FRISTILEAKS

GETTING STARTED

To download Fristileaks, click on the link given below:

- https://www.vulnhub.com/entry/fristileaks-13,133/

> **Note**
>
> This writeup documents the steps that successfully led to pwnage of the machine. It does not include the dead-end steps encountered during the process (which were numerous). This is just my take on pwning the machine and you are welcome to choose a different path.

The IP address of the machines changed in the walkthrough as I was working in different places. Please bear with me.

RECONNAISSANCE

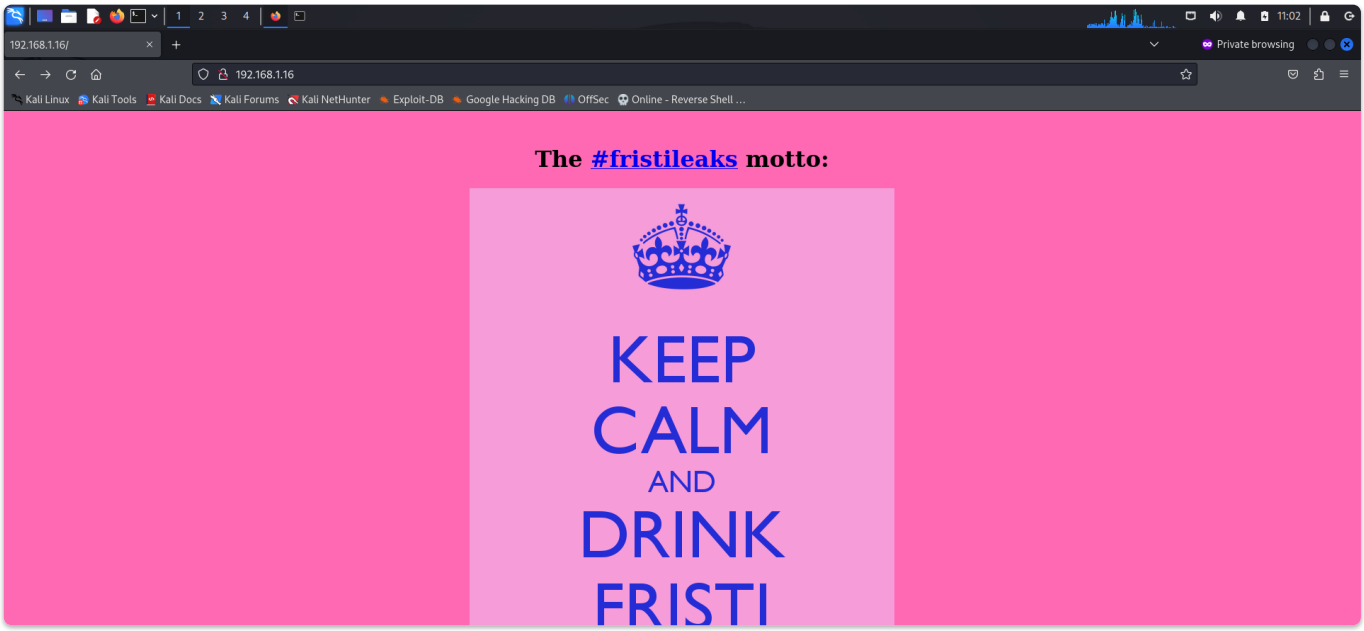
I started by performing a network scan using netdiscover to identify the target IP.

```
┌──(root㉿kali)-[~/ctf/fristileaks]
└─# netdiscover -r 192.168.1.0/24

 Currently scanning: Finished!   |   Screen View: Unique Hosts
5 Captured ARP Req/Rep packets, from 5 hosts.   Total size: 300
_____________________________________________________________________________
   IP            At MAC Address     Count     Len  MAC Vendor / Hostname
 -----------------------------------------------------------------------------
 192.168.1.1     f8:c4:f3:d0:63:13      1      60  Shanghai Infinity Wireless Tech
 192.168.1.9     98:59:7a:e8:18:cc      1      60  Intel Corporate
 192.168.1.16    08:00:27:a5:a6:76      1      60  PCS Systemtechnik GmbH
 192.168.1.3     8a:6d:45:aa:87:f3      1      60  Unknown vendor
 192.168.1.18    8a:2d:1a:44:b7:ad      1      60  Unknown vendor
```

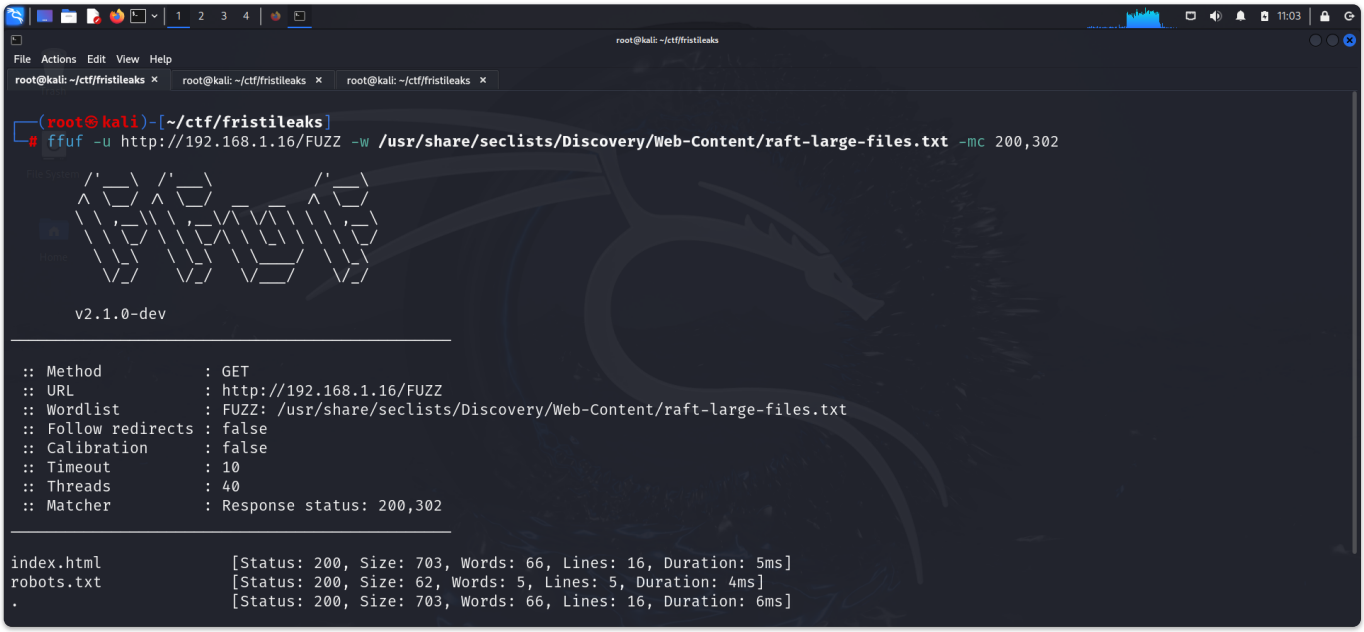
I then performed an nmap aggressive scan on the target.

INITIAL ACCESS

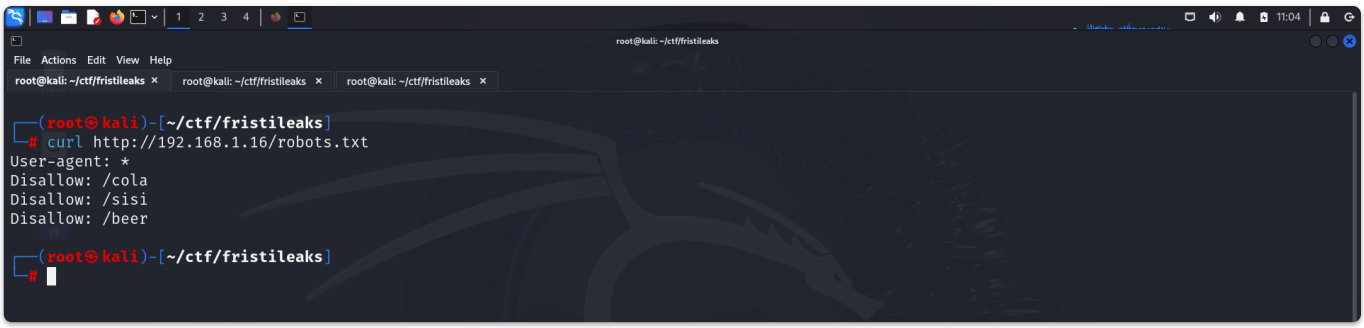
I visited port 80 in the browser.



I then performed a ffuf scan to find files on the web server.

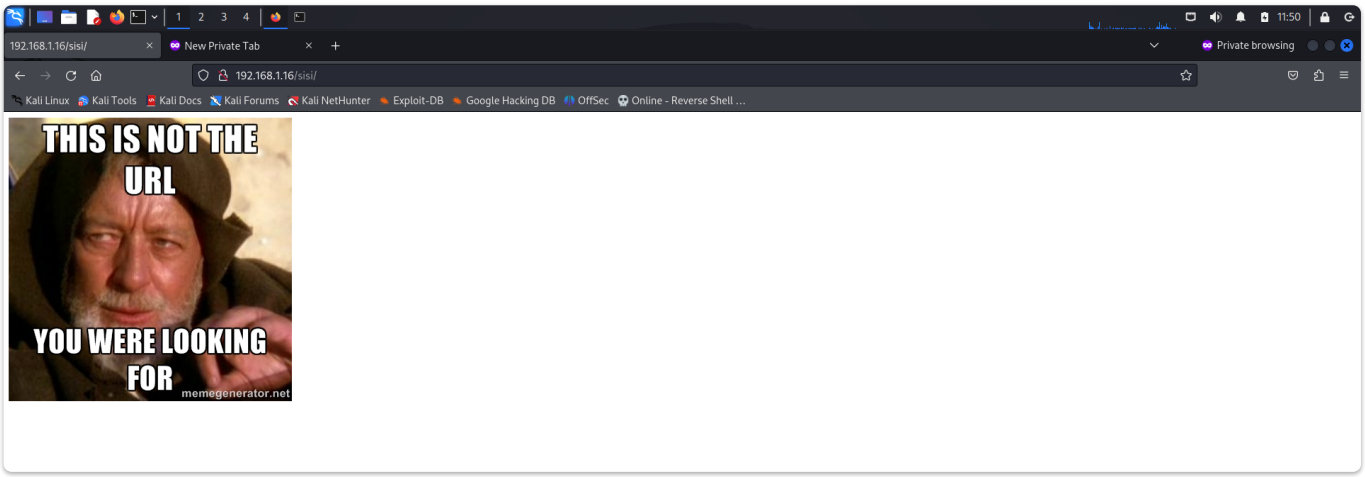


Upon visiting *robots.txt*, I found 3 files.



