

## STEP 1

Il comando 'top' visualizza i processi in esecuzione sulla macchina. Le colonne significano:

```
kali@kali: ~  
File Actions Edit View Help  
top - 05:52:01 up 17 min, 1 user, load average: 0.03, 0.15, 0.14  
Tasks: 143 total, 1 running, 142 sleeping, 0 stopped, 0 zombie  
%Cpu(s): 0.7 us, 0.3 sy, 0.0 ni, 99.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0  
MiB Mem : 1919.3 total, 872.2 free, 711.3 used, 491.7 buff/cache  
MiB Swap: 1024.0 total, 1024.0 free, 0.0 used. 1208.0 avail Mem  


| PID  | USER | PR  | NI  | VIRT   | RES    | SHR   | S | %CPU | %MEM | TIME+   |
|------|------|-----|-----|--------|--------|-------|---|------|------|---------|
| 635  | root | 20  | 0   | 396608 | 109772 | 61656 | S | 0.3  | 5.6  | 0:13.26 |
| 1185 | kali | 20  | 0   | 474848 | 47788  | 35144 | S | 0.3  | 2.4  | 0:00.80 |
| 1204 | kali | 20  | 0   | 274508 | 25864  | 19456 | S | 0.3  | 1.3  | 0:01.76 |
| 4707 | kali | 20  | 0   | 11692  | 5376   | 3328  | R | 0.3  | 0.3  | 0:00.05 |
| 1    | root | 20  | 0   | 20836  | 12616  | 9416  | S | 0.0  | 0.6  | 0:01.48 |
| 2    | root | 20  | 0   | 0      | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 |
| 3    | root | 0   | -20 | 0      | 0      | 0     | I | 0.0  | 0.0  | 0:00.00 |
| 4    | root | 0   | -20 | 0      | 0      | 0     | I | 0.0  | 0.0  | 0:00.00 |
| 5    | root | 0   | -20 | 0      | 0      | 0     | I | 0.0  | 0.0  | 0:00.00 |
| 6    | root | 0   | -20 | 0      | 0      | 0     | I | 0.0  | 0.0  | 0:00.00 |
| 10   | root | 0   | -20 | 0      | 0      | 0     | I | 0.0  | 0.0  | 0:00.00 |
| 11   | root | 20  | 0   | 0      | 0      | 0     | I | 0.0  | 0.0  | 0:00.00 |
| 12   | root | 20  | 0   | 0      | 0      | 0     | I | 0.0  | 0.0  | 0:00.00 |
| 13   | root | 20  | 0   | 0      | 0      | 0     | I | 0.0  | 0.0  | 0:00.00 |
| 14   | root | 20  | 0   | 0      | 0      | 0     | S | 0.0  | 0.0  | 0:00.22 |
| 15   | root | 20  | 0   | 0      | 0      | 0     | I | 0.0  | 0.0  | 0:00.34 |
| 16   | root | rt  | 0   | 0      | 0      | 0     | S | 0.0  | 0.0  | 0:00.01 |
| 17   | root | -51 | 0   | 0      | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 |
| 19   | root | 20  | 0   | 0      | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 |
| 21   | root | 20  | 0   | 0      | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 |


```

- **PID (Process ID):** L'identificativo univoco del processo.
- **USER:** Il nome dell'utente che ha avviato il processo.
- **COMMAND:** Il comando o programma che ha generato il processo.

## STEP 2 E 3

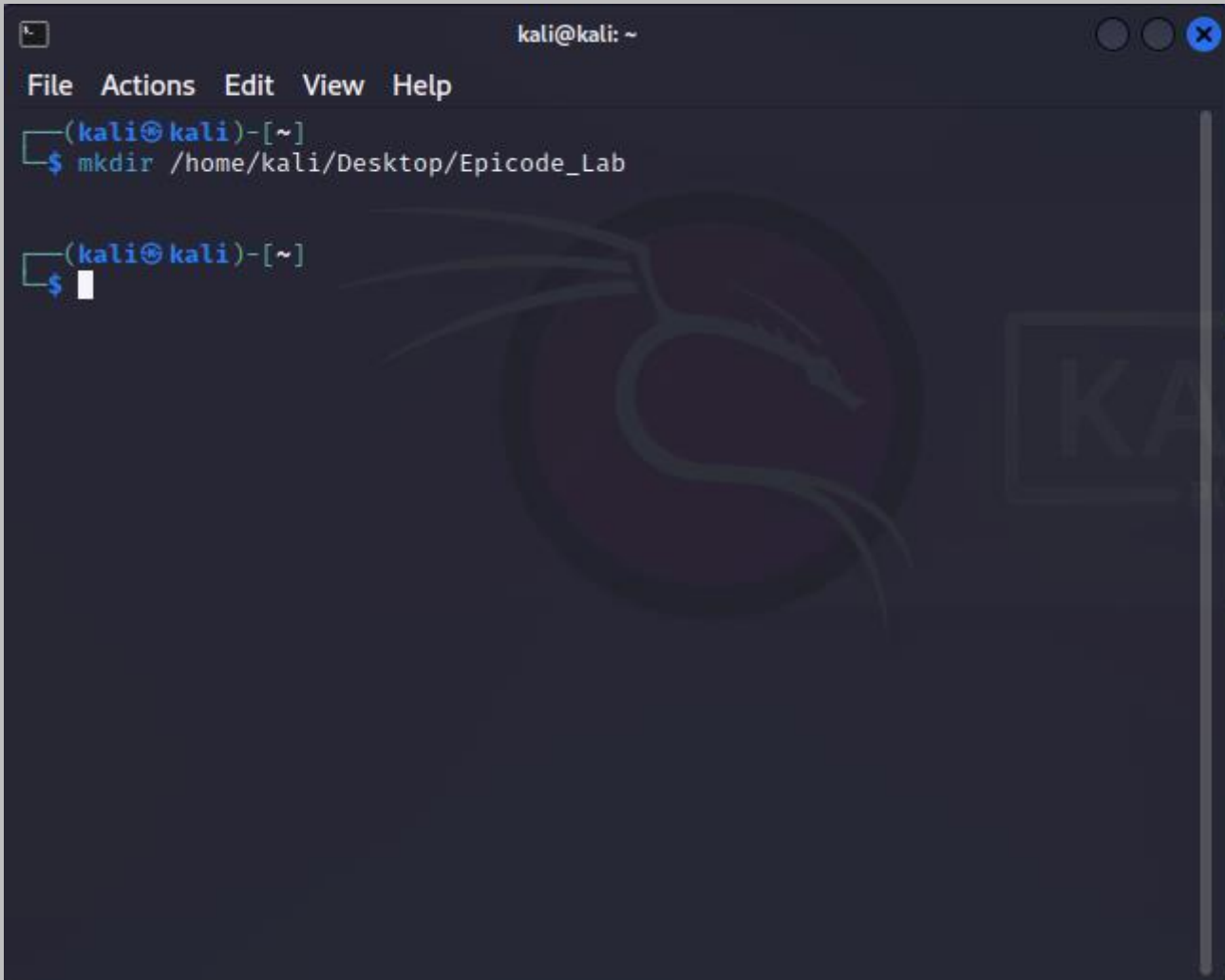
```
kali@kali: ~  
File Actions Edit View Help  
(kali@kali)-[~]  
$ top | grep root  
1 root      20   0   20836 12616   9416 S   0.0   0.6   0:01.50 system  
2 root      20   0     0     0     0 S   0.0   0.0   0:00.00 kthrea  
3 root      0 -20     0     0     0 I   0.0   0.0   0:00.00 rcu_gp  
4 root      0 -20     0     0     0 I   0.0   0.0   0:00.00 rcu_pa  
top - 06:06:40 up 32 min, 1 user, load average: 0.00, 0.01, 0.05  
635 root     20   0  397808 110932 61664 S   0.7   5.6   0:23.44 Xorg  
15 root     20   0     0     0     0 I   0.3   0.0   0:00.58 rcu_pr  
1 root      20   0   20836 12616   9416 S   0.0   0.6   0:01.50 system  
2 root      20   0     0     0     0 S   0.0   0.0   0:00.00 kthrea  
3 root      0 -20     0     0     0 I   0.0   0.0   0:00.00 rcu_gp  
4 root      0 -20     0     0     0 I   0.0   0.0   0:00.00 rcu_pa  
5 root      0 -20     0     0     0 I   0.0   0.0   0:00.00 slub_f  
6 root      0 -20     0     0     0 I   0.0   0.0   0:00.00 netns  
10 root     0 -20     0     0     0 I   0.0   0.0   0:00.00 mm_per
```

```
kali@kali: ~  
File Actions Edit View Help  
(kali@kali)-[~]  
$ top | grep kali  
1082 kali    20   0  217452  3328   2816 S   6.2   0.2   0:00.83 VBoxCl  
12373 kali   20   0   11688  5376   3328 R   6.2   0.3   0:00.01 top  
12296 kali   20   0  445272 102224 83504 S   0.7   5.2   0:00.27 qtermi  
12373 kali   20   0   11688  5376   3328 R   0.7   0.3   0:00.03 top  
1137 kali    20   0  723816 98352  77636 S   0.3   5.0   0:05.72 xfwm4  
1204 kali    20   0  431220  33824  22936 S   0.3   1.7   0:04.06 panel-  
1206 kali    20   0  431872  30092  20724 S   0.3   1.5   0:03.20 panel-  
1196 kali    20   0  613984 97340  45316 S   1.3   5.0   0:05.69 xfdesk  
1137 kali    20   0  723816 98352  77636 S   0.3   5.0   0:05.73 xfwm4  
1168 kali    20   0  217556  3456   2944 S   0.3   0.2   0:00.25 VBoxCl  
1185 kali    20   0  474848  47788  35144 S   0.3   2.4   0:01.43 xfce4-  
1204 kali    20   0  431220  33824  22936 S   0.3   1.7   0:04.07 panel-  
1206 kali    20   0  431872  30092  20724 S   0.3   1.5   0:03.21 panel-
```

