WONDERLAND

Welcome to my writeup where I am gonna be pwning the **Wonderland** machine from **TryHackMe**. This challenge has two flags, and our goal is to capture both. Let's get started!

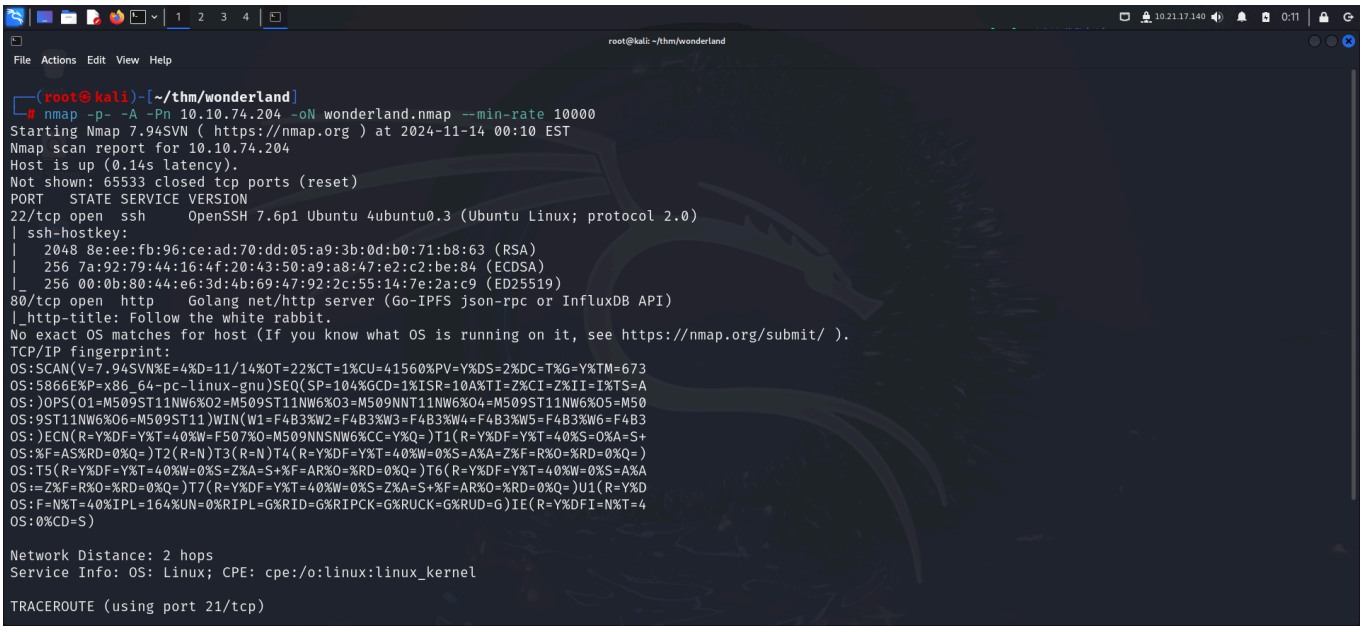
GETTING STARTED

To access the challenge, click on the link given below:
https://tryhackme.com/room/wonderland

> **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.

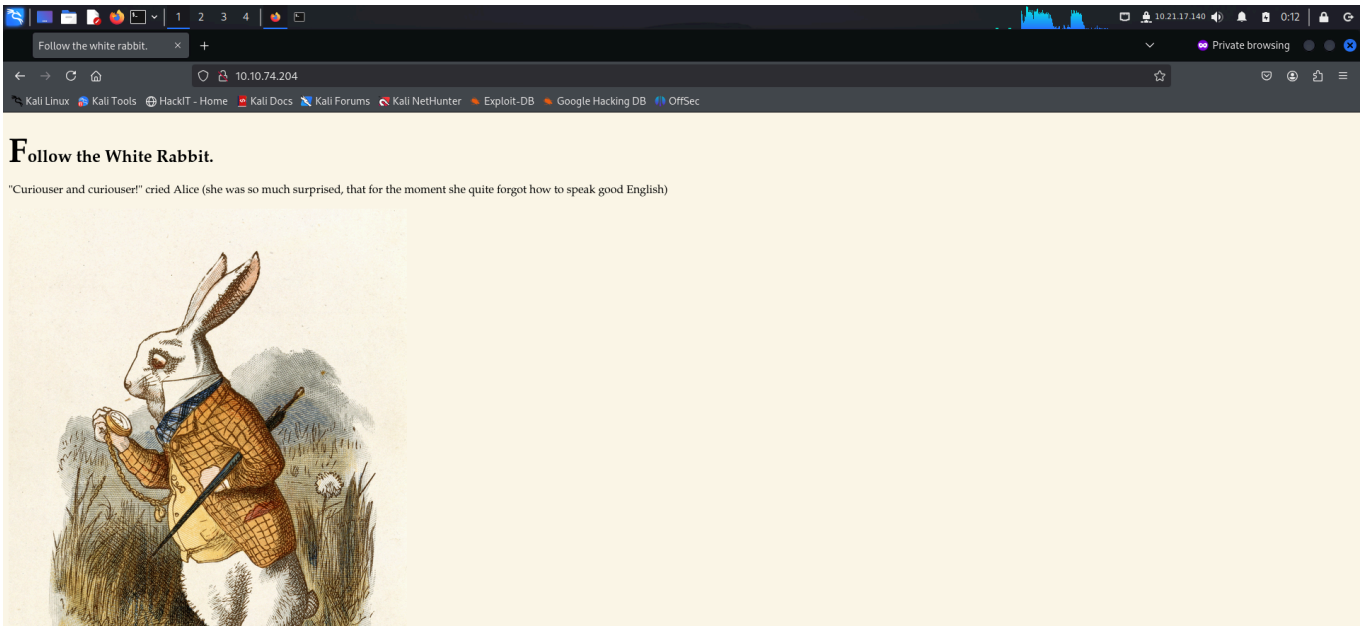
RECONNAISSANCE

I performed an **nmap** aggressive scan on the target to find open ports and the services running on it.

