

Esercizio S2-L2

COMANDI SHELL LINUX

Da terminale lancio il comando 'top', che mi mostra tutti i processi in corso; vado a filtrarlo poi comando "top | grep "root"

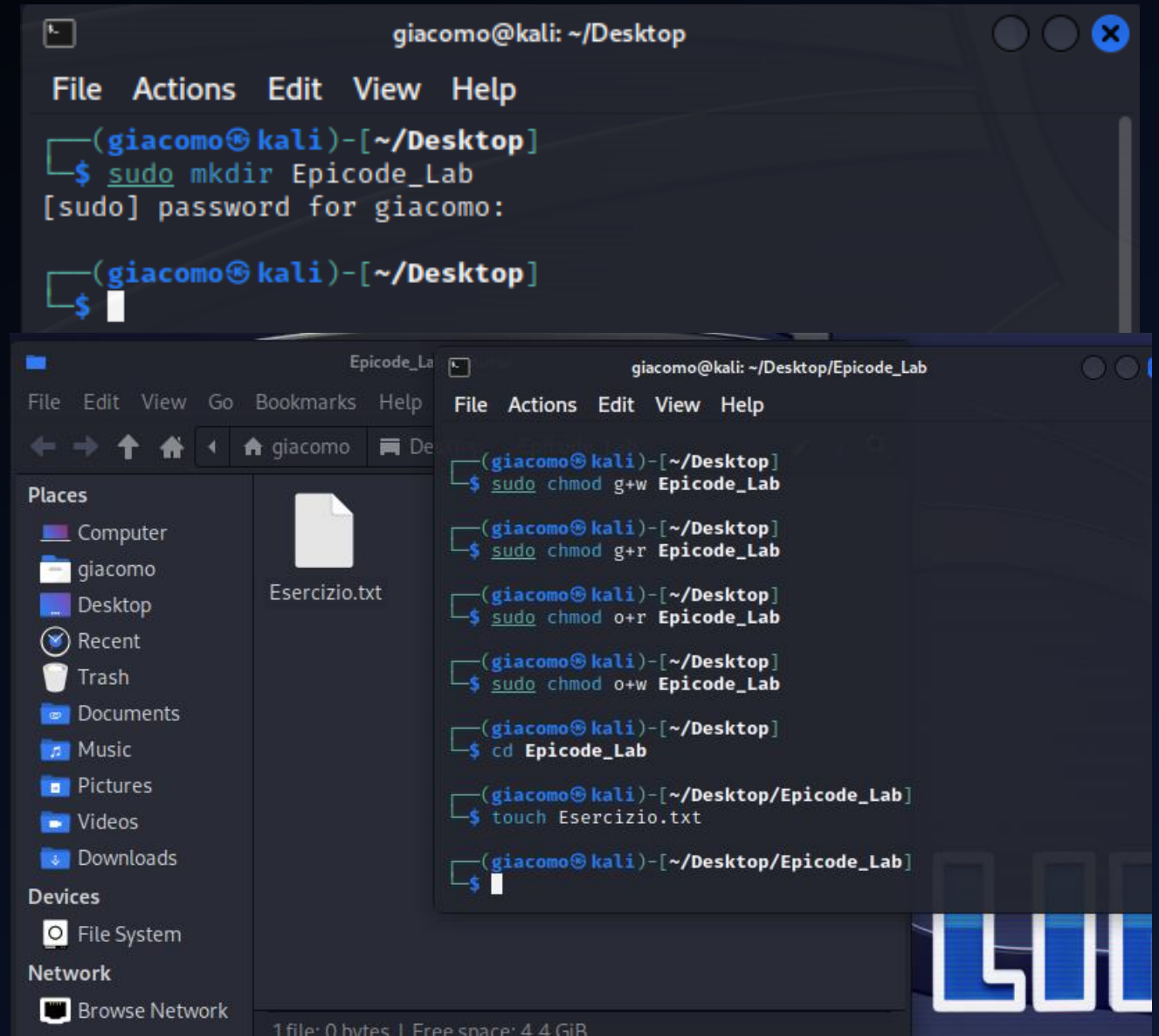
```
giacomo@kali: ~  
File Actions Edit View Help  
MiB Mem : 1967.3 total, 677.6 free, 808.9 used, 668.5 buff/cache  
MiB Swap: 975.0 total, 975.0 free, 0.0 used. 1158.4 avail Mem  


| PID   | USER    | PR | NI  | VIRT   | RES    | SHR   | S | %CPU | %MEM | TIME+   | COMMAND             |
|-------|---------|----|-----|--------|--------|-------|---|------|------|---------|---------------------|
| 27777 | giacomo | 20 | 0   | 445804 | 102224 | 83392 | S | 2.0  | 5.1  | 0:00.95 | qterminal           |
| 907   | root    | 20 | 0   | 468024 | 123012 | 67100 | S | 0.7  | 6.1  | 0:52.61 | Xorg                |
| 1070  | giacomo | 20 | 0   | 217804 | 3456   | 2944  | S | 0.3  | 0.2  | 0:02.28 | VBoxClient          |
| 1078  | giacomo | 20 | 0   | 218320 | 3200   | 2816  | S | 0.3  | 0.2  | 0:13.83 | VBoxClient          |
| 1130  | giacomo | 20 | 0   | 724196 | 100220 | 77440 | S | 0.3  | 5.0  | 0:14.80 | xfwm4               |
| 1196  | giacomo | 20 | 0   | 431636 | 35176  | 22636 | S | 0.3  | 1.7  | 0:08.80 | panel-13-cpugra     |
| 13353 | root    | 20 | 0   | 0      | 0      | 0     | I | 0.3  | 0.0  | 0:01.75 | kworker/0:1-events  |
| 30146 | giacomo | 20 | 0   | 12116  | 5248   | 3200  | R | 0.3  | 0.3  | 0:00.04 | top                 |
| 1     | root    | 20 | 0   | 20944  | 12740  | 9412  | S | 0.0  | 0.6  | 0:01.34 | systemd             |
| 2     | root    | 20 | 0   | 0      | 0      | 0     | S | 0.0  | 0.0  | 0:00.00 | kthreadd            |
| 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_par_gp          |
| 5     | root    | 0  | -20 | 0      | 0      | 0     | I | 0.0  | 0.0  | 0:00.00 | slub_flushwq        |
| 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_percpu_wq        |
| 11    | root    | 20 | 0   | 0      | 0      | 0     | I | 0.0  | 0.0  | 0:00.00 | rcu_tasks_kthread   |
| 12    | root    | 20 | 0   | 0      | 0      | 0     | I | 0.0  | 0.0  | 0:00.00 | rcu_tasks_rude_kth+ |

  
(giacomo@kali)-[~]  
$
```

```
(giacomo@kali)-[~]  
$ top | grep "root"  
1 root 20 0 20944 12792 9464 S 0.0 0.6 0:02.39 systemd  
2 root 20 0 0 0 0 S 0.0 0.0 0:00.00 kthreadd  
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_par+  
5 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 slub_fl+  
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_perc+  
11 root 20 0 0 0 0 I 0.0 0.0 0:00.00 rcu_tas+  
12 root 20 0 0 0 0 I 0.0 0.0 0:00.00 rcu_tas+  
13 root 20 0 0 0 0 I 0.0 0.0 0:00.00 rcu_tas+  
14 root 20 0 0 0 0 S 0.0 0.0 0:13.82 ksoftir+  
15 root 20 0 0 0 0 I 0.0 0.0 0:13.06 rcu_pre+  
16 root rt 0 0 0 0 S 0.0 0.0 0:00.72 migrati+  
17 root -51 0 0 0 0 S 0.0 0.0 0:00.00 idle_in+  
19 root 20 0 0 0 0 S 0.0 0.0 0:00.00 cpuhp/0  
21 root 20 0 0 0 0 S 0.0 0.0 0:00.01 kdevtmp+
```