- Filtrare i risultati per mostrare solo i processi in esecuzione per l'utente 'root'
- Filtrare i risultati per mostrare solo i processi in esecuzione per l'utente 'kali'

## STEP 4

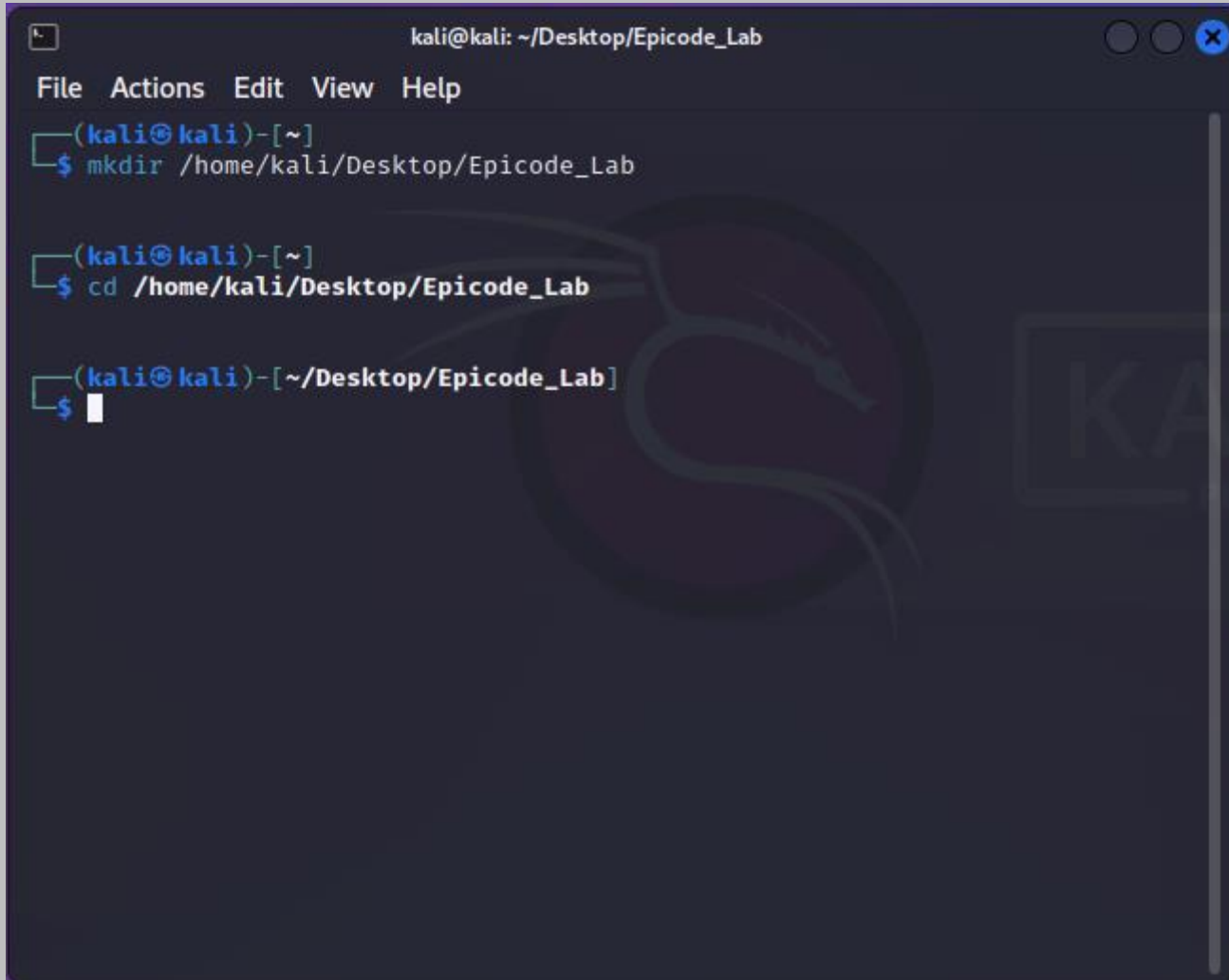
*Creare una nuova directory chiamata "Epicode\_Lab" nella directory /home/kali/Desktop:*

A terminal window titled 'kali@kali: ~' with a menu bar (File, Actions, Edit, View, Help) and window control buttons. The terminal shows the command 'mkdir /home/kali/Desktop/Epicode\_Lab' being executed. The prompt '(kali@kali)-[~]' is visible twice, indicating the command was entered and the prompt returned. A faint Kali Linux dragon logo is visible in the background.

```
kali@kali: ~  
File Actions Edit View Help  
(kali@kali)-[~]  
$ mkdir /home/kali/Desktop/Epicode_Lab  
  
(kali@kali)-[~]  
$
```

## STEP 5

*Spostarsi nella directory appena creata:*

A terminal window titled 'kali@kali: ~/Desktop/Epicode\_Lab' with standard window controls. It contains three lines of terminal output: the first shows the creation of the directory, the second shows the change of directory, and the third shows the current directory path with a cursor. A faint Kali Linux logo is visible in the background.