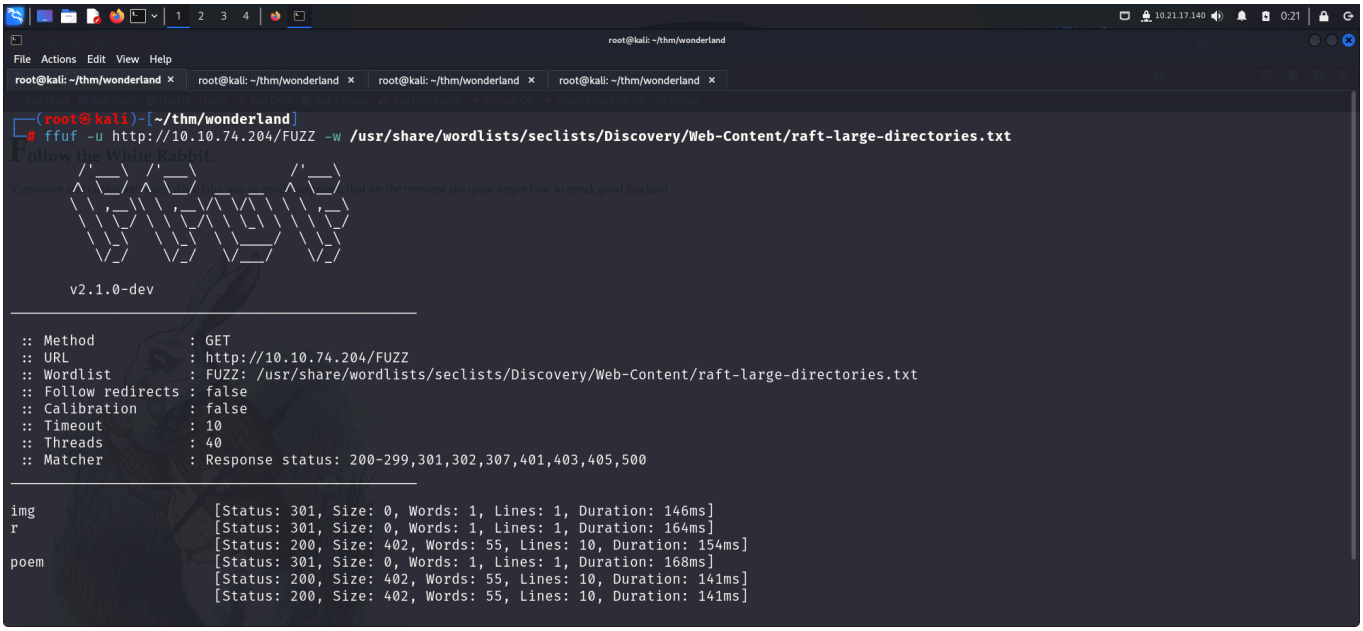


FOOTHOLD

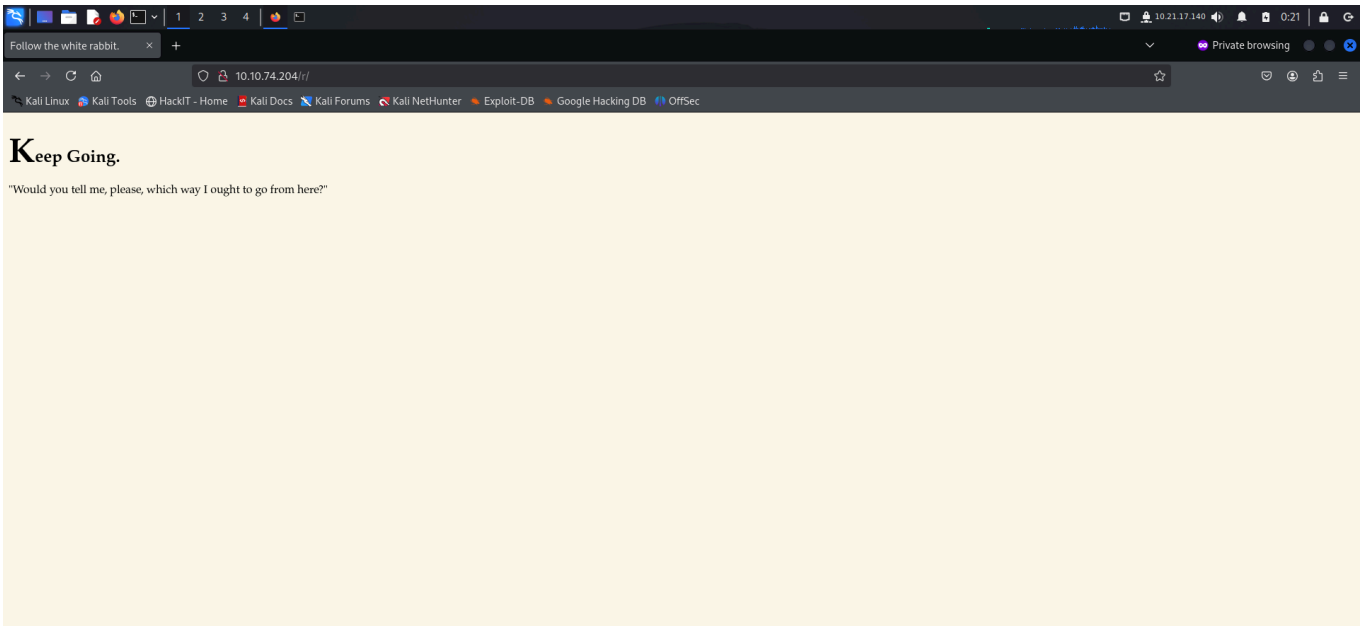
I then visited the website.

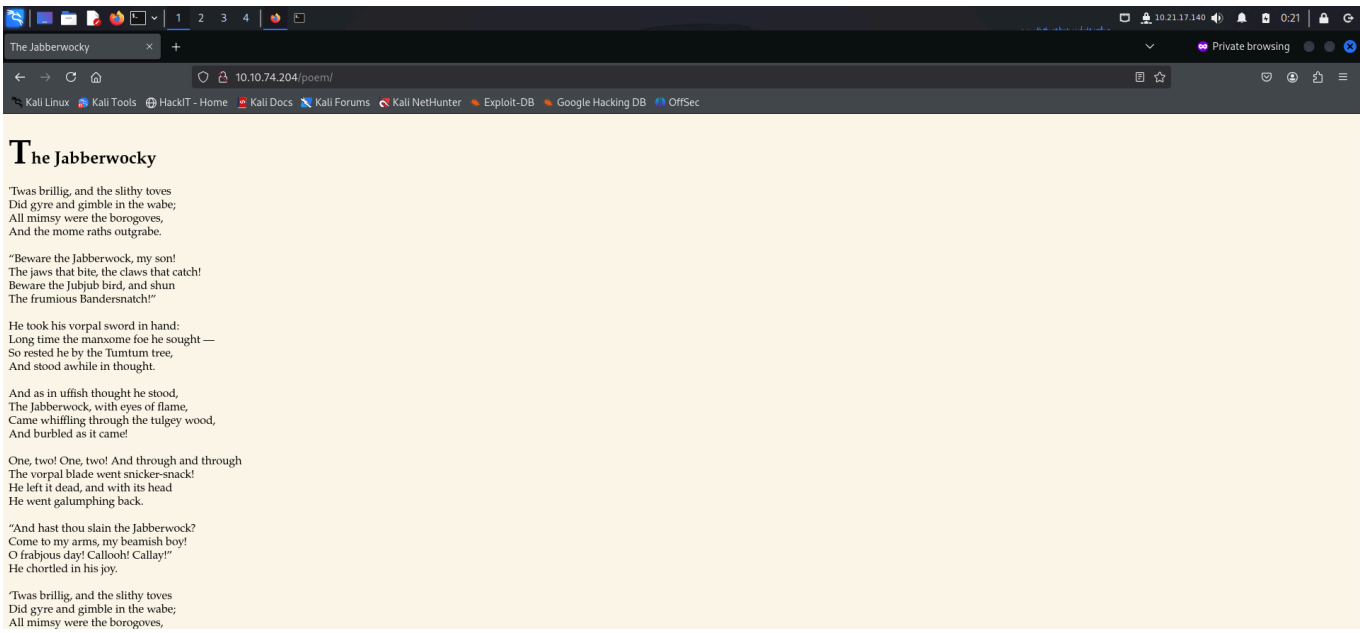


I brute forced directories and files on the target using **ffuf** to discover more content.

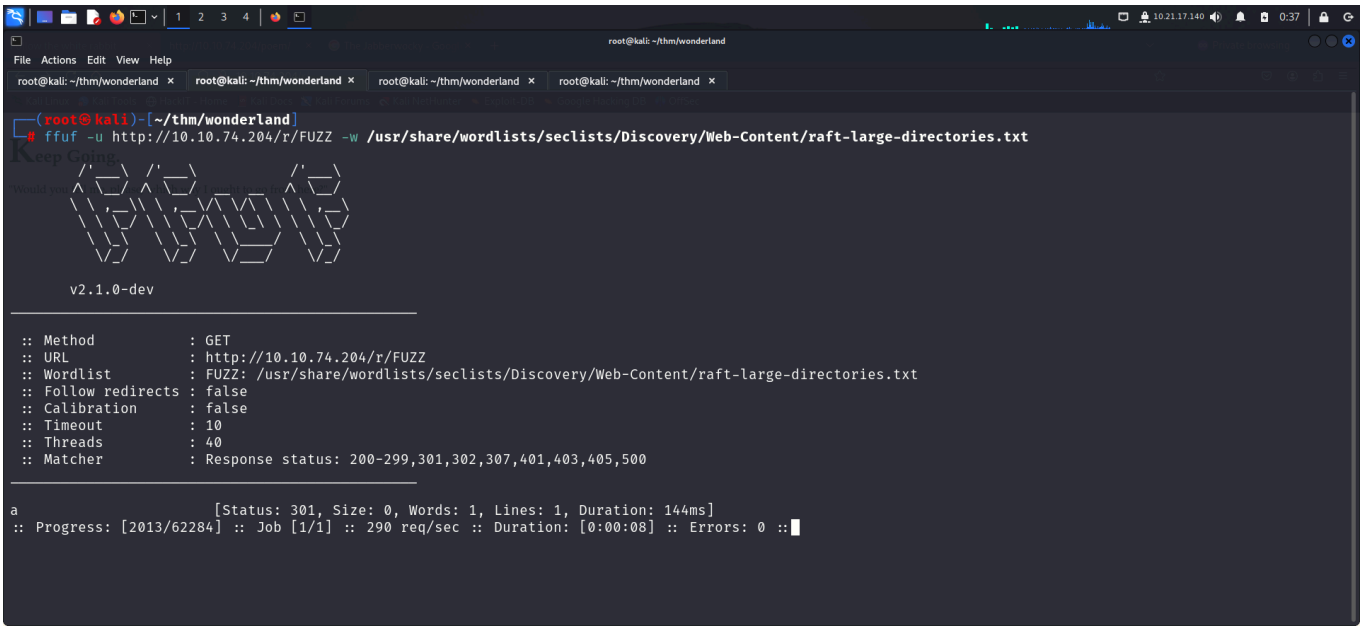


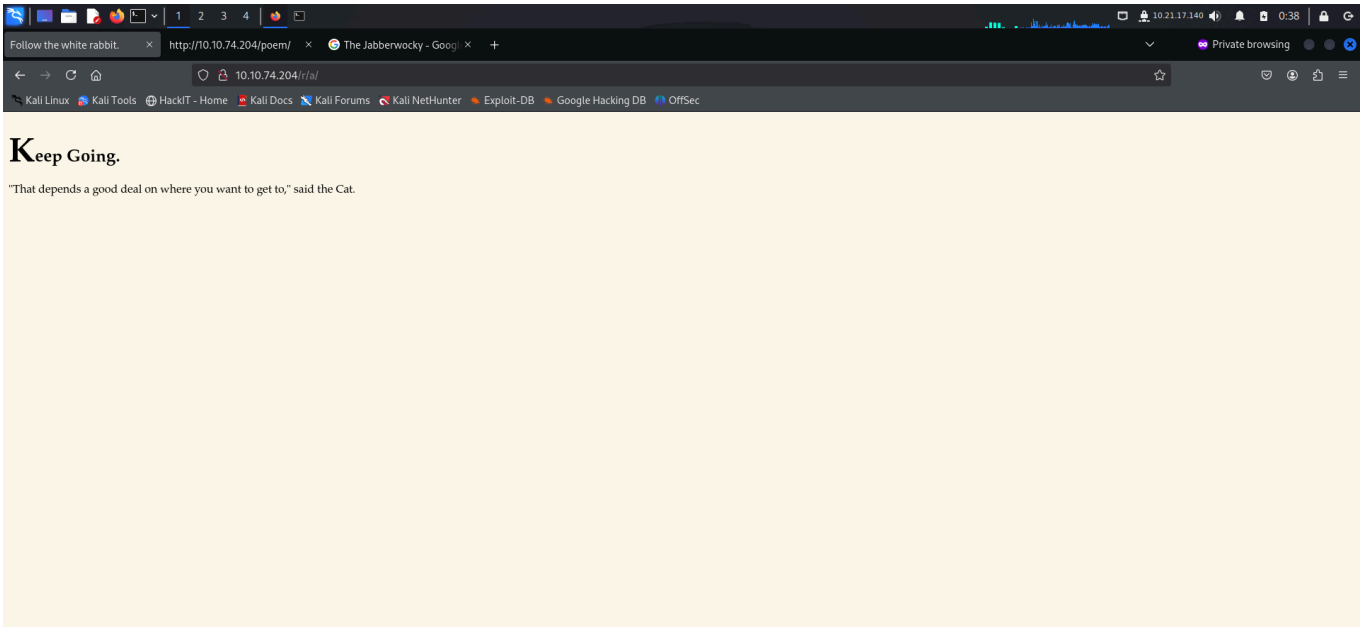
I visited the pages that I discovered.