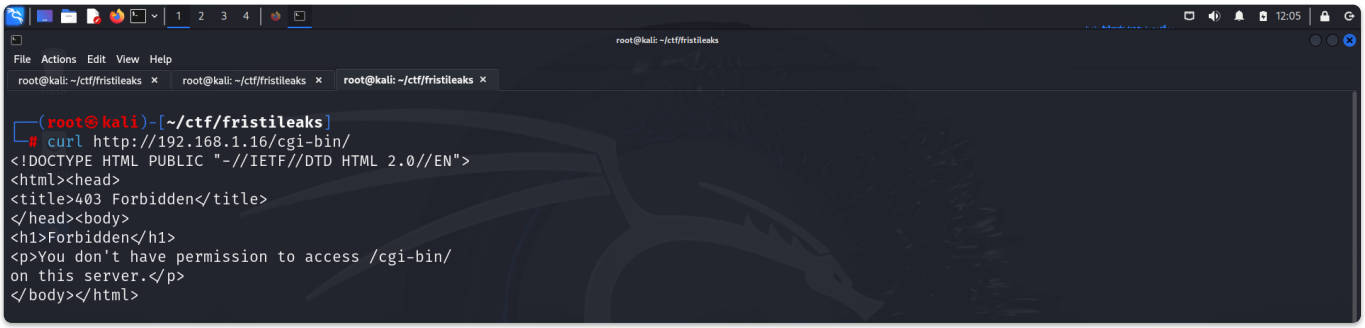
I accessed these files but found nothing.

```
┌──(root㉿kali)-[~/ctf/fristileaks]
└─# curl http://192.168.1.16/robots.txt
User-agent: *
Disallow: /cola
Disallow: /sisi
Disallow: /beer

┌──(root㉿kali)-[~/ctf/fristileaks]
└─# curl http://192.168.1.16/cola/
<img src="/images/3037440.jpg" />

┌──(root㉿kali)-[~/ctf/fristileaks]
└─# curl http://192.168.1.16/sisi/
<img src="/images/3037440.jpg" />

┌──(root㉿kali)-[~/ctf/fristileaks]
└─# curl http://192.168.1.16/beer/
<img src="/images/3037440.jpg" />

┌──(root㉿kali)-[~/ctf/fristileaks]
└─#
```

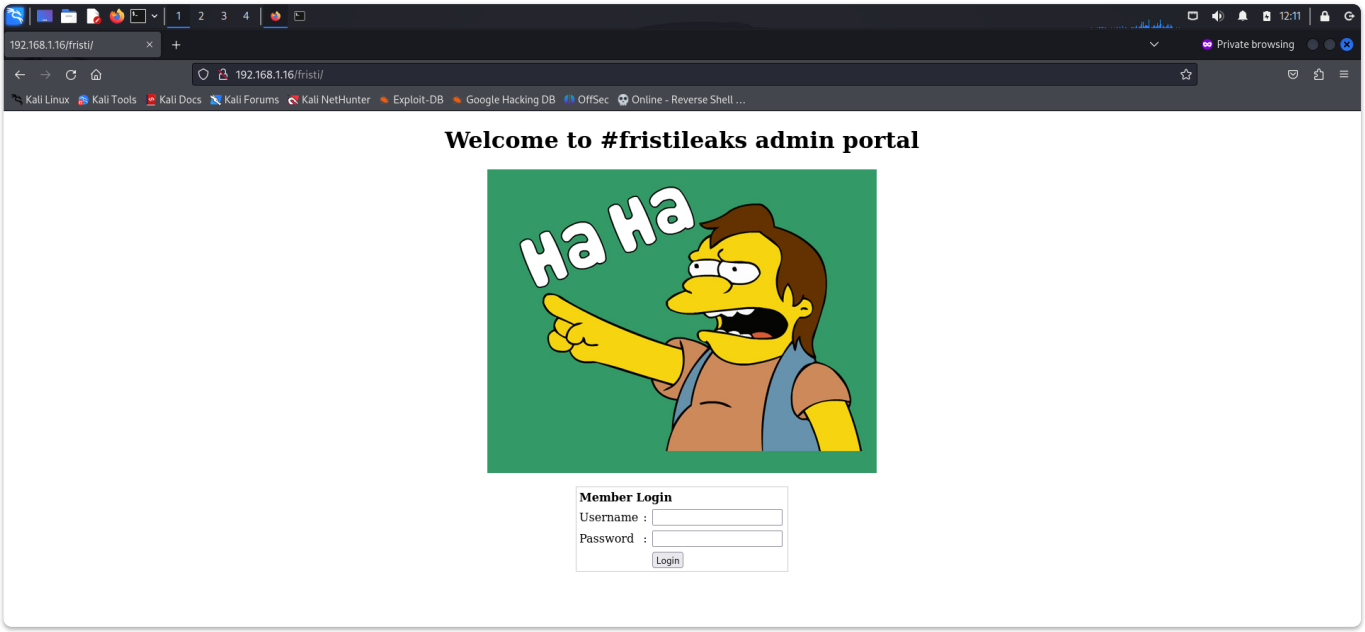


I then tried fuzzing using dirb and discovered a directory called *cgi-bin*.

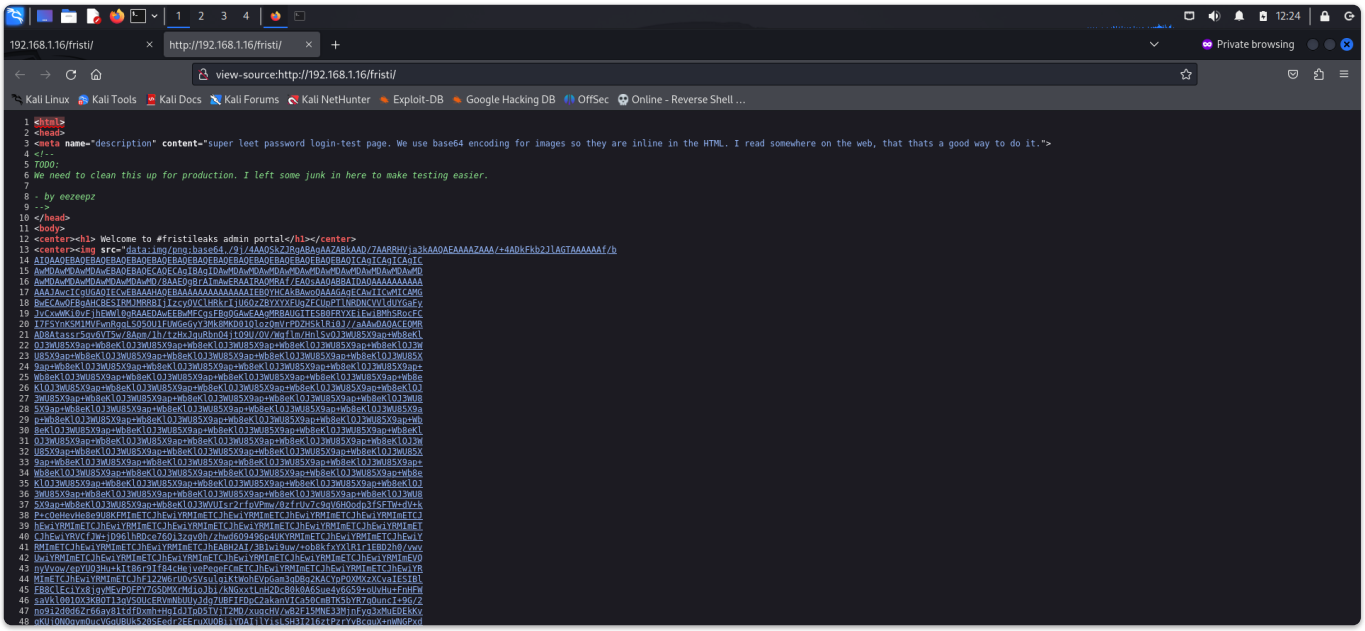
```
┌──(root㉿kali)-[~/ctf/fristileaks]
└─# dirb http://192.168.1.16

-----------------
DIRB v2.22
By The Dark Raver
-----------------

START_TIME: Thu Jun 27 12:04:30 2024
URL_BASE: http://192.168.1.16/
WORDLIST_FILES: /usr/share/dirb/wordlists/common.txt

-----------------

GENERATED WORDS: 4612

---- Scanning URL: http://192.168.1.16/ ----
+ http://192.168.1.16/cgi-bin/ (CODE:403|SIZE:210)
==> DIRECTORY: http://192.168.1.16/images/
+ http://192.168.1.16/index.html (CODE:200|SIZE:703)
+ http://192.168.1.16/robots.txt (CODE:200|SIZE:62)

---- Entering directory: http://192.168.1.16/images/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
    (Use mode '-w' if you want to scan it anyway)
```

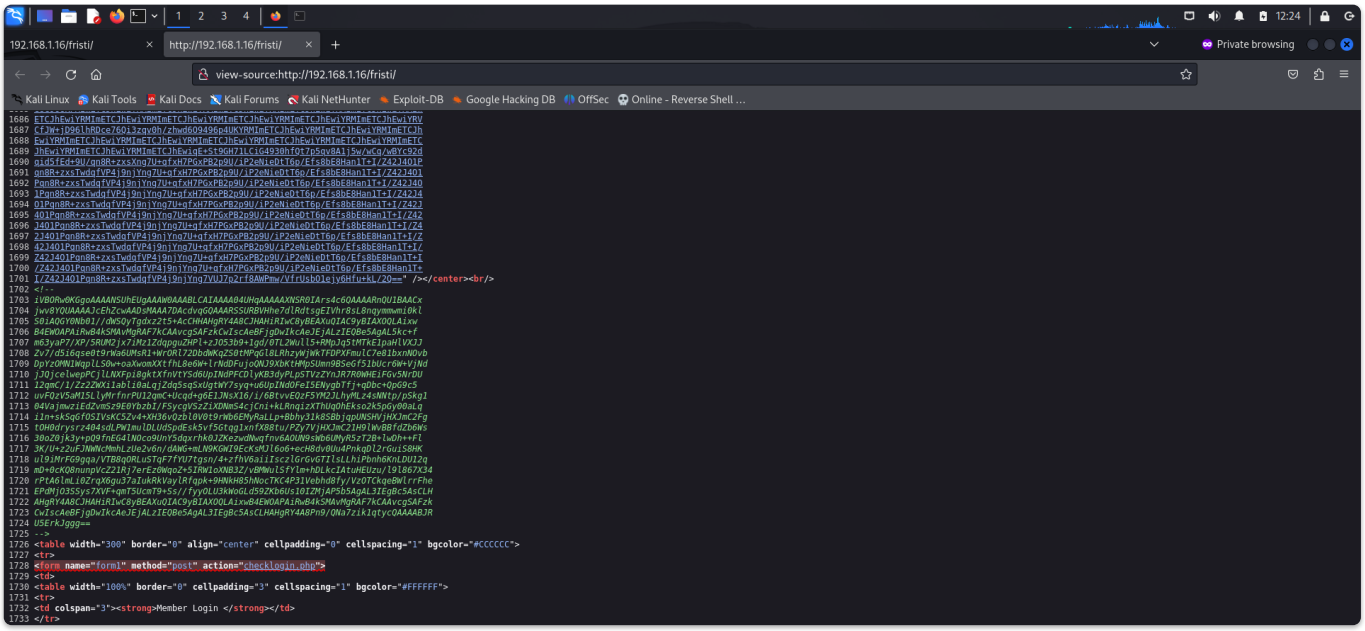


Since none of the directories provided anything useful, I tried using some terms that would not be part of common wordlists. When I tried */fristi/*, I encountered a login form.