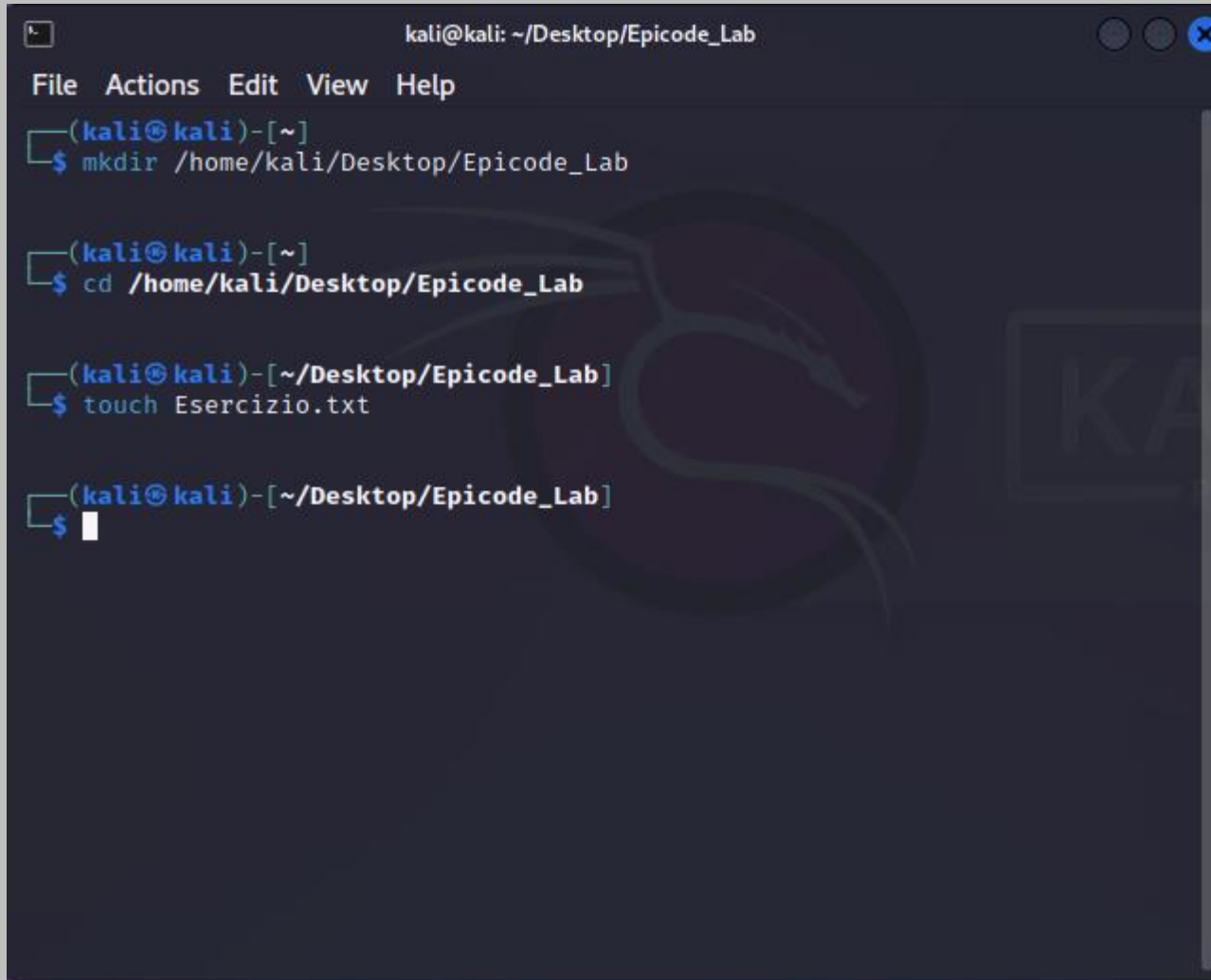
```
kali@kali: ~/Desktop/Epicode_Lab
File Actions Edit View Help
(kali@kali)-[~]
$ mkdir /home/kali/Desktop/Epicode_Lab

(kali@kali)-[~]
$ cd /home/kali/Desktop/Epicode_Lab

(kali@kali)-[~/Desktop/Epicode_Lab]
$
```

## STEP 6

*Creare il file "Esercizio.txt":*

A terminal window titled 'kali@kali: ~/Desktop/Epicode\_Lab' with standard window controls. The terminal shows a sequence of commands: 'mkdir /home/kali/Desktop/Epicode\_Lab', 'cd /home/kali/Desktop/Epicode\_Lab', and 'touch Esercizio.txt'. The prompt is currently at the directory ~/Desktop/Epicode\_Lab.

```
kali@kali: ~/Desktop/Epicode_Lab
File Actions Edit View Help
(kali@kali)-[~]
$ mkdir /home/kali/Desktop/Epicode_Lab

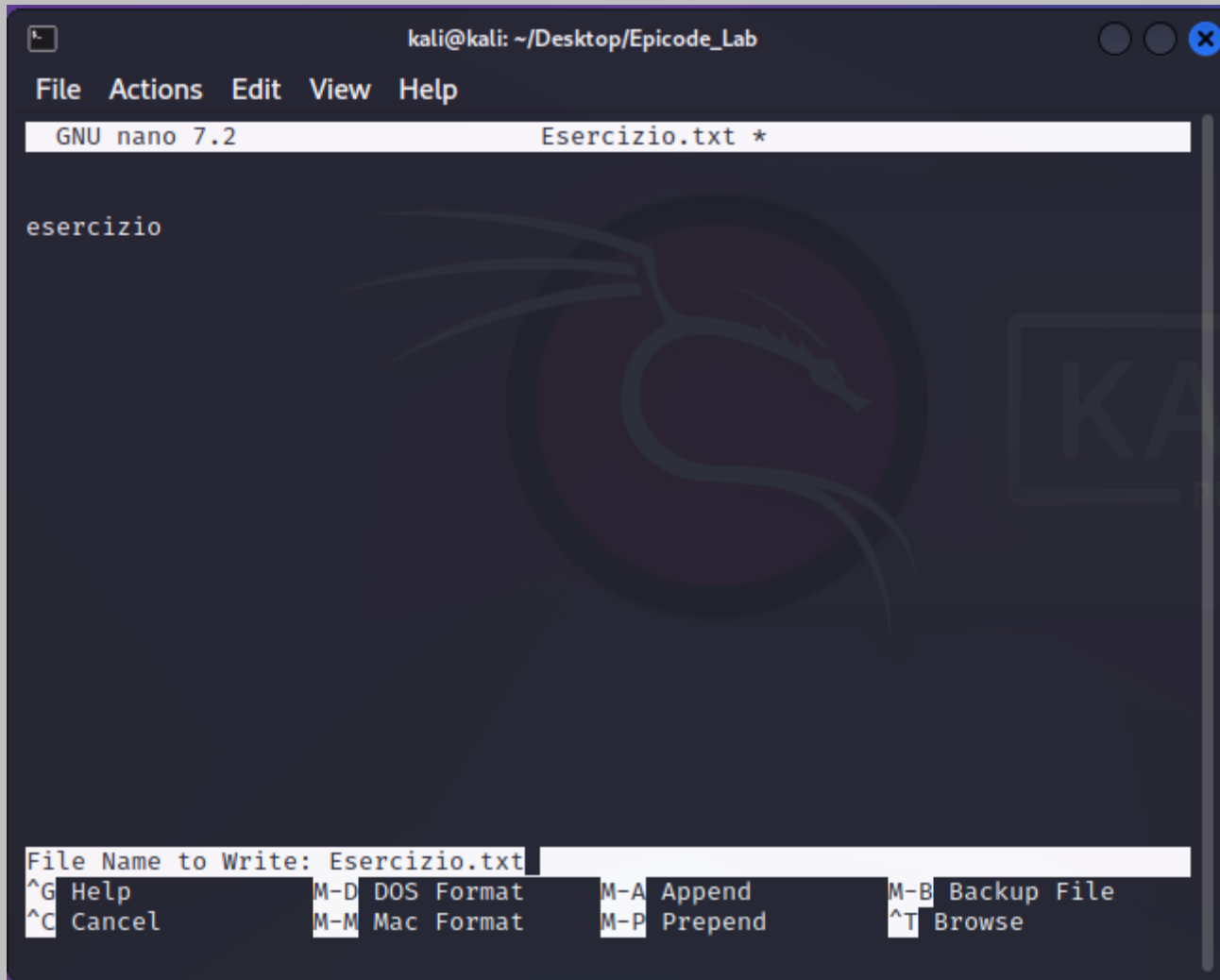
(kali@kali)-[~]
$ cd /home/kali/Desktop/Epicode_Lab

(kali@kali)-[~/Desktop/Epicode_Lab]
$ touch Esercizio.txt

(kali@kali)-[~/Desktop/Epicode_Lab]
$
```