Con comando 'mkdir' creo la nuova directory nel desktop, vi accedo e creo con comando 'touch' il file Esercizio.txt



The screenshot displays a Kali Linux desktop environment. In the foreground, a file manager window titled 'Epicode_La' is open, showing the contents of the '/Desktop/Epicode_Lab' directory. The left sidebar lists various system locations like Computer, Desktop, Recent, and Documents. The main pane shows a single file named 'Esercizio.txt'. Below the file list, it indicates '1 file: 0 bytes' and 'Free space: 4.4 GiB'. In the background, a terminal window titled 'giacomo@kali: ~/Desktop' shows the execution of several commands: 'mkdir Epicode_Lab', 'chmod g+w Epicode_Lab', 'chmod g+r Epicode_Lab', 'chmod o+r Epicode_Lab', 'chmod o+w Epicode_Lab', 'cd Epicode_Lab', and 'touch Esercizio.txt'. The terminal output confirms the successful creation and modification of the directory and file.

```
giacomo@kali: ~/Desktop
File Actions Edit View Help

(giacomo@kali)-[~/Desktop]
$ sudo mkdir Epicode_Lab
[sudo] password for giacomo:

(giacomo@kali)-[~/Desktop]
$

Epicode_La
File Edit View Go Bookmarks Help
← → ↑ ↓ Home Back Forward Home Desktop
Places