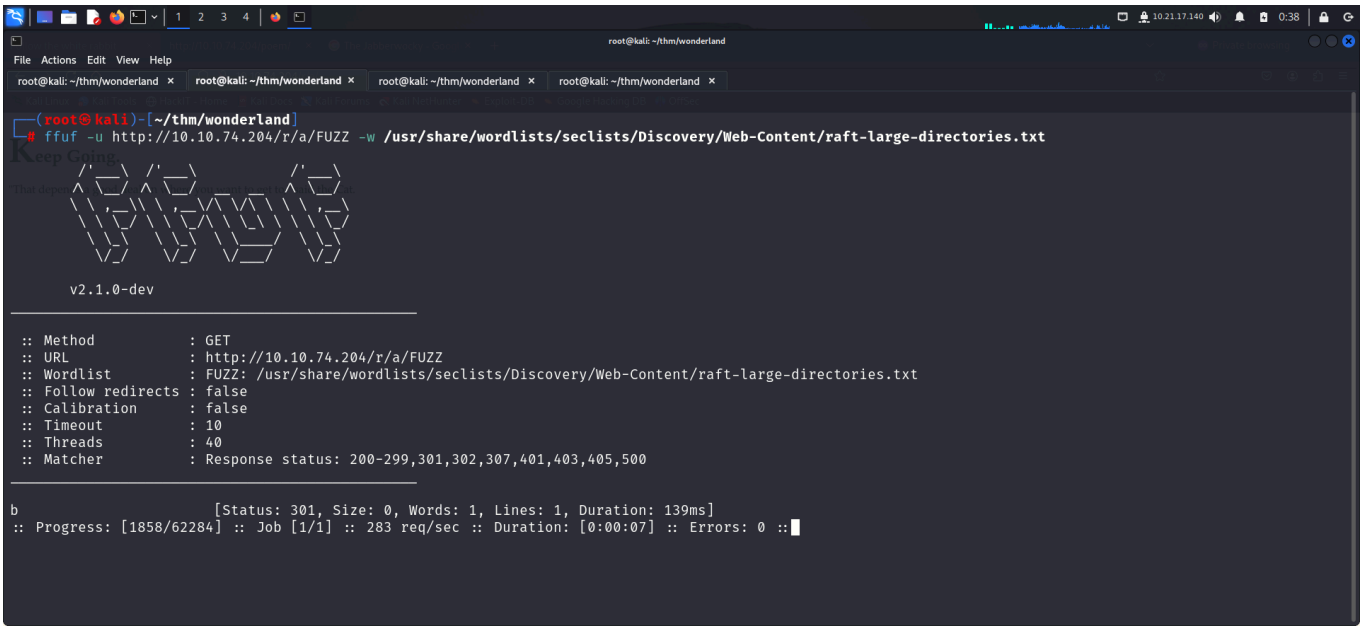


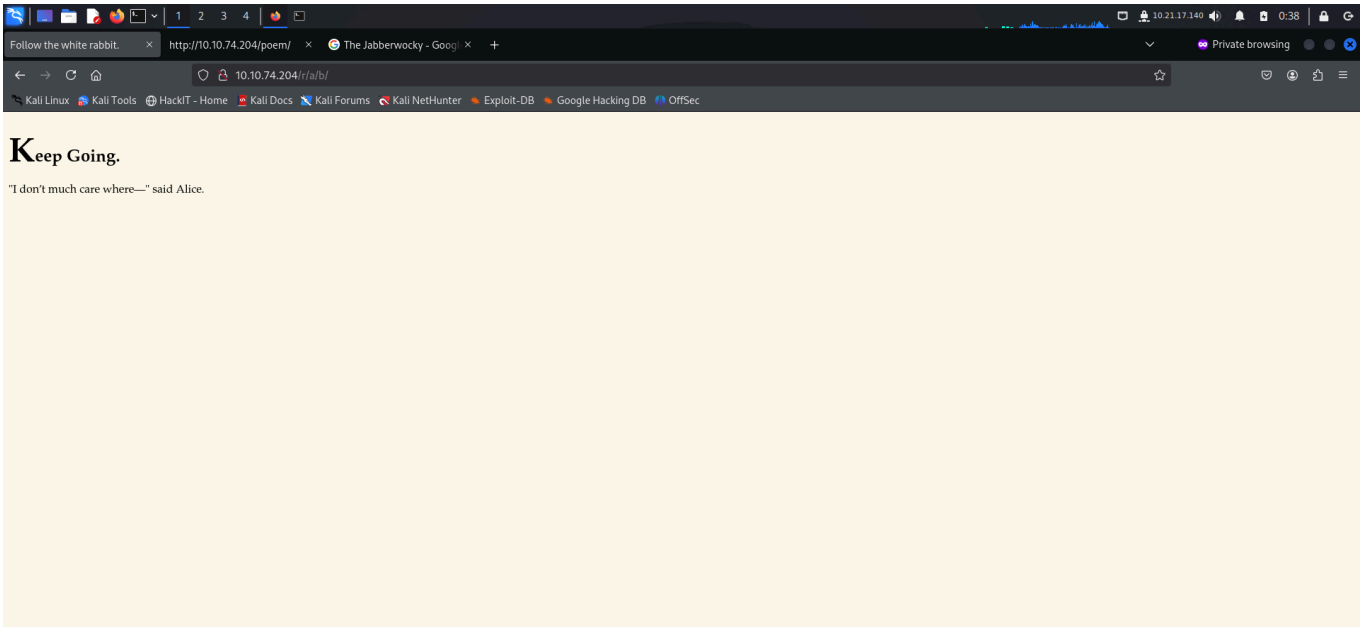


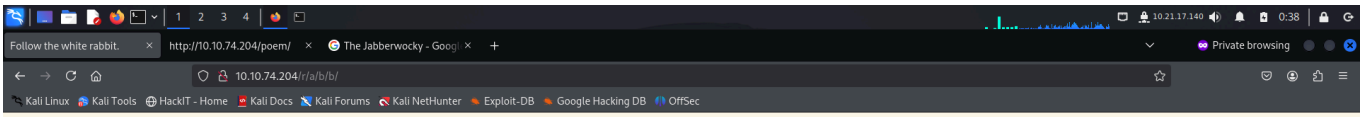
I kept brute forcing the directories recursively...


root@kali: ~/thm/wonderland
File Actions Edit View Help
root@kali: ~/thm/wonderland
root@kali: ~/thm/wonderland
root@kali: ~/thm/wonderland
root@kali: ~/thm/wonderland
(root㉿kali)-[~/thm/wonderland]
ffuf -u http://10.10.74.204/r/FUZZ -w /usr/share/wordlists/seclists/Discovery/Web-Content/raft-large-directories.txt
v2.1.0-dev
:: Method : GET
:: URL : http://10.10.74.204/r/FUZZ
:: Wordlist : FUZZ: /usr/share/wordlists/seclists/Discovery/Web-Content/raft-large-directories.txt
:: Follow redirects : false
:: Calibration : false
:: Timeout : 10
:: Threads : 40
:: Matcher : Response status: 200-299,301,302,307,401,403,405,500
a [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 144ms]
:: Progress: [2013/62284] :: Job [1/1] :: 290 req/sec :: Duration: [0:00:08] :: Errors: 0 ::


Follow the white rabbit.
http://10.10.74.204/poem/
The Jabberwocky - Goog
Private browsing
10.10.74.204/r/a/
Kali Linux
Kali Tools
HackTricks - Home
Kali Docs
Kali Forums
Kali NetHunter
Exploit-DB
Google Hacking DB
OffSec
Keep Going.
"That depends a good deal on where you want to get to," said the Cat.

