap -sT 192.168.1.1
-sU	UDP port scan	nmap -sU 192.168.1.1
-sA	TCP ack port scan	nmap -sA 192.168.1.1

Step 3:-

To perform host discovery

-Pn	only port scan	nmap -Pn192.168.1.1
-sn	only host discover	nmap -sn192.168.1.1
-PR	arp discovery on a local network	nmap -PR192.168.1.1
-n	disable DNS resolution	nmap -n 192.168.1.1

Step4:-

Port Specification

<u>Flag</u>	<u>Use</u>	<u>Example</u>
-p	specify a port or port range	nmap -p 1-30 192.168.1.1
-p-	scan all ports	nmap -p- 192.168.1.1
F	fast port scan	nmap -F 192.168.1.1

Step 5:-

Service Version and OS Detection

Flag	Use	Example
-sV	detect the version of services running	nmap -sV 192.168.1.1
-A	aggressive scan	nmap -A 192.168.1.1
-O	detect operating system of the target	nmap -O 192.168.1.1

Step 6:-

Timing and Performance

Flag	Use	Example
-T0	paranoid IDS evasion	nmap -T0 192.168.1.1
-T1	sneaky IDS evasion	nmap -T1 192.168.1.1
-T2	polite IDS evasion	nmap -T2 192.168.1.1
-T3	normal IDS evasion	nmap -T3 192.168.1.1

-T4	aggressive speed scan	nmap -T4 192.168.1.1
-T5	insane speed scan	nmap -T5 192.168.1.1

Output:

Step 1: Open Nmap from Kali Linux (Goto Applications->select Information Gathering->select Nmap)

Step 2: Perform different types of scan

(Tcp, Udp, Ack, Syn, Fin, Null, Xmas, Rpc, Idle)- scan types

```
[root@kali]# nmap -sS 192.168.1.1
Starting Nmap 7.93 ( https://nmap.org ) at 2023-05-15 13:48 IST
Nmap scan report for 192.168.1.1
Host is up (0.0016s latency).
All 1000 scanned ports on 192.168.1.1 are in ignored states.
Not shown: 1000 filtered tcp ports (no-response)

Nmap done: 1 IP address (1 host up) scanned in 5.38 seconds

[root@kali]# nmap -sT 192.168.1.1
Starting Nmap 7.93 ( https://nmap.org ) at 2023-05-15 13:48 IST
Nmap scan report for 192.168.1.1
Host is up (0.0011s latency).
All 1000 scanned ports on 192.168.1.1 are in ignored states.
Not shown: 1000 filtered tcp ports (no-response)

Nmap done: 1 IP address (1 host up) scanned in 25.39 seconds
+ The anti-clickjacking X-Frame-Options header is not present.
[root@kali]# nmap -sU 192.168.1.1
Starting Nmap 7.93 ( https://nmap.org ) at 2023-05-15 13:49 IST
Stats: 0:02:10 elapsed; 0 hosts completed (1 up), 1 undergoing UDP Scan
UDP Scan Timing: About 29.25% done; ETC: 13:57 (0:05:17 remaining)
Stats: 0:06:12 elapsed; 0 hosts completed (1 up), 1 undergoing UDP Scan
UDP Scan Timing: About 40.75% done; ETC: 14:05 (0:09:01 remaining)
Stats: 0:06:13 elapsed; 0 hosts completed (1 up), 1 undergoing UDP Scan
UDP Scan Timing: About 40.80% done; ETC: 14:05 (0:09:01 remaining)
Nmap scan report for 192.168.1.1
Host is up (0.00090s latency).
All 1000 scanned ports on 192.168.1.1 are in ignored states.
Not shown: 1000 open|filtered udp ports (no-response)

Nmap done: 1 IP address (1 host up) scanned in 1719.23 seconds

[root@kali]# nmap -sA 192.168.56.1
Starting Nmap 7.93 ( https://nmap.org ) at 2023-05-15 13:51 IST
Nmap scan report for 192.168.56.1
Host is up (0.00031s latency).
All 1000 scanned ports on 192.168.56.1 are in ignored states.
Not shown: 1000 unfiltered tcp ports (reset)

Nmap done: 1 IP address (1 host up) scanned in 0.50 seconds
```

Step 3:-

To perform host discovery

```
[root@kali]# nmap -Pn 192.168.1.1
Starting Nmap 7.93 ( https://nmap.org ) at 2023-05-15 04:24 EDT
Nmap scan report for 192.168.1.1
Host is up (0.00098s latency).
Not shown: 999 closed tcp ports (reset)
PORT      STATE      SERVICE
514/tcp    filtered  shell

Nmap done: 1 IP address (1 host up) scanned in 14.42 seconds
```

```
[root@kali]# nmap -sn 192.168.1.1
Starting Nmap 7.93 ( https://nmap.org ) at 2023-05-15 04:26 EDT
Nmap scan report for 192.168.1.1
Host is up (0.00074s latency).
Nmap done: 1 IP address (1 host up) scanned in 13.06 seconds
```

```
[root@kali]# nmap -PR 192.168.1.1
Starting Nmap 7.93 ( https://nmap.org ) at 2023-05-15 04:26 EDT
Nmap scan report for 192.168.1.1
Host is up (0.0011s latency).
Not shown: 999 closed tcp ports (reset)
PORT      STATE      SERVICE
514/tcp    filtered  shell
```

Nmap done: 1 IP address (1 host up) scanned in 14.49 seconds

```
[root@kali]# nmap -n 192.168.1.1
Starting Nmap 7.93 ( https://nmap.org ) at 2023-05-15 04:28 EDT
Nmap scan report for 192.168.1.1
Host is up (0.0021s latency).
Not shown: 999 closed tcp ports (reset)
PORT      STATE      SERVICE
514/tcp    filtered  shell
```

Nmap done: 1 IP address (1 host up) scanned in 1.42 seconds

Step4:-

Port Specification

```
[root@kali) [~]
# nmap -p 1-30 192.168.1.1
Starting Nmap 7.93 ( https://nmap.org ) at 2023-05-15 04:31 EDT
Nmap scan report for 192.168.1.1
Host is up (0.00061s latency).
All 30 scanned ports on 192.168.1.1 are in ignored states.
Not shown: 30 closed tcp ports (reset)
```

Nmap done: 1 IP address (1 host up) scanned in 13.21 seconds

```
[root@kali) [~]
# nmap -p- 192.168.1.1
Starting Nmap 7.93 ( https://nmap.org ) at 2023-05-15 04:31 EDT
Nmap scan report for 192.168.1.1
Host is up (0.0019s latency).
Not shown: 65534 closed tcp ports (reset)
PORT      STATE      SERVICE
514/tcp    filtered  shell
```

Nmap done: 1 IP address (1 host up) scanned in 20.17 seconds

```
[root@kali) [~]
# nmap -F 192.168.1.1
Starting Nmap 7.93 ( https://nmap.org ) at 2023-05-15 04:33 EDT
Nmap scan report for 192.168.1.1
Host is up (0.0026s latency).
Not shown: 99 closed tcp ports (reset)
PORT      STATE      SERVICE
514/tcp    filtered  shell
```

Nmap done: 1 IP address (1 host up) scanned in 14.40 seconds

Step 5:-

Service Version and OS Detection

```
[root@kali]~# nmap -sV 192.168.1.1
Starting Nmap 7.93 ( https://nmap.org ) at 2023-05-15 04:54 EDT
Nmap scan report for 192.168.1.1
Host is up (0.0017s latency).
Not shown: 999 closed tcp ports (reset)
PORT      STATE      SERVICE VERSION
514/tcp    filtered shell

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 15.64 seconds

[root@kali]~# nmap -A 192.168.1.1
Starting Nmap 7.93 ( https://nmap.org ) at 2023-05-15 04:54 EDT
Nmap scan report for 192.168.1.1
Host is up (0.0013s latency).
Not shown: 999 closed tcp ports (reset)
PORT      STATE      SERVICE VERSION
514/tcp    filtered shell
Warning: OSScan results may be unreliable because we could not find at least
1 open and 1 closed port
Device type: general purpose
Running: Linux 2.4.X|3.X
OS CPE: cpe:/o:linux:linux_kernel:2.4.37 cpe:/o:linux:linux_kernel:3.2 cpe:/o
:linux:linux_kernel:4.4
OS details: DD-WRT v24-sp2 (Linux 2.4.37), Linux 3.2, Linux 4.4
Network Distance: 2 hops

TRACEROUTE (using port 80/tcp)
HOP RTT      ADDRESS
1  0.77 ms   192.168.50.2
2  1.25 ms   192.168.1.1

OS and Service detection performed. Please report any incorrect results at ht
tps://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 35.22 seconds
```

```
(root㉿kali)-[~]
# nmap -O 192.168.1.1
Starting Nmap 7.93 ( https://nmap.org ) at 2023-05-15 04:55 EDT
Nmap scan report for 192.168.1.1
Host is up (0.0016s latency).
Not shown: 999 closed tcp ports (reset)
PORT      STATE      SERVICE
514/tcp    filtered  shell
Warning: OSScan results may be unreliable because we could not find at least
1 open and 1 closed port
Device type: general purpose
Running: Linux 2.4.X|3.X
OS CPE: cpe:/o:linux:linux_kernel:2.4.37 cpe:/o:linux:linux_kernel:3.2 cpe:/o
:linux:linux_kernel:4.4
OS details: DD-WRT v24-sp2 (Linux 2.4.37), Linux 3.2, Linux 4.4

OS detection performed. Please report any incorrect results at https://nmap.o
rg/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 15.67 seconds
```

Result: Here the software install and perform Nmap scan ports use of IP address or website name.

Exercise No 2: Vulnerability Access Scan Using Nessus

Aim : To Download and install Nessus tool and perform a Vulnerability Access scan in kali Linux Operating systems.

Step 1:- <https://www.tenable.com/downloads/nessus?loginAttempted=true>

Nessus

Downloads / Nessus

Nessus

1 Download and Install Nessus

Choose Download

Version: Nessus - 10.4.2 | Platform: Windows - x86_64 |

[Download](#) Checksum

[Download by curl >](#)

[Docker & Virtual Machines >](#)

2 Start and Setup Nessus

Open Nessus and follow setup wizard to finish setting up Nessus

3 Getting Started

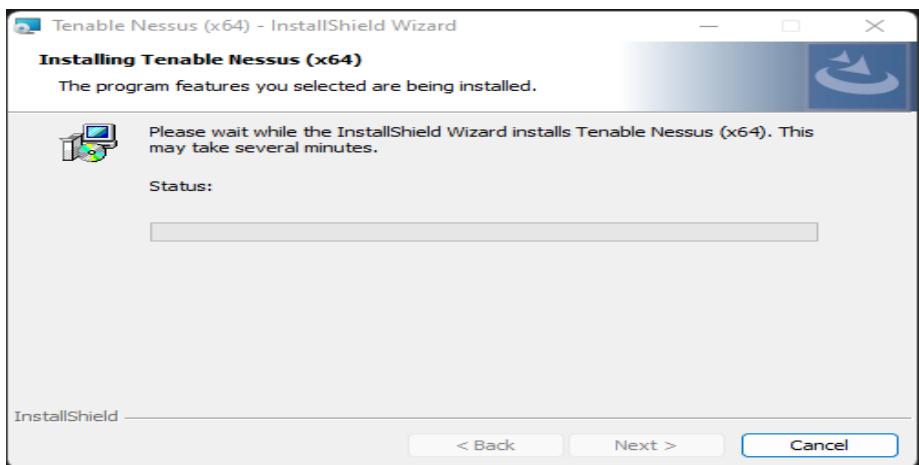
Summary

Release Date: Jan 18, 2023

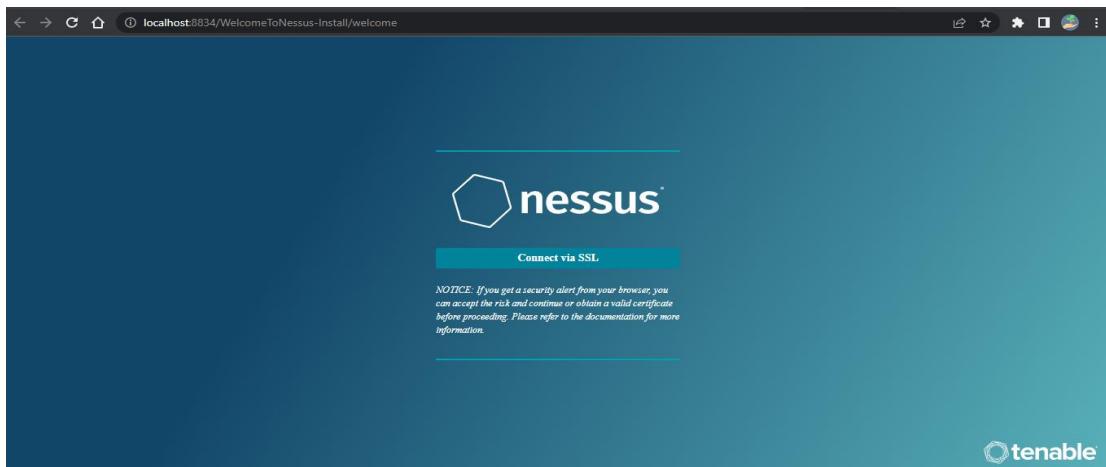
Release Notes: [Nessus 10.4.2 Release Notes](#)

Signing Keys: [RPM-GPG-KEY-Tenable-4096 \(10.4 & above\)](#) [RPM-GPG-KEY-Tenable-2048 \(10.3 & below\)](#)