  Computer
  giacomo
  Desktop
  Recent
  Trash
  Documents
  Music
  Pictures
  Videos
  Downloads
Devices
  File System
Network
  Browse Network
1 file: 0 bytes 1 Free space: 4.4 GiB

giacomo@kali: ~/Desktop/Epicode_Lab
File Actions Edit View Help

(giacomo@kali)-[~/Desktop]
$ sudo chmod g+w Epicode_Lab

(giacomo@kali)-[~/Desktop]
$ sudo chmod g+r Epicode_Lab

(giacomo@kali)-[~/Desktop]
$ sudo chmod o+r Epicode_Lab

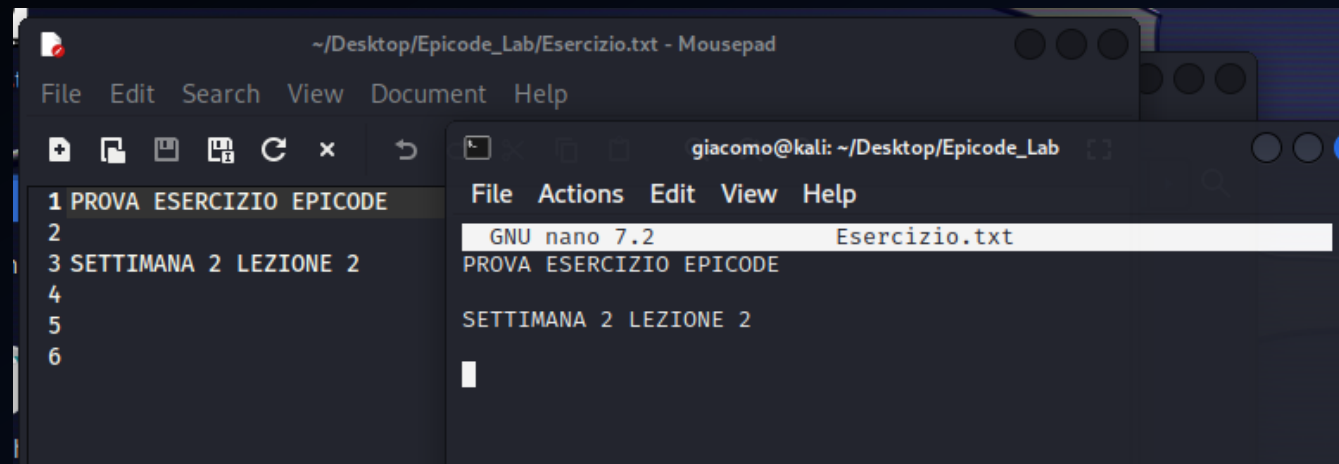
(giacomo@kali)-[~/Desktop]
$ sudo chmod o+w Epicode_Lab

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

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

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

Con comando 'nano' edito il file. Vado poi a visualizzarne il contenuto da terminale con comando 'cat'. Verifico poi le autorizzazioni con comando 'ls -l'. Posso osservare che il file sia di sola lettura per il gruppo di user e gli utenti esterni.

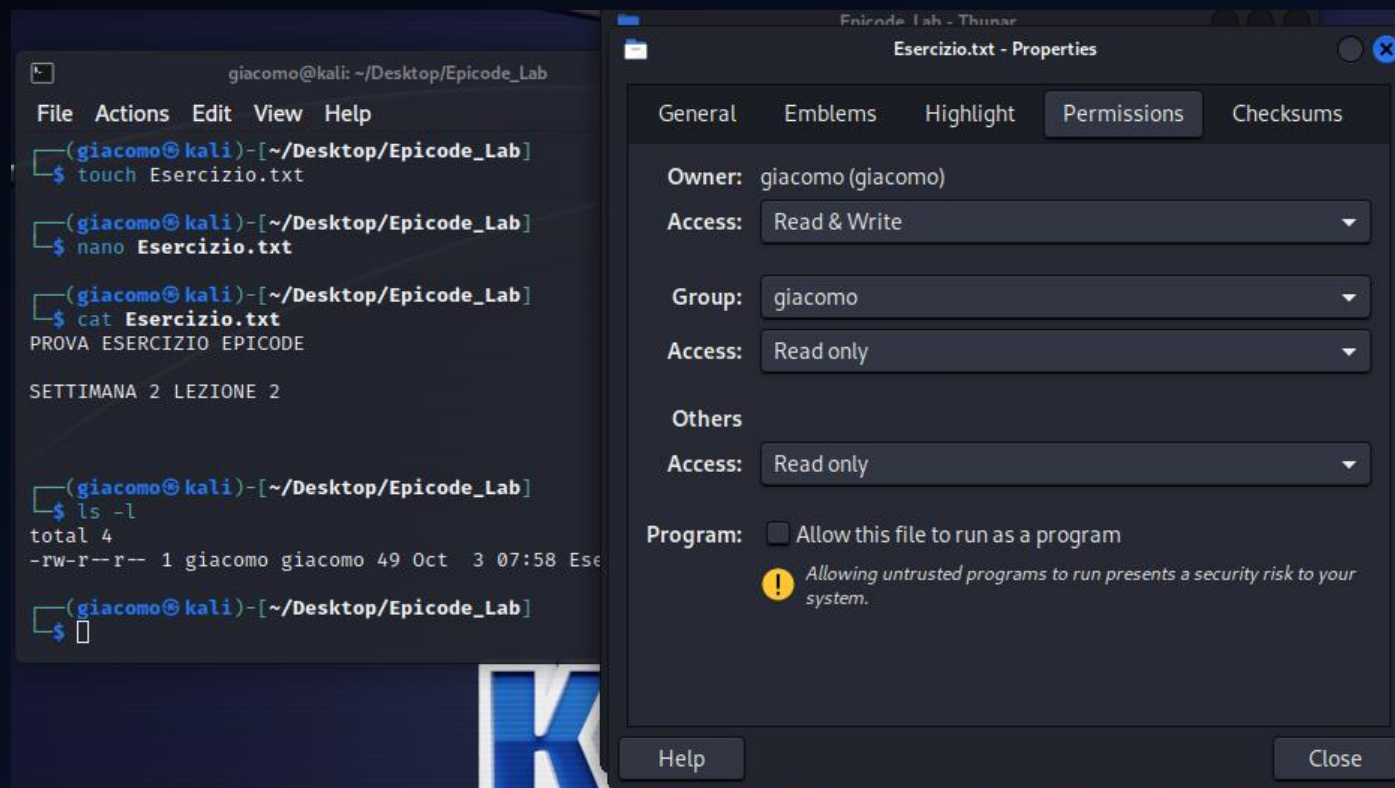


This screenshot shows two windows from a Kali Linux desktop. The top window is the nano text editor, editing a file named 'Esercizio.txt' located at '~/.Desktop/Epicode_Lab'. The file content is as follows:

```
1 PROVA ESERCIZIO EPICODE
2
3 SETTIMANA 2 LEZIONE 2
4
5
6
```

The bottom window is a terminal with the following commands and output:

```
giacomo@kali: ~/Desktop/Epicode_Lab
$ touch Esercizio.txt
$ nano Esercizio.txt
$ cat Esercizio.txt
PROVA ESERCIZIO EPICODE
SETTIMANA 2 LEZIONE 2
$
```



This screenshot shows a terminal window and a file properties dialog box. The terminal window shows the following commands and output:

```
giacomo@kali: ~/Desktop/Epicode_Lab
$ touch Esercizio.txt
$ nano Esercizio.txt
$ cat Esercizio.txt
PROVA ESERCIZIO EPICODE
SETTIMANA 2 LEZIONE 2
$
```

The file properties dialog box is open for 'Esercizio.txt'. The 'Permissions' tab is selected, showing the following settings:

- Owner: giacomo (giacomo)
- Access: Read & Write
- Group: giacomo
- Access: Read only
- Others Access: Read only
- Program: ☐ Allow this file to run as a program

A warning message is displayed: "Allowing untrusted programs to run presents a security risk to your system."

Con comando 'sudo chmod' vado a impostare i privilegi, e li verifico con comando 'ls -l'

