EX NO : 6 DEMONSTRATE LINUX PRIVILEGE ESCALATION NAME : NITHEESH K

K DATE : 2.04.2025 ROLL NO : 231901035

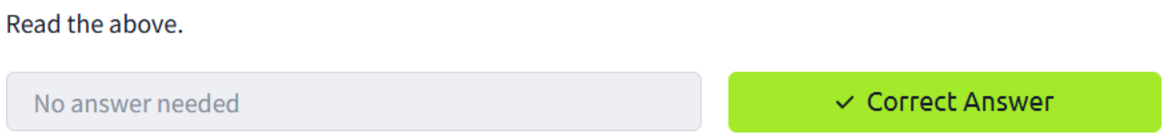
Aim:

To learn the fundamentals of Linux privilege escalation. From enumeration to exploitation, practice over 8 different privilege escalation techniques.

Procedure:

1. **Task 1** – Introduction
2. **Task 2** – What is Privilege Escalation?
3. **Task 3** – Enumeration Techniques
4. **Task 4** – Use Automated Enumeration Tools
5. **Task 5** – Kernel Exploits
6. **Task 6** – Sudo Exploits
7. **Task 7** – SUID Exploits
8. **Task 8** – Exploiting Capabilities
9. **Task 9** – Cron Job Exploits
10. **Task 10** – PATH Variable Exploits
11. **Task 11** – NFS Exploits
12. **Task 12** – Capstone Challenge to apply all techniques

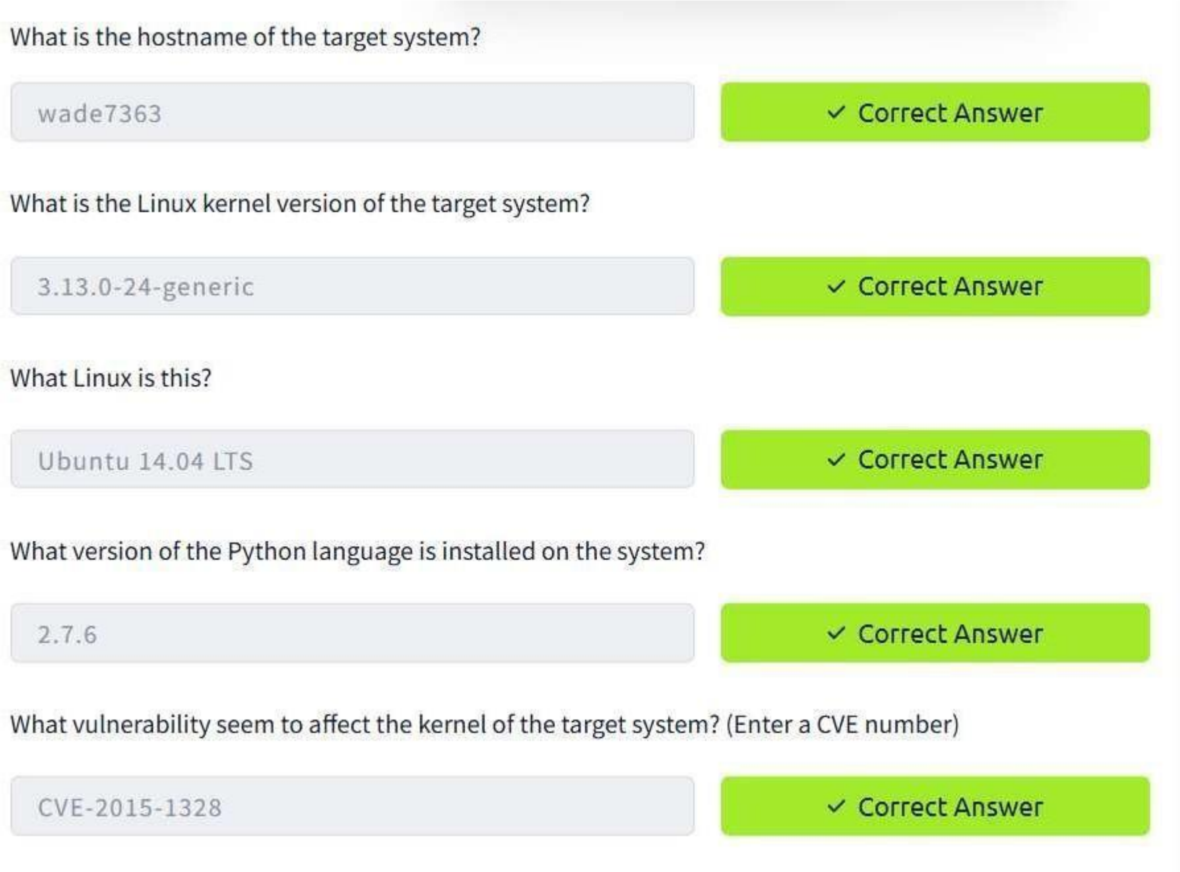
TASK 2 : WHAT IS PRIVILEGE ESCALATION?