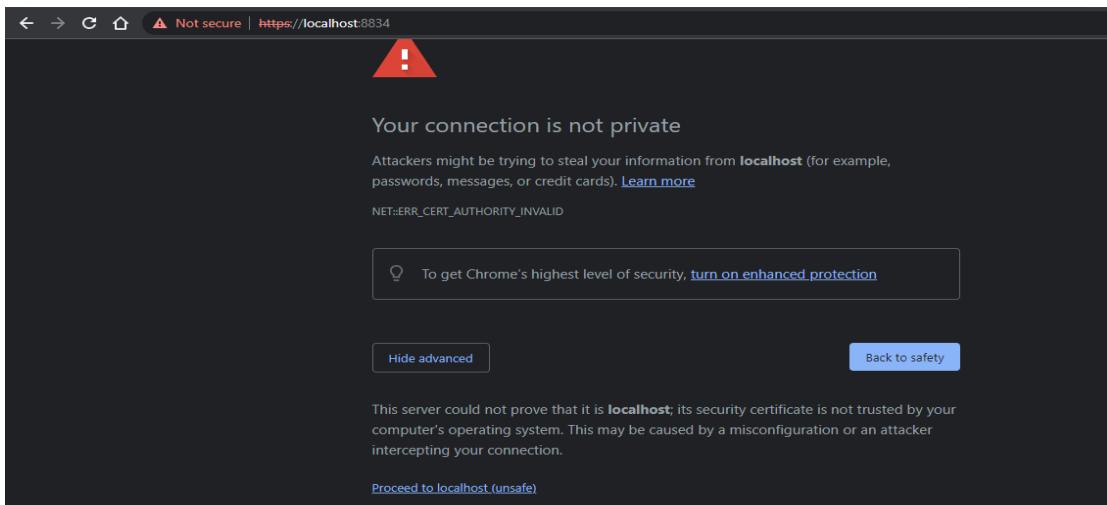
Step 2: Choose your OS and download , install



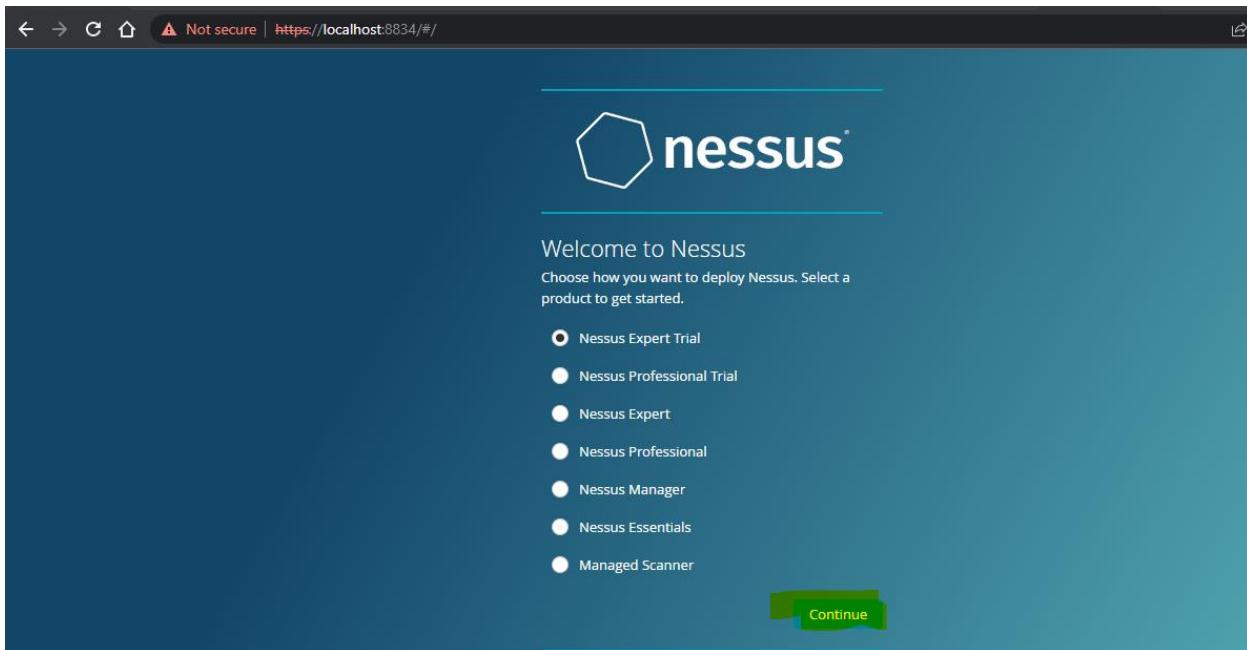
Step 3: Once installation is completed it will open in default browser



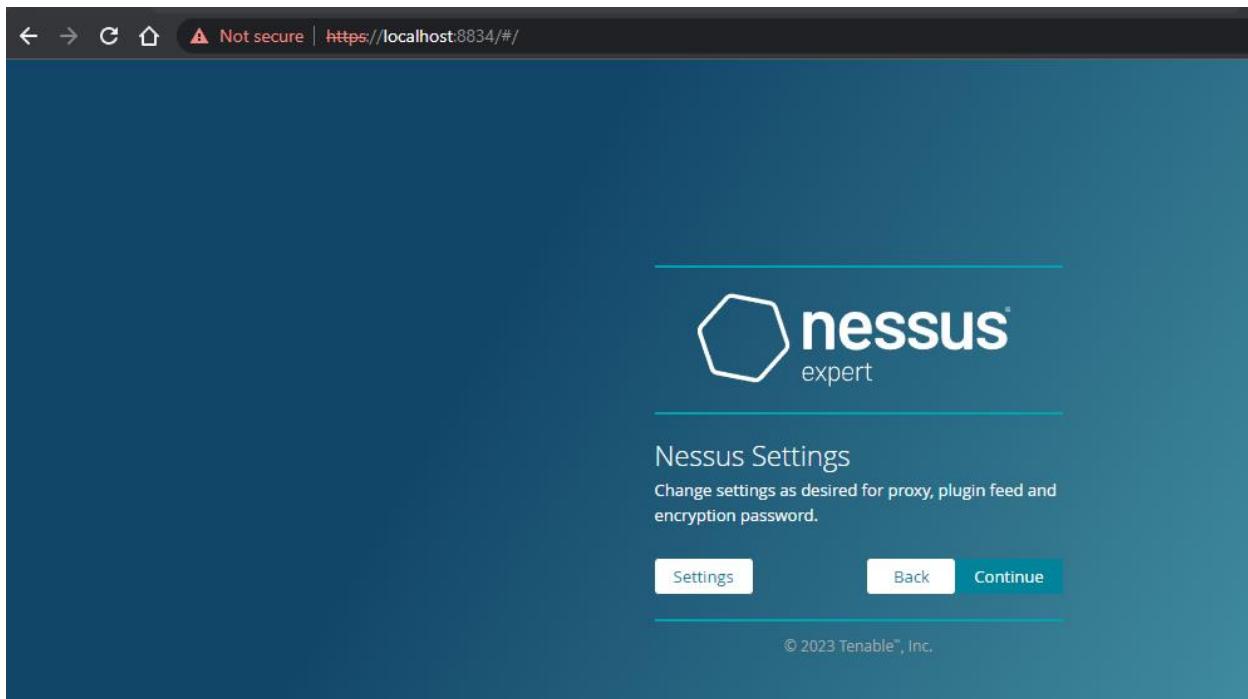
Step 5:- (click on the proceed to local host)



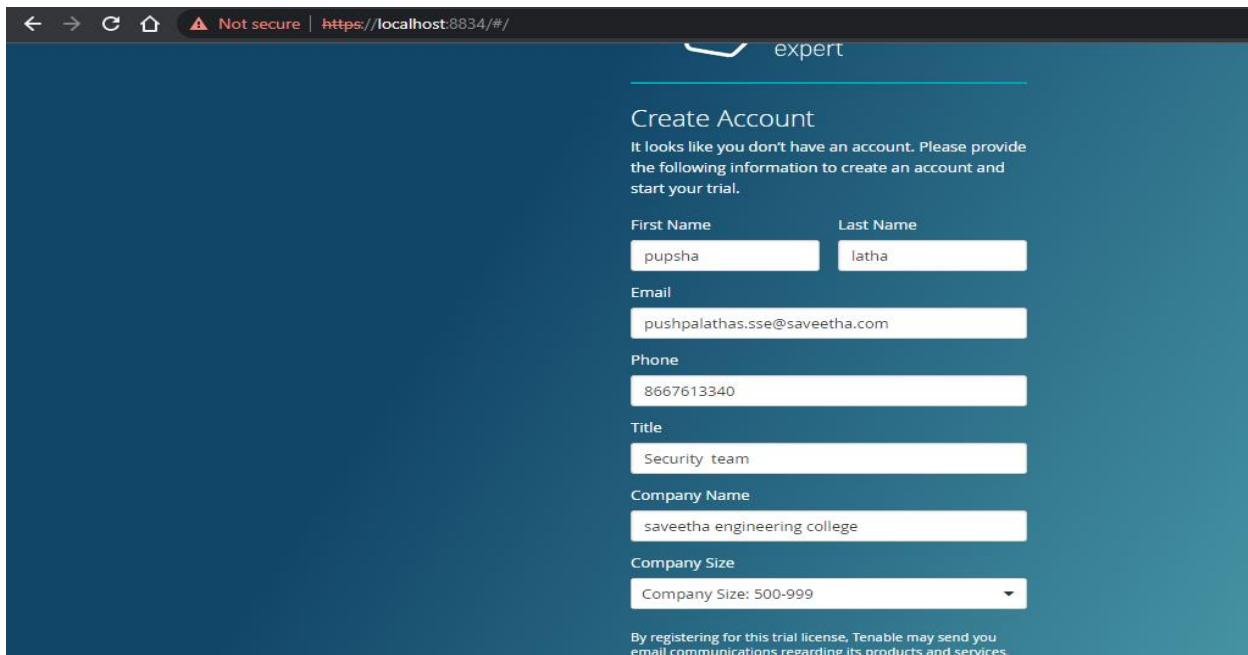
Step 6:- Please choose the Nessus Expert



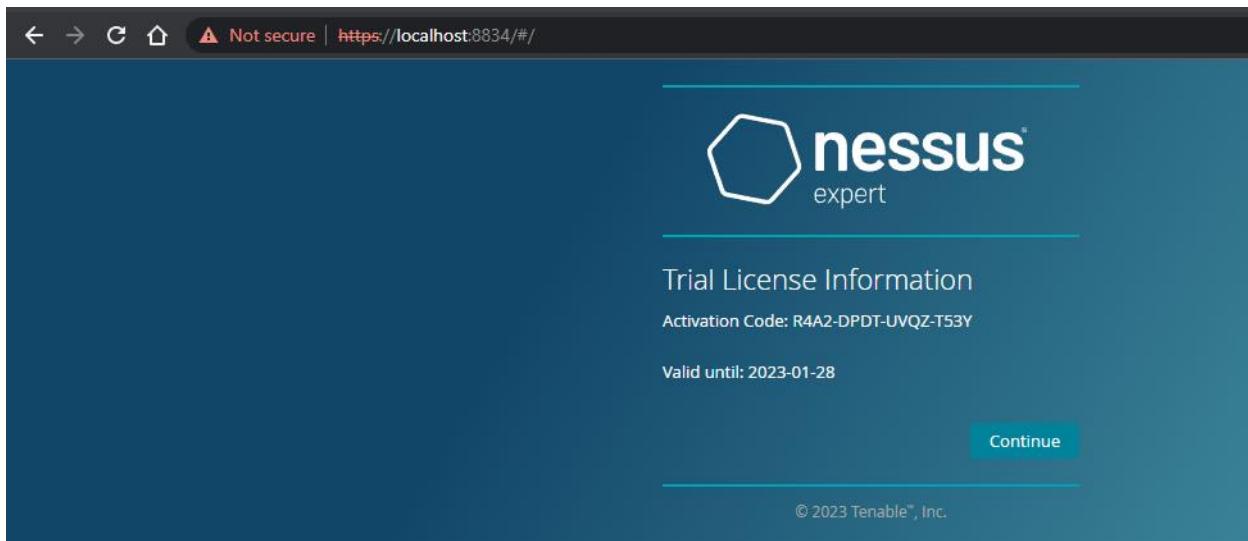
Step 7: Click on continue



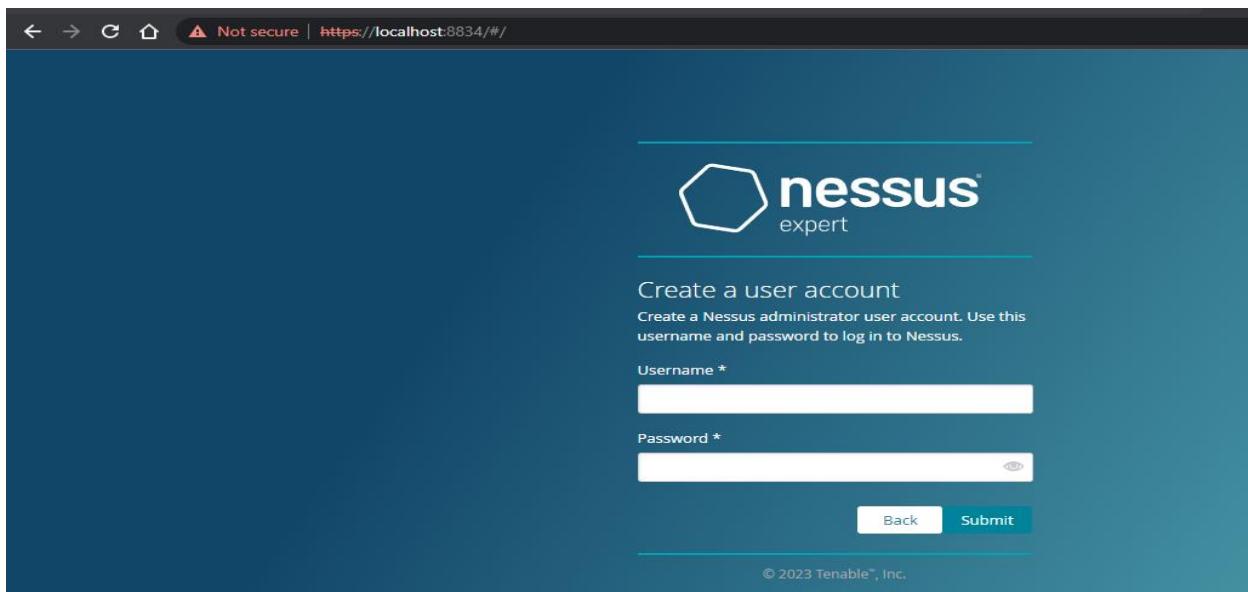
Step 8:- Register with your organizational email id



Step 9:- please note down the activation key



Step 10:- set up your username & password



Step 11:-Type username and password

⚠ Not secure | <https://localhost:8834/#/>

 **nessus**[®]
expert

Create a user account

Create a Nessus administrator user account. Use this username and password to log in to Nessus.