## STEP 7

*Modificare il file con l'editor di testo "nano" e salvarlo:*



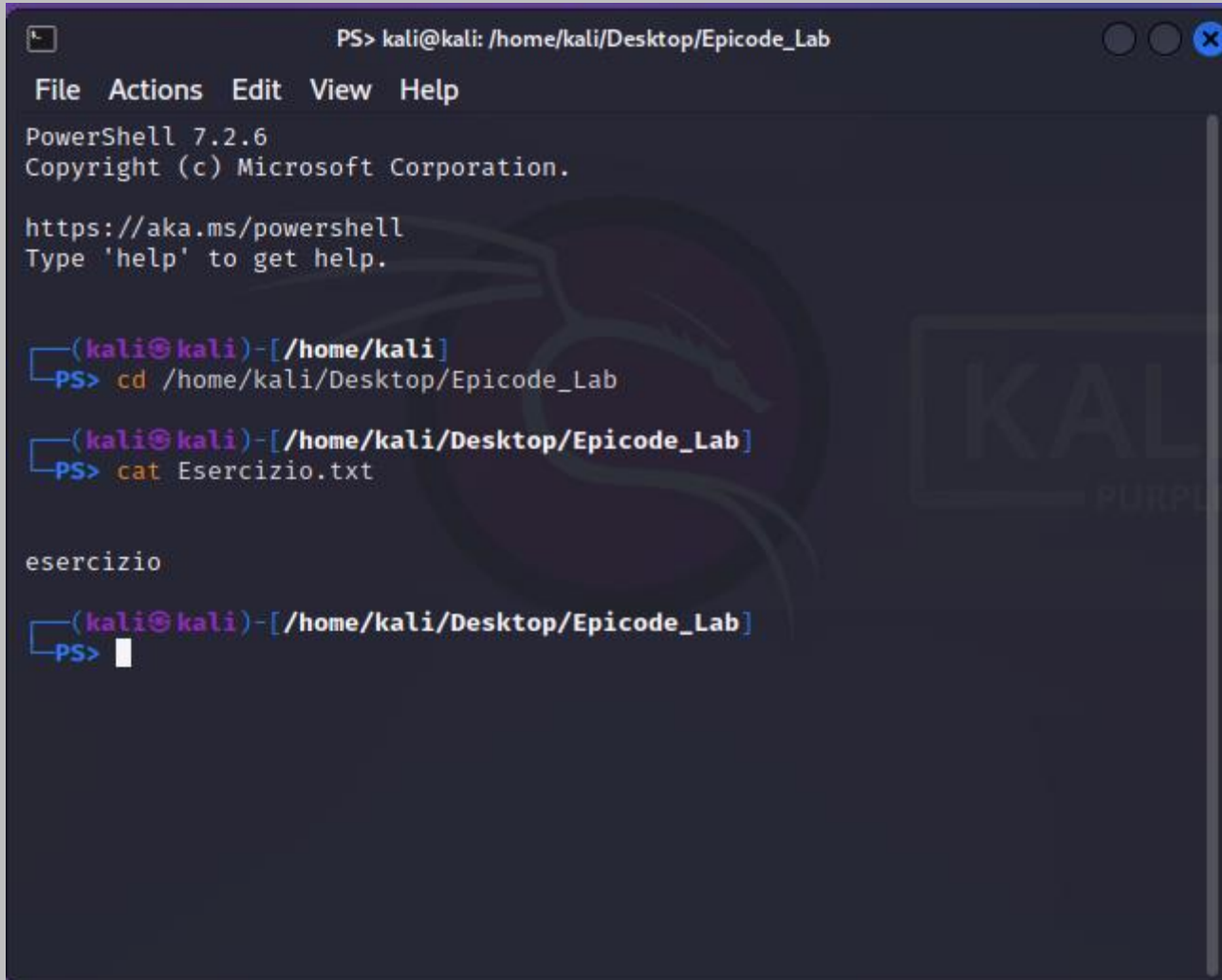
```
kali@kali: ~/Desktop/Epicode_Lab
File Actions Edit View Help
GNU nano 7.2 Esercizio.txt *
esercizio

File Name to Write: Esercizio.txt
^G Help      M-D DOS Format  M-A Append     M-B Backup File
^C Cancel    M-M Mac Format  M-P Prepend    ^T Browse
```

*Per salvare il file utilizzate la  
sequenza «ctrl+x» e  
successivamente «y»*

## STEP 8

Utilizzare il comando "cat" per leggere a schermo il file "Esercizio.txt" appena modificato:



```
PS> kali@kali: /home/kali/Desktop/Epicode_Lab

File Actions Edit View Help
PowerShell 7.2.6
Copyright (c) Microsoft Corporation.

https://aka.ms/powershell
Type 'help' to get help.

(kali@kali)-[/home/kali]
PS> cd /home/kali/Desktop/Epicode_Lab

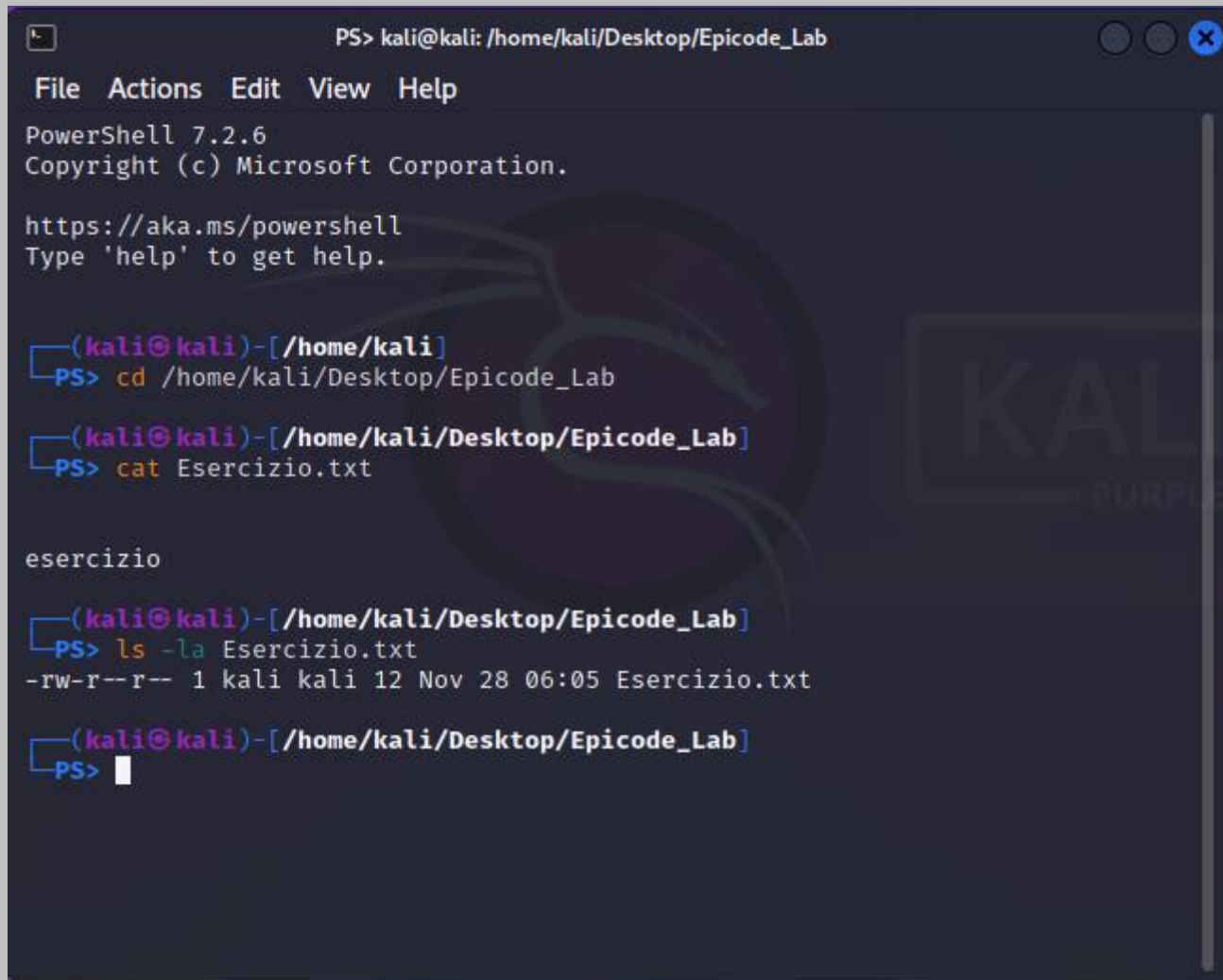
(kali@kali)-[/home/kali/Desktop/Epicode_Lab]
PS> cat Esercizio.txt

esercizio

(kali@kali)-[/home/kali/Desktop/Epicode_Lab]
PS> 
```