Read the above.

No answer needed

TASK 3 : ENUMERATION



What is the hostname of the target system?

wade7363

What is the Linux kernel version of the target system?

3.13.0-24-generic

What Linux is this?

Ubuntu 14.04 LTS

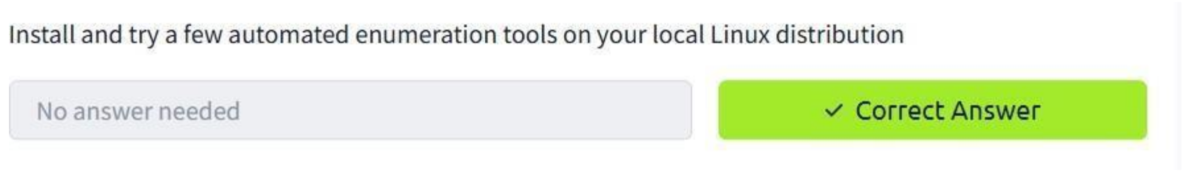
What version of the Python language is installed on the system?

2.7.6

What vulnerability seem to affect the kernel of the target system? (Enter a CVE number)

CVE-2015-1328

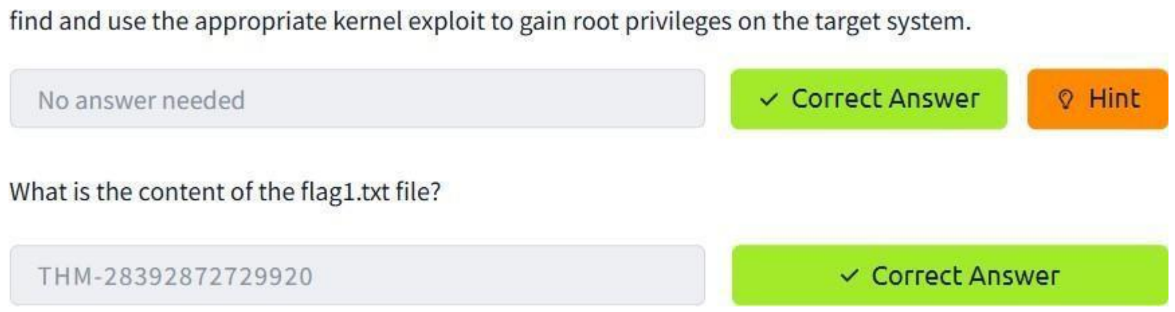
TASK 4 : AUTOMATED ENUMERATION TOOLS



Install and try a few automated enumeration tools on your local Linux distribution