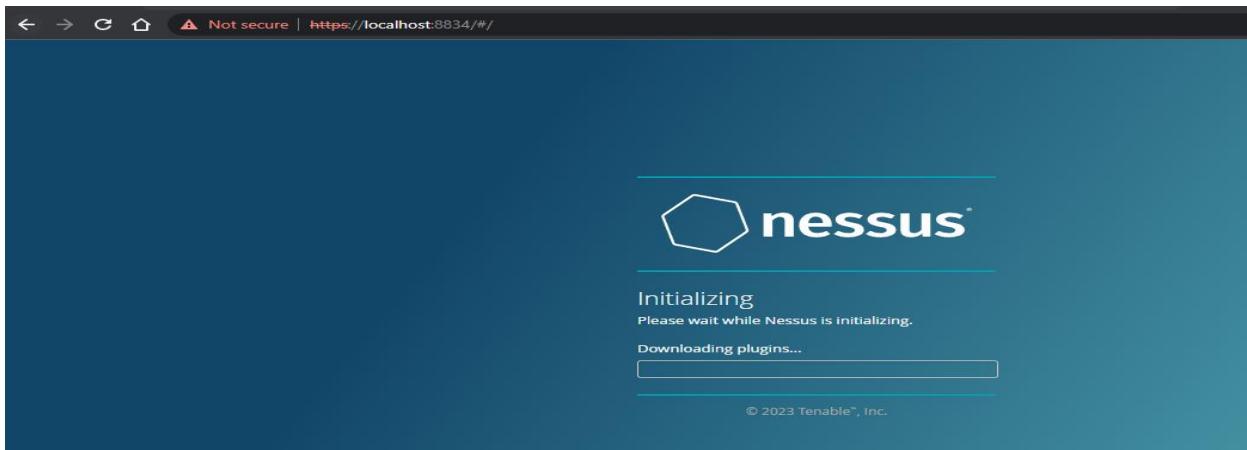
Username *

Password *

© 2023 Tenable[®], Inc.

Step 12:- Please wait until download is completed



The screenshot shows the Nessus web interface. The left sidebar has sections for FOLDERS (My Scans, All Scans, Trash), RESOURCES (Policies, Plugin Rules, Customized Reports, Terrascan), and a user profile for 'pushalatha'. The main area is titled 'My Scans' and displays a message: 'This folder is empty. Create a new scan.' There are buttons for Import, New Folder, and New Scan. The bottom status bar shows system information like weather (79°F Haze), battery level (ENG IN), and date/time (9:49 PM 1/21/2023).

Out Put:

The screenshot shows the Nessus web interface displaying the results of a scan named 'saveetha'. The top banner indicates a new version of Nessus is available. The main content includes:

- Scan Summary:** Hosts: 1, Vulnerabilities: 14, Notes: 2, History: 4.
- Scan Details:** Critical Vulnerabilities: 0, Medium Vulnerabilities: 1, High Vulnerabilities: 0, Low Vulnerabilities: 0.
- Top 5 Operating Systems Detected During Scan:** Nortel Switch (100%).
- Details:** Scan Name: saveetha, Plugin Set: 202305092242, CVSS_Score: CVSS_V3, Scan Template: Basic Network Scan, Scan Start: May 12 at 11:33 AM, Scan End: May 12 at 11:57 AM.
- Authentication / Credential Info (Hosts):** 0 SUCCEEDED, 1 FAILED.
- Scan Durations:** SCAN DURATION: 00:23:45, MEDIAN SCAN TIME PER HOST: 00:23:45, MAX SCAN TIME: 00:23:45.
- Scan Notes:** A note section with a text input field.

The bottom status bar shows system information like battery level (ENG IN), date/time (8:53 AM 5/15/2023), and network connectivity.

The screenshot shows the Nessus application interface. On the left, there's a sidebar with 'Folders' (My Scans, All Scans, Trash), 'Resources' (Policies, Plugin Rules, Customized Reports, Terrascan), and a 'Scans' tab. The main area displays 'Policy Details' with several sections: 'Basic Overview' (Scan Policy: Basic Network Scan, Plugins Timeout: 320, Feed Type: ProFeed), 'Report Overview' (Disable DNS Resolution: No, Display Superseded Patches: Yes), 'Credential Settings Overview' (Preferred SSH Port: 22, SSH Client Version: OpenSSH_5.0), 'Assessment Overview' (Override Normal Accuracy: Normal, Perform Thorough Tests: No, Enable CGI Scanning: No), 'Advanced Overview' (Enable Safe Checks: Yes, Network Timeout (in Seconds): 5), 'Port Scanner Overview' (SYN: Yes, UDP: No, TCP: No, Port Scan Range: default), and 'Fragile Devices' (Scan Network Printers: No, Scan Novell Netware Hosts: No, Scan OT Devices: Yes). At the bottom, there's a taskbar with icons for various applications and system status indicators.

Result: The software of Nessus tool have to perform a Vulnerability Access scan in kali Linux Operating systems.

Exercise No 3: Information gathering using theHarvester

Aim: To demonstrate information gathering using theHarvester

Procedure:

STEP 1: Open Terminal in the kali linux

```
-d [url] will be the remote site from which you wants to fetch
```

```
-l will limit the search for specified number.
```

```
-b is used to specify search engine name.
```

STEP 2: Run the following command

```

kali-linux-2022.3-vmware-amd64 - VMware Workstation 16 Player (Non-commercial use only)
Player | || | 1 2 3 4
File Actions Edit View Help
[+] theHarvester -d www.zoho.com
theHarvester 4.0.3
Code: By Christian Martorella
Edge-Security Research
chartonwalledge-security.com
[+] Target: www.zoho.com

[!] Missing API key for fulthunt.
[!] Missing API key for Spyse.
[!] Missing API key for binaryedge.
[!] Missing API key for PenteTools.
[!] Missing API key for SecurityTrail.
[!] Missing API key for ProjectDiscovery.
[!] Missing API key for Hunter.
[!] Missing API key for zoomeye.
[!] Missing API key for Censys ID and/or Secret.
[!] Missing API key for Intelx.
[!] Missing API key for RocketReach.
[!] Missing API key for GitHub.
[*] Searching VirusTotal...
[*] Searching Rapid7...
[*] Searching Shodan...
[*] Searching Google...
[*] Searching 0 results.
[*] Searching 100 results.
[*] Searching 1000 results.
[*] Searching 10000 results.

34°C Cloudy
13:44 14-09-2022

```

Command: theHarvester -d www.zoho.com -l 3

```

kali-linux-2022.3-vmware-amd64 - VMware Workstation 16 Player (Non-commercial use only)
Player | || | 1 2 3 4
File Actions Edit View Help
[*] Searching Rapid7...
[*] Searching Shodan...
[*] Searching Bing...
[*] Searching 100 results.
[*] Searching Google...
[*] Searching 100 results.
[*] Searching 1000 results.
[*] Searching 10000 results.
[*] Searching LinkedIn...
[*] Searching 300 results.
[*] Searching ThreatMiner...
[*] Searching Dtex...
[*] Searching 0 results.
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884dd05c0> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f4dc00> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f45540> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f4f5c0> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f47840> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f47850> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49e40> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49e50> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49e60> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49e70> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49e80> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49e90> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49ea0> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49eb0> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49ec0> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49ed0> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49ee0> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49ef0> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49f00> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49f10> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49f20> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49f30> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49f40> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49f50> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49f60> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49f70> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49f80> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49f90> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49fa0> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49fb0> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49fc0> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49fd0> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49fe0> [Connection reset by peer]
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<=>ssl.SSLContext object at 0x7f7884f49ff0> [Connection reset by peer]
[*] Searching 300 results.
[*] Searching LinkedIn...
[*] Searching ThreatMiner...
[*] Searching Dtex...
[*] Searching 0 results.
[*] Searching LinkedIn...
[*] Searching ThreatMiner...
[*] Searching Dtex...
[*] Searching 0 results.
[*] Searching LinkedIn...
[*] Searching ThreatMiner...
[*] Searching Dtex...
[*] Searching 0 results.
[*] Searching LinkedIn...
[*] Searching ThreatMiner...
[*] Searching Dtex...
[*] Searching 0 results.

34°C Cloudy
13:45 14-09-2022

```

00 -b all

```
kali-linux-2022.3-vmware-amd64 - VMware Workstation 16 Player (Non-commercial use only)
Player | 1 2 3 4 | root@kali:~>

File Actions Edit View Help
  Searching 300 results.
  [*] Searching LinkedIn.
An exception has occurred: 0, message='Attempt to decode JSON with unexpected mimetype: text/html', url=URL('https://api.n45ht.or.id/v1/subdomain-enumeration?domain=www.zoho.com')
  [*] Searching Certspotter.
  [*] Searching Threatminer.
  [*] Searching Dtex.
  [*] Searching Shodan.
An exception has occurred: Cannot connect to host www.baidu.com:443 ssl<:ssl.SSLContext object at 0x7f788af4f1c0> [Connection reset by peer]
  [*] Searching Baidu.
An exception has occurred: 0, message='Attempt to decode JSON with unexpected mimetype: text/html; charset=utf-8', url=URL('https://www.threatcrowd.org/searchApi/v2/domain/report/?domain=www.zoho.com')
string indices must be integers
  [*] Searching Threatcrowd.
  [*] Searching CTRH.
  [*] Searching Google.
Google is blocking your ip and the workaround, returning
  [*] Searching Solicitr.
  Searching 0 results.
  [*] Searching Duckduckgo.
Google is blocking your ip and the workaround, returning
  [*] Searching Google.
An exception has occurred: Cannot connect to host dns.bufferover.run:443 ssl<:ssl.SSLContext object at 0x7f7884ddff940> [Name or service not known]
Google is blocking your ip and the workaround, returning
  [*] Searching Google.
Google is blocking your ip and the workaround, returning
  [*] Searching Google.
  [*] Searching Google.

[*] 5NS found: 7
AS13335
AS139006
AS141757
AS2317
AS2639
AS1913
AS53949

[*] Interesting URLs Found: 25
https://www.zoho.com/
https://www.zoho.com/assist/
https://www.zoho.com/books/
https://www.zoho.com/campaigns/?zsrc=fromproduct
https://www.zoho.com/campaigns/explainer/campaign-view.html
https://www.zoho.com/campaigns/explainer/zcsend.html
https://www.zoho.com/cliq?serviceurl=<2Fchats%2F22a3177255001510086zsdc=fromproduct
https://www.zoho.com/cliq?serviceurl=<2FIndex.dobzsrc=fromproduct
https://www.zoho.com/contactus.html

Cloudy 34°C 14-09-2022 13:46 ENG IN
```

```
kali-linux-2022.3-vmware-amd64 - VMware Workstation 16 Player (Non-commercial use only)
Player | 1 2 3 4 | root@kali:~>

File Actions Edit View Help
AS53949

[*] Interesting URLs Found: 25
https://www.zoho.com/
https://www.zoho.com/assist/
https://www.zoho.com/books/
https://www.zoho.com/campaigns/?zsrc=fromproduct
https://www.zoho.com/campaigns/explainer/campaign-view.html
https://www.zoho.com/cliq?serviceurl=<2Fchats%2F24a1772550015100880zsdc=fromproduct
https://www.zoho.com/cliq?serviceurl=<2FIndex.dobzsrc=fromproduct
https://www.zoho.com/contactus.html
https://www.zoho.com/contactus/zsrc=fromproduct
https://www.zoho.com/crm/
https://www.zoho.com/crmplus/
https://www.zoho.com/de/cm/
https://www.zoho.com/demand/zsrc=fromproduct
https://www.zoho.com/forms/
https://www.zoho.com/invoice/?utm_source=208utm_medium=pdf
https://www.zoho.com/mail/
https://www.zoho.com/marketingautomation/
https://www.zoho.com/nl/
https://nl.zoho.com/nl/salesiq/
https://www.zoho.com/peopleplus/?zrc=zoho-home&amp%3Bireft=ohome
https://www.zoho.com/reportabuse/
https://www.zoho.com/salesiq/
https://www.zoho.com/survey/

[*] No Twitter users found.

[*] LinkedIn Users found: 292
Aamil Mohamed - Regional Account Manager
Abbas Abu - Zoho Data Developer
Abhilash Reddy Godishala
Adarsh Pandey - Member of Technical Staff
Adithyan Ravichandar - Lead System Engineer
Ajay Singh - Product Manager - Zoho
Ajay Singh - Developer - ZOHO CRM
Akash Krishnam - Member Technical Staff
Akilan Marimuthu
Akash Venkateswar - Zoho Corporation
Ali Shaqdar - Regional Director MEA
Alok Kumar Bharti - Software Engineer
Aman Gupta - Zoho Developer
Anupam Srivastava - Zoho Developer
Amoli Moorthy - Product Manager and Co-Founder
Anandaraman Krishnan - Product Manager

Cloudy 34°C 14-09-2022 13:46 ENG IN
```

```
kali-linux-2022.3-vmware-amd64 - VMware Workstation 16 Player (Non-commercial use only)
Player | ||| | 1 2 3 4 | 
root@kali:~#
File Actions Edit View Help
Ajay Singh - Developer - ZOHO CRM
Akash Krishnan - Member Technical Staff
Akilan Marimuthu
Akshay Chandrasekar - Zoho Corporation
Ali Shabdar - Regional Director MEA
Alok Kumar Bharti - Software Engineer
Anandarama Krishnan - Zoho Corporation
Ananthu Nair - Presales Engineer - Zoho Corporation
Andrea Mahoney - VP - Certified Computer Solutions
Andrew Bourne
Andrew Chacko - Zoho Corporation
Andrews B A - Senior Member Of Technical Staff
Anubhav Pandey - Zoho Consultant
Anumita Narayan - Technical Writer
Aravind Natrajan - Zoho Corporation
Arun Balachandran - Senior Product Marketing Manager
Arun Kesavan - Product Designer
Arun Muralidharan - Product Marketer
Avinid Krishnamoorthy
Ashok Chakravarthi Nagarajan
Ashok Kumar
Aishwarya Srinivas - Lead - Zoho CRM SME
Avaninth B - Software Developer - Zoho
Avazudeen M
Barath Narayanan - Senior Technical Support Engineer
Bala Ganesh
Bala Krishnan - Product Marketer
Bala Sundar - Member Technical Staff
Balaji Jayaraman
Balaji Jayaraman - Product Manager
Barath Kumar Ramesh - Member Leadership Staff
Bashirul Haque Faisal - Zoho Consultant
Baveeswaran - Zoho developer
Bharath Kumar
Bharathi Anbazhagan - Member Technical Staff
Carla Gauthier - Quality Analyst- Zoho CRM Support
Carla Garcia
Chakravarthi Radhakrishnan - Zoho Corporation
Chandru Jayapalan - Zoho Corporation
Chandru Jayapalan
Chetan K. - Zoho CRM Consultant - Regal Infonet
Chitrapandian Nachiappan - Senior Product Director
Clarence Rozario - Director of Product Management
Cynthia Joseph - Account Manager
D Jayraj - Visual Designer
DEVENDRA KUSHWAH - Zoho Developer
David Elkins - Head of Content Review
Deepak RV - Enterprise Support Engineer - Zoho
Cloudy 34°C 14-09-2022 13:46 ENG IN
```

```
kali-linux-2022.3-vmware-amd64 - VMware Workstation 16 Player (Non-commercial use only)
Player | ||| | 1 2 3 4 | 
root@kali:~#
File Actions Edit View Help
Vijayaraghavan venugopal
Vijayaraghavan venugopal
Vinothkumar P - Product Manager - Zoho Corporation
Vipasha Sinha - Senior Product Marketer
Vishnukumar Moorthy - Member Technical staff
Viswanathan Venkatesan
Yogendrababu venkatasamy - Co-Founder
Yogesh Manoharan - Regional Director
ZOHO CRM Developer - A2Z SAAS Private Limited
Zainul Haque - Zoho Developer
Zoho Developer
Zoho Expert Services - GENOWIRE
balaji N - Developer - Zoho Corporation
bommalai k - Zoho Developer
rangarajan ramesh - Account Manager - Zoho
sathiyam satiyamsarva - zoho - Zoho Corporation
shaik Afreen tal - Senior Technical Support Engineer
vasudevannewi - Lead
working as a Senior executive at IndiGo Airlines
[*] LinkedIn Links found: 0
Aanil Mohamed - Regional Account Manager
Abbas Abu - Zoho One Developer
Abhilash Reddy Godishala
Aditya Srinivas - Member of Technical Staff
Adithyan Ravichandar - Lead System Engineer
Ajay George - Partner Support Engineer - Zoho
Ajay Singh - Developer - ZOHO CRM
Akash Krishnan - Member Technical Staff
Akilan Marimuthu
Akshay Chandrasekar - Zoho Corporation
Ali Shabdar - Regional Director MEA
Alok Kumar Bharti - Software Engineer
Anil Gupta - Zoho Developer
Amarnath KR - Zoho Developer
Ambi Moorthy - Product Manager and Co-founder
Anandarama Krishnan - Zoho Corporation
Ananthu Nair - Presales Engineer - Zoho Corporation
Andrea Mahoney - VP - Certified Computer Solutions
Andrew Bourne
Andrew Joseph - Zoho Corporation
Andrews B A - Senior Member Of Technical Staff
Anubhav Pandey - Zoho Consultant
Anumita Narayan - Technical Writer
Aravind Natrajan - Zoho Corporation
Arun Balachandran - Senior Product Marketing Manager
Arun Kesavan - Product Designer
Arun Muralidharan - Product Marketer
Avinid Krishnamoorthy
Ashok Chakravarthi Nagarajan
Cloudy 34°C 14-09-2022 13:47 ENG IN
```

