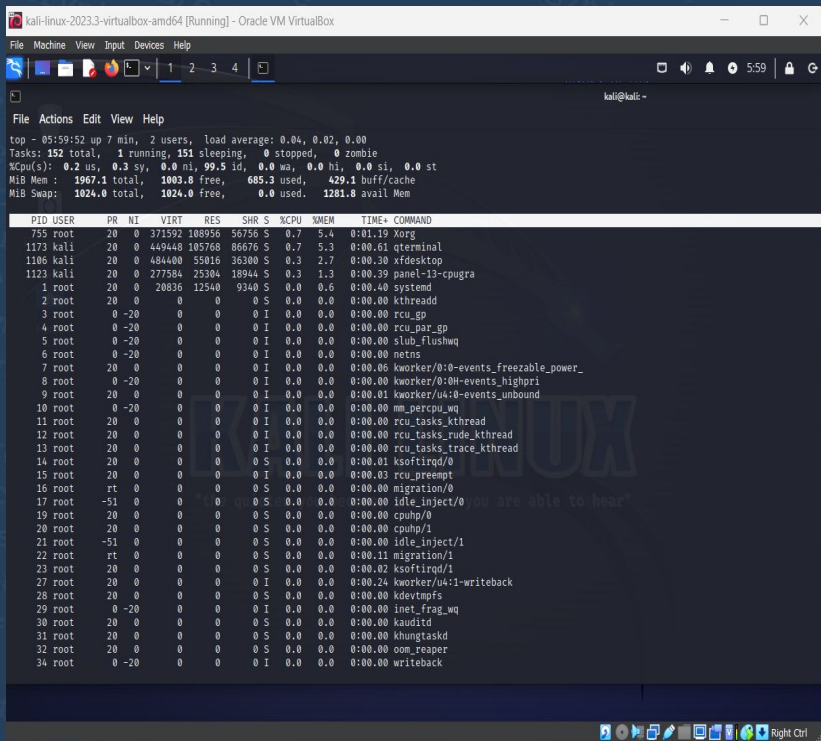


ESERCIZIO S2L2

MATTIA GERARDI

STEP 1: Eseguiamo comando “top” e spieghiamo brevemente cosa significano PID, USER e COMMAND



```
kali@kali:~$ top
top - 05:59:52 up 7 min, 2 users, load average: 0.04, 0.02, 0.00
Tasks: 152 total, 1 running, 151 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.2 us, 0.3 sy, 0.0 ni, 99.5 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 1967.1 total, 1003.8 free, 685.3 used, 429.1 buff/cache
MiB Swap: 1024.0 total, 1024.0 free, 0.0 used, 1281.8 avail Mem

  PID USER      PR  NI  VIRT  RES  SHR  S  %CPU  %MEM     TIME+ COMMAND
 755 root        20   0 37192 108956 56736 S   0.7   5.4   0:01.19 Xorg
1173 kali        20   0 449448 105768 86676 S   0.7   5.3   0:00.61 qterminal
1106 kali        20   0 484400 55816 36300 S   0.3   2.7   0:00.30 xfdesktop
1123 kali        20   0 277584 25304 18944 S   0.3   1.3   0:00.39 panel-13-cpugra
    1 root         0   0 20836 12540 9340 S   0.0   0.6   0:00.40 systemd
    2 root         0   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
    7 root        0 -20   0      0      0 I   0.0   0.0   0:00.00 kworker/0:0-events_freezable_power_
    8 root        0 -20   0      0      0 I   0.0   0.0   0:00.00 kworker/0:0H-events_highpri
    9 root        20   0      0      0      0 I   0.0   0.0   0:00.01 kworker/u4:0-events_unbound
   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_kthread
   13 root        20   0      0      0      0 I   0.0   0.0   0:00.00 rcu_tasks_trace_kthread
   14 root        20   0      0      0      0 S   0.0   0.0   0:00.01 ksoftirqd/0
   15 root        20   0      0      0      0 I   0.0   0.0   0:00.03 rcu_preempt
   16 root       rt   0      0      0      0 S   0.0   0.0   0:00.00 migration/0
   17 root       -51   0      0      0      0 S   0.0   0.0   0:00.00 idle_inject/0
   19 root        20   0      0      0      0 S   0.0   0.0   0:00.00 cpuhp/0
   20 root        20   0      0      0      0 S   0.0   0.0   0:00.00 cpuhp/1
   21 root       -51   0      0      0      0 S   0.0   0.0   0:00.00 idle_inject/1
   22 root       rt   0      0      0      0 S   0.0   0.0   0:00.11 migration/1
   23 root        20   0      0      0      0 S   0.0   0.0   0:00.02 ksoftirqd/1
   27 root        20   0      0      0      0 I   0.0   0.0   0:00.24 kworker/u4:1-writeback
   28 root        20   0      0      0      0 S   0.0   0.0   0:00.00 kdevtmpfs
   29 root       0 -20   0      0      0 I   0.0   0.0   0:00.00 inet_frag_wq
   30 root        20   0      0      0      0 S   0.0   0.0   0:00.00 kauditd
   31 root        20   0      0      0      0 S   0.0   0.0   0:00.00 khungtaskd
   32 root        20   0      0      0      0 S   0.0   0.0   0:00.00 oom_reaper
   34 root       0 -20   0      0      0 I   0.0   0.0   0:00.00 writeback
```