No answer needed

TASK 5 : PRIVILEGE ESCALATION : KERNEL EXPLOITS



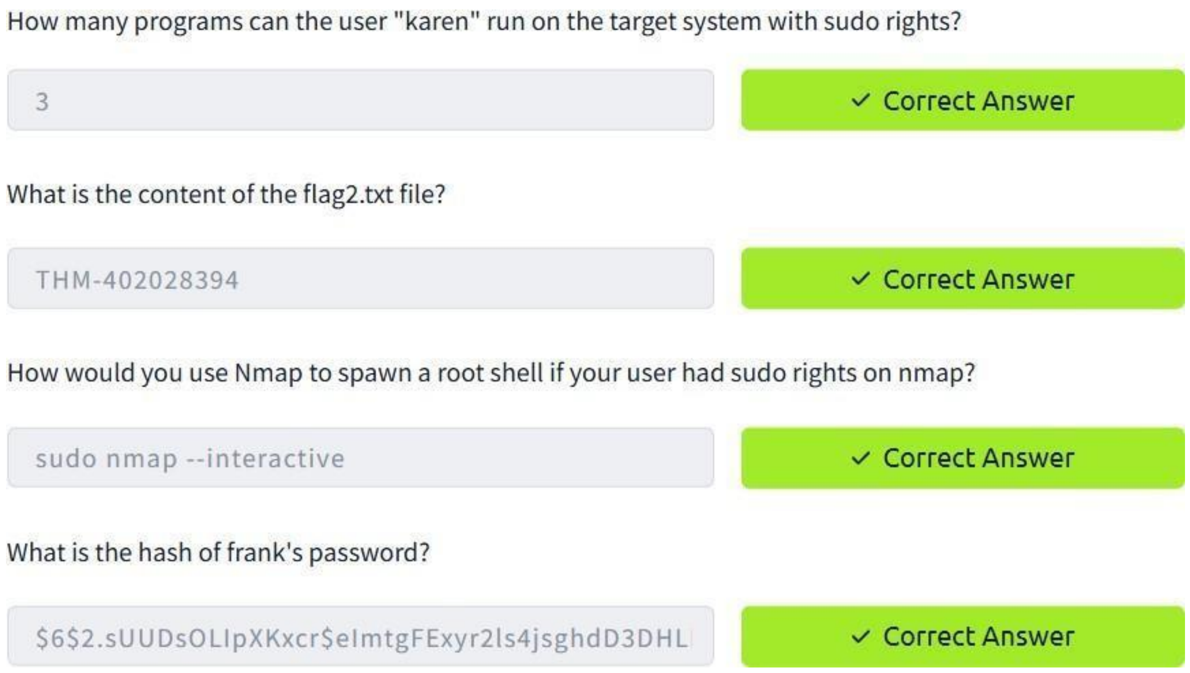
find and use the appropriate kernel exploit to gain root privileges on the target system.

No answer needed

What is the content of the flag1.txt file?

THM-28392872729920

TASK 6 : PRIVILEGE ESCALATION : SUDO



How many programs can the user "karen" run on the target system with sudo rights?

3

What is the content of the flag2.txt file?

THM-402028394

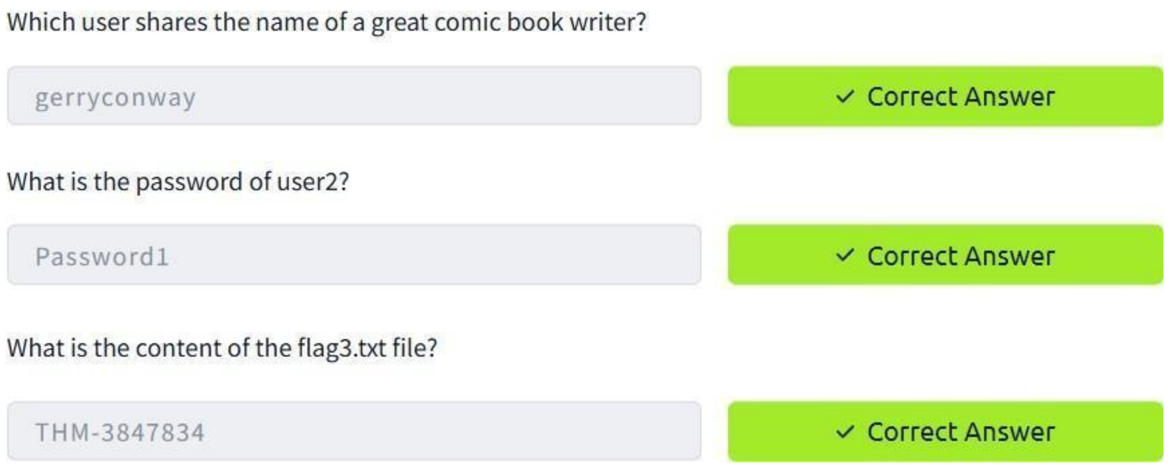
How would you use Nmap to spawn a root shell if your user had sudo rights on nmap?

```
sudo nmap --interactive
```

What is the hash of frank's password?