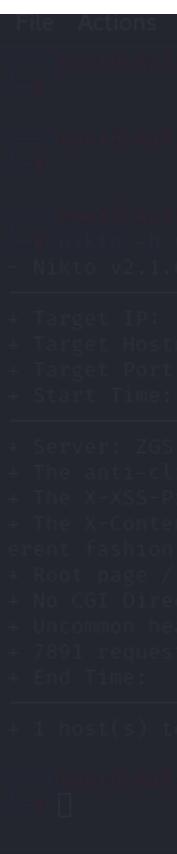
Step 4: run this command “**theHarvester -d www.zoho.com -l 300 -b all -f test**” and hit enter to export the result as html file and xml file

Step 5: now close the terminal and navigate the home folder and search for test file .

Out Put:

```
[*] Searching OMNISINT...
[*] ASNS found: 1
AS53831 /stem
[*] Interesting URLs found: 1
https://www.saveetha.com/
[*] LinkedIn Links found: 0
[*] IPs found: 4
118.139.175.1
198.185.159.144
199.34.228.77
theHarvester...
[*] Emails found: 27
admin@saveetha.com
adminofficer@saveetha.com
admission.medical@saveetha.com
admission.scon@saveetha.com
admission.scpt@saveetha.com
admission.ssl@saveetha.com
admission@saveetha.com
artsadmission@saveetha.com
asso.deanfaculty@saveetha.com
dean.ssm@saveetha.com
enggadmission@saveetha.com
hr.smc@saveetha.com
hr.smch.nts@saveetha.com
hr.smch.ts@saveetha.com
prime@saveetha.com
principal.ahs@saveetha.com
principal.scot@saveetha.com
scadadmission@saveetha.com
schoolofhospitality@saveetha.com

[*] No hosts found.
```



Result: To get information gathering using theHarvester of the websites.

Exercise No 4- Open Source Intelligence Gathering Using OSRFramework

Aim: To Checks for the Existence of a Profile for given user details in differentplatforms

Procedure:

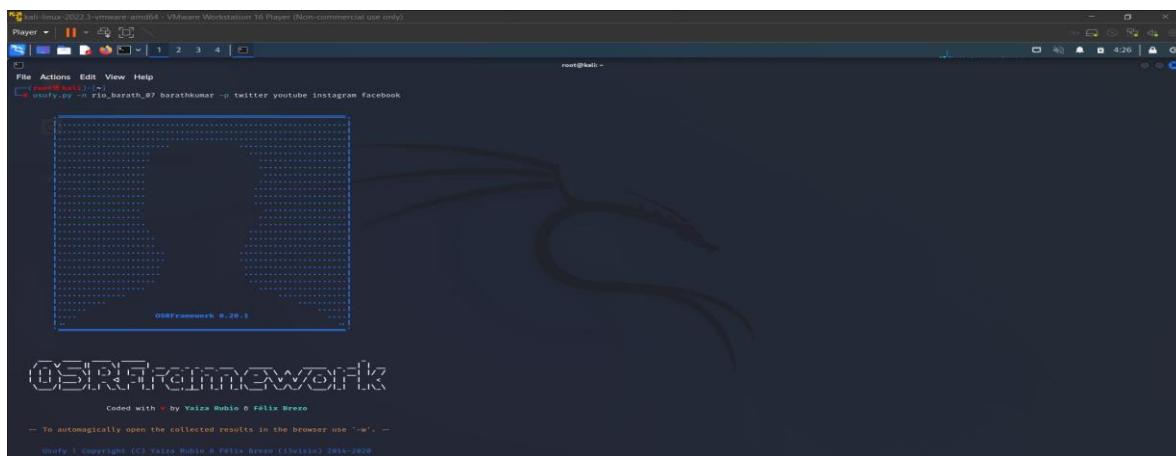
Step 1: Log into kali linux machine

Step 2: Launch a command line terminal by clicking on terminal icon from taskbar

Step 3: Usufy.py checks for the existence of a profile for given user details in different platforms

Command:

```
Usufy.py -n <Target username or profile name> -p twitterfacebook youtube
```



If any error occurs Try this command:**Sudo apt-getupdate**

The usufy.py will search the user details in the mentioned platformand will provide you with the existence of the user

```

root@livelivewire: ~
File Actions Edit View Help
User | Copyright © 2018 Rio Barath & Nelli Nelli (Livelivewire) 2018-700
This program includes ABSOLUTELY NO WARRANTY. This is free software, and you
are welcome to redistribute it under certain conditions. For additional info,
visit https://www.gnu.org/licenses/lgpl-3.0.txt.

2022-09-14 04:25:35,212393 Starting search in 4 platform(s)... Relax!
Press <Ctrl + C> to stop...

2022-09-14 04:25:41,321829 Results obtained (8):
/usr/lib/python3/dist-packages/pyexcel/deprecated.py:200: UserWarning: Deprecated usage since v0.2.1! Explicit import is no longer required, pyexcel.ext.text is auto imported.
warnings.warn("Object recovered (%s)." % (obj))
+-----+-----+-----+
| com.livelivewire | com.livelivewire.Alias | com.livelivewire.Platform |
+-----+-----+-----+
| https://www.youtube.com/user/rio_barath_07/about | rio_barath_07 | Youtube |
| https://www.facebook.com/rio_barath_07 | rio_barath_07 | Facebook |
| https://www.instagram.com/rio_barath_07 | rio_barath_07 | Instagram |
| https://twitter.com/rio_barath_07 | rio_barath_07 | Twitter |
| https://www.youtube.com/user/barathkumar/about | barathkumar | Youtube |
| https://www.facebook.com/barathkumar | barathkumar | Facebook |
| https://www.instagram.com/barathkumar | barathkumar | Instagram |
| https://twitter.com/barathkumar | barathkumar | Twitter |
+-----+-----+-----+

2022-09-14 04:25:41,398991 You can find all the information here:
./profile.csv

2022-09-14 04:25:41,397466 Finishing execution...
Total time consumed: 0:00:06.158075
Average seconds/query: 1.54626875 seconds

Did something go wrong? Is a platform reporting false positives? Do you need to
integrate a new one and you don't know how to start? Then, you can always place
an issue at https://github.com/livelivewire/osrframework/issues
Note that otherwise, we won't know about it!

```

FIGURE. 8

Step 5: Searchfy.py checks with the existing users of a page/handlers for given details in the all-social networking platforms. Type `searchfy.py -q <Page Name or Handler Name>` and press Enter.

```
root@livelivewire: ~ searchfy.py -q "LIVELIVEWIRE"
```

FIGURE. 9

Step 6: It will put out all the details who are subscribed to target social networking pages that are provided.

Sheet Name: Profiles recovered (2018-6-27 15h17m).		
	livelivewire.url	livelivewire.alias livelivewire.platform
	http://twitter.com/us	us Twitter
	https://www.facebook.com/cehuser	cehuser Facebook
	http://twitter.com/cehuser	cehuser Twitter
	https://www.facebook.com/us	us Facebook

FIGURE. 10

Collect and note the information disclosed about the target

Out Put:

```

visit <https://www.gnu.org/licenses/agpl-3.0.txt>.

2023-05-14 20:19:31.116670      Starting search in 4 platform(s)... Relax!
Press <Ctrl + C> to stop ...
File System
2023-05-14 20:19:37.677762      Results obtained (8):

/usr/lib/python3/dist-packages/pyexcel/deprecated.py:208: UserWarning: Deprecated usage since v0.2.1! Explicit import is no longer required. pyexcel.ext.text is auto imported.
  warnings.warn(
Objects recovered (2023-5-14_20h19m)..+-----+
| com.i3visio.URI | Target Host | com.i3visio.Alias | com.i3visio.Platform |
+=====+=====+=====+
| https://www.youtube.com/user/rio_barath_07/about | rio_barath_07 | Youtube | GMG3.6 |
+-----+
| https://www.facebook.com/rio_barath_07 | rio_barath_07 | Facebook | GMG3.6 |
+-----+
| http://www.instagram.com/rio_barath_07 | rio_barath_07 | Instagram | This header can hint to the user agent to protect against XSS. If present, the user agent would allow the user agent to render the content. |
+-----+
| http://twitter.com/rio_barath_07 | rio_barath_07 | Twitter | GMG3.6 |
+-----+
| https://www.youtube.com/user/barathkumar/about | barathkumar | Youtube | User forced check all possible dirs |
+-----+
| https://www.facebook.com/barathkumar | barathkumar | Facebook | reported on remote host |
+-----+
| http://www.instagram.com/barathkumar | barathkumar | Instagram | |
+-----+
| http://twitter.com/barathkumar | barathkumar | Twitter | GMG3.6 |
+-----+
[...]
2023-05-14 20:19:37.869765      You can find all the information here:
./profiles.csv

2023-05-14 20:19:37.869960      Finishing execution ...

Total time consumed:  0:00:06.753290
Average seconds/query:  1.6883225 seconds

Did something go wrong? Is a platform reporting false positives? Do you need to
integrate a new one and you don't know how to start? Then, you can always place
an issue in the Github project:
  https://github.com/i3visio/osrframework/issues
Note that otherwise, we won't know about it!

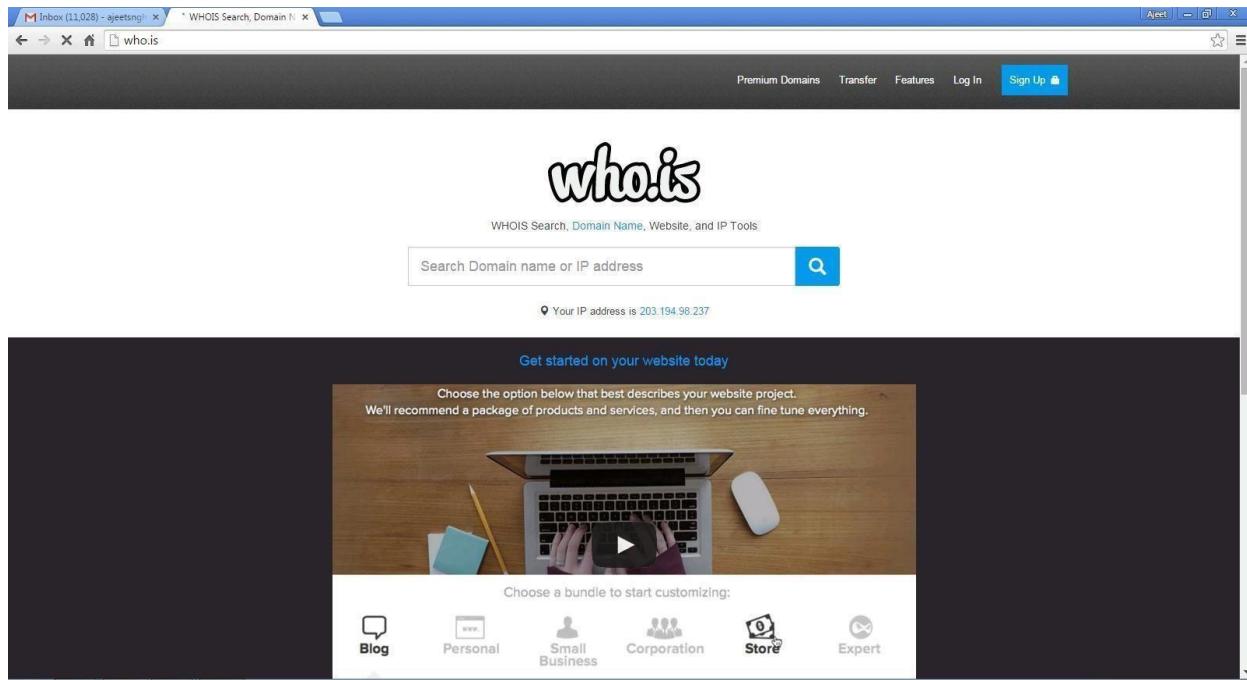
```