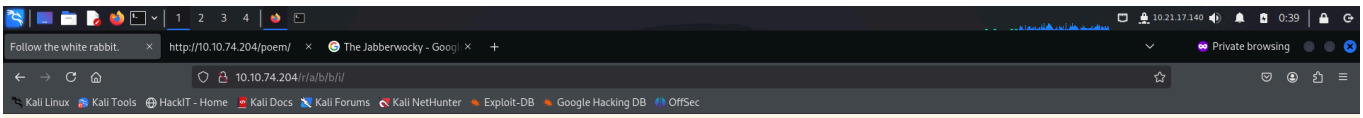

root@kali: ~/thm/wonderland
File Actions Edit View Help
root@kali: ~/thm/wonderland
root@kali: ~/thm/wonderland
root@kali: ~/thm/wonderland
root@kali: ~/thm/wonderland
(root㉿kali)-[~/thm/wonderland]
ffuf -u http://10.10.74.204/r/a/FUZZ -w /usr/share/wordlists/seclists/Discovery/Web-Content/raft-large-directories.txt
v2.1.0-dev
:: Method : GET
:: URL : http://10.10.74.204/r/a/FUZZ
:: Wordlist : FUZZ: /usr/share/wordlists/seclists/Discovery/Web-Content/raft-large-directories.txt
:: Follow redirects : false
:: Calibration : false
:: Timeout : 10
:: Threads : 40
:: Matcher : Response status: 200-299,301,302,307,401,403,405,500
b [Status: 301, Size: 0, Words: 1, Lines: 1, Duration: 139ms]
:: Progress: [1858/62284] :: Job [1/1] :: 283 req/sec :: Duration: [0:00:07] :: Errors: 0 ::


Follow the white rabbit.
http://10.10.74.204/poem/
The Jabberwocky - Goog
Private browsing
10.10.74.204/r/a/b/
Kali Linux
Kali Tools
HackTheBox
Kali Docs
Kali Forums
Kali NetHunter
Exploit-DB
Google Hacking DB
OffSec
Keep Going.
"I don't much care where—" said Alice.



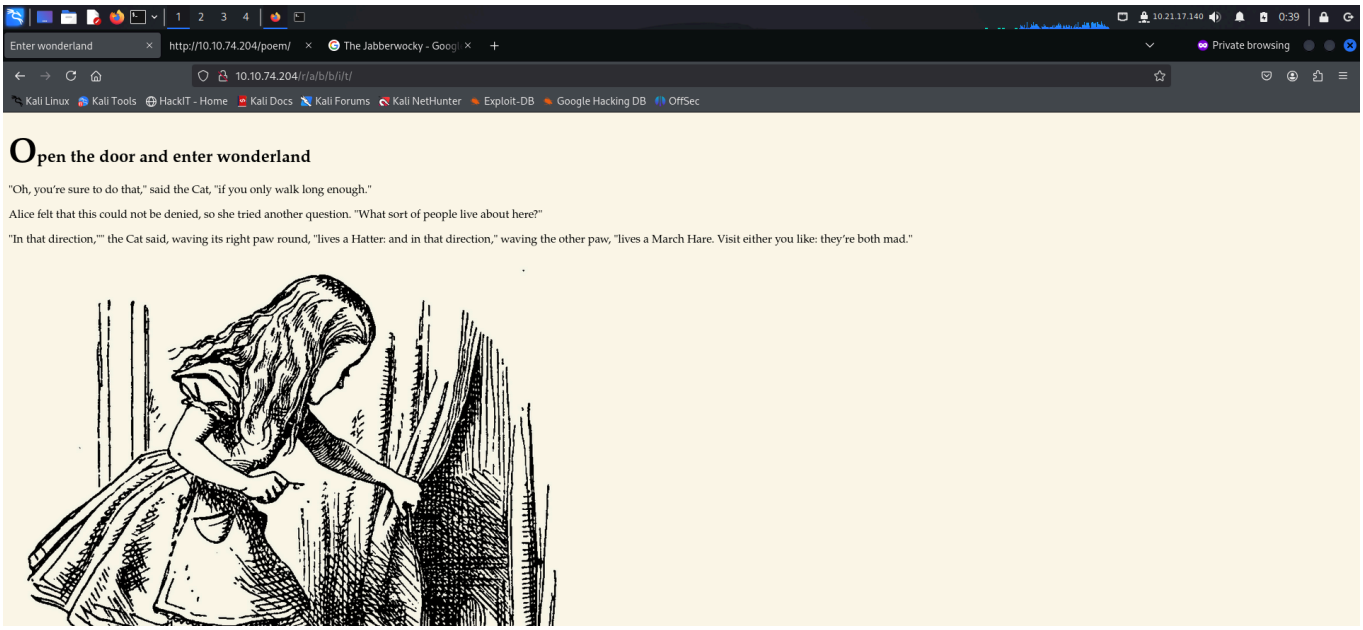
Keep Going.

"Then it doesn't matter which way you go," said the Cat.

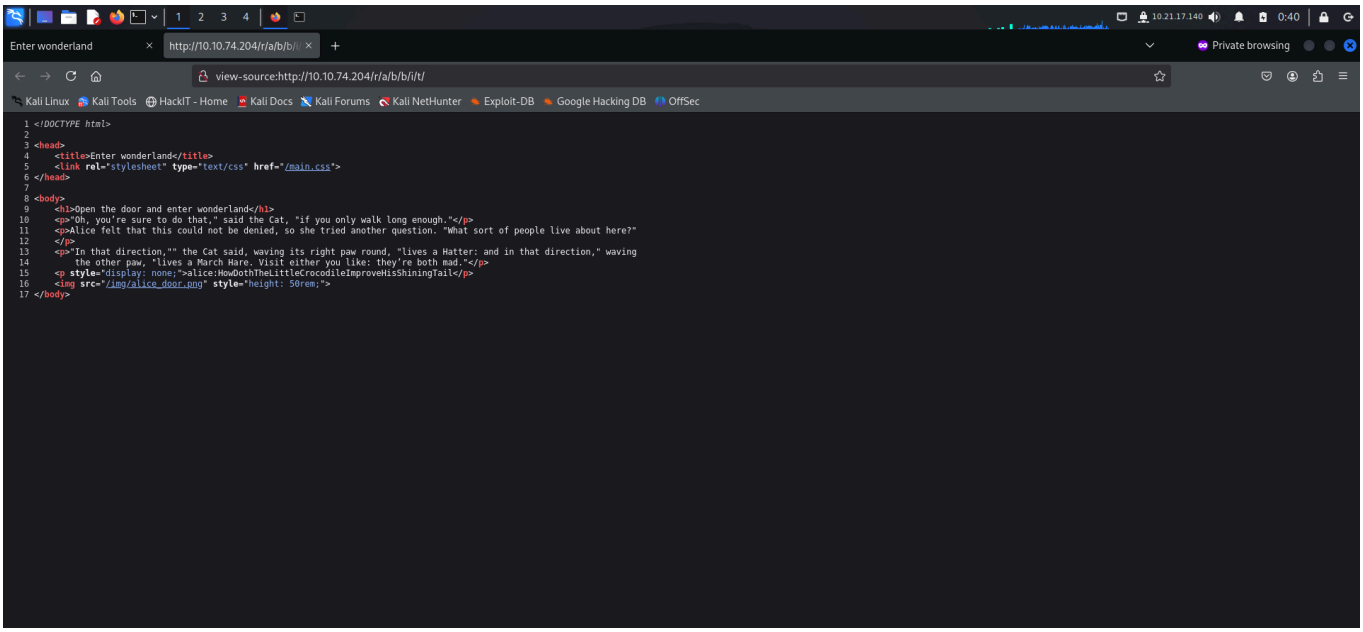


Keep Going.

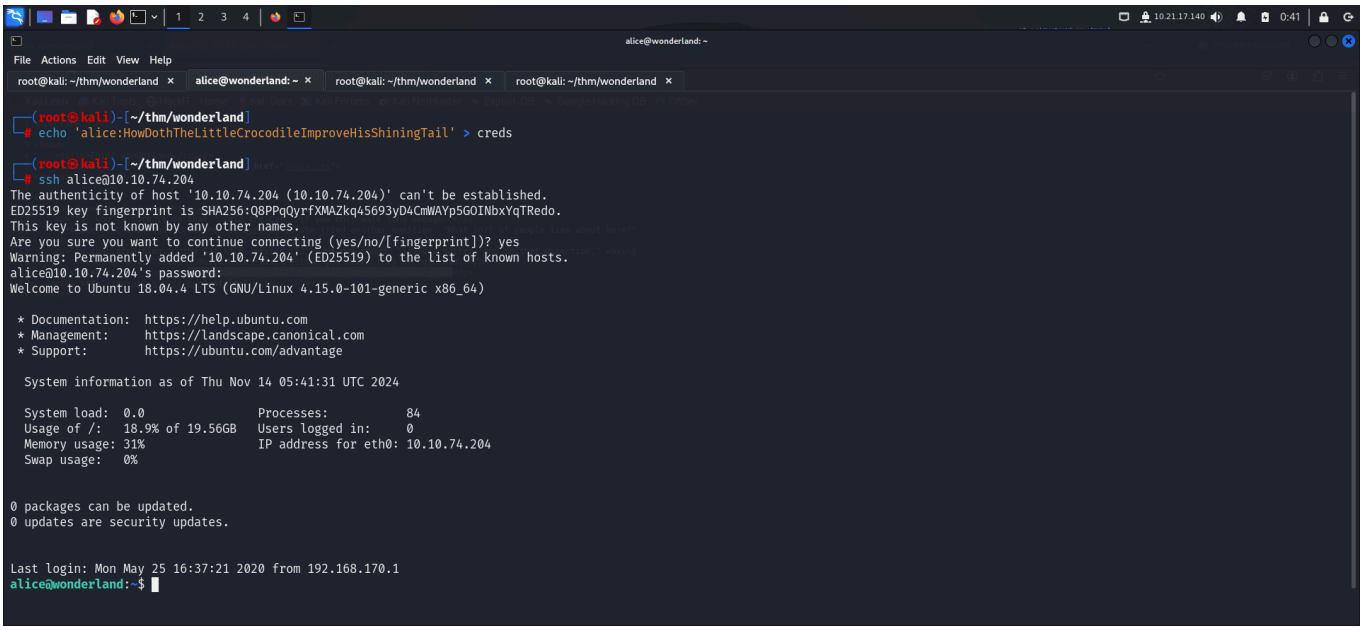
"—so long as I get somewhere,"" Alice added as an explanation.