$6$2.sUUDsOLIpXKxcr$eImtgFExyr2ls4jsghdD3DHL

TASK 7 : PRIVILEGE ESCALATION : SUID



Which user shares the name of a great comic book writer?

gerryconway

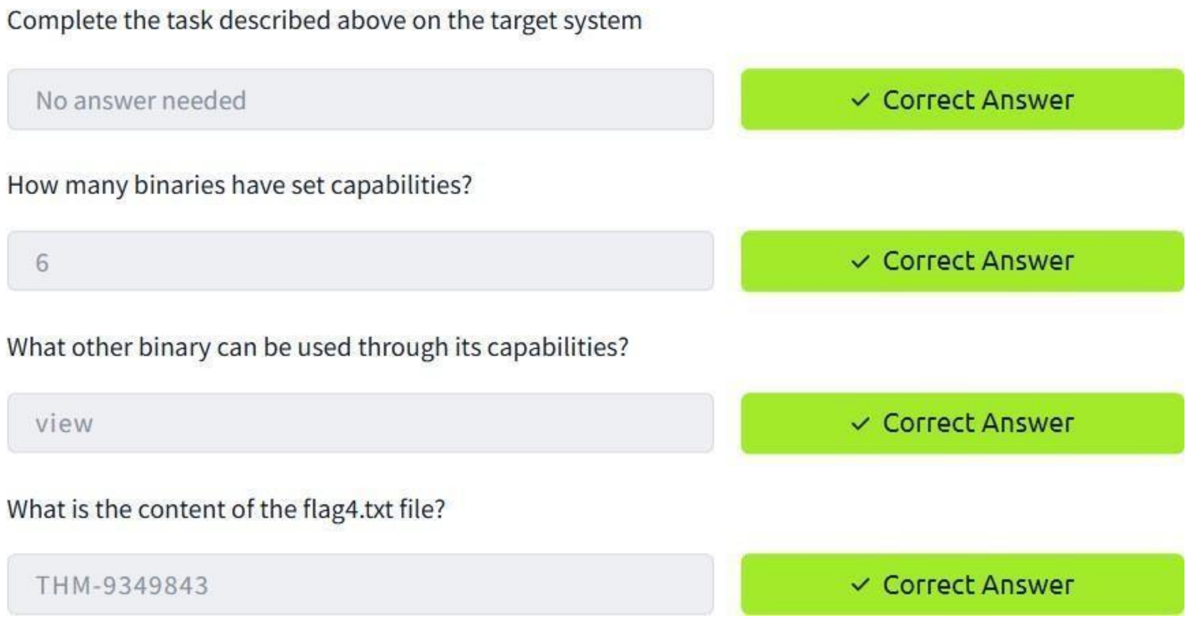
What is the password of user2?

Password1

What is the content of the flag3.txt file?

THM-3847834

TASK 8 : PRIVILEGE ESCALATION : CAPABILITIES



Complete the task described above on the target system

No answer needed

✓ Correct Answer

How many binaries have set capabilities?

6

✓ Correct Answer

What other binary can be used through its capabilities?