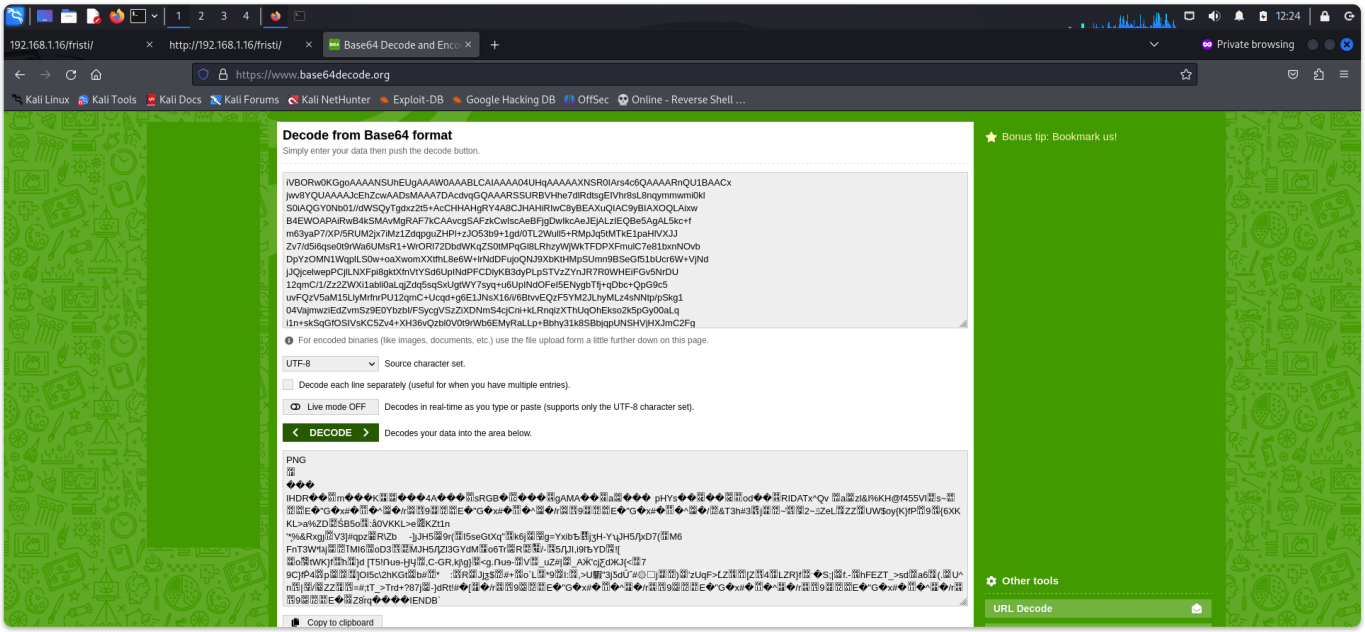


I viewed the source code and found a potential username and a hint of having base64 encoded data.

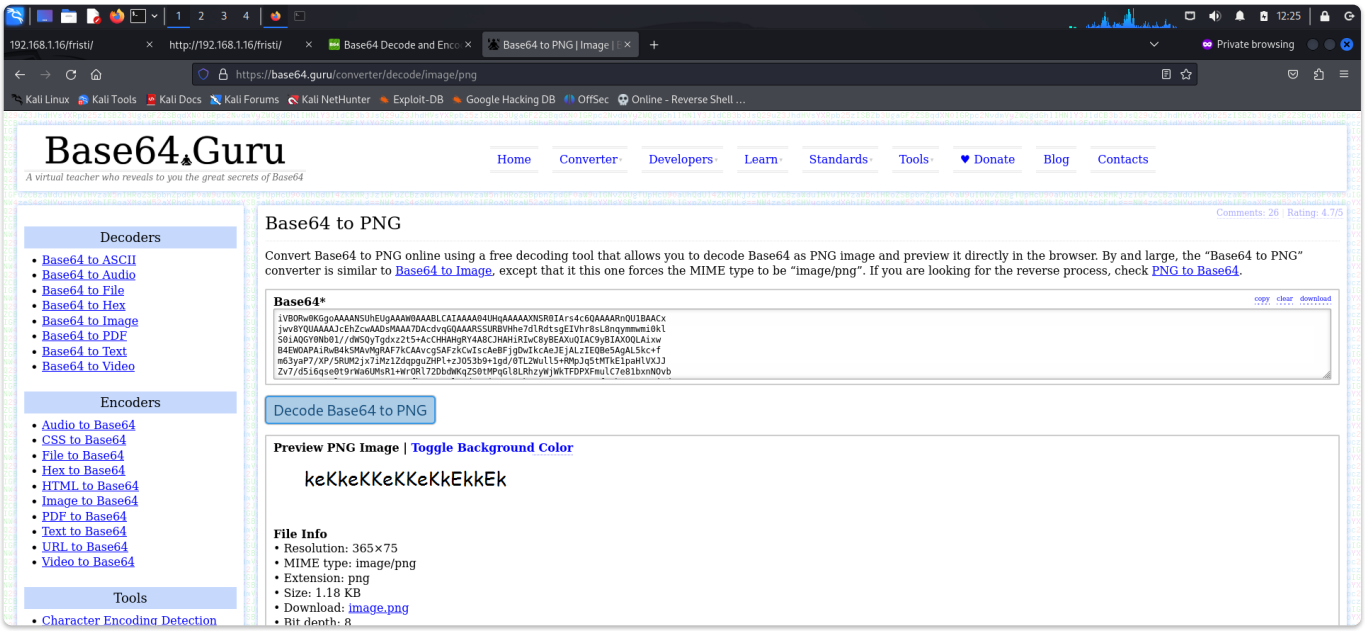




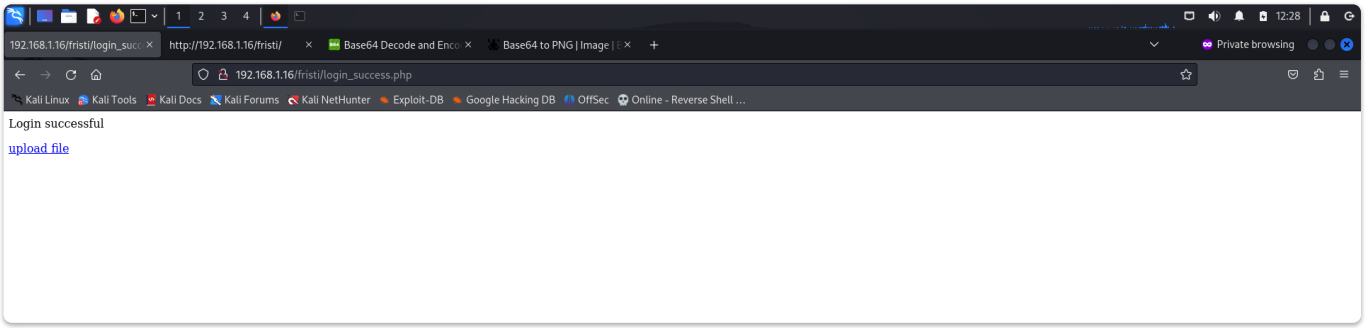
I went to a base64 decoder website to decode this data.



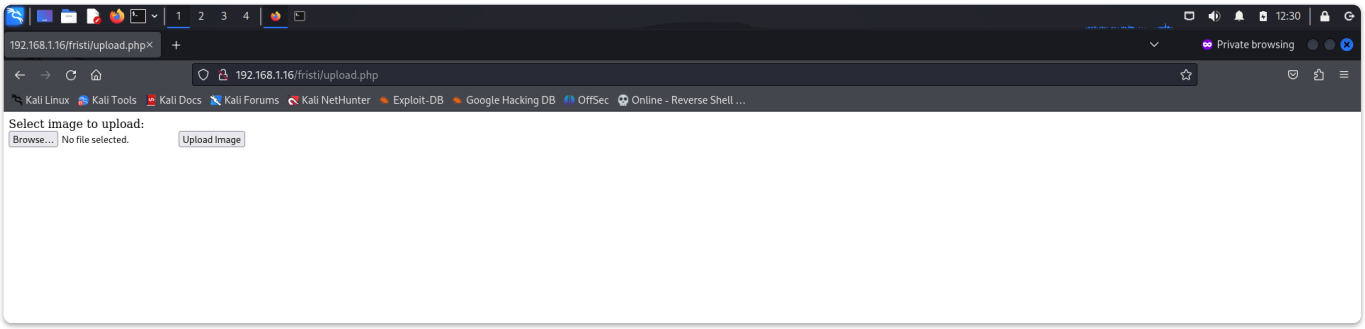
Since it was a PNG image, I used a base64 to PNG converter to gather more information about it.



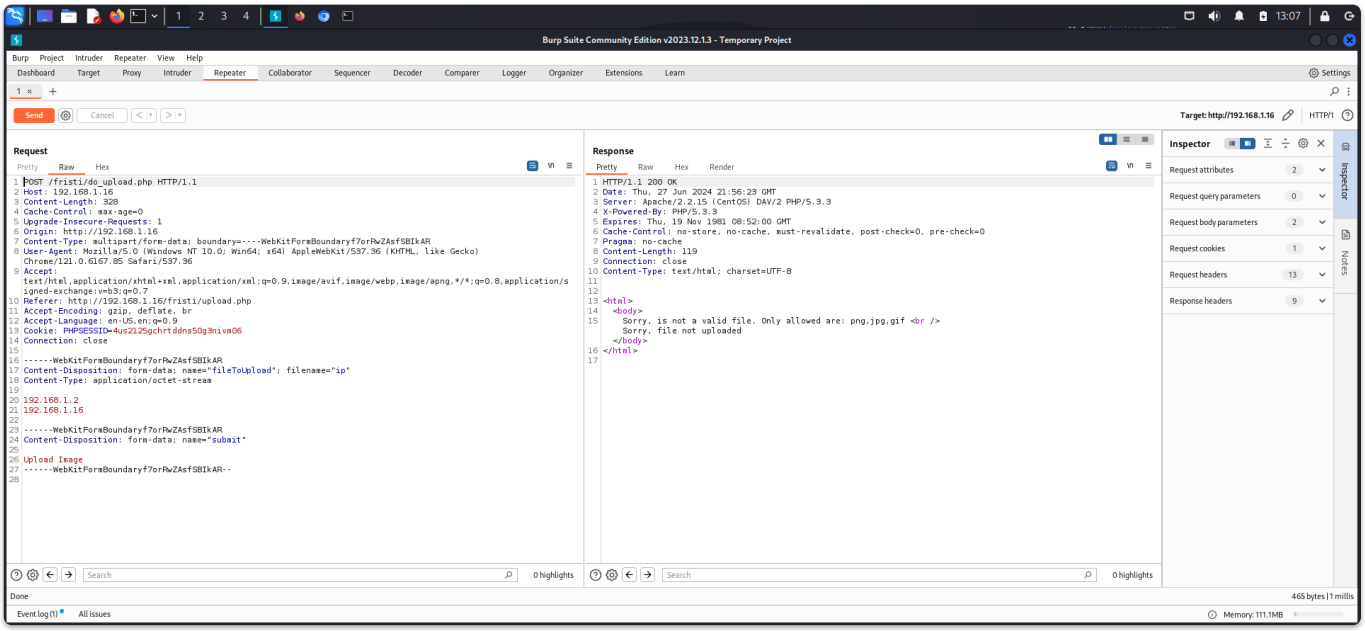
I attempted to log in using *eezeepz | keKkeKKeKKeKkEkkEk* and successfully gained access.