Result: Here to Checks for the Existence of a Profile for given user details in differentplatforms of the Names,websites,social medias.

Exercise NO 5: Use Google and Whois for Reconnaissance.

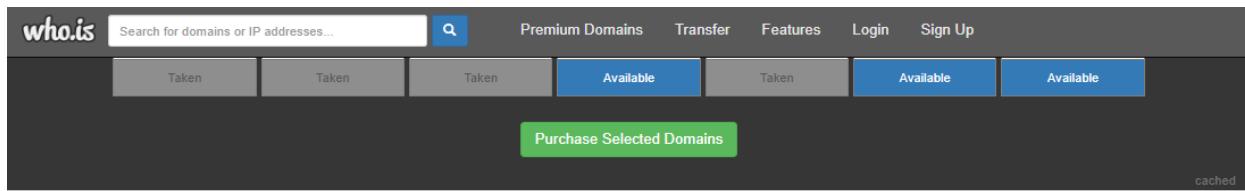
Aim: To find out the Whois, DNS Records and Diagonstics for particular website by using Whois search.
Procedure:

Step1: Open the WHO.is website



Step 2: Enter the website name in search bar and hit the “Enter button”.

Step 3: Show you information about www.saveetha.com



saveetha.com

DNS information

Whois DNS Records Diagnostics

DNS Records for saveetha.com

Hostname	Type	TTL	Priority	Content
saveetha.com	SOA	3600		ns51.domaincontrol.com dns@jomax.net 2022082301 28800 7200 604800 600
saveetha.com	NS	3600		ns51.domaincontrol.com
saveetha.com	NS	3600		ns52.domaincontrol.com
saveetha.com	A	3600		198.185.159.145
saveetha.com	A	3600		198.185.159.144
saveetha.com	MX	3600	3	alt2.aspmx.l.google.com
saveetha.com	MX	3600	1	alt1.aspmx.l.google.com
saveetha.com	MX	3600	3	alt3.aspmx.l.google.com
saveetha.com	MX	3600	3	alt4.aspmx.l.google.com
saveetha.com	MX	3600	1	aspmx.l.google.com
saveetha.com	MX	3600	2	alt2.aspmx.l.google.com
saveetha.com	MX	3600	2	alt3.aspmx.l.google.com
saveetha.com	MX	3600	1	alt4.aspmx.l.google.com
www.saveetha.com	A	3600		198.185.159.144

who.is Search for domains or IP addresses...

Premium Domains Transfer Features Login Sign Up

Interested in domain names? [Click here](#) to stay up to date with domain name news and promotions at Name.com

saveetha.com
diagnostic tools

Whois DNS Records Diagnostics

Ping

```
PING saveetha.com (198.185.159.144) 56(84) bytes of data.
64 bytes from 198.185.159.144: icmp_seq=1 ttl=47 time=8.95 ms
64 bytes from 198.185.159.144: icmp_seq=2 ttl=47 time=8.83 ms
64 bytes from 198.185.159.144: icmp_seq=3 ttl=47 time=8.85 ms
64 bytes from 198.185.159.144: icmp_seq=4 ttl=47 time=9.07 ms
64 bytes from 198.185.159.144: icmp_seq=5 ttl=47 time=9.15 ms

--- saveetha.com ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4005ms
rtt min/avg/max/mdev = 8.832/8.975/9.158/0.138 ms
```

Traceroute

```
traceroute to saveetha.com (198.185.159.145), 30 hops max, 60 byte packets
1 ip-10-0-0-14.ec2.internal (10.0.0.14) 2.160 ms 2.177 ms 2.202 ms
2 216.182.238.135 (216.182.238.135) 11.973 ms 216.182.229.164 (216.182.229.164) 12.014 ms 216.182.229.160 (216.182.229.160) 17.502 ms
```

who.is/whois/saveetha.com

whois Information

Whois DNS Records Diagnostics

cache expires in and 0 seconds refresh

Use promo code WHOIS to save 15% on your first Name.com order.

Registrar Info

Name	PDR Ltd. d/b/a PublicDomainRegistry.com
Whois Server	whois.publicdomainregistry.com
Referral URL	www.publicdomainregistry.com
Status	clientTransferProhibited https://icann.org/epp#ClientTransferProhibited

Important Dates

Expires On	2023-06-18
Registered On	2001-06-18
Updated On	2022-05-27

Name Servers

ns51.domaincontrol.com	97.74.105.26
ns52.domaincontrol.com	173.201.73.26

Similar Domains

- save-beard.gen.in | save-energy.com | savee.biz | savee.cloud | savee.co | savee.co.jp | savee.co.uk | savee.com | savee.com.au | savee.com.br | savee.com.cn | savee.de | savee.dk | savee.eu | savee.host | savee.info | savee.io | savee.it |

Registrar Data

We will display stored WHOIS data for up to 30 days. refresh

Site Status

Status	Active
Server Type	Squarespace

Suggested Domains for saveetha.com

<input type="checkbox"/> save-etha.live	\$2.99
<input type="checkbox"/> saveethas.live	\$2.99
<input type="checkbox"/> freethea.live	\$2.99
<input type="checkbox"/> rescueetha.live	\$2.99
<input type="checkbox"/> guardetha.live	\$2.99

Use promo code WHOIS to save 15% on your first Name.com order.

Registrant Contact Information:

Name	Dr. A. P. U. V. Suresh
Organization	Saveetha Dental College & Hosp.
Address	Saveetha University, Saveetha Nagar, Thandalam Campus

Find the perfect domain at **Name.com**

Out Put:

The screenshot shows a web browser window with the title "WHOIS search results". The URL in the address bar is "in.godaddy.com/whois/results.aspx?domain=www.saveetha.com". The main content area displays "Search the WHOIS Database" and a search bar containing "saveetha.com". Below this, the "WHOIS search results" for the domain "SAVEETHA.COM" are listed. The results include:

- Domain Name: SAVEETHA.COM
- Registry Domain ID: 72789528_DOMAIN_COM-VRSN
- Registrar WHOIS Server: whois.PublicDomainRegistry.com
- Registrar URL: http://www.publicdomainregistry.com
- Updated Date: 2022-05-27T12:35:41Z
- Creation Date: 2001-06-18T13:41:02Z
- Registry Expiry Date: 2023-06-18T13:41:02Z
- Registrar: PDR Ltd. d/b/a PublicDomainRegistry.com
- Registrar IANA ID: 303
- Registrar Abuse Contact Email: abuse-contact@publicdomainregistry.com
- Registrar Abuse Contact Phone: +1.2013775952
- Domain Status: clientTransferProhibited https://icann.org/epp#clientTransferProhibited
- Name Server: NS51.DOMAINCONTROL.COM
- Name Server: NS52.DOMAINCONTROL.COM
- DNSSEC: unsigned

Below the results, there is a notice about the ICANN Whois Inaccuracy Complaint Form and a link to the Whois status codes. A "NOTICE" section at the bottom states that the expiration date displayed is the date the registration was last updated.

On the right side of the screen, there is a sidebar titled "Find your Domain" with a search bar and a "Search" button. The taskbar at the bottom of the screen shows various pinned icons and the system tray indicates the date and time as 5/13/2023, 2:03 PM.

Result: To finding out the Whois, DNS Records and Diagonstics for particular website by using Whois search. Total information of the Domain Name.

Exercise No 6: TraceRoute, ping, ifconfig, ipconfig, netstat

Aim: Using TraceRoute, ping, ifconfig(LINUX), ipconfig(WINDOWS), and netstat Command.

Procedure:

Step 1: open windows command prompt and Type tracert command and type tracert www.saveetha.com -> “Enter”

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.22000.795]
(c) Microsoft Corporation. All rights reserved.

C:\Users\barat>tracert saveetha.com

Tracing route to saveetha.com [118.139.175.1]
over a maximum of 30 hops:

 1  11 ms    4 ms    4 ms  172.18.64.1
 2  9 ms     2 ms    9 ms  172.22.3.1
 3  9 ms    17 ms    8 ms  172.22.7.2
 4  12 ms    9 ms   10 ms  ptpl-as56272-rev-241.121.235.180-chn.pulse.in [180.235.121.241]
 5  14 ms    13 ms    9 ms  static-141.121.99.14-tataidc.co.in [14.99.121.141]
 6  8 ms     9 ms   12 ms  14.141.20.165.static-vsnl.net.in [14.141.20.165]
 7  12 ms    10 ms    *    172.31.167.45
 8  10 ms    11 ms    8 ms  ix-ae-4-2.tcore1.chennai.as6453.net [180.87.36.9]
 9  43 ms    *        *    if-be-34-2.ecore2.esin4-singapore.as6453.net [180.87.36.41]
10  42 ms    45 ms   50 ms  if-be-10-2.ecore2.svq-singapore.as6453.net [180.87.107.0]
11  *        *        *    Request timed out.
12  *        *        *    Request timed out.
13  *        *        *    Request timed out.
14  *        *        *    Request timed out.
15  *        *        *    Request timed out.
16  *        *        *    Request timed out.
17  *        *        *    Request timed out.
18  *        *        *    Request timed out.
19  *        *        *    Request timed out.
20  *        *        *    Request timed out.
21  *        *        *    Request timed out.
22  *        *        *    Request timed out.
23  *        *        *    Request timed out.
24  *        *        *    Request timed out.
25  *        *        *    Request timed out.
26  *        *        *    Request timed out.
27  *        *        *    Request timed out.
28  *        *        *    Request timed out.
29  *        *        *    Request timed out.
30  *        *        *    Request timed out.

Trace complete.
```

Step 2: Type ping command and type IP Address press “Enter”

```
C:\Windows\system32\cmd.exe
C:\Users\barat>ping 172.18.64.1

Pinging 172.18.64.1 with 32 bytes of data:
Reply from 172.18.64.1: bytes=32 time=7ms TTL=255
Reply from 172.18.64.1: bytes=32 time=28ms TTL=255
Reply from 172.18.64.1: bytes=32 time=34ms TTL=255
Reply from 172.18.64.1: bytes=32 time=75ms TTL=255

Ping statistics for 172.18.64.1:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
  Approximate round trip times in milli-seconds:
    Minimum = 7ms, Maximum = 75ms, Average = 36ms
```

Step 3: Type ifconfig command

```
nuse1:-# ifconfig
eth0      Link encap:Ethernet HWaddr 00:0C:29:17:1B:27
          inet addr:192.168.208.133 Bcast:192.168.208.255 Mask:255.255.255.0
          inet6 addr: fe80::20c:29ff:fe17:1b27/64 Scope:Link
            UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
            RX packets:195 errors:0 dropped:0 overruns:0 frame:0
            TX packets:189 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:1000
            RX bytes:21313 (20.8 Kb) TX bytes:16778 (16.3 Kb)

lo       Link encap:Local Loopback
          inet addr:127.0.0.1 Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
            UP LOOPBACK RUNNING MTU:16436 Metric:1
            RX packets:18 errors:0 dropped:0 overruns:0 frame:0
            TX packets:18 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:0
            RX bytes:1060 (1.0 Kb) TX bytes:1060 (1.0 Kb)
```

Step 4: Type netstat c

```
C:\Users\singh>netstat
Active Connections

  Proto  Local Address        Foreign Address      State
  TCP    127.0.0.1:1564      DESKTOP-923RK3N:1565  ESTABLISHED
  TCP    127.0.0.1:1565      DESKTOP-923RK3N:1564  ESTABLISHED
  TCP    127.0.0.1:25104     DESKTOP-923RK3N:25105  ESTABLISHED
  TCP    127.0.0.1:25105     DESKTOP-923RK3N:25104  ESTABLISHED
  TCP    127.0.0.1:25107     DESKTOP-923RK3N:25108  ESTABLISHED
  TCP    127.0.0.1:25108     DESKTOP-923RK3N:25107  ESTABLISHED
  TCP    127.0.0.1:25112     DESKTOP-923RK3N:25113  ESTABLISHED
  TCP    127.0.0.1:25113     DESKTOP-923RK3N:25112  ESTABLISHED
  TCP    127.0.0.1:25114     DESKTOP-923RK3N:25115  ESTABLISHED
  TCP    127.0.0.1:25115     DESKTOP-923RK3N:25114  ESTABLISHED
  TCP    192.168.0.57:24938   52.230.84.217:https  ESTABLISHED
  TCP    192.168.0.57:24978   162.254.196.84:27021  ESTABLISHED
  TCP    192.168.0.57:25052   a23-56-165-111:https ESTABLISHED
  TCP    192.168.0.57:25072   test:https           TIME_WAIT
  TCP    192.168.0.57:25078   a23-56-165-111:https ESTABLISHED
  TCP    192.168.0.57:25080   a23-56-165-111:https ESTABLISHED
  TCP    192.168.0.57:25083   40.67.188.75:https  ESTABLISHED
  TCP    192.168.0.57:25099   13.107.21.200:https ESTABLISHED
  TCP    192.168.0.57:25100   ns329092:http       SYN_SENT
  TCP    192.168.0.57:25101   155:https           ESTABLISHED
  TCP    192.168.0.57:25103   103.56.230.154:http ESTABLISHED
  TCP    192.168.0.57:25106   ns329092:http       SYN_SENT
  TCP    192.168.0.57:25109   ats1:https         ESTABLISHED
```

Out Put:

```
A [ Command Prompt ] X + 
Microsoft Windows [Version 10.0.22621.1555]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Sumanth>tracert saveetha.com

Tracing route to saveetha.com [198.185.159.145]
over a maximum of 30 hops:
Rec 1 537 ms      4 ms      9 ms  192.168.226.244
2  325 ms      486 ms     600 ms  192.168.29.10
3  254 ms      *       263 ms  192.168.28.165
4  *       *       *       Request timed out.
5  SumanthReddy [192.168.226.91]  reports: Destination host unreachable.