view

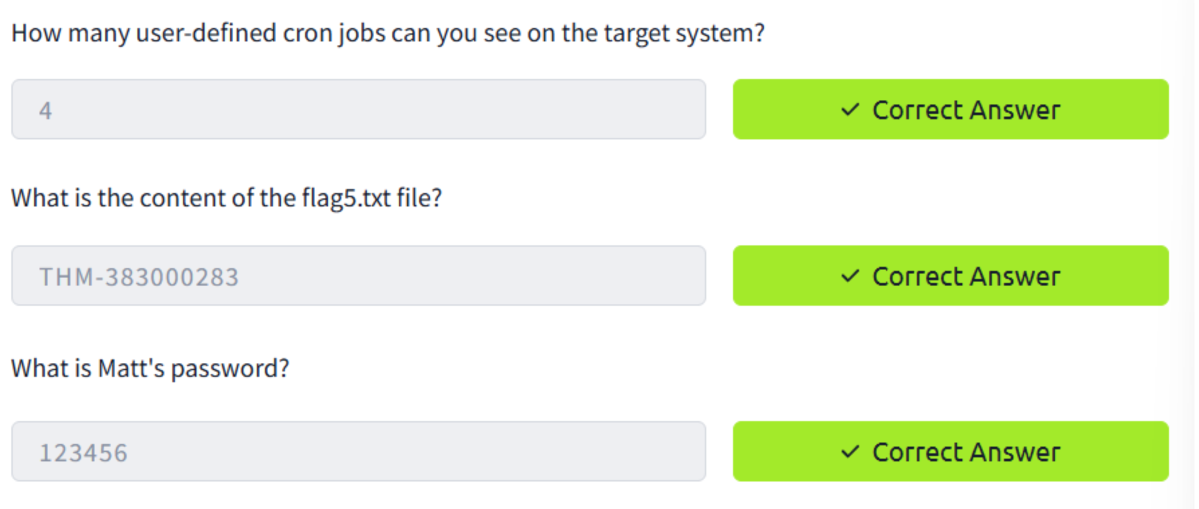
✓ Correct Answer

What is the content of the flag4.txt file?

THM-9349843

✓ Correct Answer

TASK 9 : PRIVILEGE ESCALATION : CRON JOBS



How many user-defined cron jobs can you see on the target system?

4

✓ Correct Answer

What is the content of the flag5.txt file?

THM-383000283

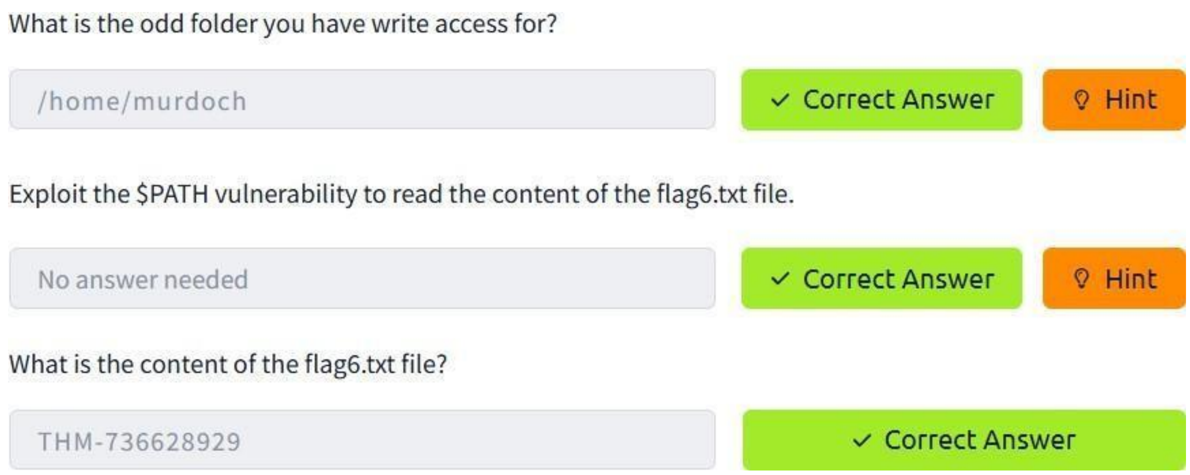
✓ Correct Answer

What is Matt's password?

123456

✓ Correct Answer

TASK 10 : PRIVILEGE ESCALATION : PATH



What is the odd folder you have write access for?