## STEP 9

*Controllare i permessi del file con il comando 'ls -la':*



```
PS> kali@kali: /home/kali/Desktop/Epicode_Lab

File Actions Edit View Help

PowerShell 7.2.6
Copyright (c) Microsoft Corporation.

https://aka.ms/powershell
Type 'help' to get help.

(kali@kali)-[/home/kali]
PS> cd /home/kali/Desktop/Epicode_Lab

(kali@kali)-[/home/kali/Desktop/Epicode_Lab]
PS> cat Esercizio.txt

esercizio

(kali@kali)-[/home/kali/Desktop/Epicode_Lab]
PS> ls -la Esercizio.txt
-rw-r--r-- 1 kali kali 12 Nov 28 06:05 Esercizio.txt

(kali@kali)-[/home/kali/Desktop/Epicode_Lab]
PS>
```



## STEP 10

*Modificare i privilegi del file in modo che l'utente corrente abbia tutti i privilegi (r,w,x), il gruppo (r,w), gli altri utenti solo lettura (r):*

```
PS> kali@kali: /home/kali/Desktop/Epicode_Lab

File Actions Edit View Help

PowerShell 7.2.6
Copyright (c) Microsoft Corporation.

https://aka.ms/powershell
Type 'help' to get help.

(kali@kali)-[/home/kali]
PS> cd /home/kali/Desktop/Epicode_Lab/

(kali@kali)-[/home/kali/Desktop/Epicode_Lab]
PS> cat Esercizio.txt

esercizio

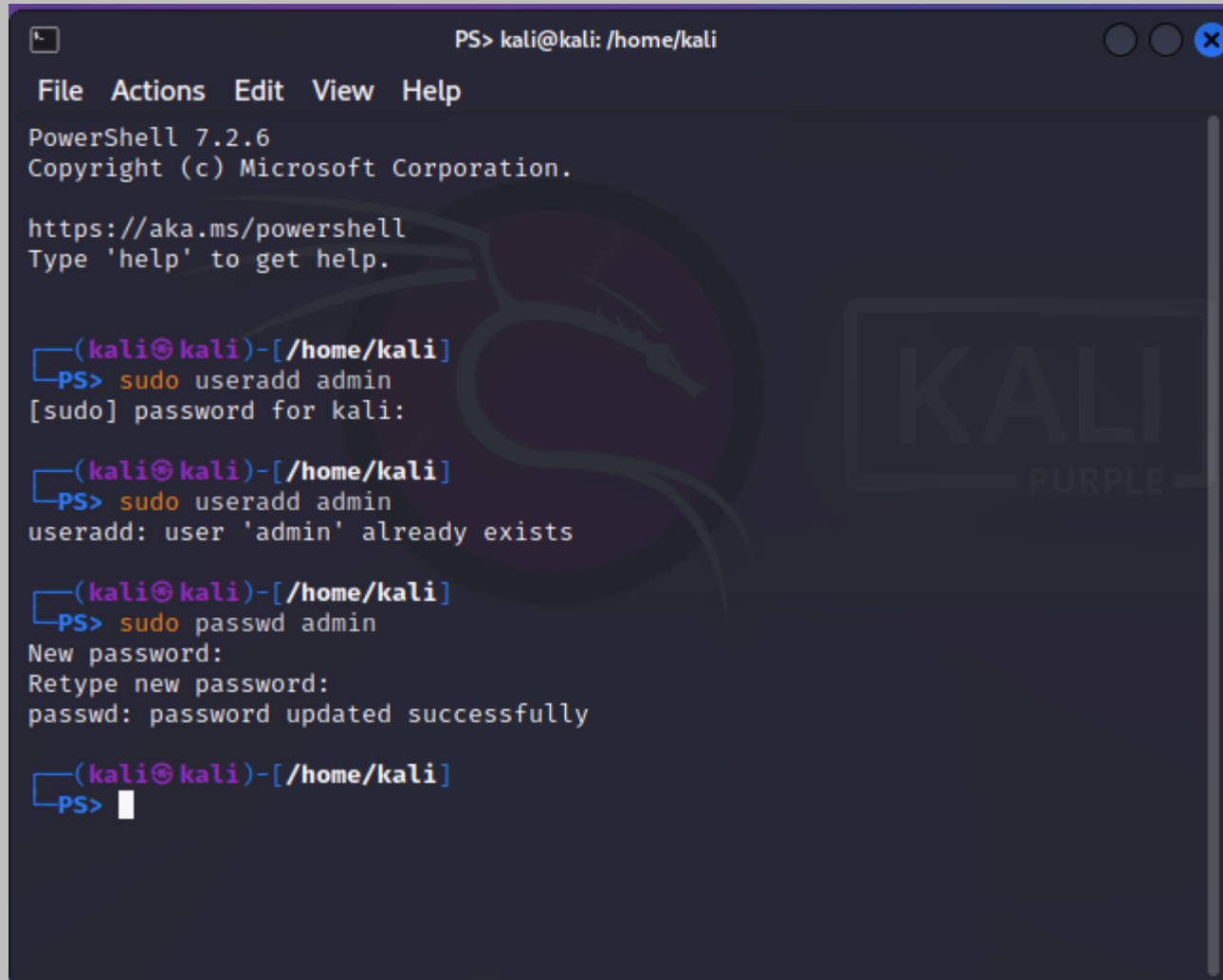
(kali@kali)-[/home/kali/Desktop/Epicode_Lab]
PS> ls -la Esercizio.txt
-rwxrw-r-- 1 kali kali 12 Nov 28 06:05 Esercizio.txt

(kali@kali)-[/home/kali/Desktop/Epicode_Lab]
PS> chmod u=rwx,g=rw,o=r Esercizio.txt

(kali@kali)-[/home/kali/Desktop/Epicode_Lab]
PS> 
```