- PID: Identificatore univoco del processo
- USER: Nome dell'utente che ha avviato il processo
- COMMAND: Il comando o il programma che ha generato il processo

STEP 2: Utilizziamo il comando “top | grep root” per fare un filtraggio dei risultati inerenti all’utente root

```
(kali㉿kali)-[~]  
$ top | grep root
```

1	root	20	0	20836	12540	9340	S	0.0	0.6	0:00.40	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
7	root	20	0	0	0	0	I	0.0	0.0	0:00.13	kworker+
8	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker+
9	root	20	0	0	0	0	I	0.0	0.0	0:00.02	kworker+
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	0:00.02	ksoftir+
15	root	20	0	0	0	0	I	0.0	0.0	0:00.06	rcu_pre+
16	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migrati+
17	root	-51	0	0	0	0	S	0.0	0.0	0:00.00	idle_in+

STEP 3: Utilizziamo il comando “top | grep kali” per fare un filtraggio dei risultati inerenti all'utente kali

```
(kali㉿kali)-[~]  
$ top | grep kali
```

993	kali	20	0	217452	3072	2688	S	0.3	0.2	0:00.18	VBoxCli+
1055	kali	20	0	1020292	104824	78380	S	0.3	5.2	0:00.88	xfwm4
1123	kali	20	0	277584	30680	19072	S	0.3	1.5	0:00.82	panel-1+
1125	kali	20	0	431868	30152	20856	S	0.3	1.5	0:00.76	panel-1+
1123	kali	20	0	277584	30680	19072	S	0.3	1.5	0:00.83	panel-1+
1001	kali	20	0	217968	3072	2688	S	0.3	0.2	0:00.44	VBoxCli+