/home/murdoch

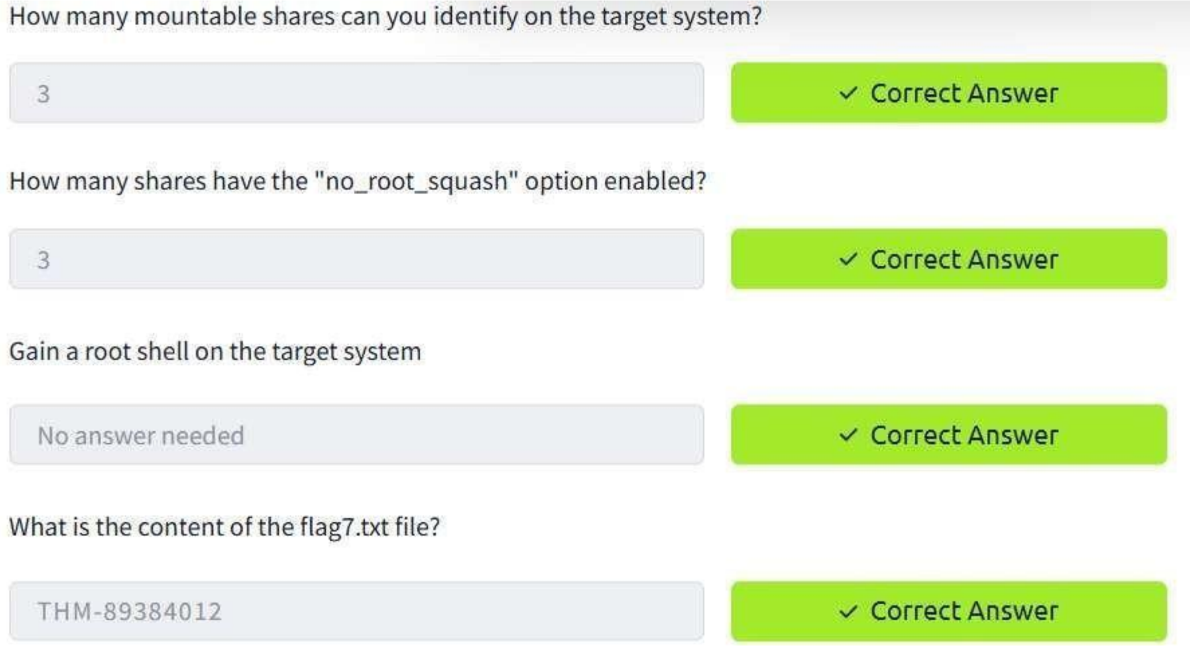
Exploit the $PATH vulnerability to read the content of the flag6.txt file.

No answer needed

What is the content of the flag6.txt file?

THM-736628929

TASK 11 : PRIVILEGE ESCALATION : NFS



How many mountable shares can you identify on the target system?

3

How many shares have the "no_root_squash" option enabled?

3

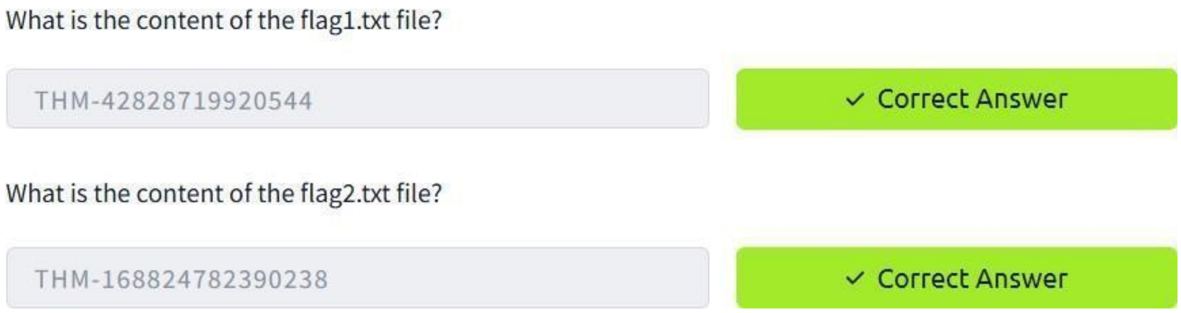
Gain a root shell on the target system

No answer needed

What is the content of the flag7.txt file?

THM-89384012

TASK 12 : CAPSTONE CHALLENGE



What is the content of the flag1.txt file?

THM-42828719920544

What is the content of the flag2.txt file?

THM-168824782390238

Result:

Tryhackme platform demonstrate linux privilege escalation task is successfully executed.