Trace complete.

C:\Users\Sumanth>ping 192.185.159.145

Pinging 192.185.159.145 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.185.159.145:
    Packets: Sent = 4, Received = 1, Lost = 3 (75% loss),
C:\Users\Sumanth>
C:\Users\Sumanth>
C:\Users\Sumanth>

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Link encap:Local Loopback
inet addr: 127.0.0.1  Mask:255.0.0.0
inet6 addr: ::1/128 Scope:Host
UP LOOPBACK RUNNING MTU:16436 Metric:1
RX packets:109 errors:0 dropped:0 overruns:0 frame:0
TX packets:109 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:21318 (20.8 kb) TX bytes:16778 (16.3 kb)

Link encap:Local Loopback
inet addr: 127.0.0.1  Mask:255.0.0.0
inet6 addr: ::1/128 Scope:Host
UP LOOPBACK RUNNING MTU:16436 Metric:1
RX packets:10 errors:0 dropped:0 overruns:0 frame:0
TX packets:10 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:21318 (20.8 kb) TX bytes:16778 (16.3 kb)

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```

```
A [ Command Prompt ] X + 
C:\Users\Sumanth>ifconig
'ifconig' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\Sumanth>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet 2:

Connection-specific DNS Suffix . :
Link-local IPv6 Address . . . . . : fe80::14e2:f537:f9da:3185%38
IPv4 Address . . . . . : 192.168.56.1
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :

Wireless LAN adapter Local Area Connection* 1:

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

Wireless LAN adapter Local Area Connection* 2:

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

Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix . :

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TCP 192.168.0.57:25072 test:https a23-56-165-111:https TIME_WAIT
TCP 192.168.0.57:25078 192.168.0.57:25095 ESTABLISHED
TCP 192.168.0.57:25099 49.67.188.75:https ESTABLISHED
TCP 192.168.0.57:25099 13.107.21.200:https ESTABLISHED
TCP 192.168.0.57:25101 ns320902:http SYN_RECV
TCP 192.168.0.57:25103 193.56.238.158:http ESTABLISHED
TCP 192.168.0.57:25106 ns320902:https ESTABLISHED
TCP 192.168.0.57:25109 9511:https ESTABLISHED

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```

Subnet Mask : 255.255.255.0
Default Gateway : fe80::2401:8ff:fe77:b499%8
192.168.178.185

C:\Users\Sumanth>netstat

Active Connections

Rec	Proto	Local Address	Foreign Address	State
	TCP	127.0.0.1:51750	SumanthReddy:65001	ESTABLISHED
	TCP	127.0.0.1:52489	SumanthReddy:52490	ESTABLISHED
	TCP	127.0.0.1:52490	SumanthReddy:52489	ESTABLISHED
	TCP	127.0.0.1:52498	SumanthReddy:52499	ESTABLISHED
	TCP	127.0.0.1:52499	SumanthReddy:52498	ESTABLISHED
	TCP	127.0.0.1:65001	SumanthReddy:51750	ESTABLISHED
	TCP	192.168.178.91:52564	ec2-15-207-187-50:https	ESTABLISHED
	TCP	192.168.178.91:52567	ac9293e5fb5d21d2:5222	ESTABLISHED
	TCP	192.168.178.91:63287	20.198.119.143:https	ESTABLISHED
	TCP	[2402:3a80:183a:fbfd:9123:b861:7762:b4c2]:52568	[64:ff9b::d4c:2d1a]:https	ESTABLISHED
	TCP	[2402:3a80:183a:fbfd:9123:b861:7762:b4c2]:52590	[64:ff9b::1459:95a8]:https	TIME_WAIT
	TCP	[2402:3a80:183a:fbfd:9123:b861:7762:b4c2]:52591	[64:ff9b::d43:4aeb]:https	ESTABLISHED
	TCP	[2402:3a80:183a:fbfd:9123:b861:7762:b4c2]:52592	[64:ff9b::14bd:ad06]:https	ESTABLISHED
	TCP	[2402:3a80:183a:fbfd:9123:b861:7762:b4c2]:52598	[64:ff9b::142c:e570]:https	TIME_WAIT
	TCP	[2402:3a80:183a:fbfd:9123:b861:7762:b4c2]:52599	[aa05s22-in-x03]:https	TIME_WAIT
	TCP	[2402:3a80:183a:fbfd:9123:b861:7762:b4c2]:52600	[2620:1ec:42::132]:https	ESTABLISHED
	TCP	[2402:3a80:183a:fbfd:9123:b861:7762:b4c2]:52604	[2606:2800:247:61d9:f511:45d:27a9:730f]:https	TIME_WAIT
	TCP	[2402:3a80:183a:fbfd:9123:b861:7762:b4c2]:52605	[64:ff9b::34a8:7042]:https	ESTABLISHED
	TCP	[2402:3a80:183a:fbfd:9123:b861:7762:b4c2]:52606	[64:ff9b::34a8:7042]:https	ESTABLISHED
	TCP	[2402:3a80:183a:fbfd:9123:b861:7762:b4c2]:63288	[64:ff9b::14c6:778f]:https	ESTABLISHED

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2:12 PM 5/13/2023

Result: To get the information of the TraceRoute, ping, ifconfig(LINUX), ipconfig(WINDOWS), and netstat Commands.

Exercise No 7:VULNERABILITY ANALYSIS - CGI Scanning with Nikto

Aim:To perform vulnerability Analysis using CGI Scanning with Nikto

Procedure:

Step 1: open a terminal window and type nikto –H and press enter

Step 2: Type nikto –h <website> Tuning x and press enter



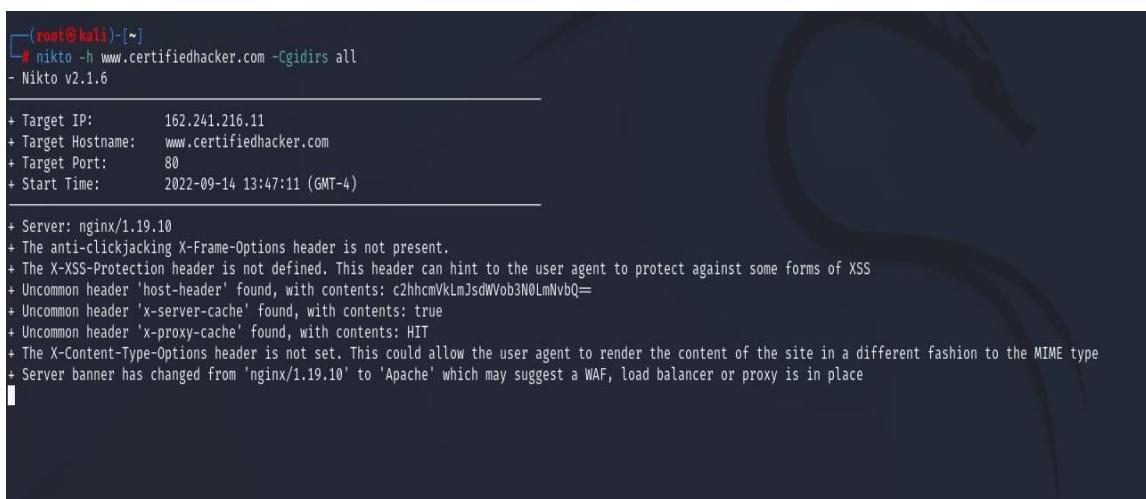
```
(root@kali)-[~]
# nikto -h www.zoho.com -Tuning x
- Nikto v2.1.6

+ Target IP:      103.103.196.97
+ Target Hostname: www.zoho.com
+ Target Port:    80
+ Start Time:    2022-09-14 13:32:08 (GMT-4)

+ Server: ZGS
+ The anti-clickjacking X-Frame-Options header is not present.
+ The X-XSS-Protection header is not defined. This header can hint to the user agent to protect against some forms of XSS
+ The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type
+ Root page / redirects to: https://www.zoho.com/
```

Step 3: Nikto starts web server scanning with all tuning options enabled.

Step4:In the terminal window type “nikto –h <website>-Cgidirs all”and hit enter



```
(root@kali)-[~]
# nikto -h www.certifiedhacker.com -Cgidirs all
- Nikto v2.1.6

+ Target IP:      162.241.216.11
+ Target Hostname: www.certifiedhacker.com
+ Target Port:    80
+ Start Time:    2022-09-14 13:47:11 (GMT-4)

+ Server: nginx/1.19.10
+ The anti-clickjacking X-Frame-Options header is not present.
+ The X-XSS-Protection header is not defined. This header can hint to the user agent to protect against some forms of XSS
+ Uncommon header 'host-header' found, with contents: c2hhcmVklmJsdWvob3N0LmNvbQ=
+ Uncommon header 'x-server-cache' found, with contents: true
+ Uncommon header 'x-proxy-cache' found, with contents: HIT
+ The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type
+ Server banner has changed from 'nginx/1.19.10' to 'Apache' which may suggest a WAF, load balancer or proxy is in place
```

Step 5. Nikto will scan the webserver as it looks vulnerable CGI directories. It scans the webserver and list out the directories

Out Put:

```
[root@kali) ~]# nikto -h www.zoho.com -Tuning x
- Nikto v2.1.6
+ Target IP: 169.148.148.97
+ Target Hostname: www.zoho.com
+ Target Port: 80
+ Start Time: 2023-05-14 20:46:15 (GMT5.5)
+ Server: ZGS
+ The anti-clickjacking X-Frame-Options header is not present.
+ The X-XSS-Protection header is not defined. This header can hint to the user agent to protect against some forms of XSS
+ The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type
+ Root page / redirects to: https://www.zoho.com/
+ No CGI Directories found (use '-C all' to force check all possible dirs)
+ Uncommon header 'zproxy' found, with contents: domain_not_configured
```