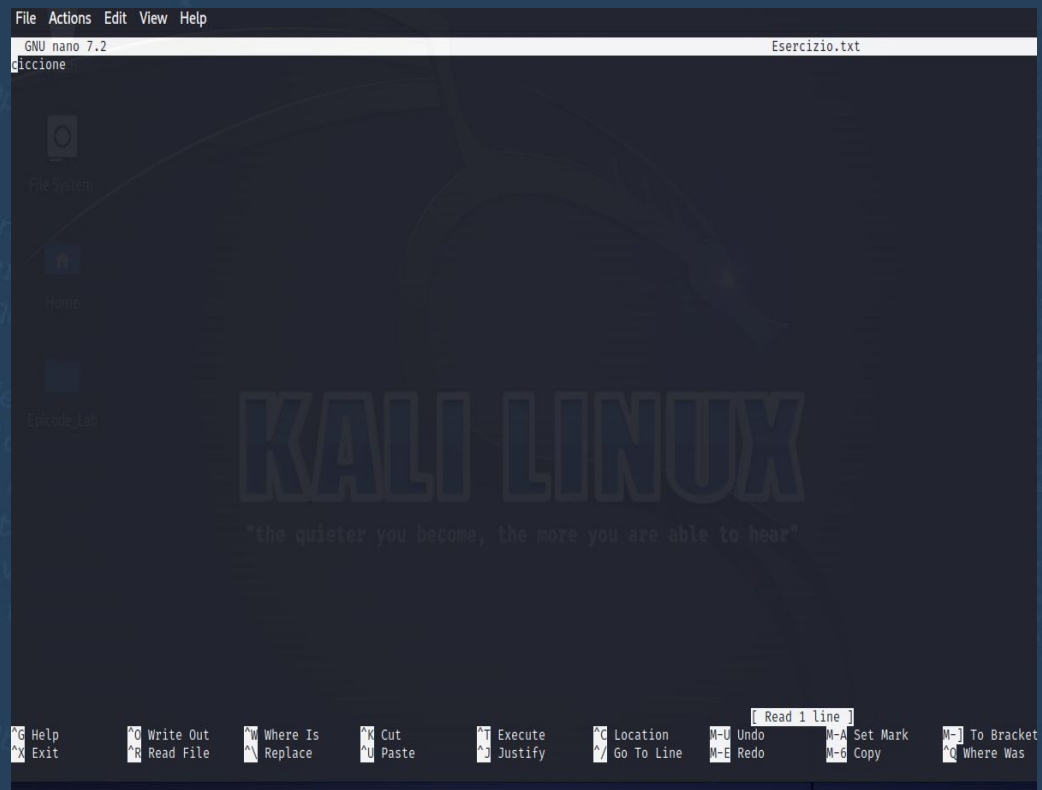
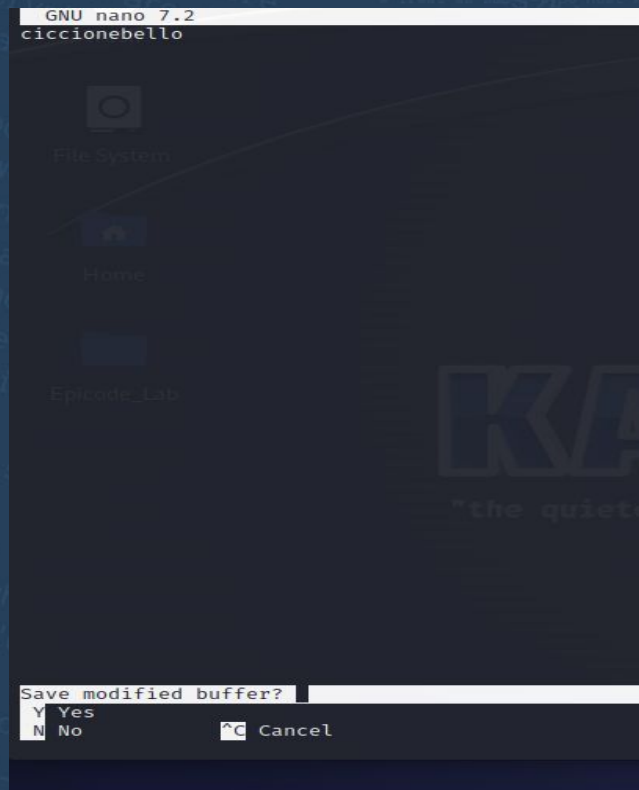
STEP 4: Creazione di una directory

```
(kali㉿kali)-[~]  
$ mkdir /home/kali/Desktop/Epicode_Lab  
  
(kali㉿kali)-[~]  
$
```


STEP 5: Spostarsi nella nuova directory e creare nuovo file

```
(kali㉿kali)-[~]  
$ cd /home/kali/Desktop/Epicode_Lab  
  
(kali㉿kali)-[~/Desktop/Epicode_Lab]  
$ touch Esercizio.txt  
  
(kali㉿kali)-[~/Desktop/Epicode_Lab]  
$
```

STEP 6: Modificare il file creato e salvarlo



STEP 7: Utilizziamo comando “cat” per leggere a schermo il contenuto del file creato in precedenza

```
(kali㉿kali)-[~/Desktop/Epicode_Lab]
$ nano Esercizio.txt

(kali㉿kali)-[~/Desktop/Epicode_Lab]
$ cat Esercizio.txt
ciccionebello

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


STEP 8: Controllo dei permessi del file con comando "ls -la"

```
(kali㉿kali)-[~/Desktop/Epicode_Lab]
$ cat Esercizio.txt
ciccionebello

(kali㉿kali)-[~/Desktop/Epicode_Lab]
$ ls -la Esercizio.txt
-rw-r--r-- 1 kali kali 14 Nov 28 06:20 Esercizio.txt

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

STEP 9: Modifica dei privilegi del file con quelli che richiede l'esercizio

```
(kali㉿kali)-[~/Desktop/Epicode_Lab]
$ ls -la Esercizio.txt
-rw-r--r-- 1 kali kali 14 Nov 28 06:20 Esercizio.txt

(kali㉿kali)-[~/Desktop/Epicode_Lab]
$ chmod 764 Esercizio.txt

(kali㉿kali)-[~/Desktop/Epicode_Lab]
$ ls -la Esercizio.txt
-rwxrw-r-- 1 kali kali 14 Nov 28 06:20 Esercizio.txt

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

STEP 10: Creazione di un nuovo utente