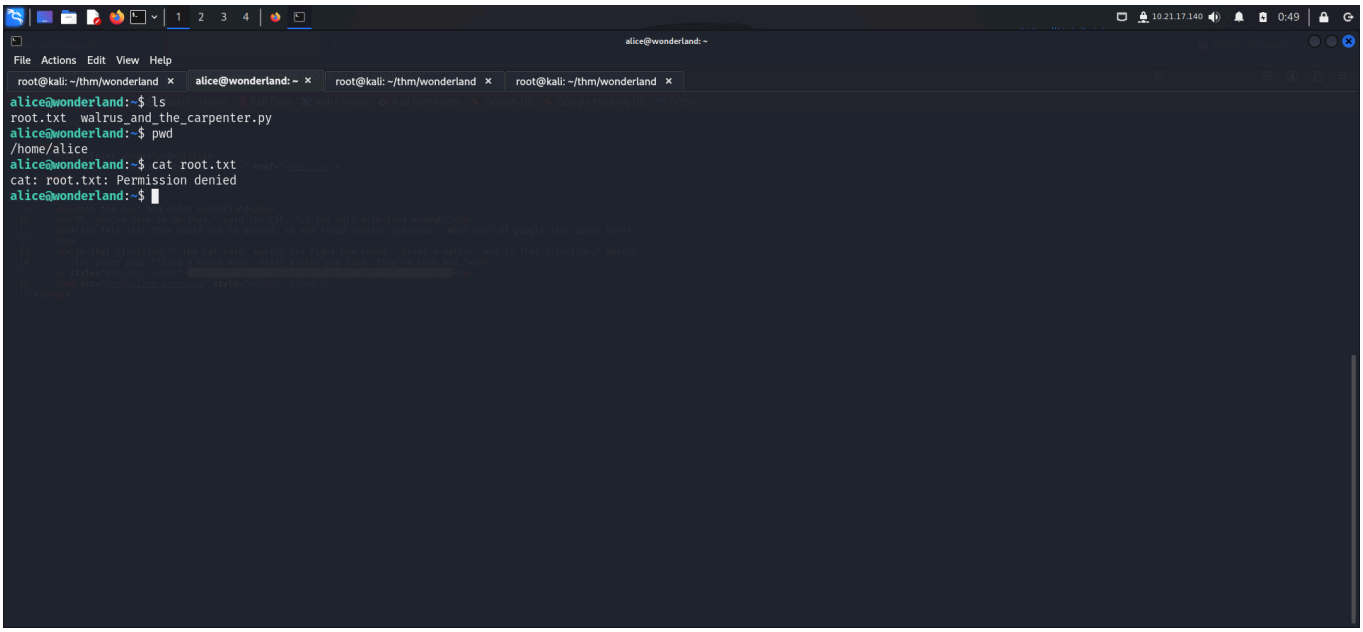
The source code of this page contained the login credentials of **alice**.



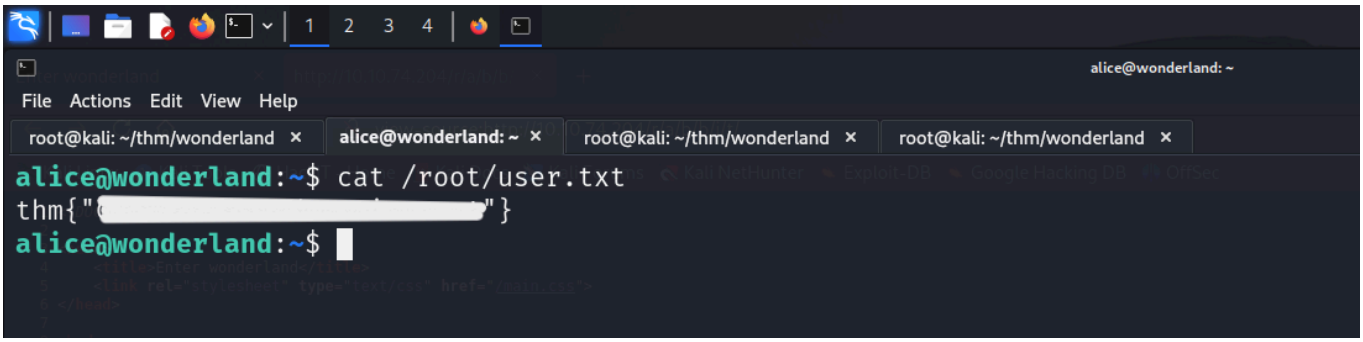
Hence, I logged in as **alice**.



My home directory contained the root flag, hence the user flag was likely present in the root directory.



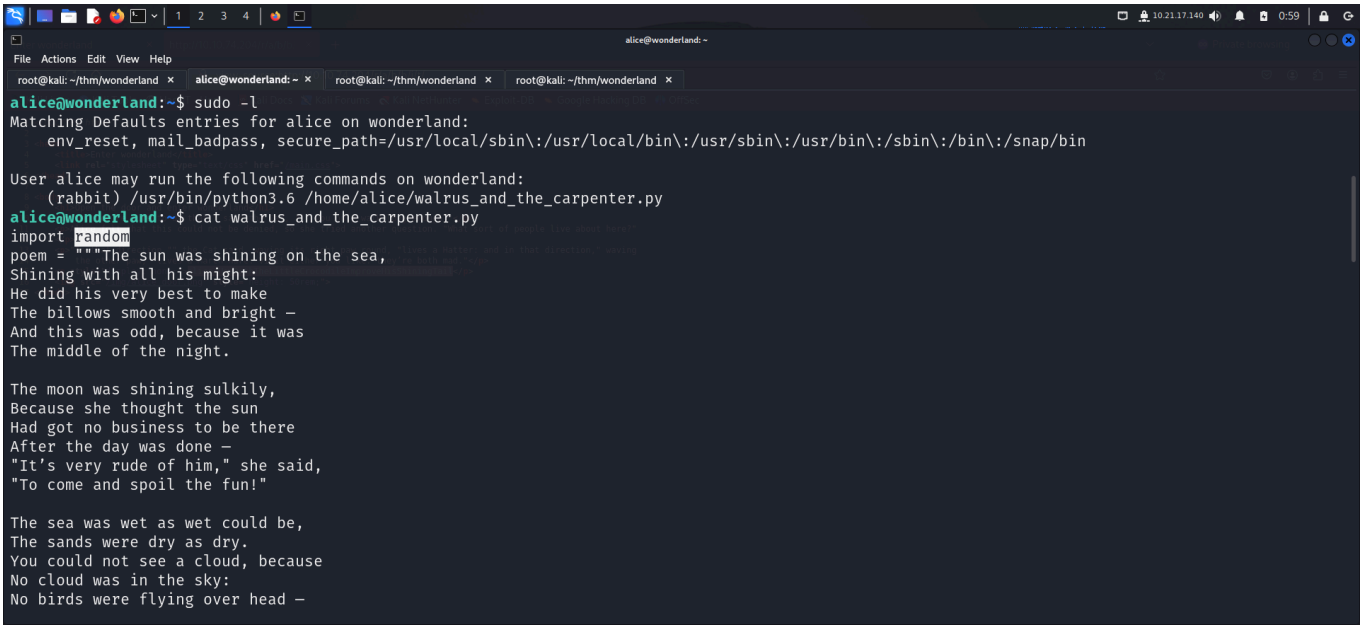
Hence I captured the user flag from the root directory.