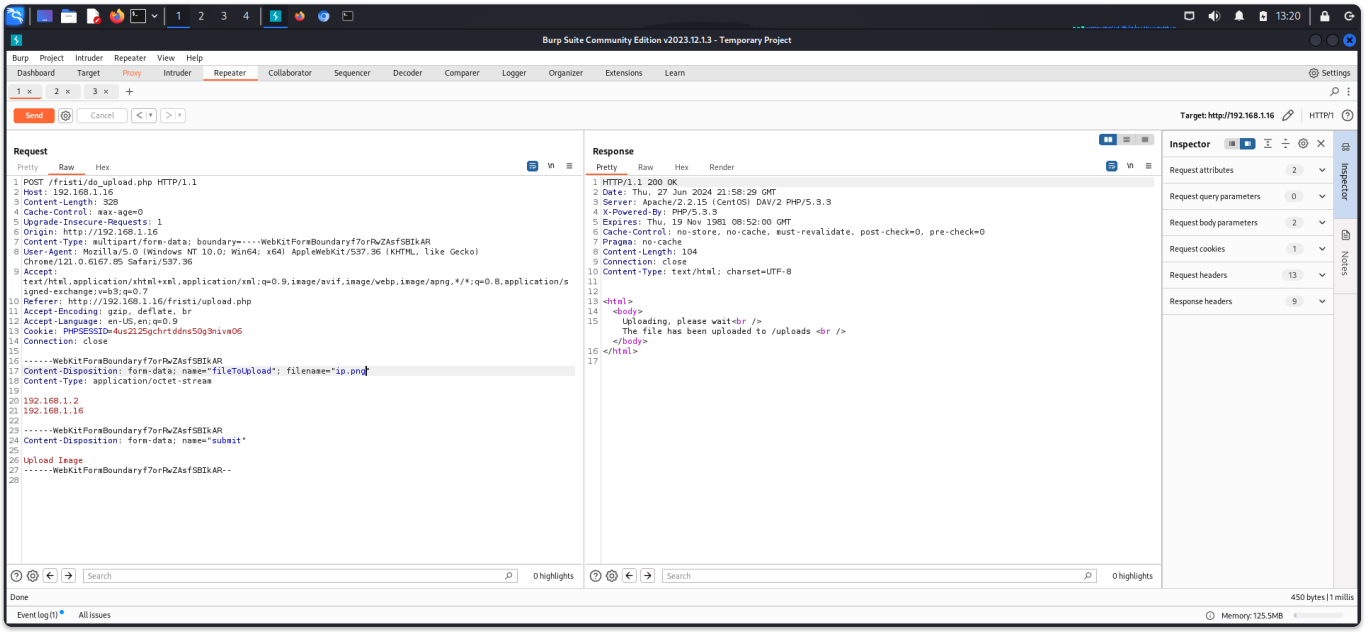
I clicked on the *upload file* link and accessed a file upload functionality.



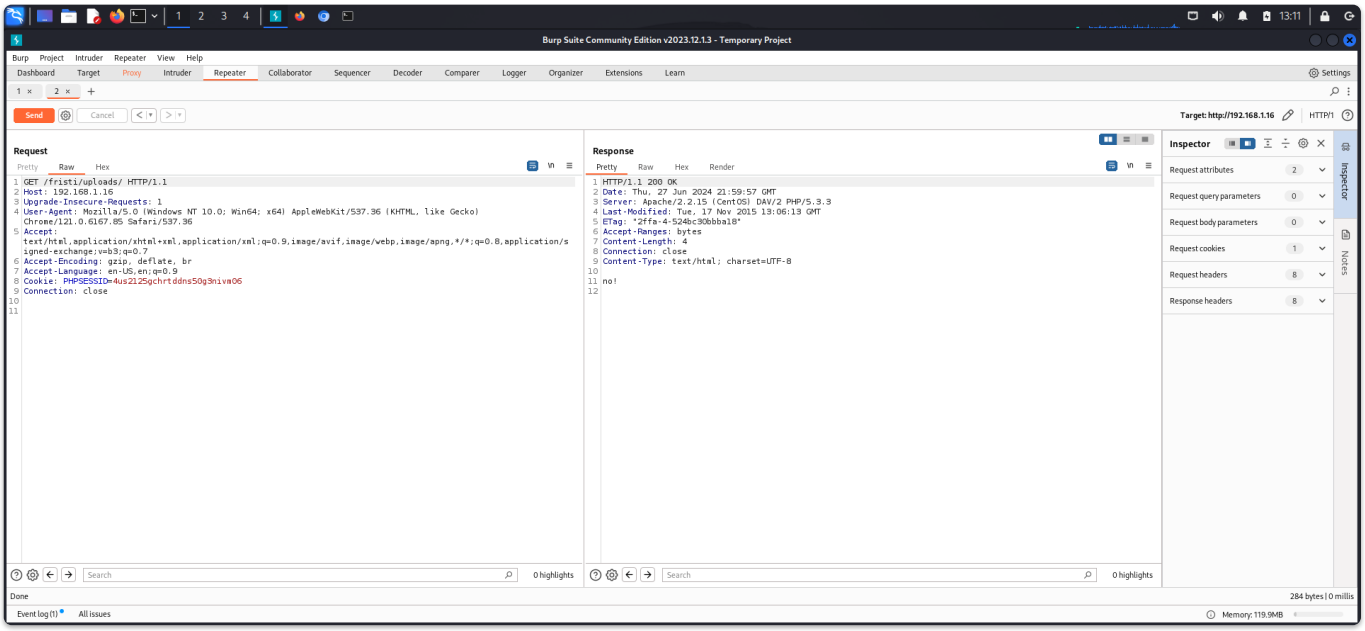
I turned on Burp Suite and attempted to upload a text file, but encountered an error.



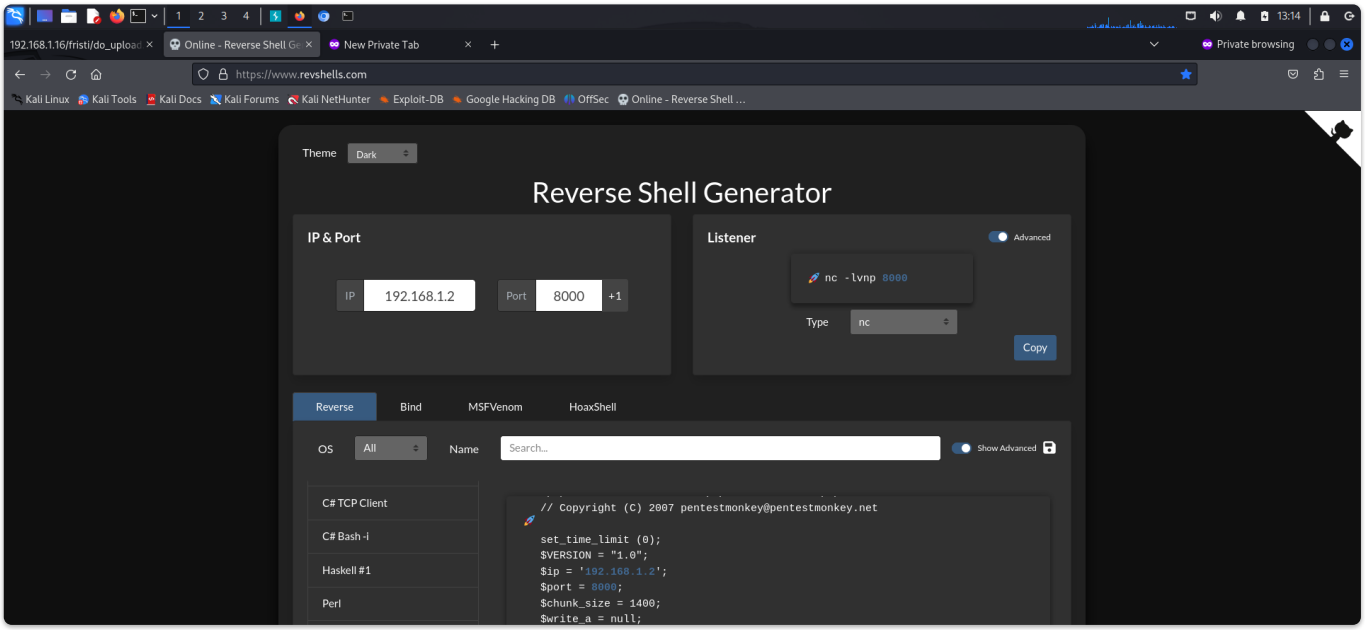
Upon changing the *filename*, I successfully uploaded the file.

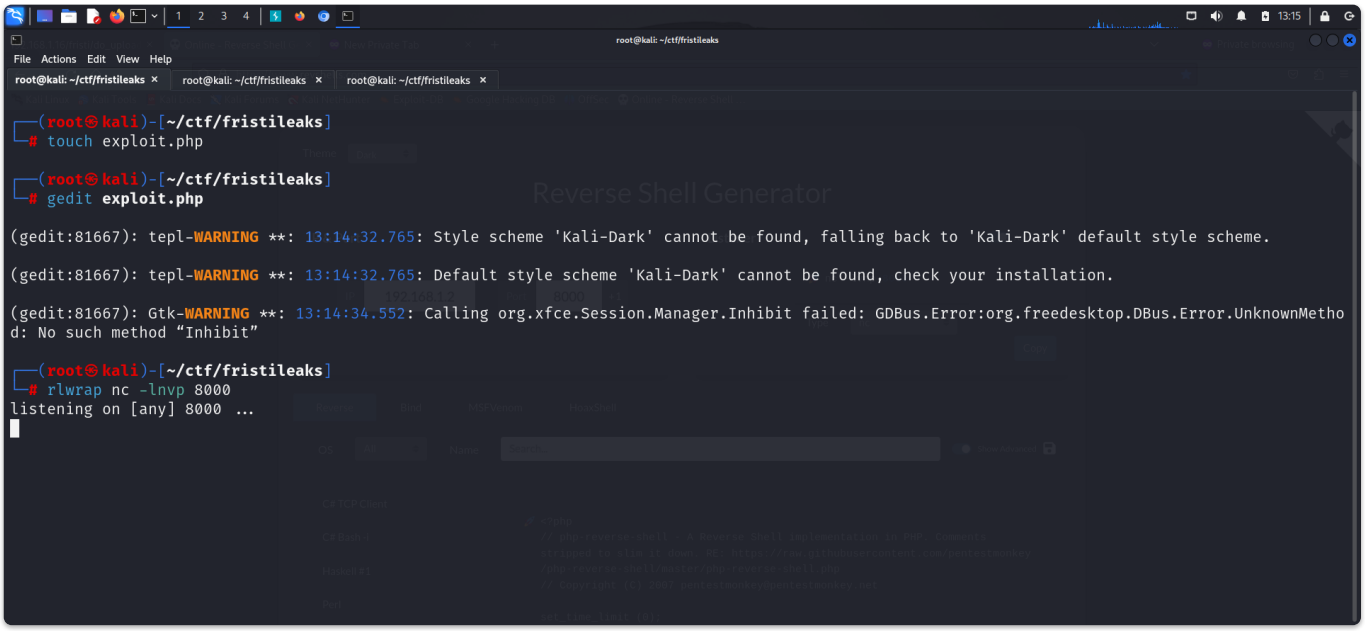


Upon visiting the *Uploads/* directory, I received a text response.