```
(kali㉿kali)-[~/Desktop/Epicode_Lab]
$ sudo passwd mattia
New password:
Retype new password:
passwd: password updated successfully
```

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

STEP 11: Cambiare privilegi del file per disabilitare agli altri utenti la lettura

```
(kali㉿kali)-[~/Desktop/Epicode_Lab]
$ chmod o-r Esercizio.txt

(kali㉿kali)-[~/Desktop/Epicode_Lab]
$ ls -la Esercizio.txt
-rwxrw---- 1 kali kali 14 Nov 28 06:20 Esercizio.txt

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

STEP 12: Spostare il file nella directory di root '/'

```
(kali㉿kali)-[~/Desktop/Epicode_Lab]
$ sudo mv Esercizio.txt /

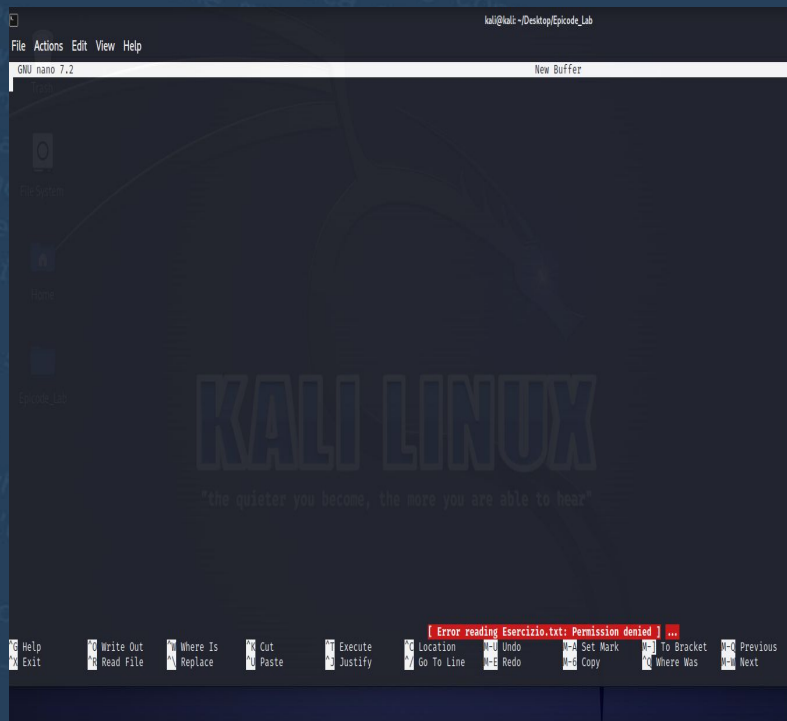
(kali㉿kali)-[~/Desktop/Epicode_Lab]
$
```


STEP 13: Cambiare utente utilizzando comando 'su'

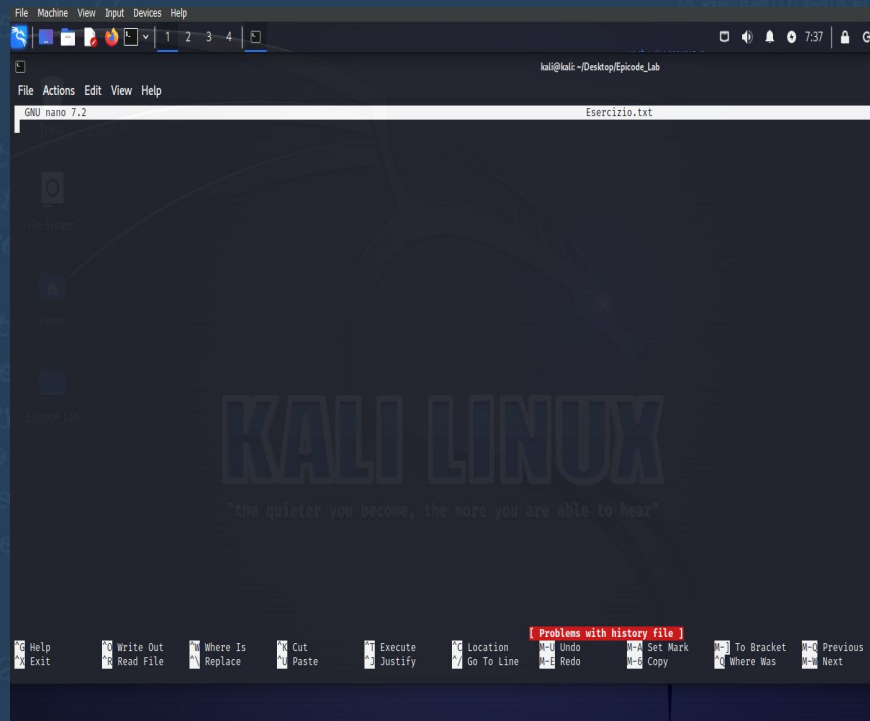
```
(kali㉿kali)-[~/Desktop/Epicode_Lab]
└─$ su mattia
Password:
$ nano Esercizio.txt
```