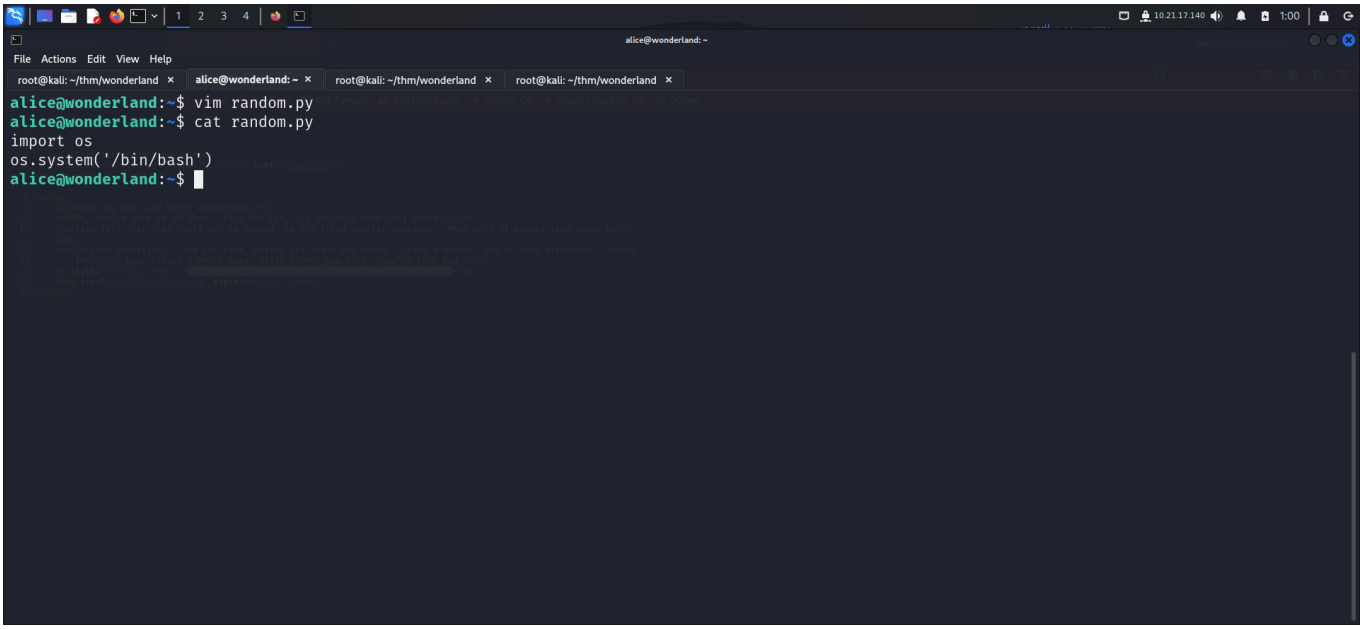


PRIVILEGE ESCALATION

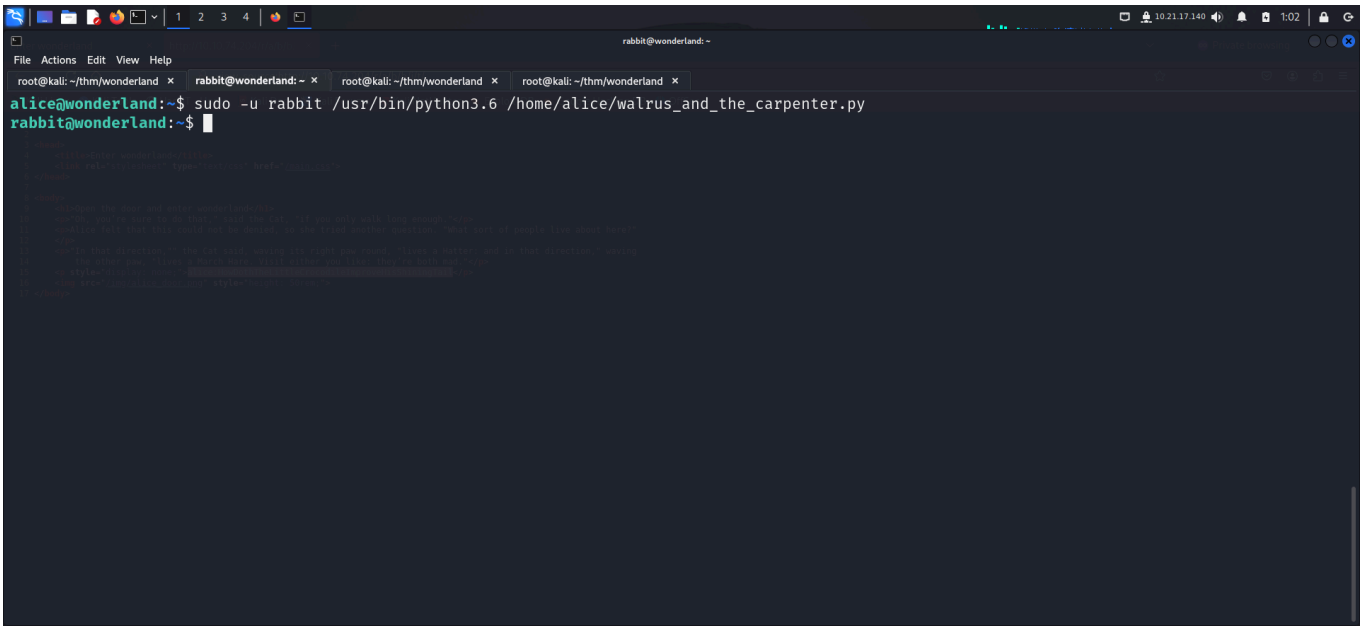
I viewed my **sudo** privileges and found I was allowed to execute a python script.

The script did not mention the complete path of the module being used, so I created a new file using that name with a code to spawn a bash shell.

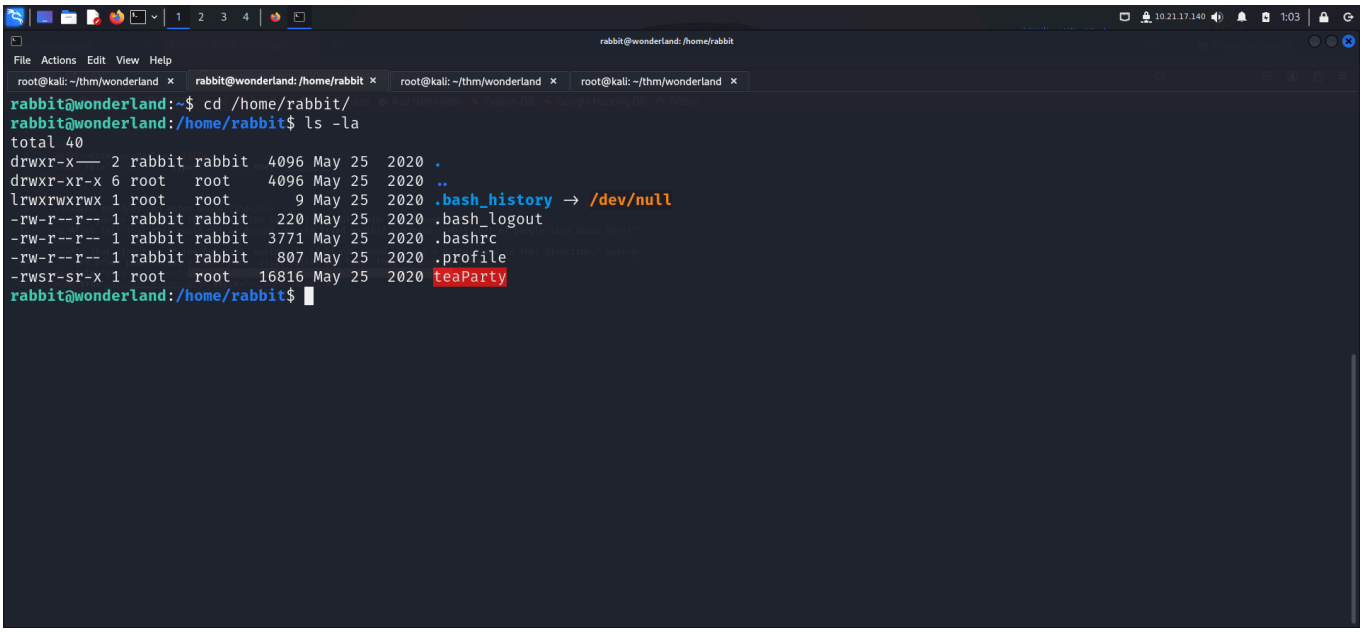




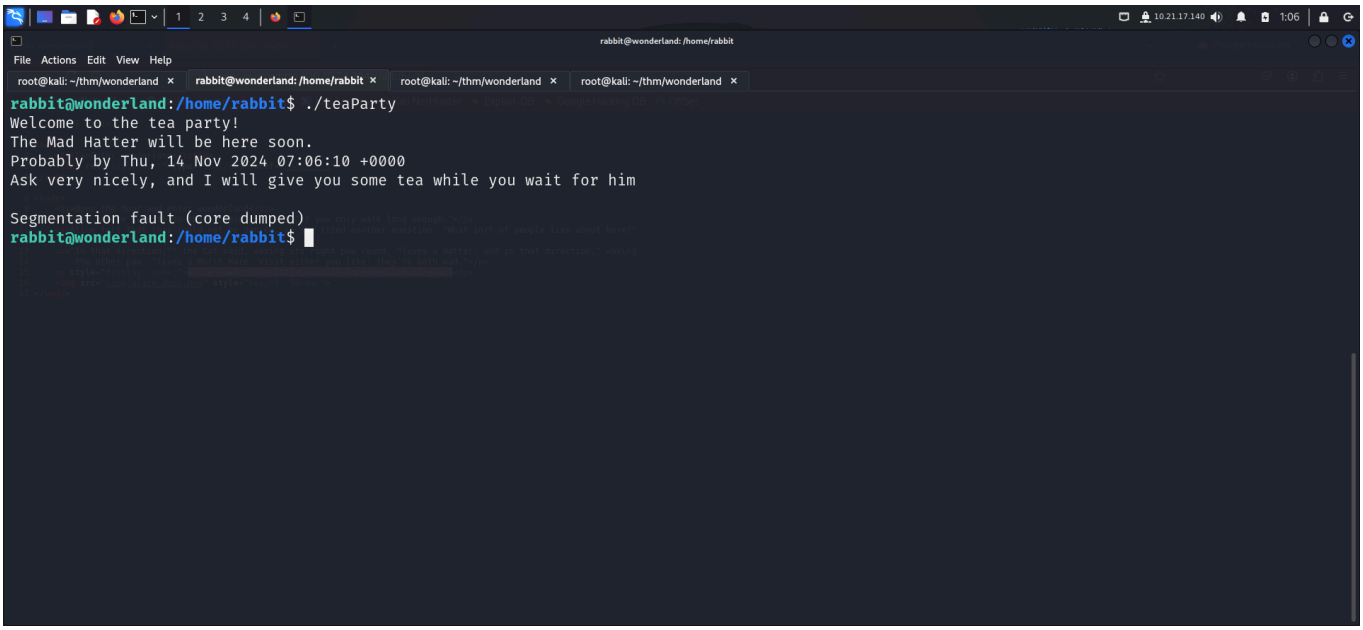
Since, I was allowed to execute the script as rabbit, I got shell access as that user.