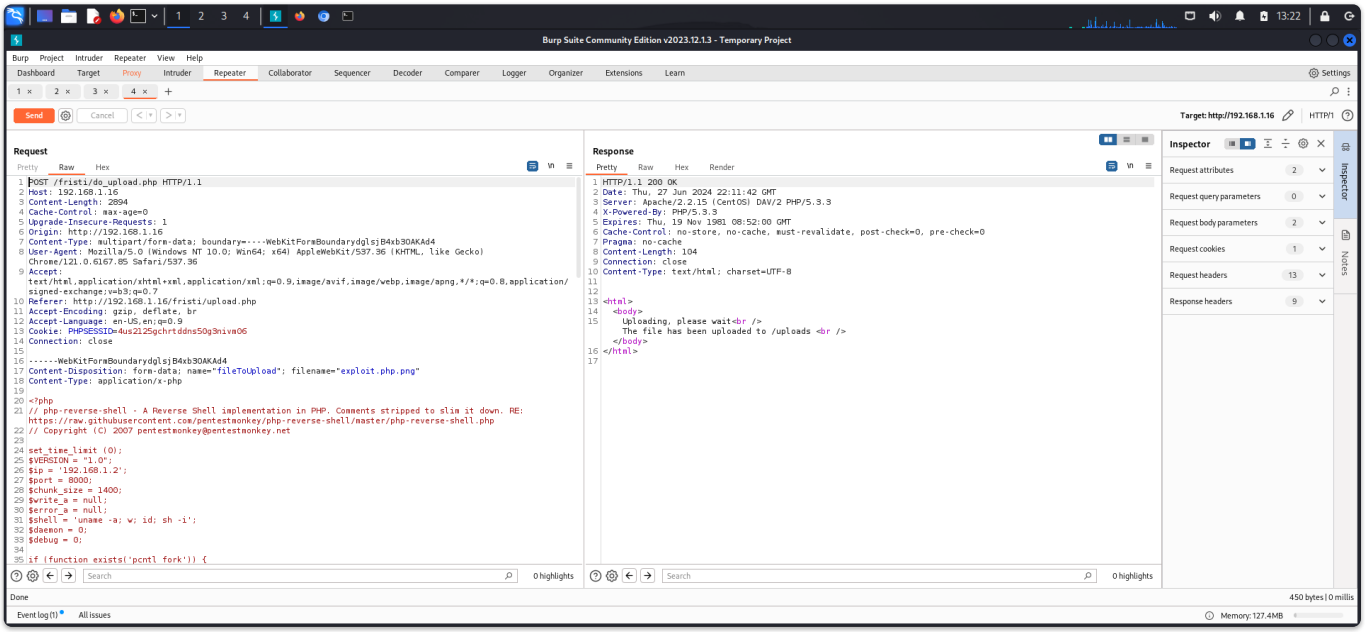


I now went to **revshells** and configured the pentestmonkey php reverse shell payload with my listening IP and port, and started a listener.

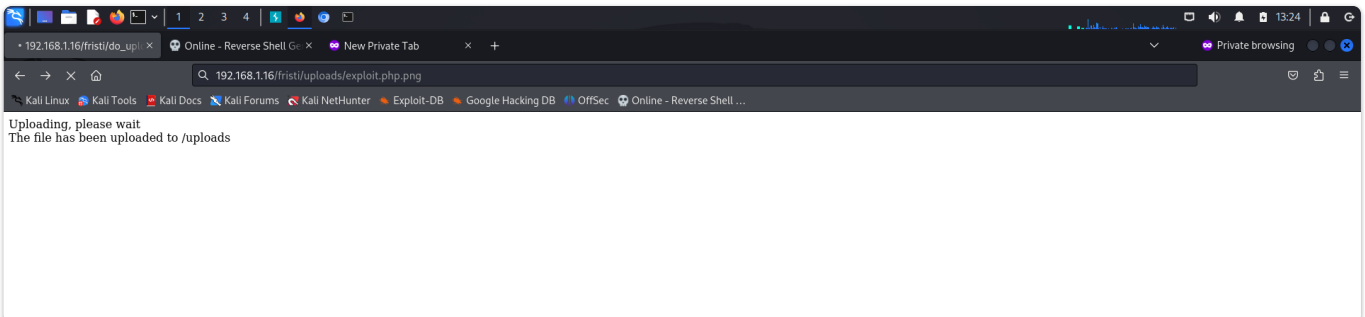


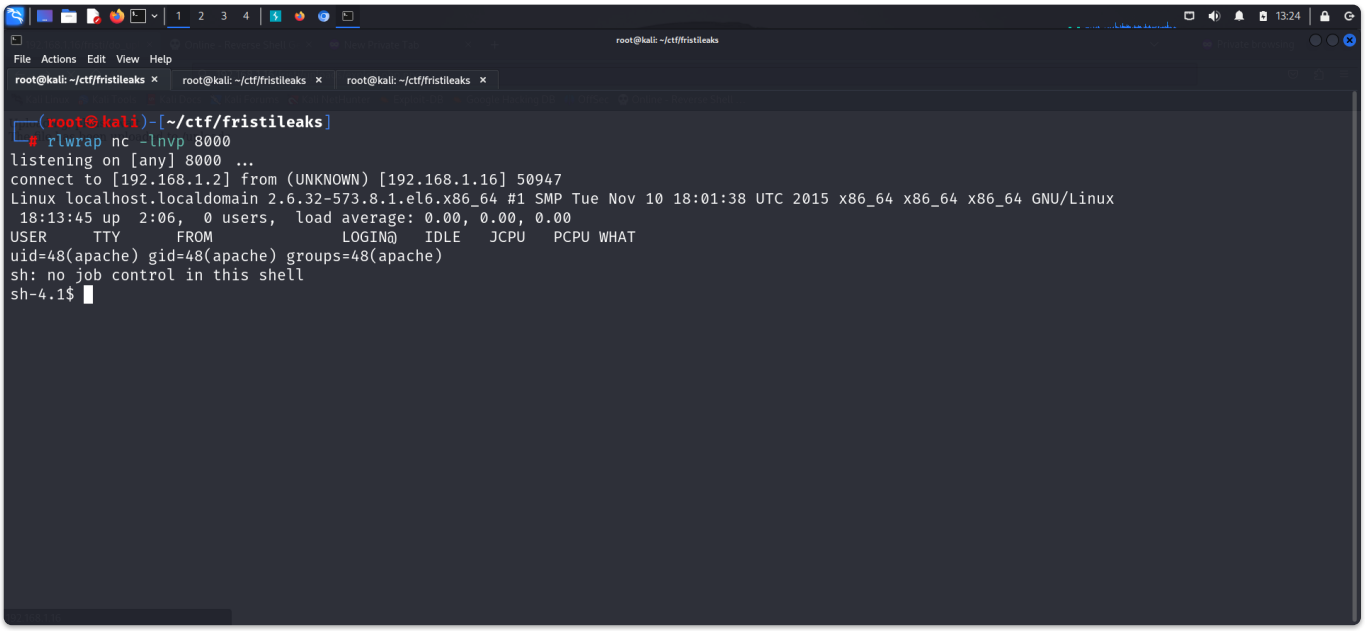


I then uploaded the payload to the server.



Finally, I accessed the file.

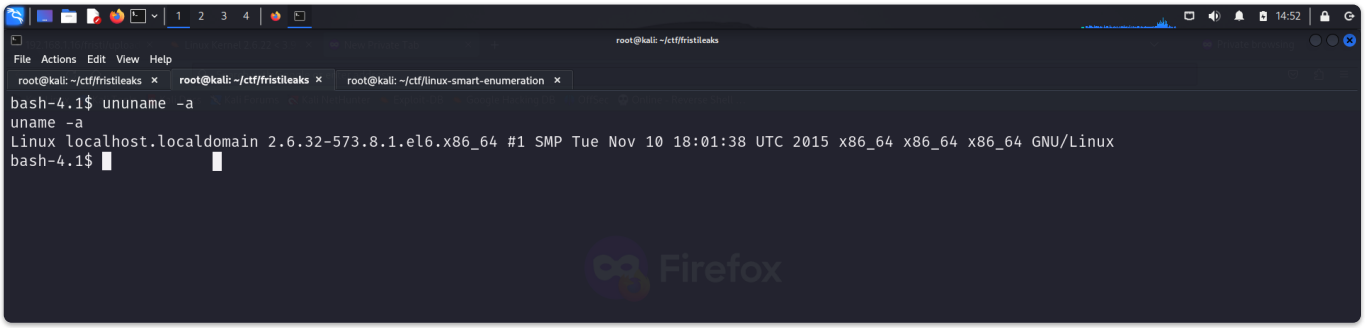




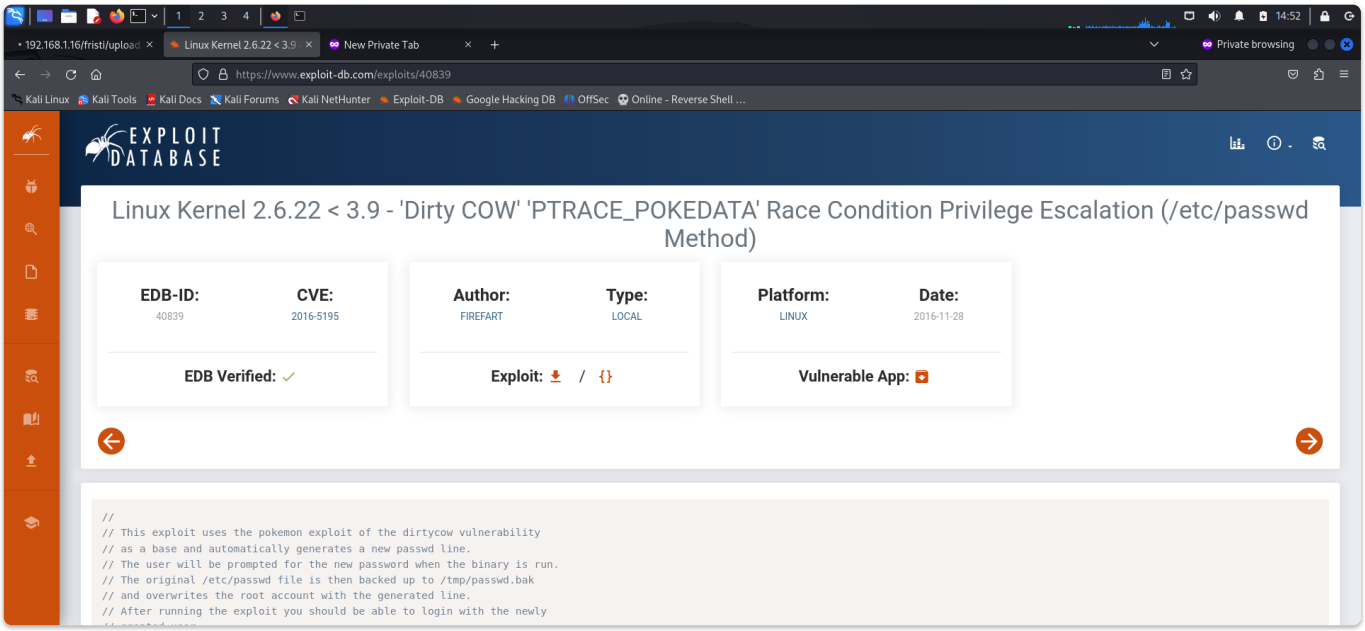
PRIVILEGE ESCALATION

USING KERNEL EXPLOIT

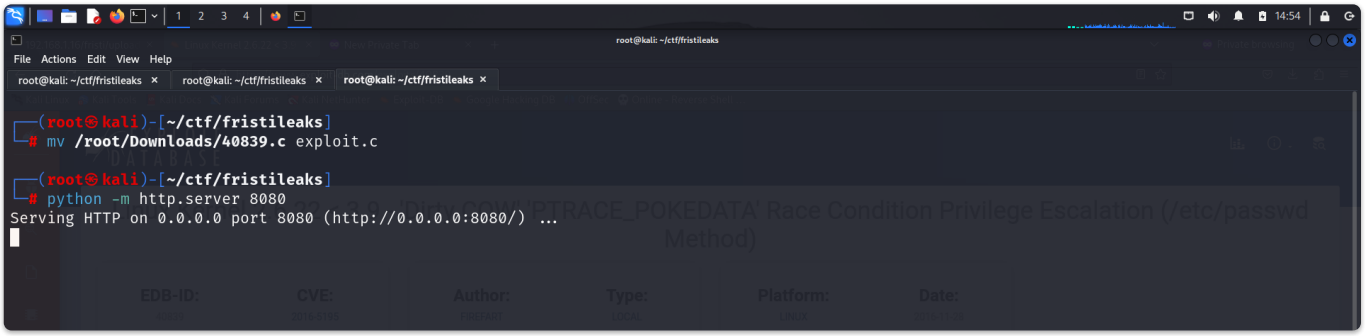
I looked at my kernel information.