```
giacomo@kali: ~/Desktop/Epicode_Lab
File Actions Edit View Help
(giacomo@kali)-[~/Desktop/Epicode_Lab]
$ ls -l
total 0
-rw-r--r-- 1 giacomo giacomo 0 Oct  3 09:43
Esercizio.txt

(giacomo@kali)-[~/Desktop/Epicode_Lab]
$ sudo chmod u+x Esercizio.txt
[sudo] password for giacomo:

(giacomo@kali)-[~/Desktop/Epicode_Lab]
$ sudo chmod g+w Esercizio.txt

(giacomo@kali)-[~/Desktop/Epicode_Lab]
$ ls -l
total 0
-rwxrw-r-- 1 giacomo giacomo 0 Oct  3 09:43
Esercizio.txt

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

Creo un nuovo user

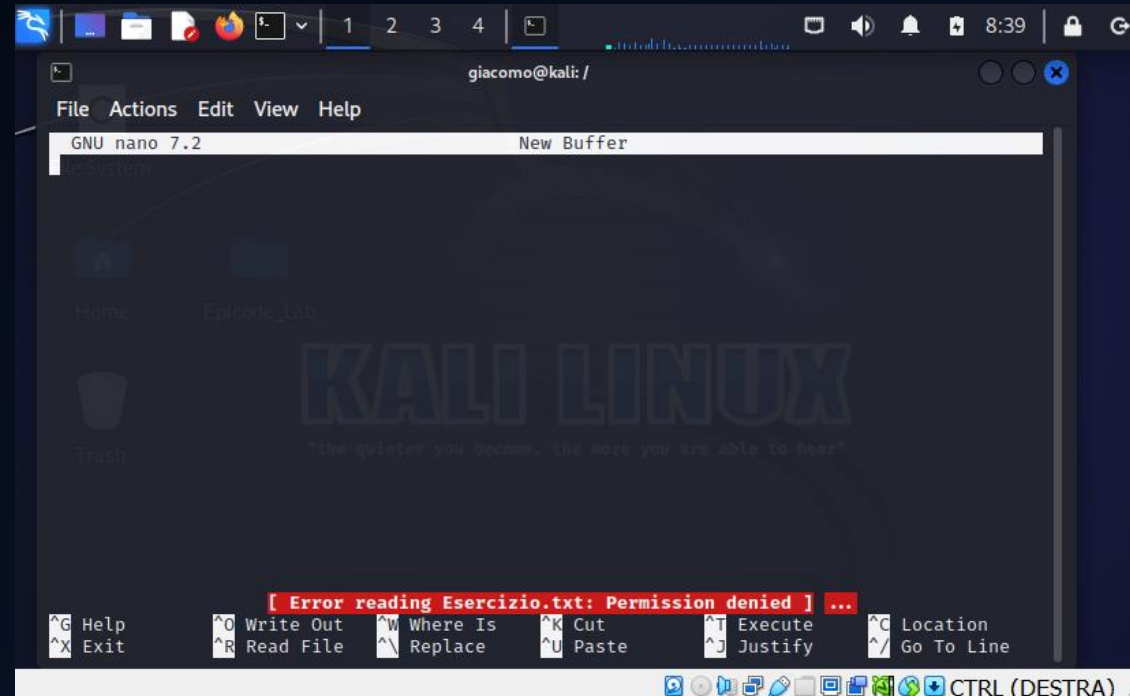
```
giacomo@kali: ~
File Actions Edit View Help
(giacomo@kali)-[~]
$ sudo useradd Epicode
[sudo] password for giacomo:

(giacomo@kali)-[~]
$ sudo passwd Epicode
New password:
Retype new password:
passwd: password updated successfully

(giacomo@kali)-[~]
$
```

Modifico nuovamente i privilegi in modo da non abilitare la lettura ad altri utenti. Il file diventa illeggibile.

```
giacomo@kali: ~/Desktop/Epicode_Lab
File Actions Edit View Help
(giacomo@kali)-[~/Desktop/Epicode_Lab]
$ sudo chmod o-r Esercizio.txt
[sudo] password for giacomo:
(giacomo@kali)-[~/Desktop/Epicode_Lab]
$
```



```
giacomo@kali: /
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   ^C Location
^X Exit      ^R Read File  ^\ Replace    ^U Paste      ^J Justify   ^_ Go To Line
CTRL (DESTRA)
```