## STEP 11

*Creare un nuovo utente e assegnare una password:*



The screenshot shows a terminal window titled "PS> kali@kali: /home/kali". The window has a menu bar with "File", "Actions", "Edit", "View", and "Help". The terminal content is as follows:

```
PowerShell 7.2.6
Copyright (c) Microsoft Corporation.

https://aka.ms/powershell
Type 'help' to get help.

(kali@kali)-[/home/kali]
PS> sudo useradd admin
[sudo] password for kali:

(kali@kali)-[/home/kali]
PS> sudo useradd admin
useradd: user 'admin' already exists

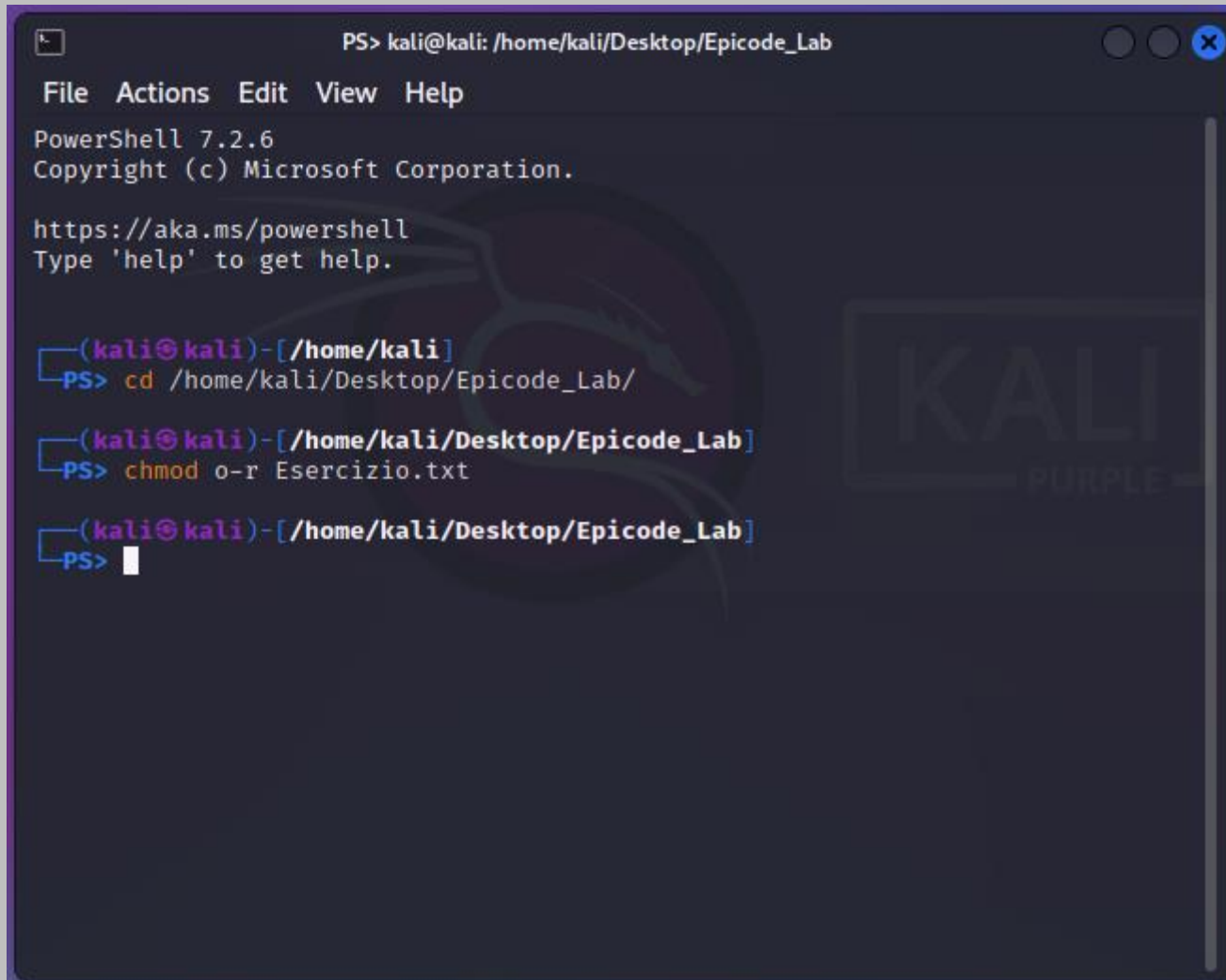
(kali@kali)-[/home/kali]
PS> sudo passwd admin
New password:
Retype new password:
passwd: password updated successfully

(kali@kali)-[/home/kali]
PS> 
```

The terminal background features a large, faint Kali Linux logo and the text "KALI PURPLE".

## STEP 12

*Con l'utente corrente, cambiare i privilegi del file "Esercizio.txt" in modo che "altri utenti" non possano leggerlo:*



```
PS> kali@kali: /home/kali/Desktop/Epicode_Lab

File Actions Edit View Help
PowerShell 7.2.6
Copyright (c) Microsoft Corporation.

https://aka.ms/powershell
Type 'help' to get help.

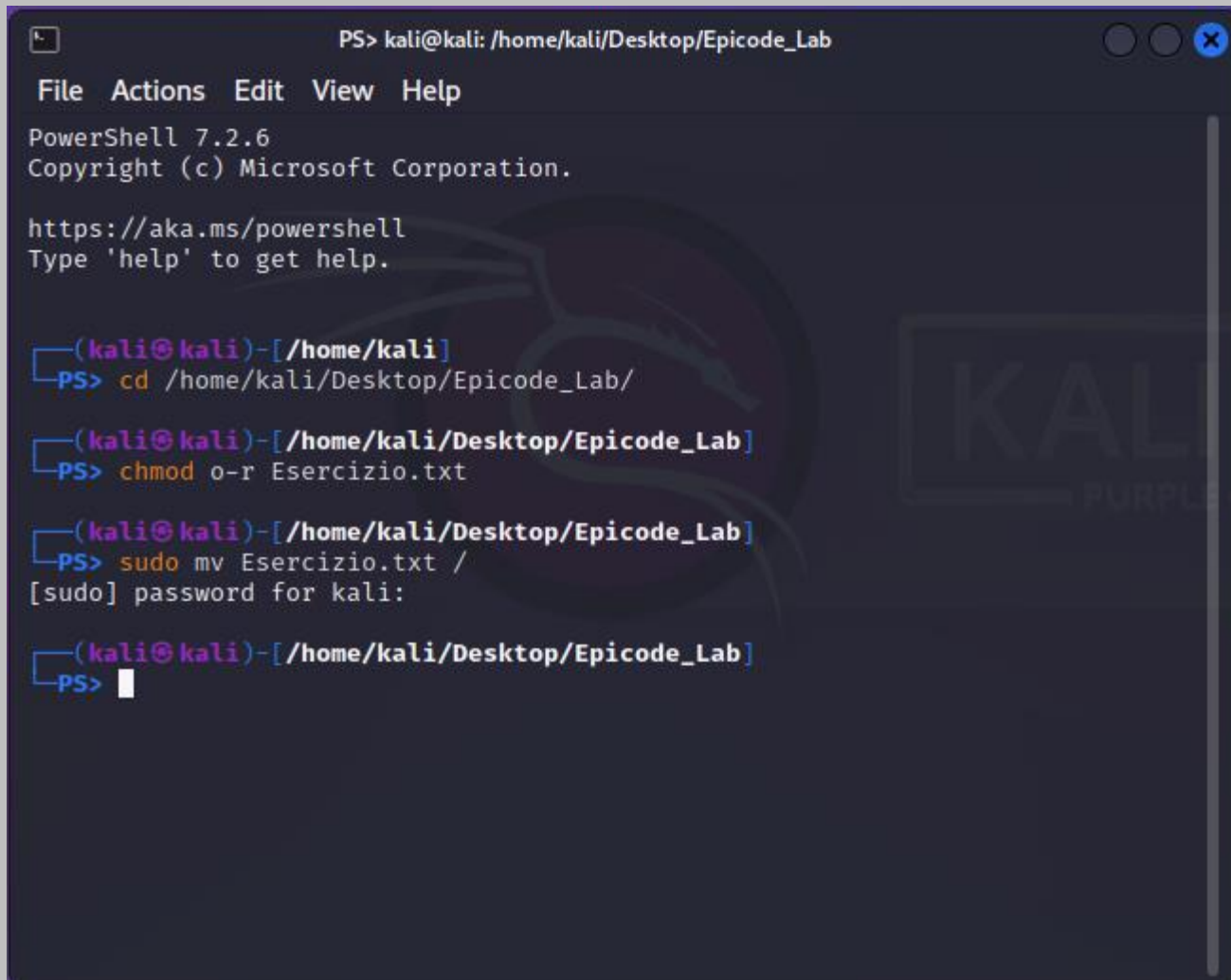
(kali@kali)-[/home/kali]
PS> cd /home/kali/Desktop/Epicode_Lab/

(kali@kali)-[/home/kali/Desktop/Epicode_Lab]
PS> chmod o-r Esercizio.txt

(kali@kali)-[/home/kali/Desktop/Epicode_Lab]
PS> 
```