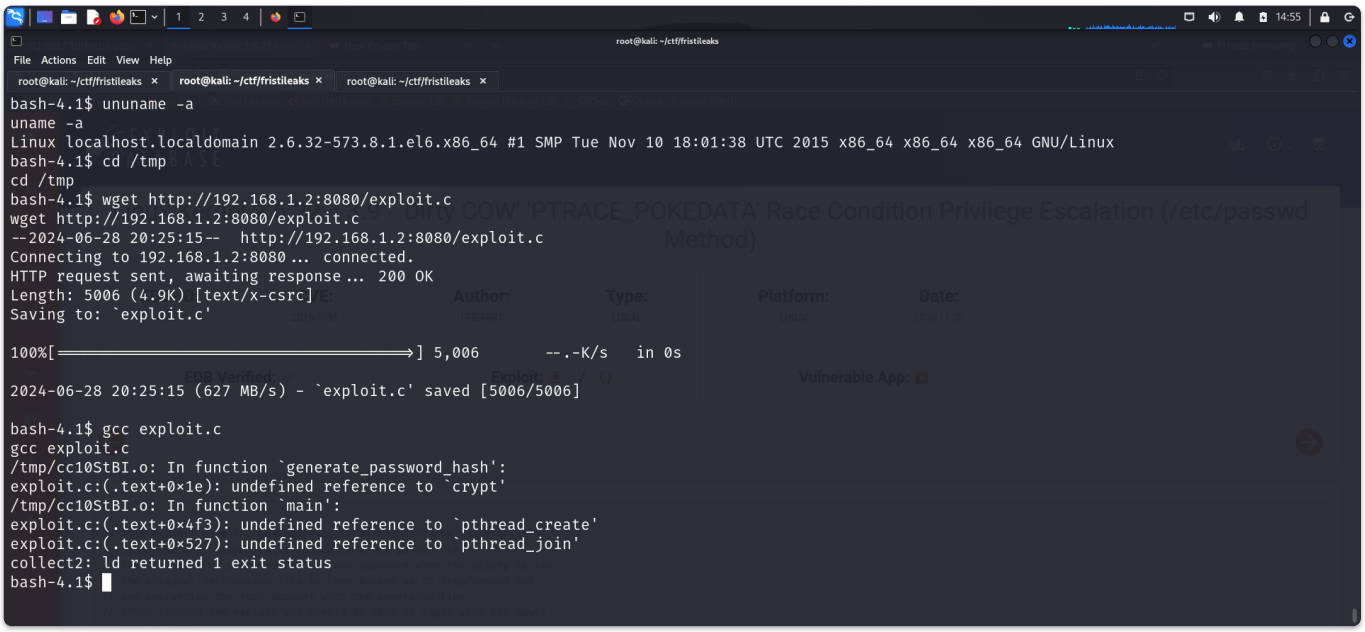


I found an exploit for this kernel on exploit db.

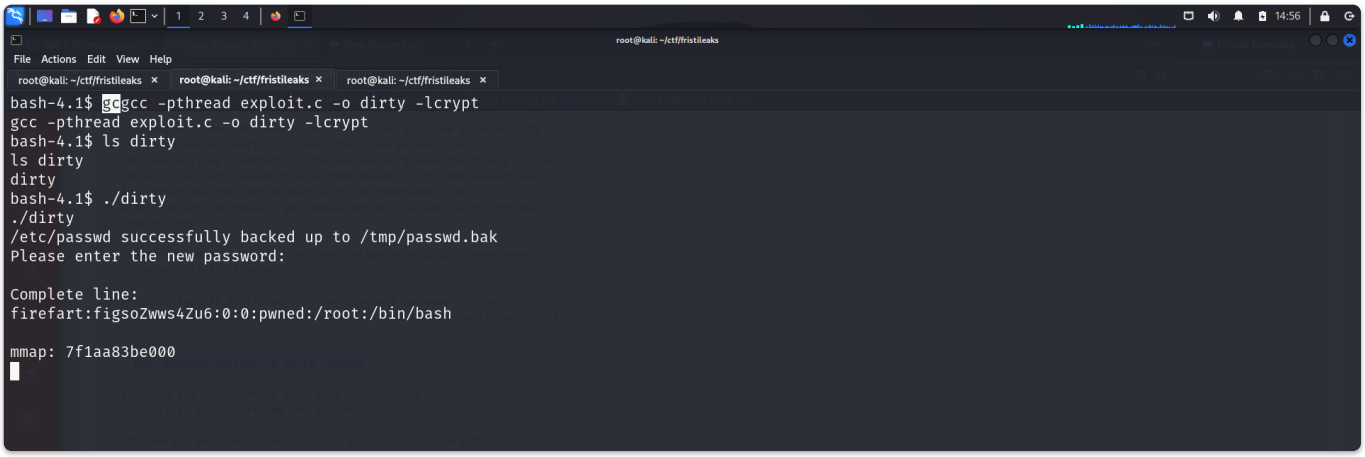


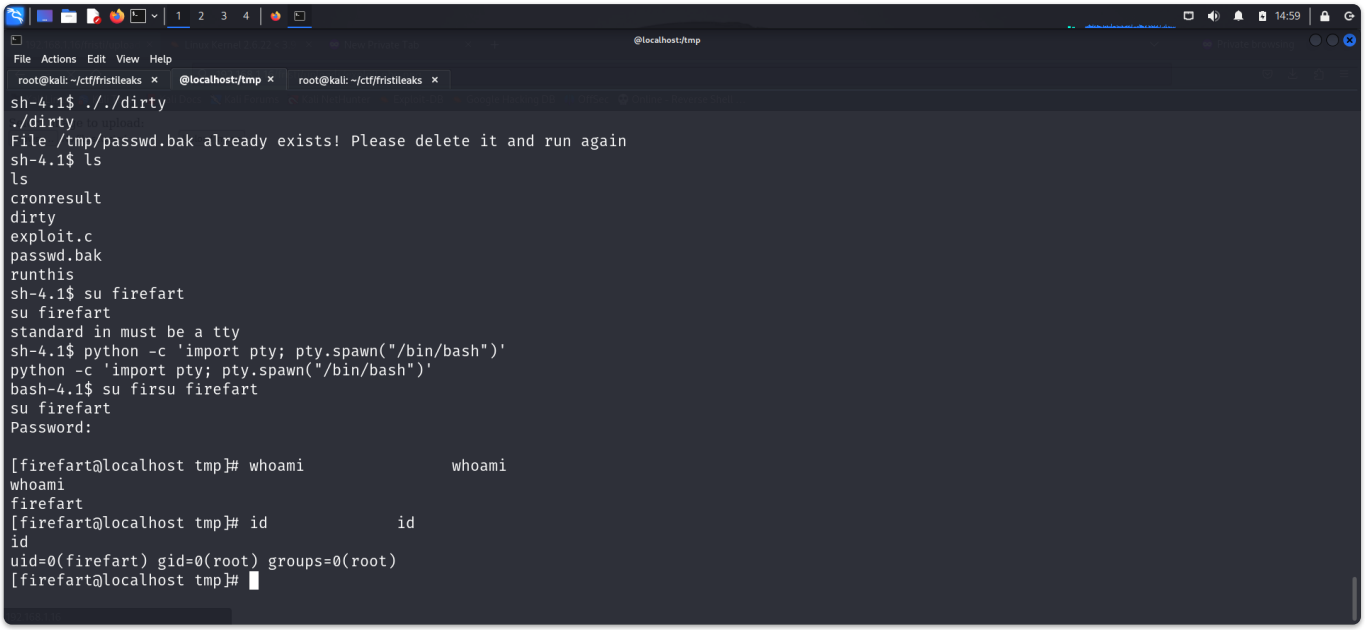
I downloaded this on my system and transferred it to the target.





I then compiled it according to the instructions given in the payload script.

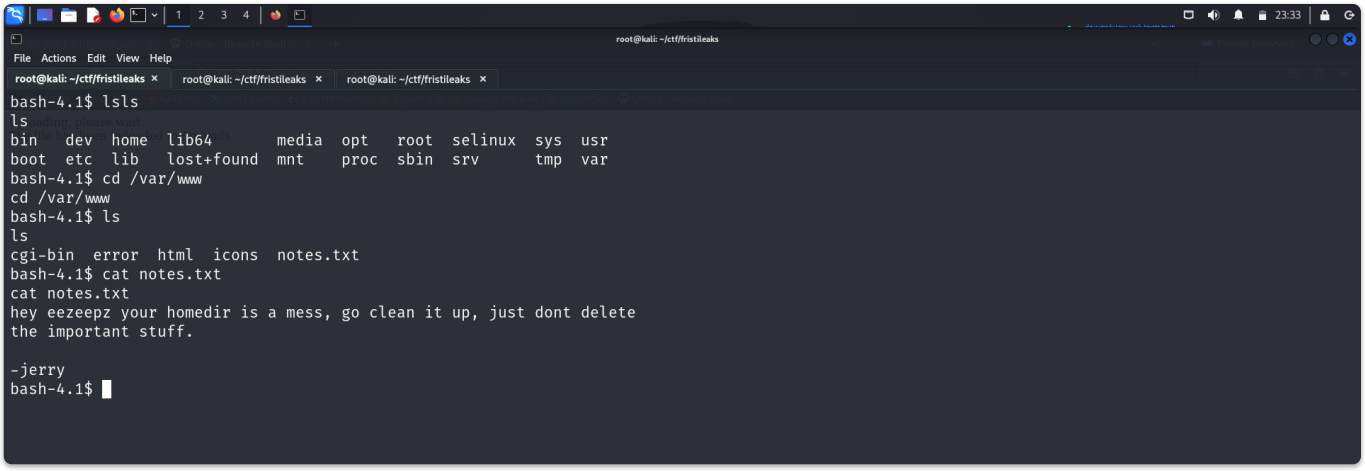




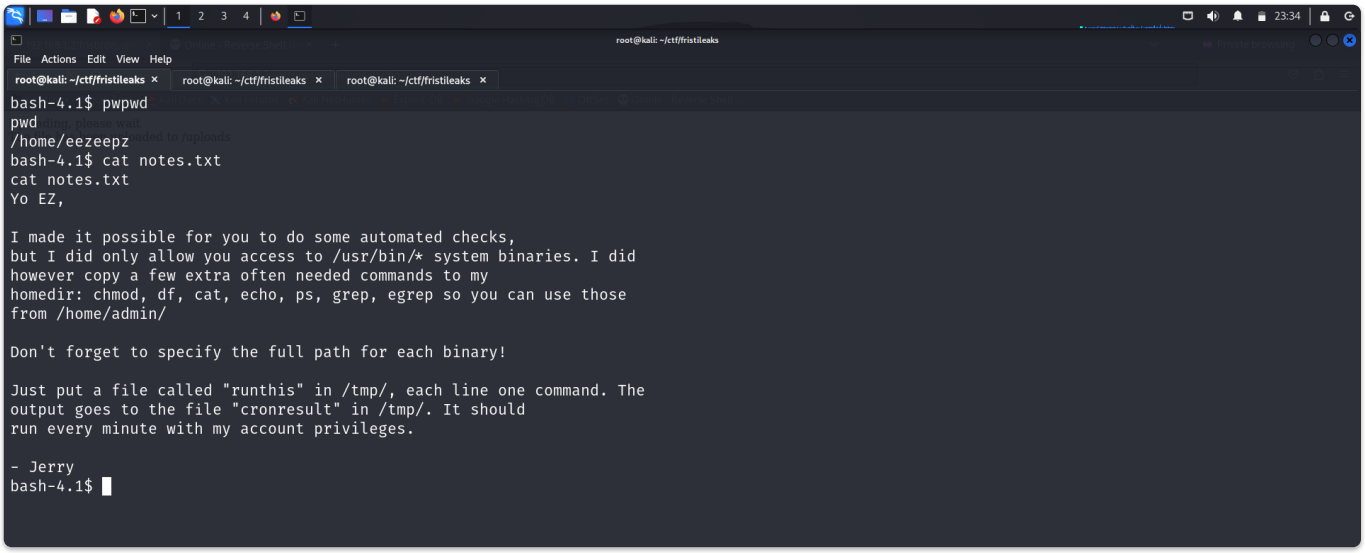
Hence, I gained root access.