Sposto il file alla root con comando 'mv', cambio directory a root e cambio utente, provo ad aprire il file ma non ho i privilegi

```
giacomo@kali: /
File Actions Edit View Help

(giacomo@kali)-[~/Desktop/Epicode_Lab]
$ sudo mv Esercizio.txt /
[sudo] password for giacomo:

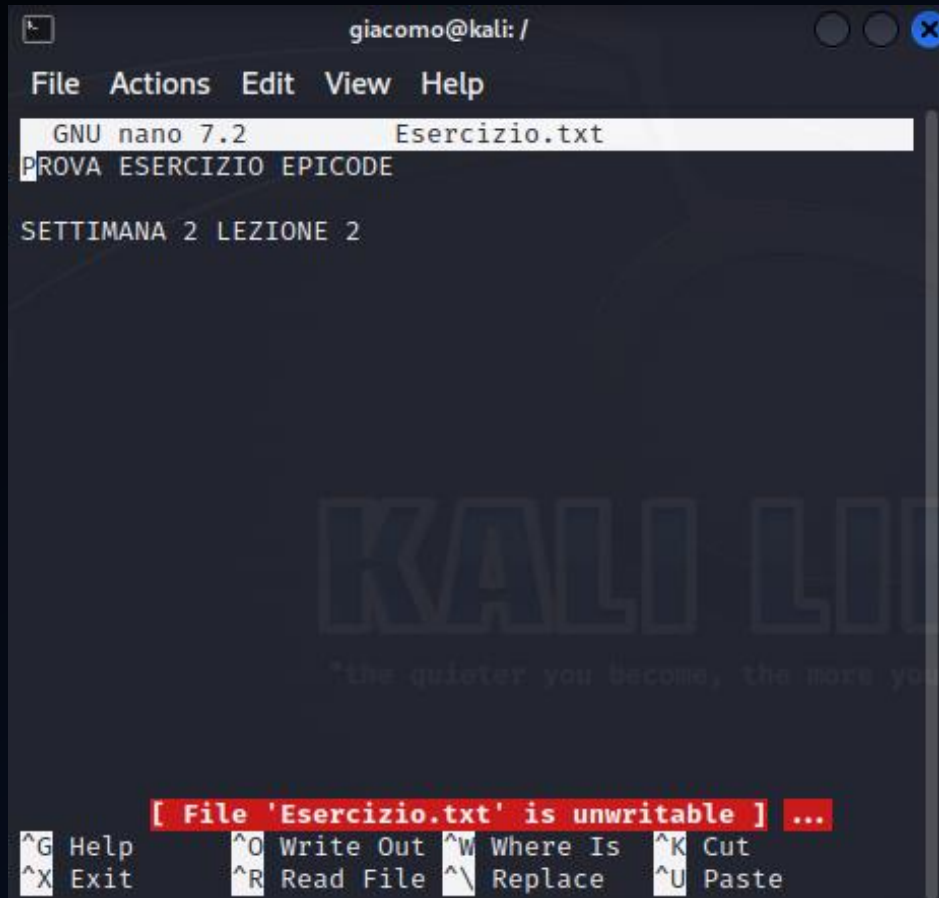
(giacomo@kali)-[~/Desktop/Epicode_Lab]
$ cd /

(giacomo@kali)-[/]
$ su Epicode
Password:
$ nano Esercizio.txt
```

```
[ 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
^C Location
^/ Go To Line

CTRL (DES
```

Modifico i privilegi a sola lettura per il nuovo utente, che ora può aprire il file senza però poterlo modificare.



```
giacomo@kali: /
File Actions Edit View Help
GNU nano 7.2 Esercizio.txt
PROVA ESERCIZIO EPICODE

SETTIMANA 2 LEZIONE 2

[ File 'Esercizio.txt' is unwritable ] ...
^G Help      ^O Write Out ^W Where Is  ^K Cut
^X Exit      ^R Read File ^\ Replace   ^U Paste
```

Elimino il file creato, l'user e la directory



```
giacomo@kali: ~/Desktop
File Actions Edit View Help
$ sudo userdel Epicode
[sudo] password for giacomo:

(giacomo@kali)-[/]
$ sudo rm Esercizio.txt

(giacomo@kali)-[/]
$ cd home

(giacomo@kali)-[/home]
$ cd giacomo

(giacomo@kali)-[~]
$ cd Desktop

(giacomo@kali)-[~/Desktop]
$ sudo rm Epicode_Lab
rm: cannot remove 'Epicode_Lab': Is a directory

(giacomo@kali)-[~/Desktop]
$ sudo rm -r Epicode_Lab

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