## STEP 13

*Spostare il file nella directory di root (/):*



```
PS> kali@kali: /home/kali/Desktop/Epicode_Lab

File Actions Edit View Help

PowerShell 7.2.6
Copyright (c) Microsoft Corporation.

https://aka.ms/powershell
Type 'help' to get help.

(kali@kali)-[/home/kali]
PS> cd /home/kali/Desktop/Epicode_Lab/

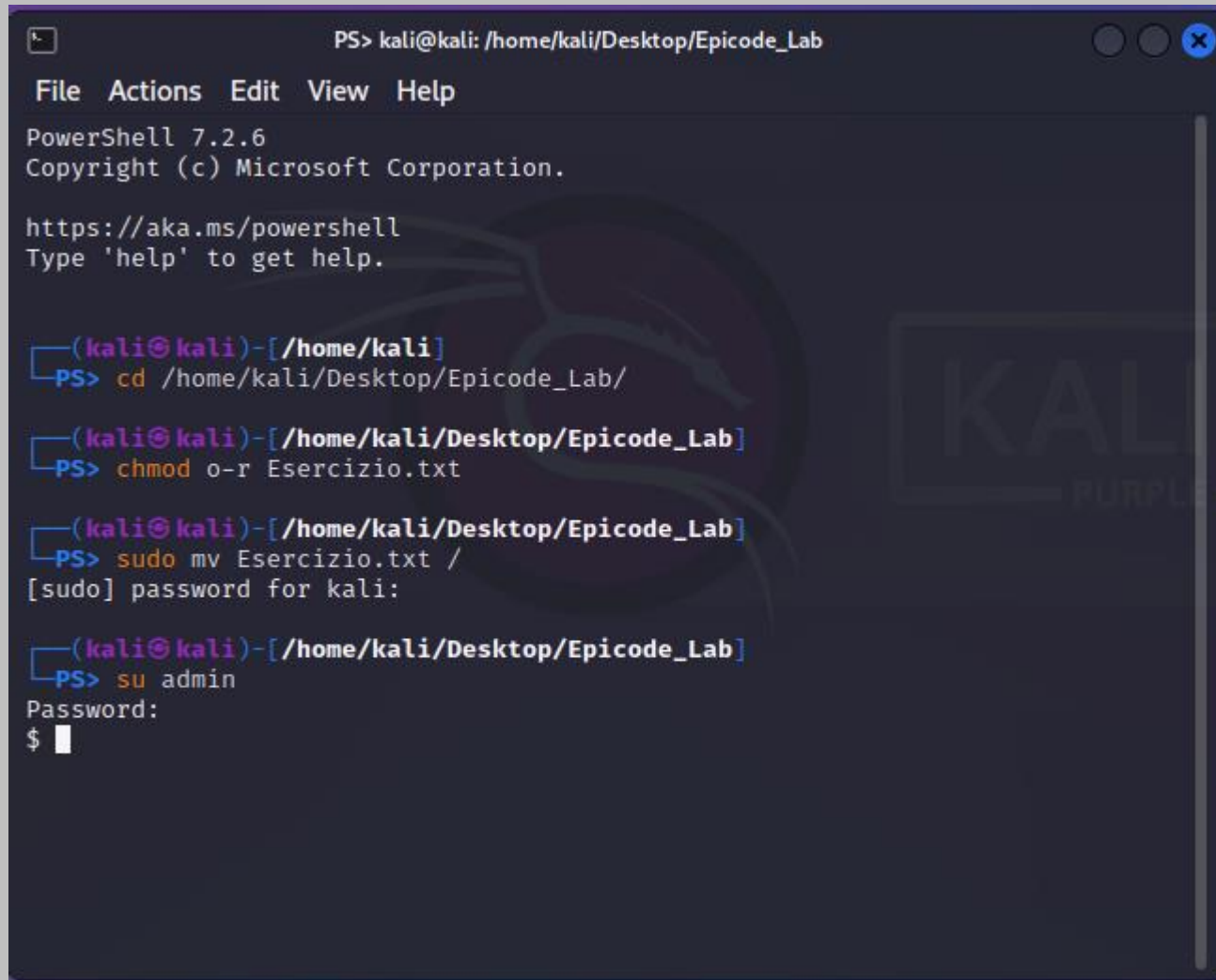
(kali@kali)-[/home/kali/Desktop/Epicode_Lab]
PS> chmod o-r Esercizio.txt

(kali@kali)-[/home/kali/Desktop/Epicode_Lab]
PS> sudo mv Esercizio.txt /
[sudo] password for kali:

(kali@kali)-[/home/kali/Desktop/Epicode_Lab]
PS> 
```

## STEP 14

*Cambiate utente con il comando "su" seguito dal nome dell'utente che volete utilizzare:*



```
PS> kali@kali: /home/kali/Desktop/Epicode_Lab

File Actions Edit View Help

PowerShell 7.2.6
Copyright (c) Microsoft Corporation.

https://aka.ms/powershell
Type 'help' to get help.

(kali@kali)-[/home/kali]
PS> cd /home/kali/Desktop/Epicode_Lab/

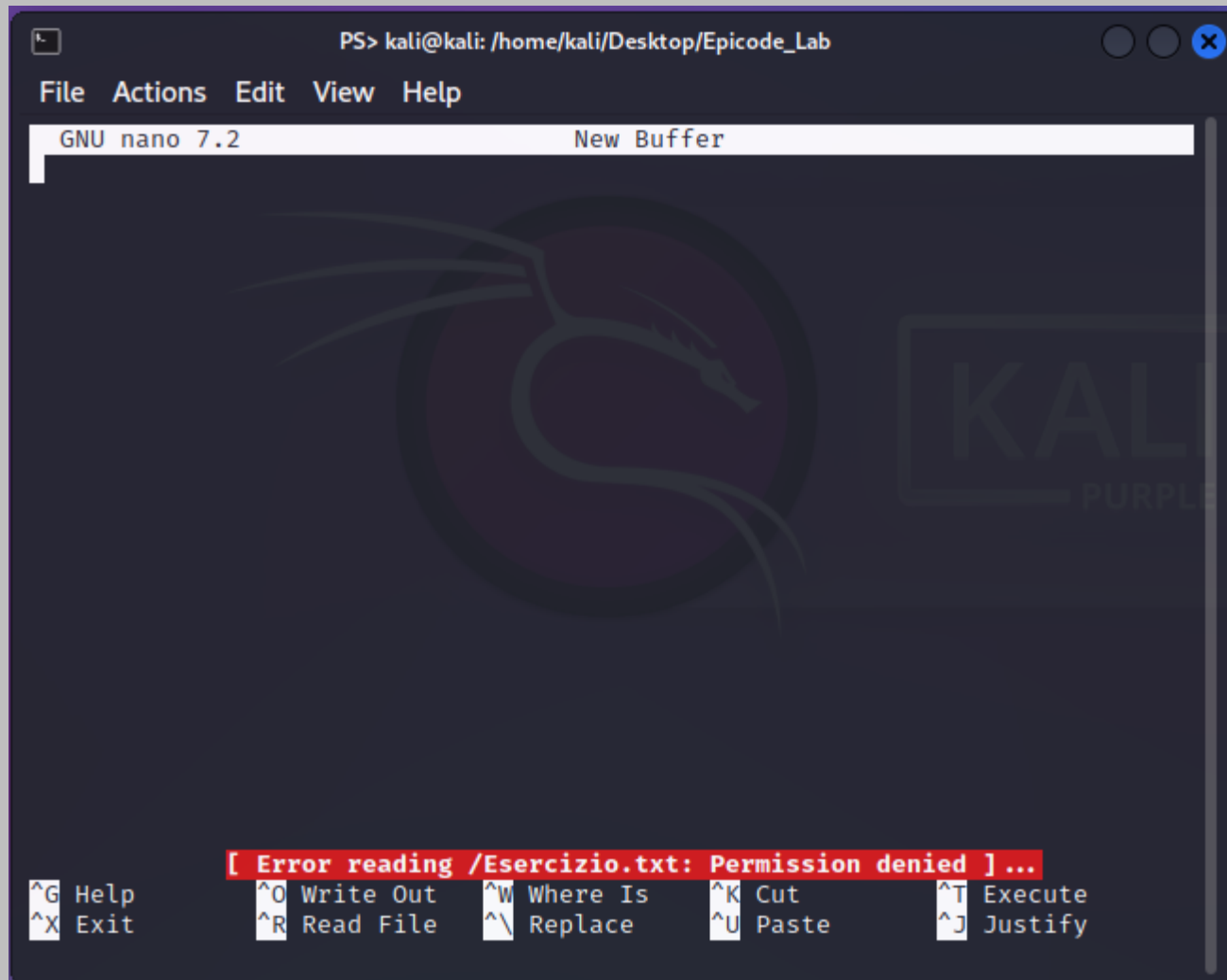
(kali@kali)-[/home/kali/Desktop/Epicode_Lab]
PS> chmod o-r Esercizio.txt

(kali@kali)-[/home/kali/Desktop/Epicode_Lab]
PS> sudo mv Esercizio.txt /
[sudo] password for kali:

(kali@kali)-[/home/kali/Desktop/Epicode_Lab]
PS> su admin
Password:
$
```