```
[root@kali) ~]# nikto -h www.certifiedhacker.com -Cgidirs all
- Nikto v2.1.6
+ Target IP: 162.241.216.11
+ Target Hostname: www.certifiedhacker.com
+ Target Port: 80
+ Start Time: 2023-05-14 20:55:18 (GMT5.5)
+ Server: Apache
+ The anti-clickjacking X-Frame-Options header is not present.
+ The X-XSS-Protection header is not defined. This header can hint to the user agent to protect against some forms of XSS
+ The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type
+ Root page / redirects to: https://www.certifiedhacker.com/
[+] Generic Options:
  Responder NIC: eth0
  Responder IP: 192.168.0.104
  Responder Port: 12345
```

Result: To perform the vulnerability of Analysis using CGI Scanning with Nikto with using the websites data details.

Exercise No 8: Wireshark sniffer

Aim: Use Wireshark sniffer to capture network traffic and analyze.

Procedure:

Step 1: Install and open Wireshark .



Welcome to Wireshark

Open

C:\Users\barath\OneDrive\Documents\arms1.pcapng (74 MB)

Capture

...using this filter: Enter a capture filter ...

Local Area Connection 7
Local Area Connection 6
Local Area Connection 5
Wi-Fi
Local Area Connection* 12
Local Area Connection* 10
Adapter for loopback traffic capture
Local Area Connection 2
Local Area Connection
Dongle USB T1K1

Learn

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You are running Wireshark 3.6.8 (v3.6.8-0-gd25900c51508). You receive automatic updates.

Ready to load or capture

No Packets

Profile: Default

Step 2: Go to Capture tab and select Interface option. Here Wifi connection is chosen

Step 3: The source, Destination and protocols of the packets in the Wifi network are displayed

No.	Time	Source	Destination	Protocol	Length	Info
3937	549.408818 [192.168.0.101]	255.255.255.255	UDP	132	Source port: 61805 Destination port: 10505	
3938	549.442141 [192.168.0.101]	255.255.255.255	TCP	93	[TCP Keep-Alive] Seq=1 ACK=175 Win=1-0 SYN/retransmissable error - protocol TCP: new fragment over same old connection	
3939	549.775992 [23.70.2.145.133]	192.168.0.103	TCP	66	[TCP Keep-Alive ACK] Seq=175 ACK=175 Win=73280 Len=0 SYN=0 RST=0	
3940	550.100000 [192.168.0.101]	255.255.255.255	TCP	93	[TCP Keep-Alive] Seq=175 ACK=175 Win=1-0 SYN/retransmissable error - protocol TCP: new fragment over same old connection	
3941	550.360101 [192.168.0.101]	35.101.220.104	TCP	55	[TCP Keep-Alive] Seq=175 ACK=175 Win=1-0 SYN/retransmissable error - protocol TCP: new fragment over same old connection	
3942	550.643582 [192.168.0.101]	82.161.143.269	DNS	70	Standard query message to google.com	
3943	550.643602 [192.168.0.101]	192.168.0.103	TCP	64	[TCP Keep-Alive ACK] Seq=176 ACK=176 Win=16160 Len=0 SYN=0 RST=0	
3944	550.643622 [192.168.0.101]	192.168.0.103	TCP	40	[TCP Keep-Alive ACK] Seq=176 ACK=176 Win=16160 Len=0 SYN=0 RST=0	
3945	550.786204 [192.168.0.101]	144.78.29.8	TCP	54	SYN=0 > [FIN ACK] Seq=175 ACK=155 win=10268 Len=0	
3946	550.786213 [192.168.0.101]	192.168.0.103	TCP	68	[TCP Keep-Alive ACK] Seq=176 ACK=176 Win=1-0 SYN=0 RST=0	
3947	550.820573 [190.93.253.58]	192.168.0.101	TCP	54	RST=0 > [FIN ACK] Seq=11893 ACK=9159 win=51200 Len=0	
3948	550.842302 [192.168.0.101]	192.168.0.101	TCP	28	standard query response: 93986 A 173.194.46.78 A 173.194.46.68 A 173.194.46.64 A 173.194.46.65 A 173.194.46.67 A 173.194.46.69	
3949	550.842303 [192.168.0.101]	192.168.0.101	TCP	54	SYN=0 > [ACK] Seq=176 ACK=175 win=10268 Len=0	
3950	550.842304 [192.168.0.101]	192.168.0.253	NHNS	92	Name query Ns A167-PC-1c>	
3951	551.447136 [192.168.0.101]	255.255.255.255	UDP	132	Source port: 30628 Destination port: 10505	
3952	551.447137 [192.168.0.101]	192.168.0.103	TCP	64	[TCP Keep-Alive ACK] Seq=176 ACK=176 Win=16160 Len=0	
3953	551.496167 [192.168.0.101]	192.168.0.101	TCP	54	RST=0 > [FIN ACK] Seq=176 ACK=176 Win=16160 Len=0	
3954	552.747281 [192.168.0.101]	192.168.0.255	NHNS	92	Name query Ns A167-PC-1c>	
3955	552.840011 [192.168.0.101]	192.168.0.101	TCP	68	[TCP Keep-Alive ACK] Seq=176 ACK=176 Win=1-0 SYN=0 RST=0	
3956	553.473448 [192.168.0.101]	192.168.0.103	TCP	55	[TCP Keep-Alive] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=1280 Len=1	
3957	553.566181 [192.168.0.101]	255.255.255.255	UDP	132	Source port: 30628 Destination port: 10505	
3958	553.566182 [192.168.0.101]	192.168.0.103	TCP	64	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=1280 Len=1	
3959	553.566183 [192.168.0.101]	255.255.255.255	UDP	132	Source port: 50644 Destination port: 10505	
3960	553.566187 [192.168.0.101]	192.168.0.103	TCP	54	HTTP > 56523 [FIN ACK] Seq=303 ACK=1239 win=43440 Len=0	
3961	555.287475 [192.168.0.101]	255.255.255.255	TCP	28	56325 > HTTP [ACK] Seq=1239 ACK=302 Win=16660 Len=0	
3962	555.287476 [192.168.0.101]	192.168.0.103	TCP	33	[TCP Keep-Alive] Seq=176 ACK=176 Win=1-0 SYN=0 RST=0	
3963	555.287478 [192.168.0.101]	255.255.255.255	TCP	33	[TCP Keep-Alive] Seq=176 ACK=176 Win=1-0 SYN=0 RST=0	
3964	555.287479 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3965	555.287480 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3966	555.287481 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3967	555.287482 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3968	555.287483 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3969	555.287484 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3970	555.287485 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3971	555.287486 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3972	555.287487 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3973	555.287488 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3974	555.287489 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3975	555.287490 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3976	555.287491 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3977	555.287492 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3978	555.287493 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3979	555.287494 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3980	555.287495 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3981	555.287496 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3982	555.287497 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3983	555.287498 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3984	555.287499 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3985	555.287500 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3986	555.287501 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3987	555.287502 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3988	555.287503 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3989	555.287504 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3990	555.287505 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3991	555.287506 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3992	555.287507 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3993	555.287508 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3994	555.287509 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3995	555.287510 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3996	555.287511 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3997	555.287512 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3998	555.287513 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
3999	555.287514 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4000	555.287515 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4001	555.287516 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4002	555.287517 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4003	555.287518 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4004	555.287519 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4005	555.287520 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4006	555.287521 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4007	555.287522 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4008	555.287523 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4009	555.287524 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4010	555.287525 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4011	555.287526 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4012	555.287527 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4013	555.287528 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4014	555.287529 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4015	555.287530 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4016	555.287531 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4017	555.287532 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4018	555.287533 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4019	555.287534 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4020	555.287535 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4021	555.287536 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4022	555.287537 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4023	555.287538 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4024	555.287539 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4025	555.287540 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4026	555.287541 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4027	555.287542 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=178 win=11300 Len=0	
4028	555.287543 [192.168.0.101]	192.168.0.103	TCP	54	[TCP Keep-Alive ACK] Seq=177 = HTTP [ACK] Seq=178 ACK=17	

Step 4: Open a website in a new window and enter the user id and password. Register ifneeded.

Step 5: Enter the credentials and then sign in

Step 6: The wireshark tool will keep recording the packets.

Step 7: Select filter as http to make the search easier and click on apply.

Step 9: Now stop the tool to stop recording

The screenshot shows two windows side-by-side. On the left is the Wireshark interface, capturing traffic from Wi-Fi. A list of network frames is visible, with frame 72877 highlighted. The details pane shows an HTTP POST request to 'http://arms.sse.saveetha.com'. The bytes pane displays the raw hex and ASCII data of the request. On the right is a web browser window showing a 'Sign In' page for 'SAVEETHA SCHOOL OF ENGINEERING'. The URL is 'http://arms.sse.saveetha.com'. The page has input fields for 'username' (containing 'admin') and 'password' (containing '*****'). Below the fields is an error message: 'The username and password you entered is invalid'. At the bottom of the browser window, there is footer text: '2018 © Saveetha Institute of Medical and Technical Sciences | Disclaimer | Privacy Policy'.

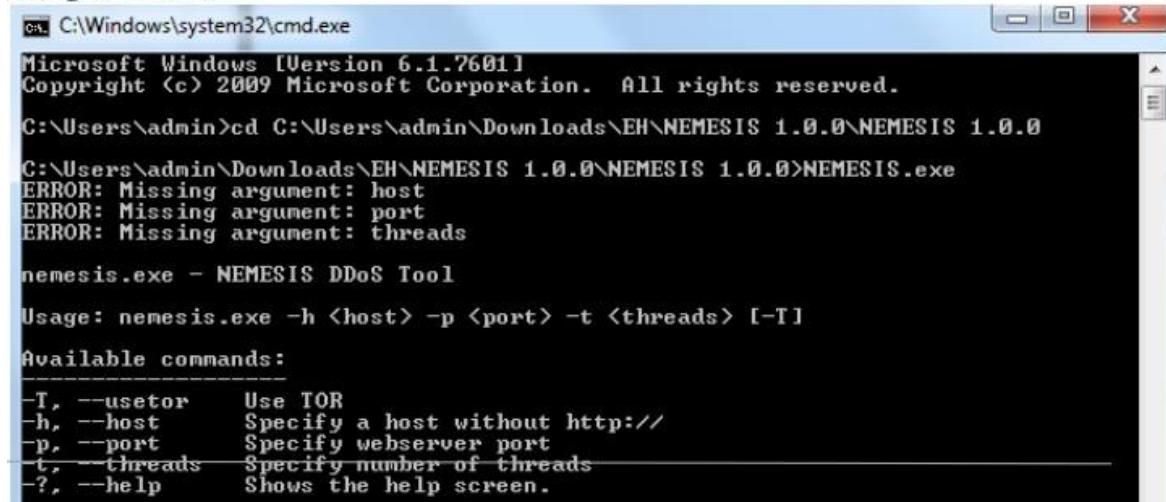
This screenshot is similar to the one above, showing the Wireshark capture and the browser's 'Sign In' page. However, the browser's page has been annotated with blue boxes highlighting specific parts of the HTML code. One box covers the entire form structure, another covers the 'username' input field, and a third covers the 'password' input field. The annotations likely correspond to the fields being analyzed in the captured traffic. The footer text at the bottom of the browser window is identical to the previous screenshot.

Step 10: Find the post methods for username and passwords

Step 11: You will see the email- id and password that you used to log in.

DOS

Using NEMESIS



```
Microsoft Windows [Version 6.1.7601]
Copyright <c> 2009 Microsoft Corporation. All rights reserved.

C:\Users\admin>cd C:\Users\admin\Downloads\EH\NEMESIS 1.0.0\NEMESIS 1.0.0

C:\Users\admin\Downloads\EH\NEMESIS 1.0.0\NEMESIS 1.0.0>NEMESIS.exe
ERROR: Missing argument: host
ERROR: Missing argument: port
ERROR: Missing argument: threads

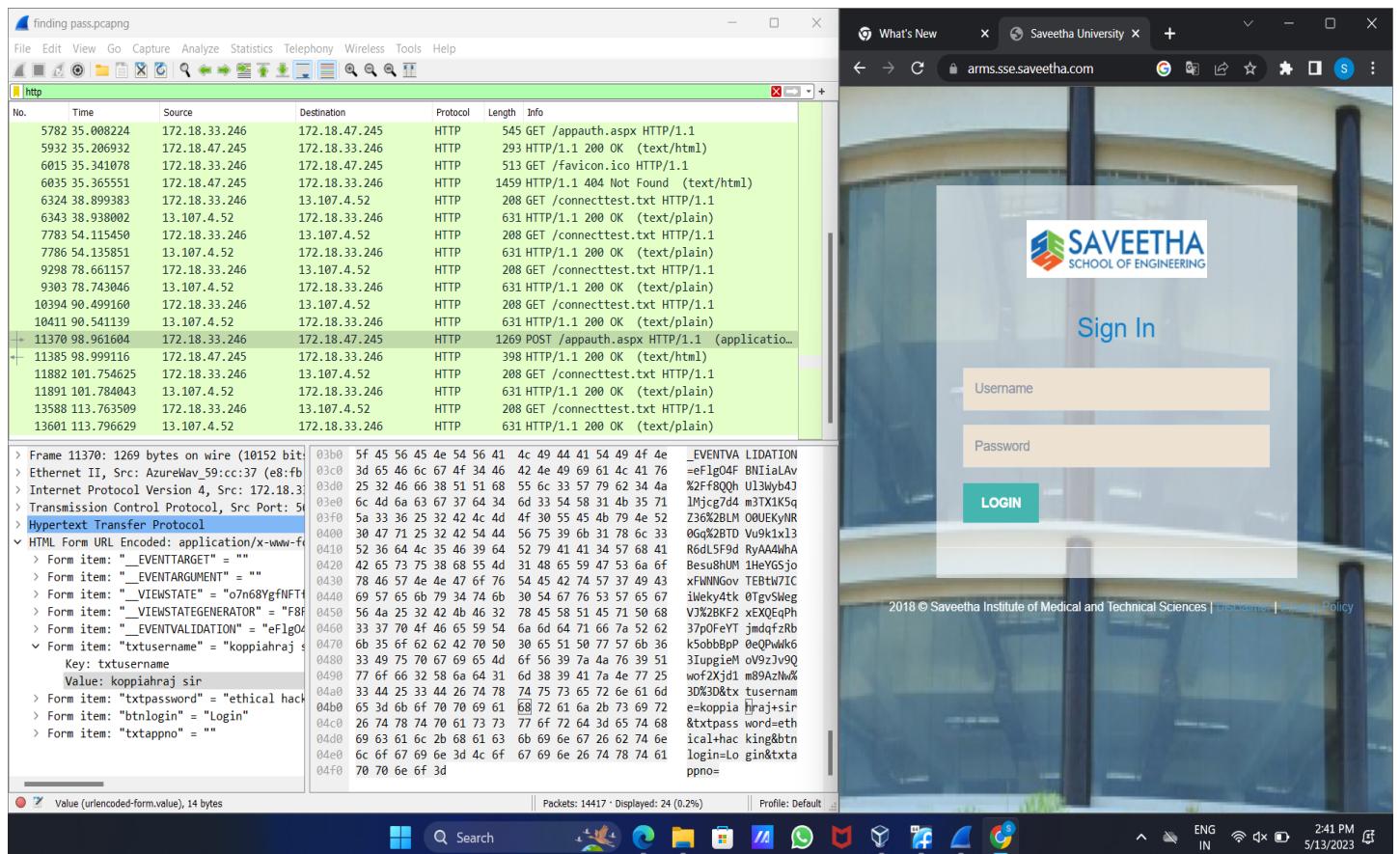
nemesis.exe - NEMESIS DDoS Tool

Usage: nemesis.exe -h <host> -p <port> -t <threads> [-T]

Available commands:

-T, --usetor      Use TOR
-h, --host        Specify a host without http://
-p, --port        Specify webserver port
-t, --threads    Specify number of threads
-?, --help        Shows the help screen.
```

Out Put:



The screenshot shows two windows side-by-side. On the left, a Wireshark capture window displays network traffic for port 80. A specific frame is selected, showing details for a POST request to 'appauth.aspx' from IP 172.18.33.246 to 172.18.47.245. The packet bytes and hex dump are visible at the bottom. On the right, a Google Chrome browser window shows a login page for 'Saveetha University'. The URL is 'arms.sse.saveetha.com'. The page features the Saveetha logo and fields for 'Username' and 'Password' with a 'LOGIN' button. Below the page, a footer includes the text '2018 © Saveetha Institute of Medical and Technical Sciences | Disclaimer | Privacy Policy'.

Result: Use Wireshark sniffer to capture network traffic and analyze. To identified the usersname and password of the websites.

EX.NO:9

DATE: BATCH FILE EXECUTION

AIM: To create a Windows batch file.

PROCEDURE:

Step 1 : Open a text file, such as a Notepad or WordPad document

Step 2 : Add your commands, starting **with @echo [off]**, followed by, each in a new line, **title [title of your batch script]**, **echo [first line]**, and **pause**.

Step 3 : Save your file with the file extension **BAT**, for example, **test.bat**.

Step 4 : To run your batch file, **double-click the BAT file** you just created.

Step 5 : To edit your batch file, **right-click the BAT file** and select **Edit**.

And here's the corresponding command window for the example above:

1.Create a New Text Document

A batch file simplifies repeatable computer tasks using the Windows command prompt.

Below is an example of a batch file responsible for displaying some text in your command prompt.

Create a new BAT file by right-clicking an empty space within a directory and selecting **New, then Text Document**.

1.CODE:

Double-click this **New Text Document** to open your default text editor. Copy and paste the following code into your text entry.