USING CRON

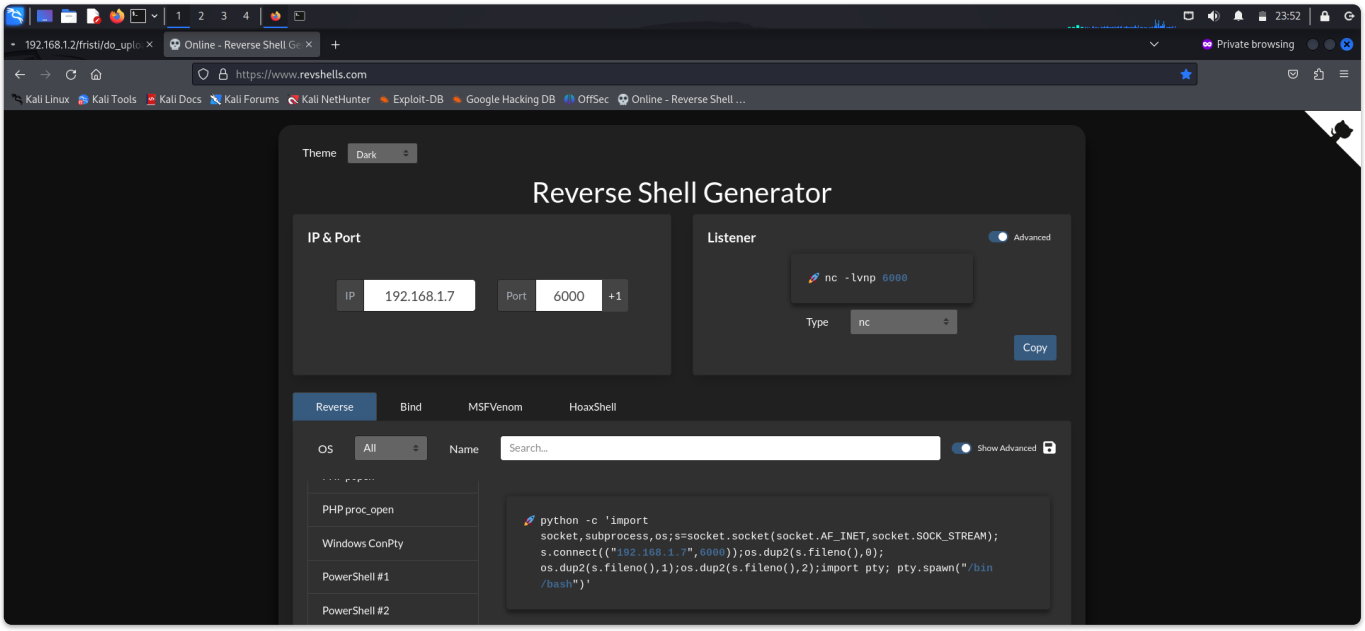
I found a note in the */var/www/* directory.



I navigated to the *eezeepz* directory and found another note.

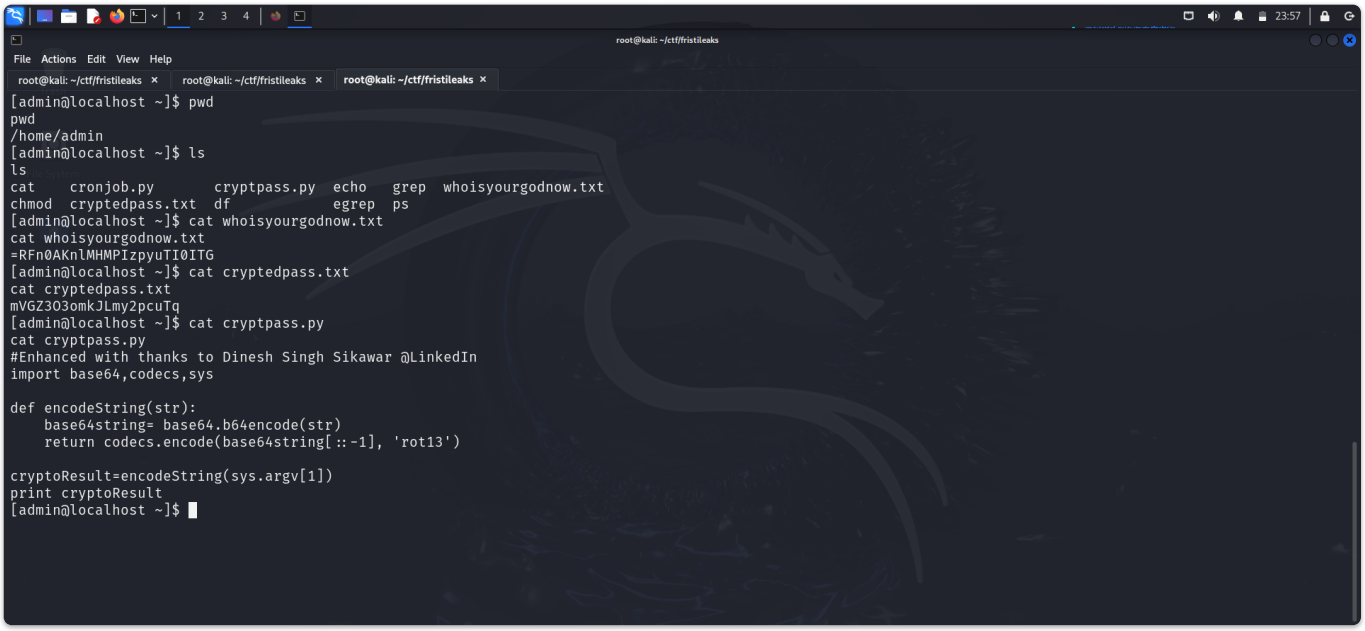


Hence, I added a payload to get a reverse shell in the *runthis* file.



After a couple of minutes, I got a reverse shell.

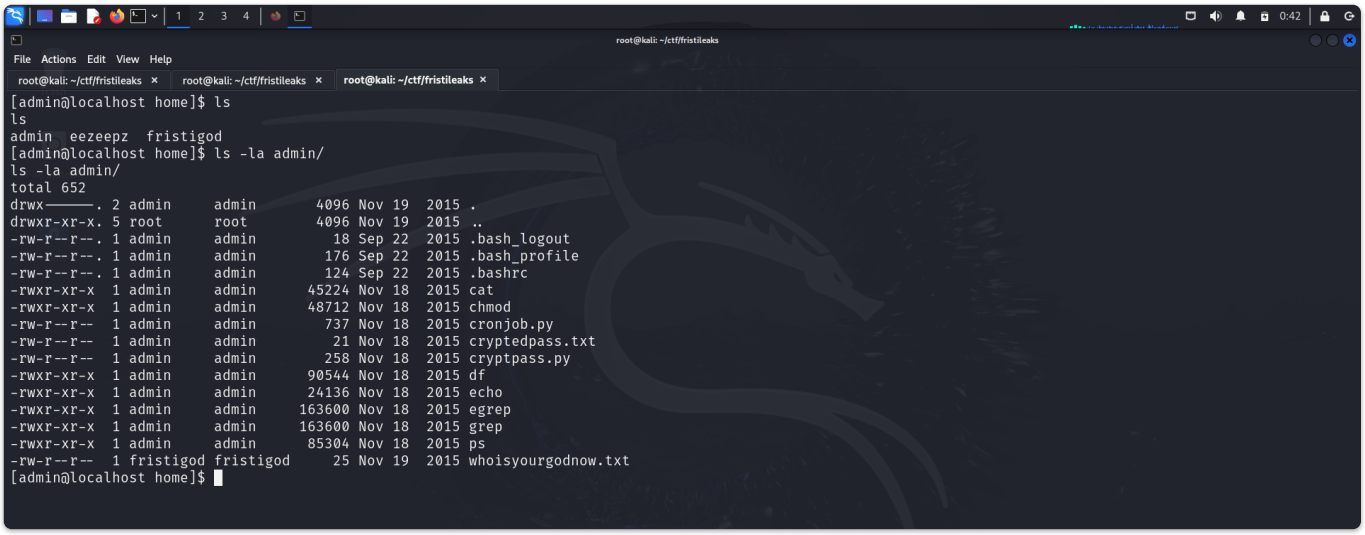
I found encrypted data in the */home/admin* directory along with a Python script that encrypted it.

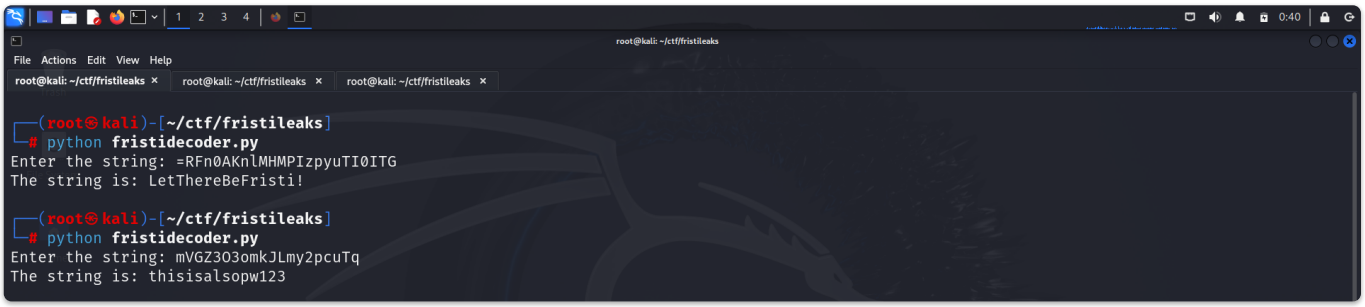


Here's how the encoding works:

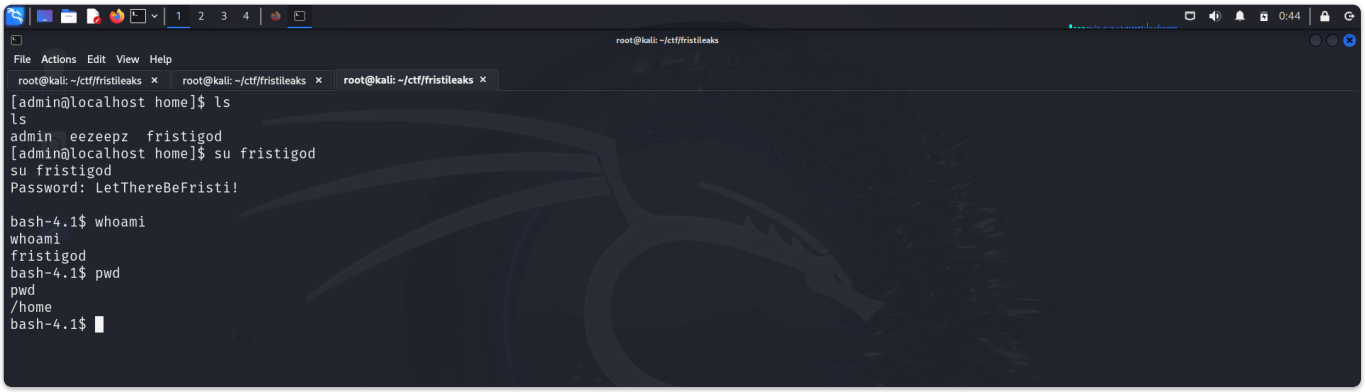
`base64string = base64.b64encode(str)` : encodes the string with base64.
`codes.encode(base64string[::-1], 'rot13')` : reverses the base64 encoded string and then encodes it with rot13.