STEP 14: Apertura file con utente nuovo e visualizzazione dell'errore

Se si apre il file mentre si e' nella directory root '/'

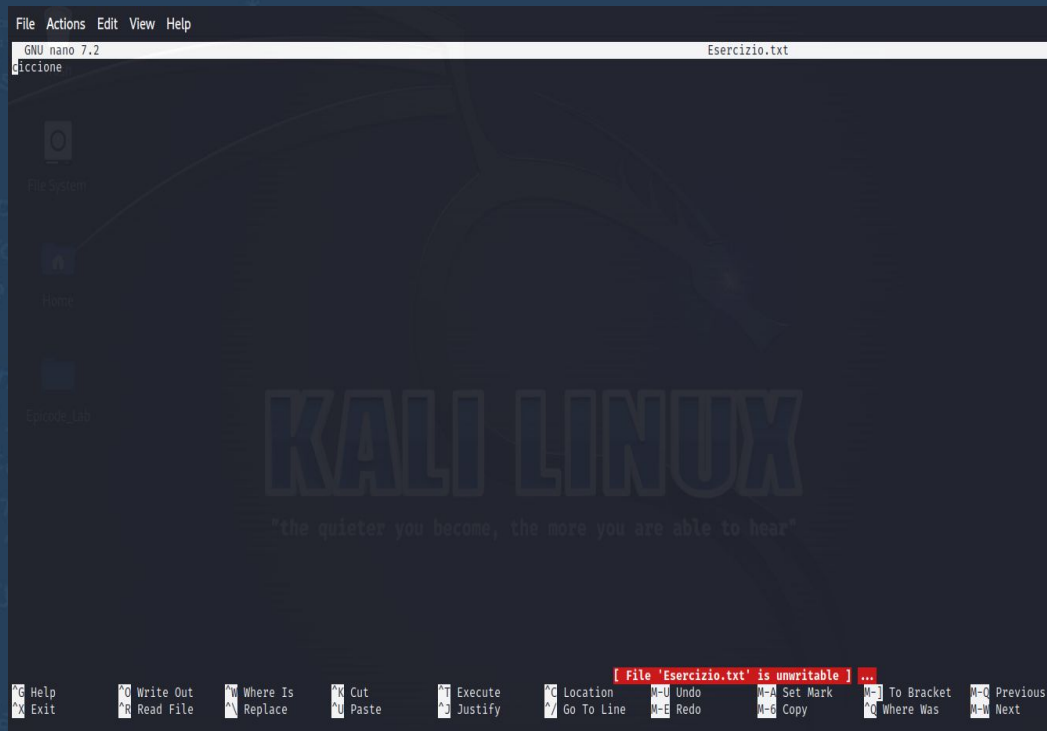


Se si apre il file mentre si e' nella directory /Epicode_Lab



STEP 15: Modifica dei permessi per poter far leggere ma non scrivere il file al nuovo utente

```
(root@kali)-[/]  
# chmod 764 Esercizio.txt  
  
(root@kali)-[/]  
# ls -la Esercizio.txt  
-rwxr--r-- 1 kali kali 9 Nov 28 06:48 Esercizio.txt
```



STEP 16: Per completare l'esercizio, rimuoviamo file, cartella e l'utente creati

```
(root@kali)-[/]
# sudo rm /Esercizio.txt

(root@kali)-[/]
# sudo rmdir /home/kali/Desktop/Epicode_Lab

(root@kali)-[/]
# sudo userdel mattia

(root@kali)-[/]
# su mattia
su: user mattia does not exist or the user entry does not contain all the required fields

(root@kali)-[/]
# cd /home/kali/Desktop/Epicode_Lab
cd: no such file or directory: /home/kali/Desktop/Epicode_Lab

(root@kali)-[/]
# ls
bin boot dev etc home initrd.img initrd.img.old lib lib32 lib64 libx32 lost+found media mnt opt proc root run sbin srv swapfile sys tmp usr var

(root@kali)-[/]
# nano Esercizio.txt

(root@kali)-[/]
#
```