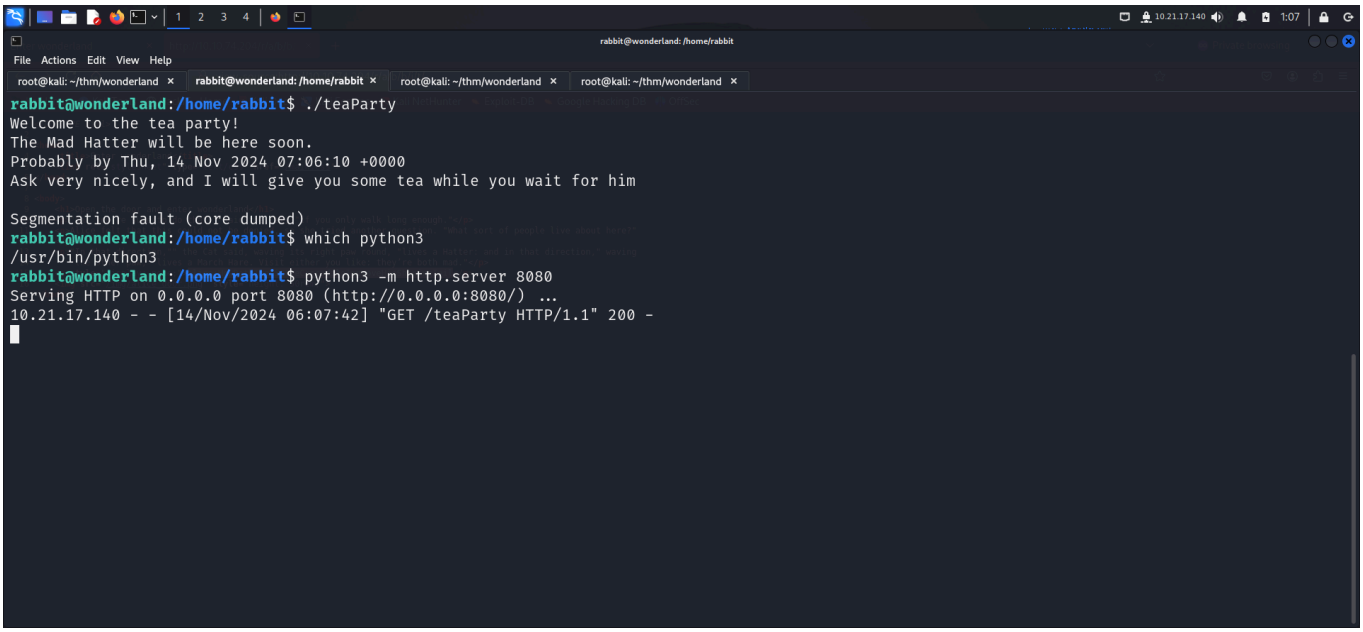
I then visited rabbit's home page and found a binary that had suid bit and was owned by root.



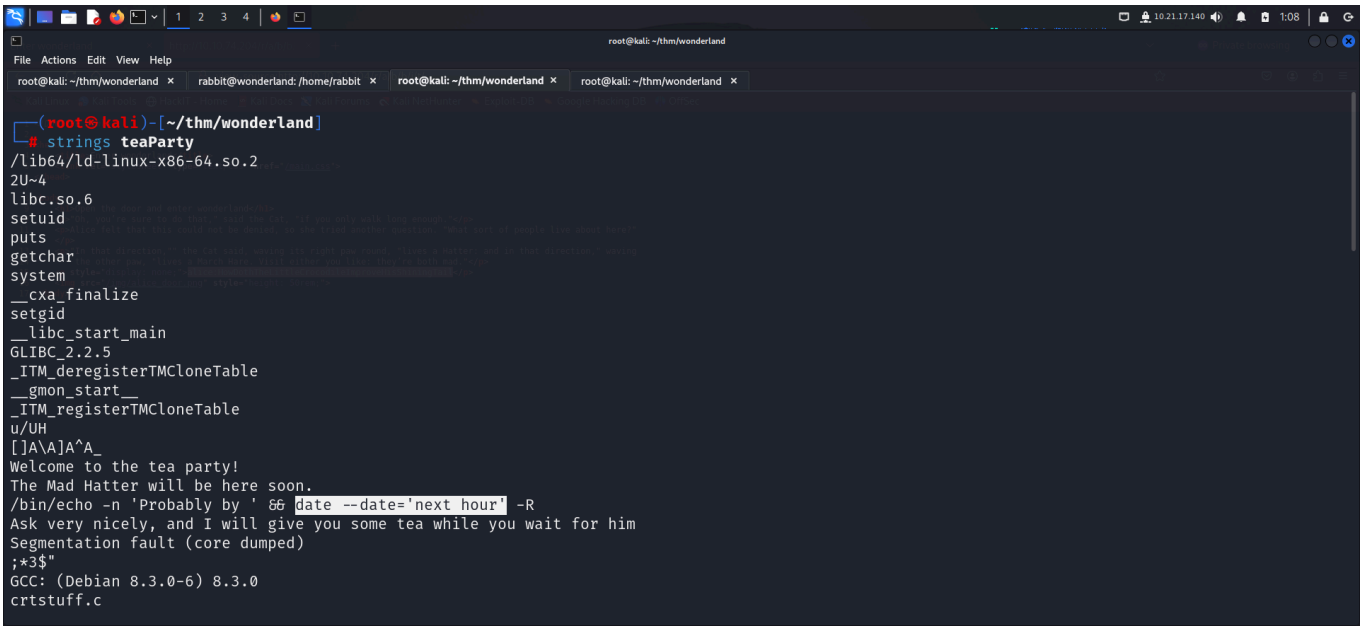
I executed the binary and got some output.



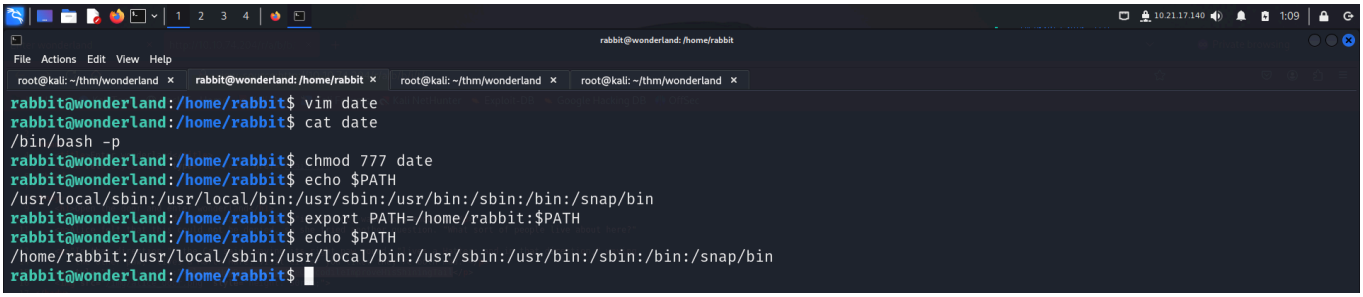
To analyze the binary, I transferred it onto my local system.



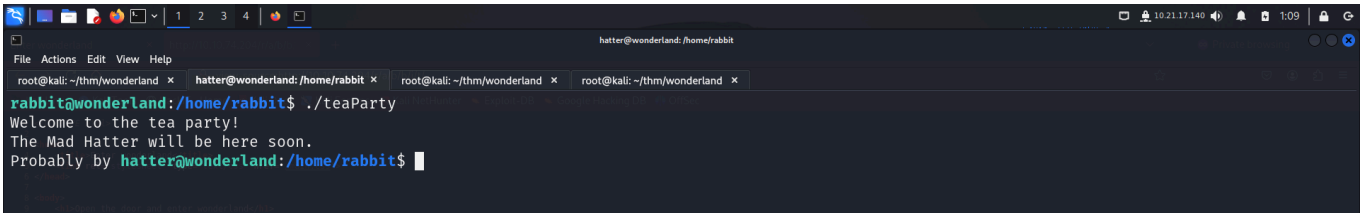
I then ran **strings** to extract strings from the binary. This binary executed linux commands however did not specify the complete path to them.



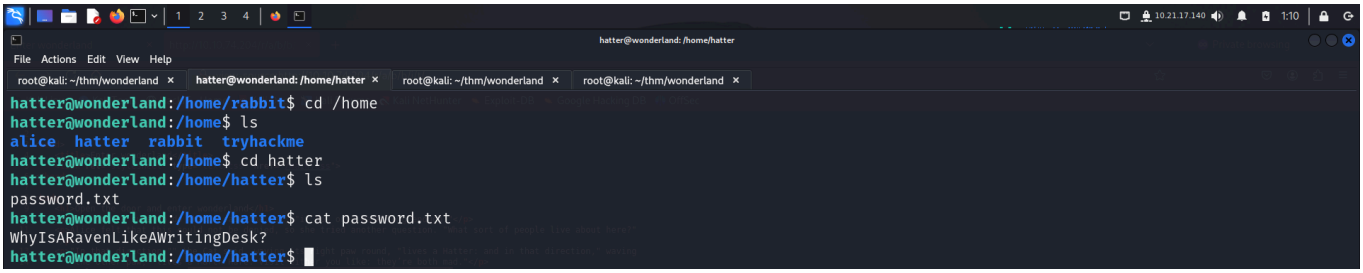
To exploit this, I created a new file called **date** and added my own code to spawn a privileged bash shell. I then gave it execution permission and injected my directory at the start of my path environment variable.