```
>> @echo off  
>> echo hello  
>> Pause  
>> echo This is new  
>> echo this is second one  
>> pause
```

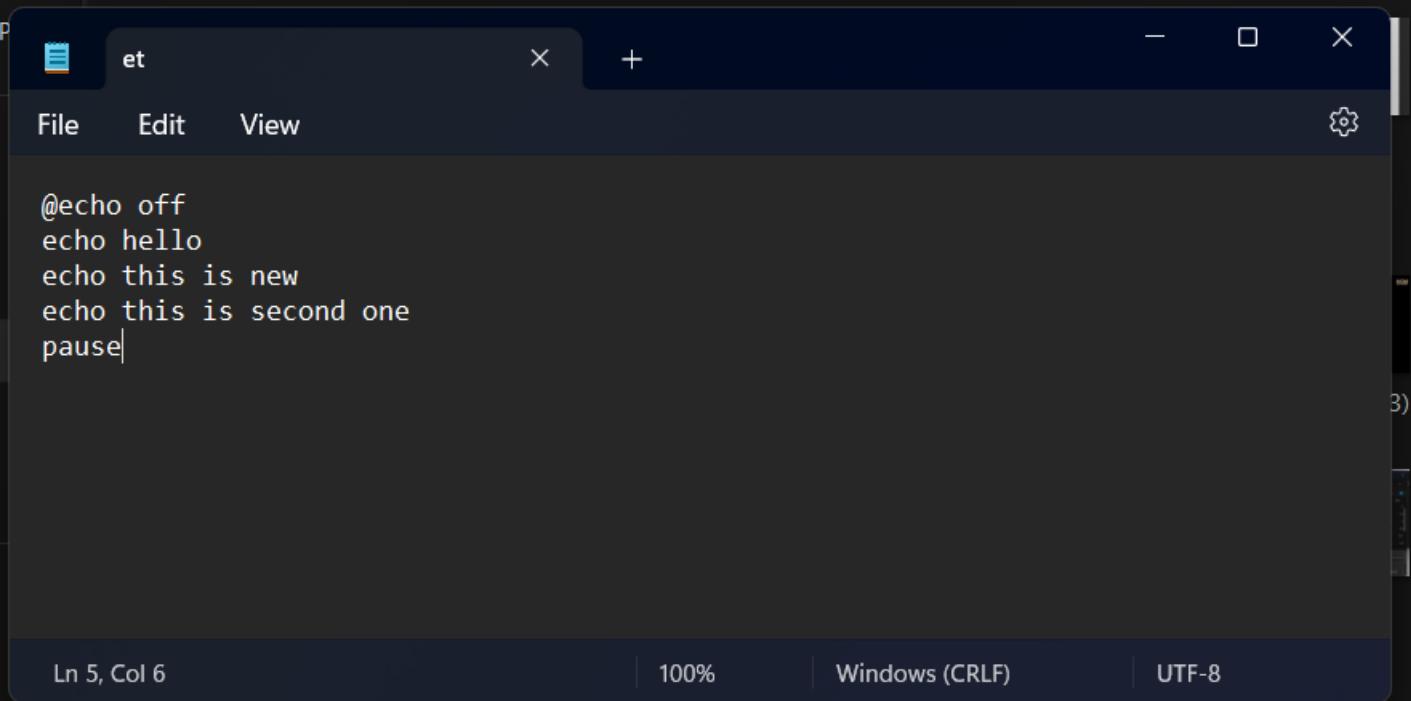
1. TO SAVE a BAT File

The above script echoes back the text "Welcome to batch scripting!" Save your file by heading to **File > Save As**, and then name your file what you'd like. End your file name with the added **BAT** extension, for example **test.bat**, and click **OK**. This will finalize the batch process. Now, double-click on your newly created batch file to activate it.

2. To RUN as BAT File

Once you'd saved your file, all you need to do is **double-click your BAT file**. Instantly, your web pages will open. If you'd like, you can place this file on your desktop. This will allow you to access all of your favorite websites at once.

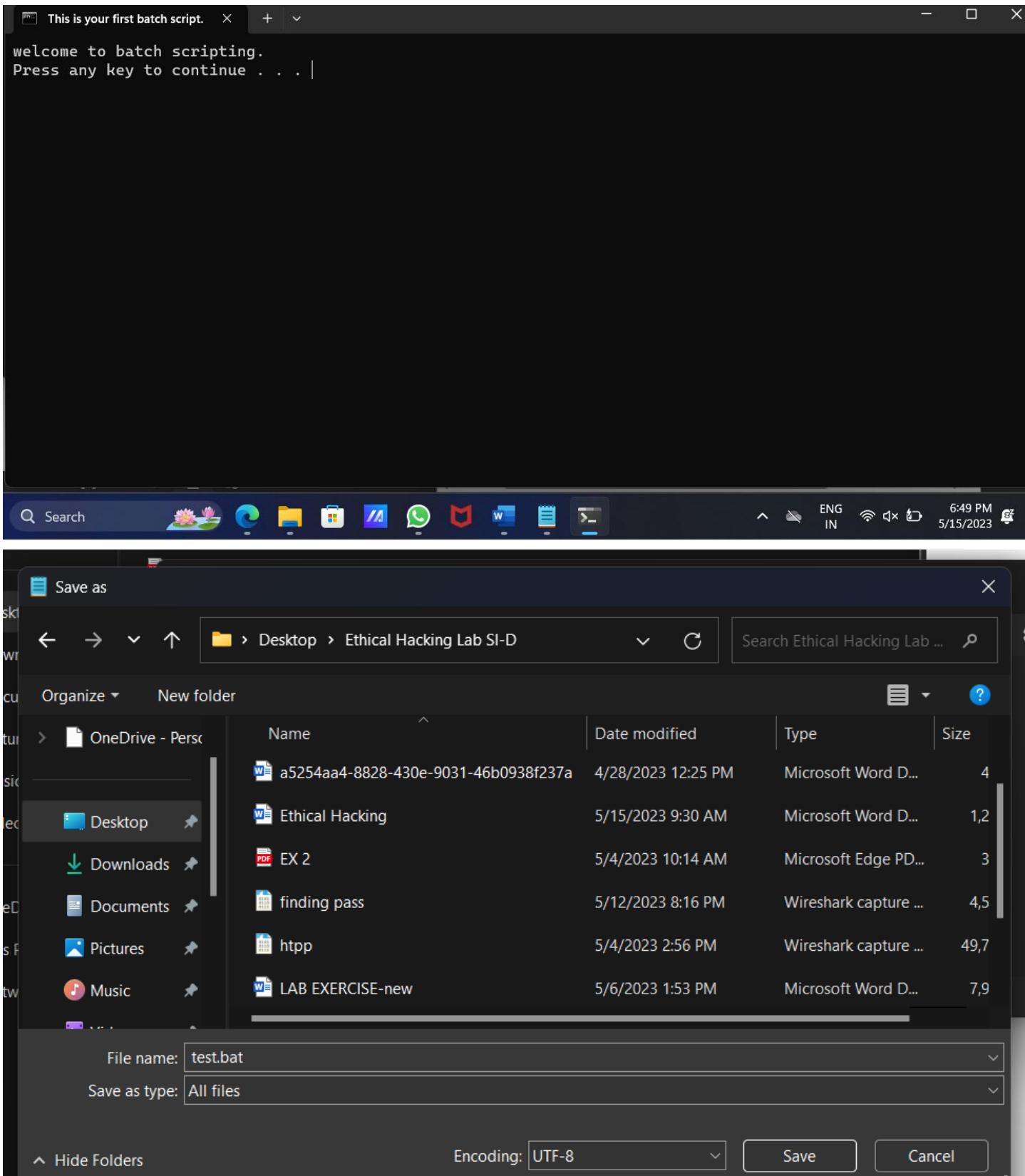
OUT PUT:

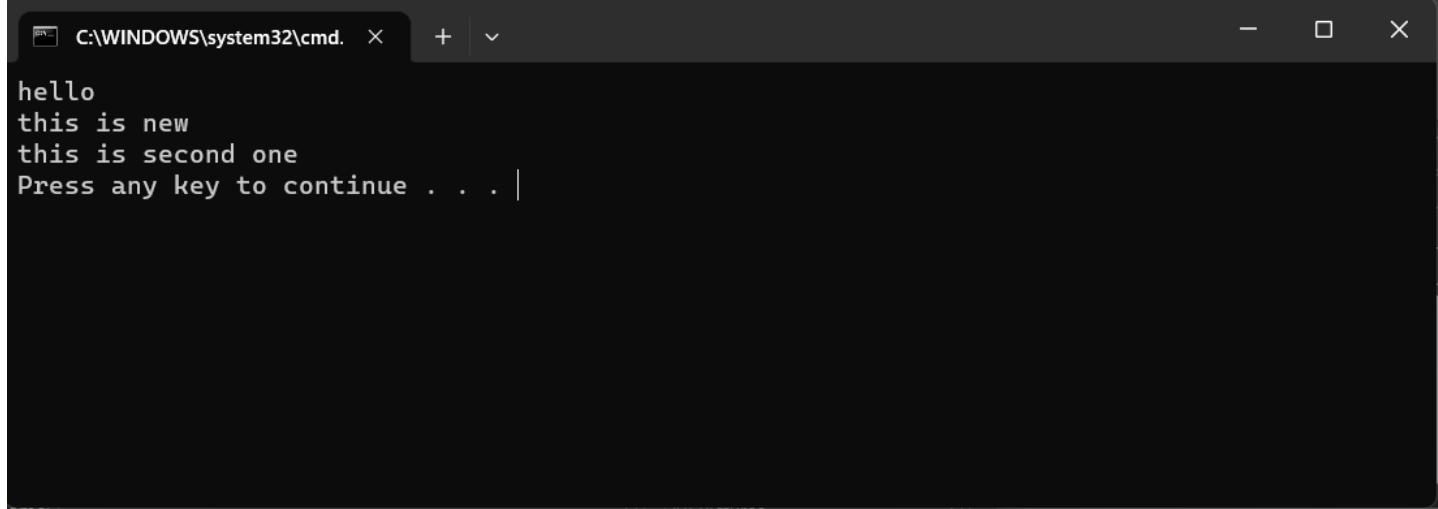


A screenshot of a code editor window titled "et". The window has a dark theme with a blue header bar. The menu bar includes "File", "Edit", "View", and a gear icon for settings. The main editor area contains the following batch script code:

```
@echo off
echo hello
echo this is new
echo this is second one
pause
```

The status bar at the bottom shows "Ln 5, Col 6", "100%", "Windows (CRLF)", and "UTF-8".





A screenshot of a Windows Command Prompt window titled "C:\WINDOWS\system32\cmd.". The window contains the following text:

```
hello
this is new
this is second one
Press any key to continue . . . |
```

RESULT: To create a Windows batch file. Note the echo sentences to get information.

Thus the Creation and execution of BATCH FILE was successfully completed.

Ex. No.10 – ENUMERATION - Enumerating information from windows and Samba Host Using Enum4linux

Requirements:

- Kali linux running as an attacker machine.
- Windows 7 running as virtual machine.
- Admin privileges.

Procedure:

1. Start the kali linux machine and open a terminal window.
2. Type “sudo apt-get update” command.
3. Now type enum4linux-h and hit enter to get help options
With the help options conduct the enumeration on target machine.
4. In the terminal window type enum4linux -u -p -U and hit enter to run this tool using the user list option.
5. Enum4linux starts enumerating the workgroups/domain names first and display the results.
6. To enumerate all the information Use this command enum4linux -a.

OUTPUT:

```
[root@kali)-[~]
# enum4linux -a 172.20.10.5
Starting enum4linux v0.9.1 ( http://labs.portcullis.co.uk/application/enum4linux/ ) on Sat May 13 14:43:48 2023
=====
( Target Information )
=====
[+] Harvester
Target ..... 172.20.10.5
RID Range ..... 500-550,1000-1050
Username ..... ''
Password ..... ''
Known Usernames .. administrator, guest, krbtgt, domain admins, root, bin, none

=====
( Enumerating Workgroup/Domain on 172.20.10.5 )
=====

[E] Can't find workgroup/domain

=====
( Nbtstat Information for 172.20.10.5 )
=====

Looking up status of 172.20.10.5
No reply from 172.20.10.5

=====
( Session Check on 172.20.10.5 )
=====

[E] Server doesn't allow session using username '', password ''.
Aborting remainder of tests.

[root@kali)-[~]
```

Result:

The Enumeration is using with IP address of the getting the username,password,target address,RID range.