## STEP 15

*Provare ad aprire in lettura il file "Esercizio.txt" con il comando "nano", e osservare l'errore ricevuto:*

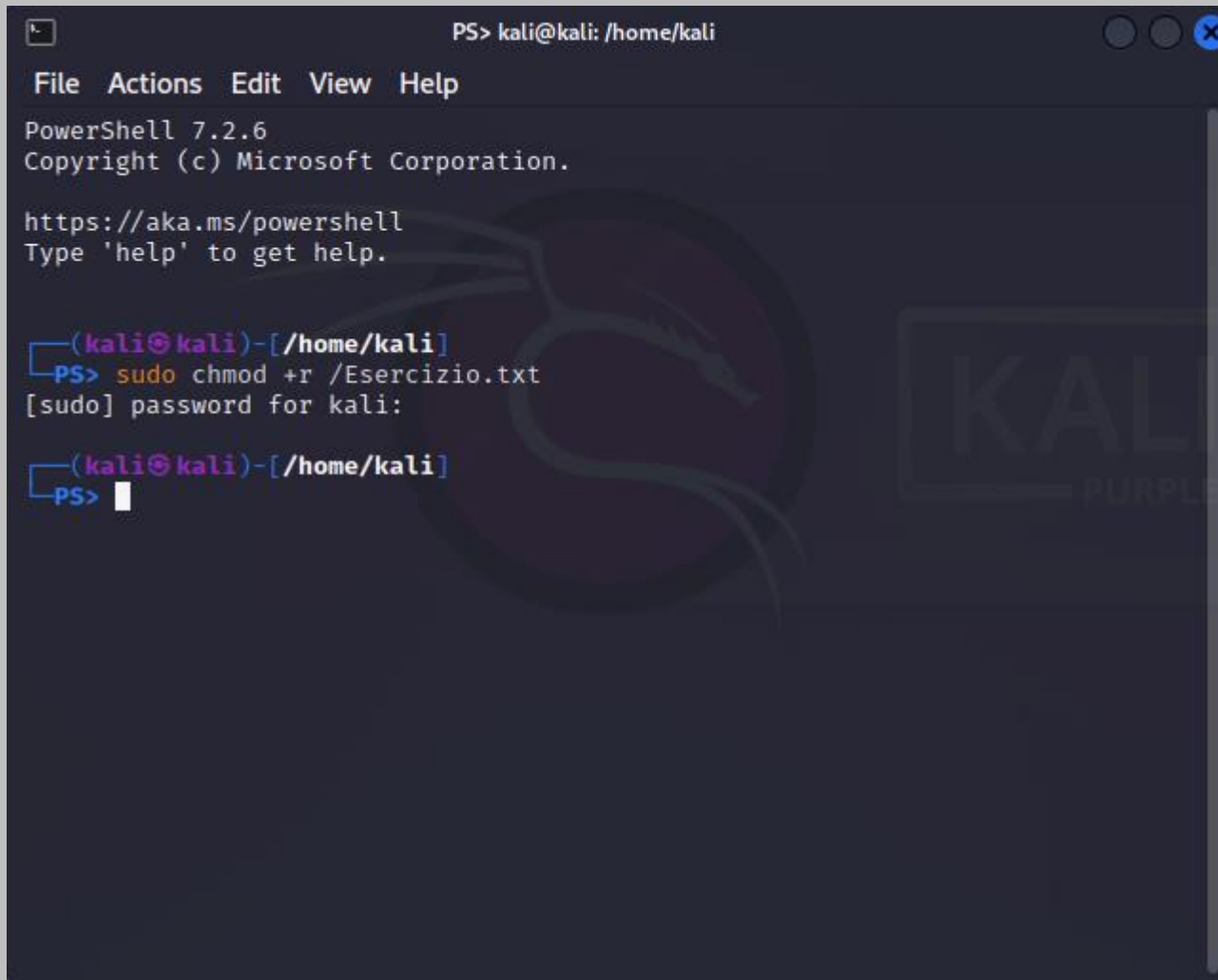


```
PS> kali@kali: /home/kali/Desktop/Epicode_Lab
File Actions Edit View Help
GNU nano 7.2 New Buffer

[ Error reading /Esercizio.txt: Permission denied ] ...
^G Help      ^O Write Out ^W Where Is  ^K Cut      ^T Execute
^X Exit      ^R Read File ^\ Replace   ^U Paste     ^J Justify
```

## STEP 16

*Modificare i permessi del file in modo che il nuovo utente possa leggerlo e ripetere gli ultimi 2 passaggi:*



```
PS> kali@kali: /home/kali

File Actions Edit View Help

PowerShell 7.2.6
Copyright (c) Microsoft Corporation.

https://aka.ms/powershell
Type 'help' to get help.

(kali@kali)-[/home/kali]
PS> sudo chmod +r /Esercizio.txt
[sudo] password for kali:

(kali@kali)-[/home/kali]
PS> 
```

## STEP FINALE

*Rimuovere il file, la cartella e l'utente creati, riportando lo scenario allo stato iniziale:*

```
PS> kali@kali: /home/kali

File Actions Edit View Help

PowerShell 7.2.6
Copyright (c) Microsoft Corporation.

https://aka.ms/powershell
Type 'help' to get help.

(kali@kali)-[/home/kali]
PS> sudo rmdir /home/kali/Desktop/Epicode_Lab/
[sudo] password for kali:

(kali@kali)-[/home/kali]
PS> 
```

```
PS> kali@kali: /home/kali

File Actions Edit View Help

PowerShell 7.2.6
Copyright (c) Microsoft Corporation.

https://aka.ms/powershell
Type 'help' to get help.

(kali@kali)-[/home/kali]
PS> sudo rm /Esercizio.txt
[sudo] password for kali:

(kali@kali)-[/home/kali]
PS> sudo rmdir /home/admin
rmdir: failed to remove '/home/admin': No such file or directory

(kali@kali)-[/home/kali]
PS> sudo userdel admin

(kali@kali)-[/home/kali]
PS> 
```