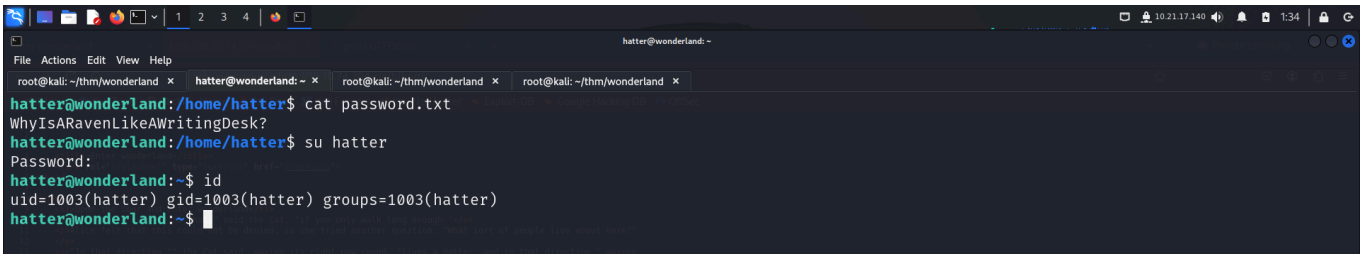


Finally, I executed the script and got access as another user called *hatter*.

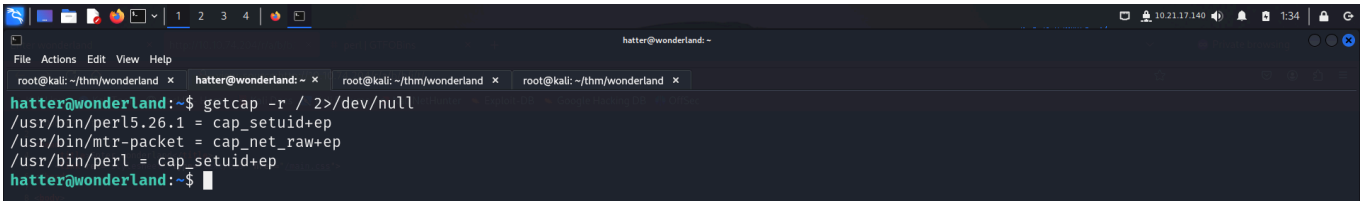


I got *hatter*'s password from */home/hatter* and used it to switch my user.

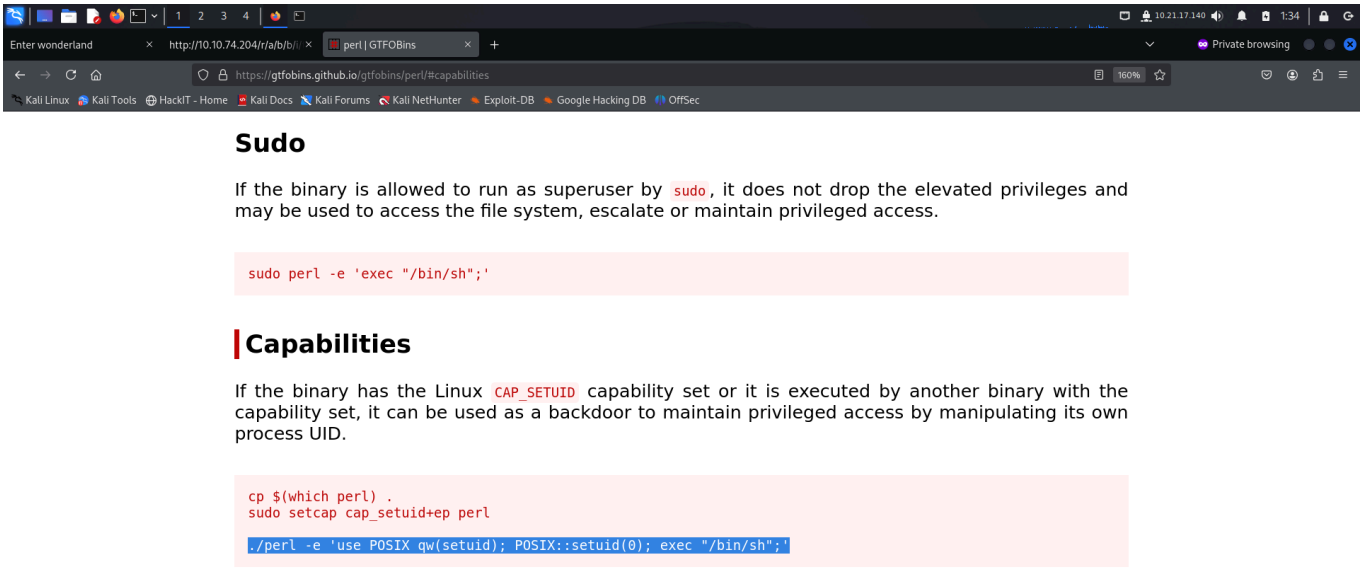




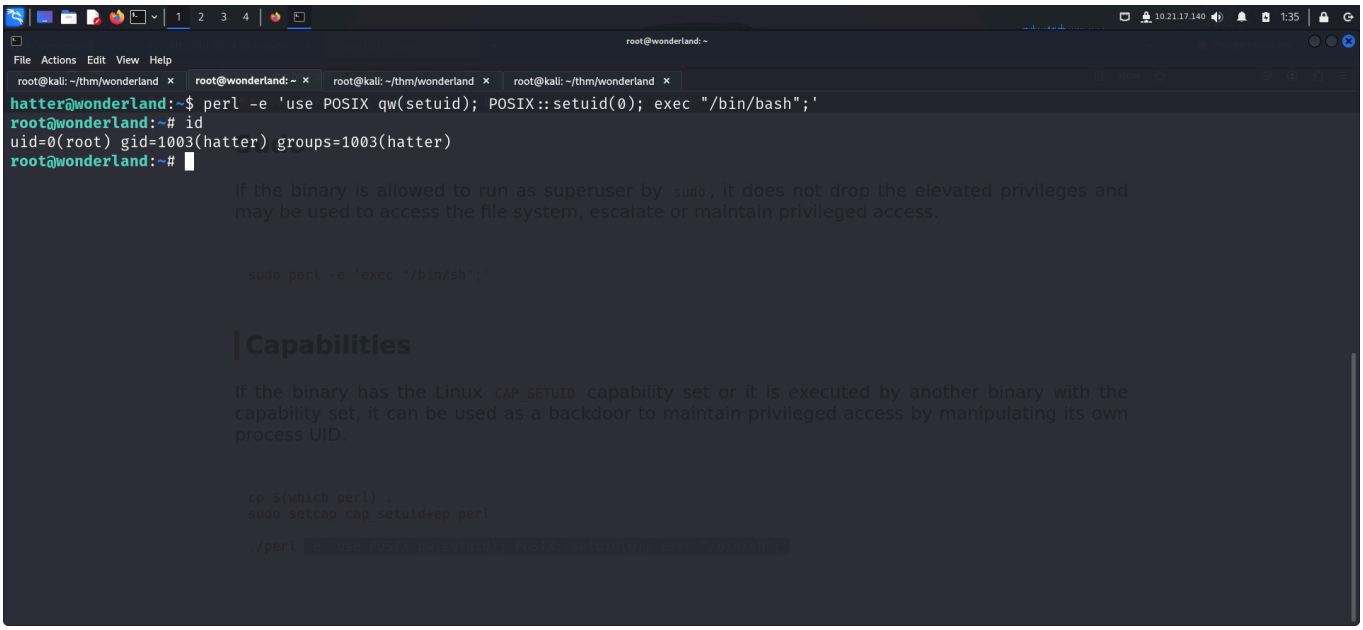
I then looked for binaries with capabilities and found **perl**.



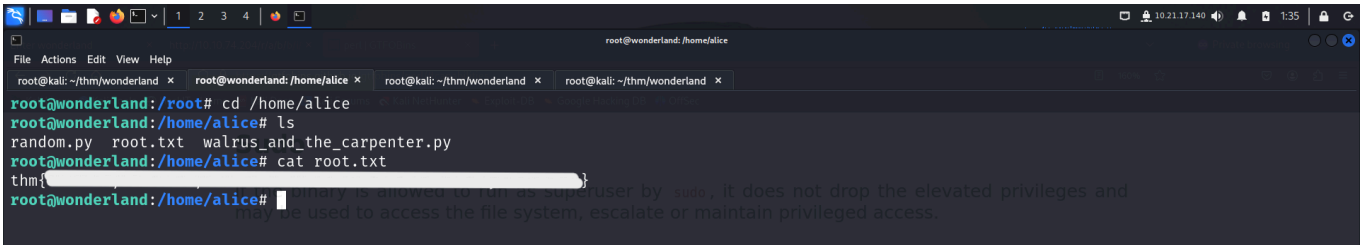
I visited **gtfobins** and found a way to exploit this to get privileged access.



I pasted the command and got **root** access on the target.



Finally, I captured the root flag present in *alice*'s home directory.



That's it from my side, until next time !