Hence, to decode this, I wrote a simple Python script. This script can be downloaded from my **github** repo. The file owner also gave me a hint about whose password was stored in these files.

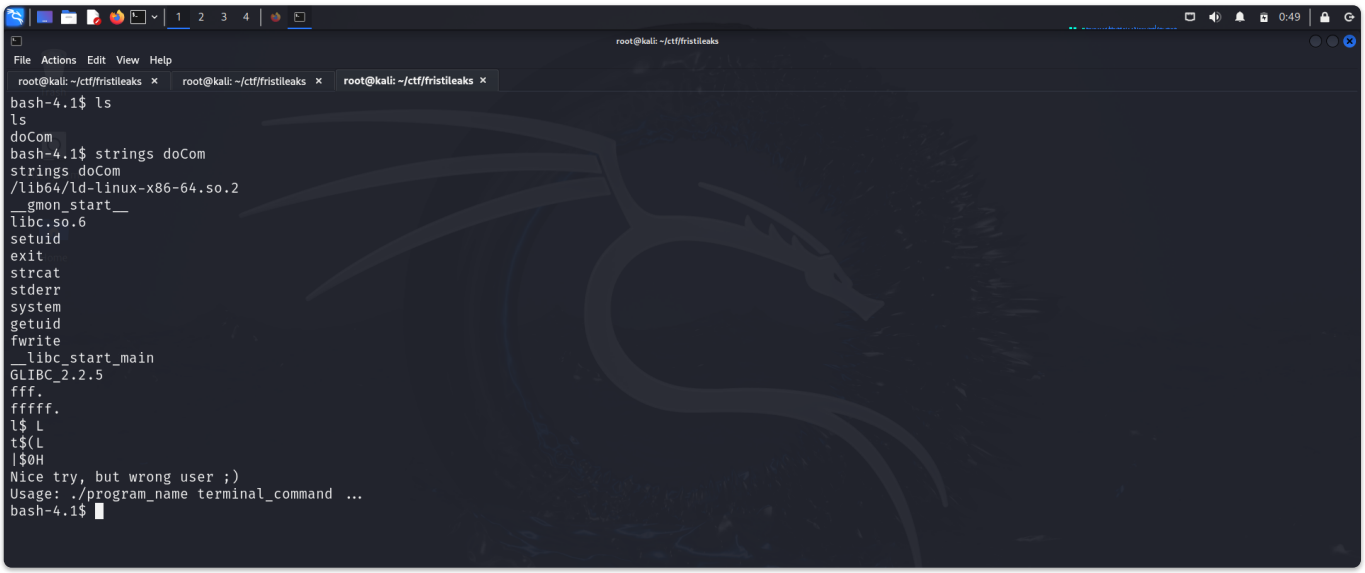




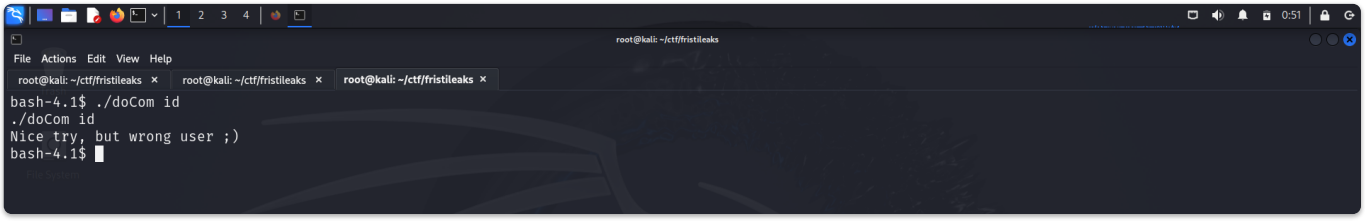
I then switched to *fristigod*.



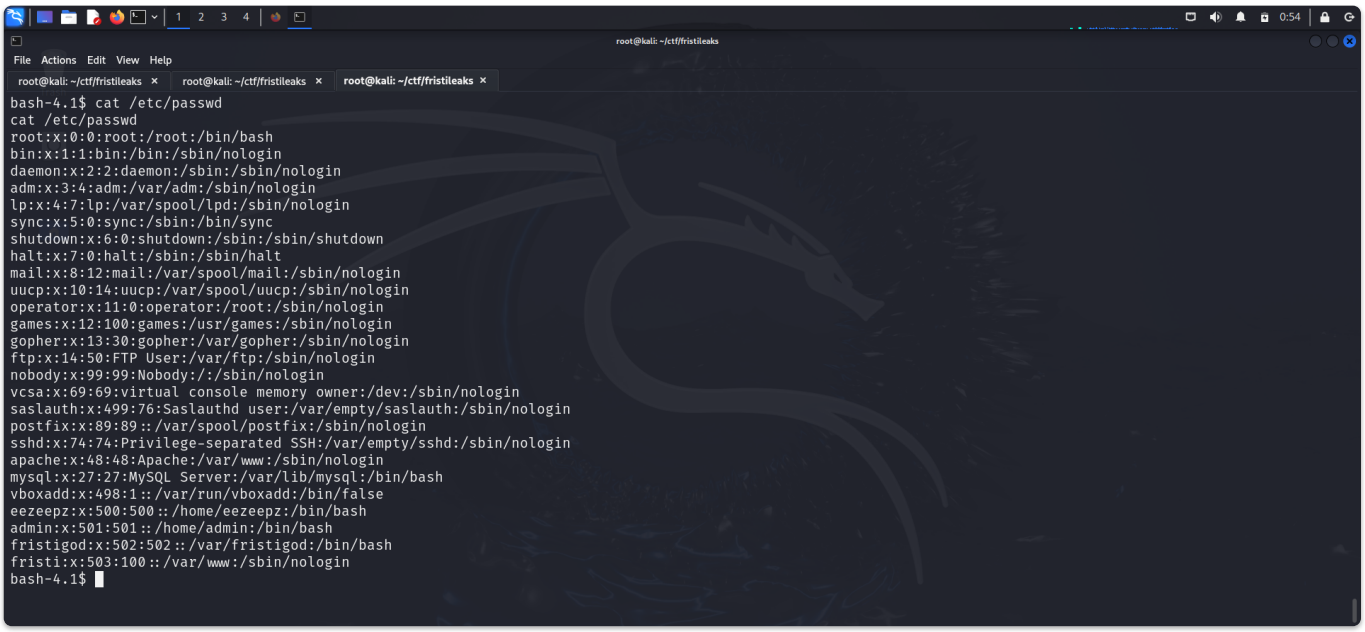
I found a binary running as root.



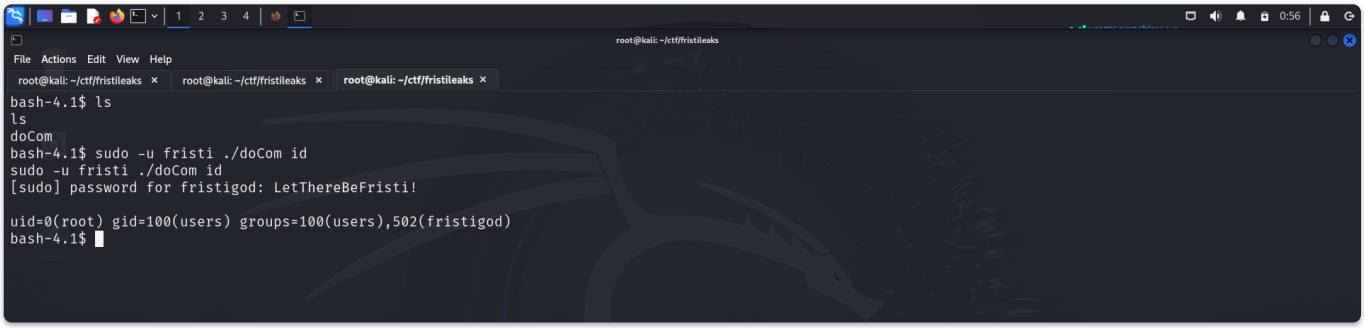
I tried executing it using the syntax shown above.



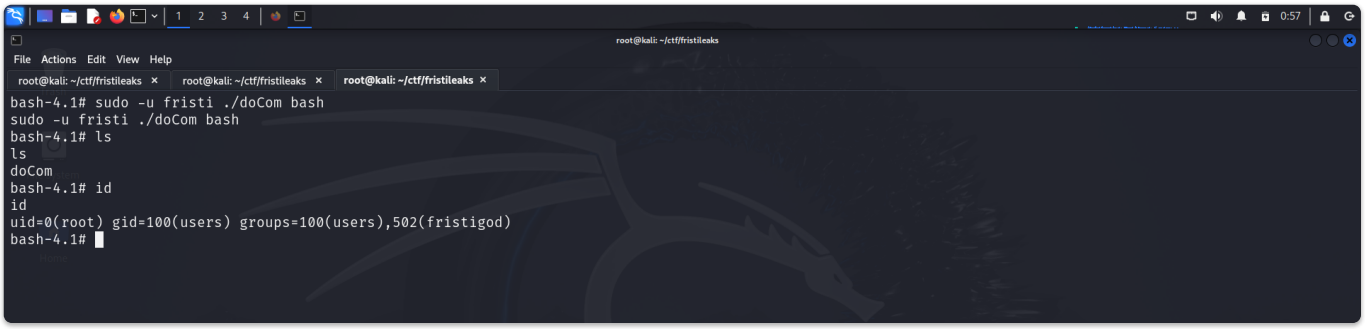
I looked at the users available on the system by viewing the */etc/passwd* file.



This file revealed a user called *fristi*, so I tried executing the command using it.



Since this executed successfully, I used it to gain root access.



Finally, I captured the flag from */root*.

CLOSURE

Here's a summary of how I compromised **fristileaks**:

- I discovered a login page at */fristi/*.
- Through the source code of the page, I found the username and password.
- I exploited a file upload vulnerability to gain a reverse shell.
- For privilege escalation, I pursued 2 approaches:

1. I utilized a kernel exploit.
    - I employed the **dirtycow** exploit from **exploit-db** to gain root access by creating a new user.
2. I exploited **cronjobs**.
    - Leveraging **cronjobs**, I accessed the *admin* user.
    - I discovered credentials for both *admin* and *fristigod* in the */admin* directory.
    - Switching to *fristigod*, I found a script running as root.
    - I used the script to achieve **root** access.

- Finally, I captured the flag from the */root* directory.

Thats it from my side, until next time :)