

Con il comando **top** controllo i processi attivi sulla macchina Linux. PID sta per il codice del processo, user è l'utente con cui è in esecuzione il processo e command è il nome del processo.

kali@kali: ~

File Actions Edit View Help

Mem : 1967.3 total, 966.7 free, 697.2 used, 453.9 buff/cache
 Swap: 975.0 total, 975.0 free, 0.0 used, 1270.1 avail Mem

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
717	root	20	0	370960	108436	56040	S	3.6	5.4	0:22.67	Xorg
16863	kali	20	0	449936	105184	85972	S	2.3	5.2	0:01.02	qterminal
1024	kali	20	0	724808	97772	76996	S	1.0	4.9	0:08.05	xfwm4
1090	kali	20	0	374692	40132	22524	S	0.7	2.0	0:09.03	panel-13-cpugra
14	root	20	0	0	0	0	S	0.3	0.0	0:00.95	ksoftirqd/0
27	root	20	0	0	0	0	I	0.3	0.0	0:00.06	kworker/u2:2-events_unbound
452	message+	20	0	10660	6016	4352	S	0.3	0.3	0:01.36	dbus-daemon
972	kali	20	0	218328	3200	2816	S	0.3	0.2	0:07.29	VBoxClient
1064	root	20	0	388024	12956	7168	S	0.3	0.6	0:01.27	upowerd
1093	kali	20	0	432656	28668	21288	S	0.3	1.4	0:07.91	panel-15-genmon
18362	kali	20	0	12320	5632	3328	R	0.3	0.3	0:00.11	top
1	root	20	0	21200	12636	9436	S	0.0	0.6	0:00.95	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
8	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/0:0H-kblockd
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
15	root	20	0	0	0	0	I	0.0	0.0	0:00.94	rcu_preempt
16	root	rt	0	0	0	0	S	0.0	0.0	0:00.02	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
21	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
22	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	inet_frag_wq
23	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kauditd
24	root	20	0	0	0	0	S	0.0	0.0	0:00.00	khungtaskd
25	root	20	0	0	0	0	S	0.0	0.0	0:00.00	oom_reaper
26	root	20	0	0	0	0	I	0.0	0.0	0:00.10	kworker/u2:1-events_unbound
28	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	writeback
29	root	20	0	0	0	0	S	0.0	0.0	0:00.27	kcompactd0
30	root	25	5	0	0	0	S	0.0	0.0	0:00.00	ksmd
31	root	39	19	0	0	0	S	0.0	0.0	0:00.36	khugepaged
32	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kintegrityd
33	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kblockd
34	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	blkcg_punt_bio
35	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	tpm_dev_wq
36	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	edac-poller
37	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	devfreq_wq
39	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kswapd0
46	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kthrotld
48	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	acpi_thermal_pm
49	root	20	0	0	0	0	S	0.0	0.0	0:00.00	xenbus_probe
50	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	mld
51	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	ipv6_addrconf
56	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kstrp
61	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	zswap-shrink
62	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/u3:0
128	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	cryptd

(kali@kali)-[~]
 \$

Continuo filtrando i risultati del precedente comando per mostrare solo i programmi in esecuzione per l'utente "root". Dopodiché, filtro nuovamente i risultati per mostrare solamente i processi in esecuzione dall'utente kali.

```
kali@kali: ~  
File Actions Edit View Help  
(kali@kali)-[~]  
$ top | grep root  
1 root 20 0 21200 12636 9436 S 0.0 0.6 0:00.96 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  
8 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 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 0:01.00 ksoftir+  
15 root 20 0 0 0 0 I 0.0 0.0 0:01.00 rcu_pre+  
16 root rt 0 0 0 0 S 0.0 0.0 0:00.02 migrati+  
17 root -51 0 0 0 0 S 0.0 0.0 0:00.00 idle_in+  
  
(kali@kali)-[~]  
$ top | grep kali  
19800 kali 20 0 12144 5248 3072 R 8.3 0.3 0:00.02 top  
1090 kali 20 0 374692 40132 22524 S 0.7 2.0 0:09.69 panel-1+  
1024 kali 20 0 724808 97772 76996 S 0.3 4.9 0:08.66 xfwm4  
1057 kali 20 0 217916 3584 3072 S 0.3 0.2 0:00.55 VBoxCli+  
1084 kali 20 0 485136 57204 36384 S 0.3 2.8 0:01.64 xfdeskt+  
1093 kali 20 0 432656 28668 21288 S 0.3 1.4 0:08.44 panel-1+  
16863 kali 20 0 450512 106012 86416 S 0.3 5.3 0:02.58 qtermin+  
1093 kali 20 0 432656 28668 21288 S 0.7 1.4 0:08.46 panel-1+  
964 kali 20 0 217812 3328 2816 S 0.3 0.2 0:02.05 VBoxCli+  
972 kali 20 0 218328 3200 2816 S 0.3 0.2 0:07.81 VBoxCli+  
1024 kali 20 0 724808 97772 76996 S 0.3 4.9 0:08.67 xfwm4  
1090 kali 20 0 374692 40132 22524 S 0.3 2.0 0:09.70 panel-1+  
16863 kali 20 0 450512 106012 86416 S 0.3 5.3 0:02.59 qtermin+  
19800 kali 20 0 12144 5376 3200 R 0.3 0.3 0:00.03 top  
972 kali 20 0 218328 3200 2816 S 0.7 0.2 0:07.83 VBoxCli+  
1090 kali 20 0 374692 40132 22524 S 0.7 2.0 0:09.72 panel-1+  
19800 kali 20 0 12144 5376 3200 R 0.7 0.3 0:00.05 top  
1024 kali 20 0 724808 97772 76996 S 0.3 4.9 0:08.68 xfwm4  
1093 kali 20 0 432656 28668 21288 S 0.3 1.4 0:08.47 panel-1+  
16863 kali 20 0 450512 106012 86416 S 0.3 5.3 0:02.60 qtermin+  
16863 kali 20 0 450512 106012 86416 S 0.7 5.3 0:02.62 qtermin+  
972 kali 20 0 218328 3200 2816 S 0.3 0.2 0:07.84 VBoxCli+  
1024 kali 20 0 724808 97772 76996 S 0.3 4.9 0:08.69 xfwm4  
1051 kali 20 0 305912 29748 19996 S 0.3 1.5 0:00.58 xfsetti+  
1072 kali 20 0 549208 49500 34828 S 0.3 2.5 0:01.11 xfce4-p+  
1090 kali 20 0 374692 40132 22524 S 0.3 2.0 0:09.73 panel-1+  
1093 kali 20 0 432656 28668 21288 S 0.3 1.4 0:08.48 panel-1+  
1090 kali 20 0 374692 40132 22524 S 0.7 2.0 0:09.75 panel-1+  
964 kali 20 0 217812 3328 2816 S 0.3 0.2 0:02.06 VBoxCli+  
972 kali 20 0 218328 3200 2816 S 0.3 0.2 0:07.85 VBoxCli+  
1024 kali 20 0 724808 97772 76996 S 0.3 4.9 0:08.70 xfwm4  
1093 kali 20 0 432656 28668 21288 S 0.3 1.4 0:08.49 panel-1+  
1096 kali 20 0 473964 45468 33100 S 0.3 2.3 0:01.52 panel-1+  
19800 kali 20 0 12144 5376 3200 R 0.3 0.3 0:00.06 top  
  
(kali@kali)-[~]  
$
```

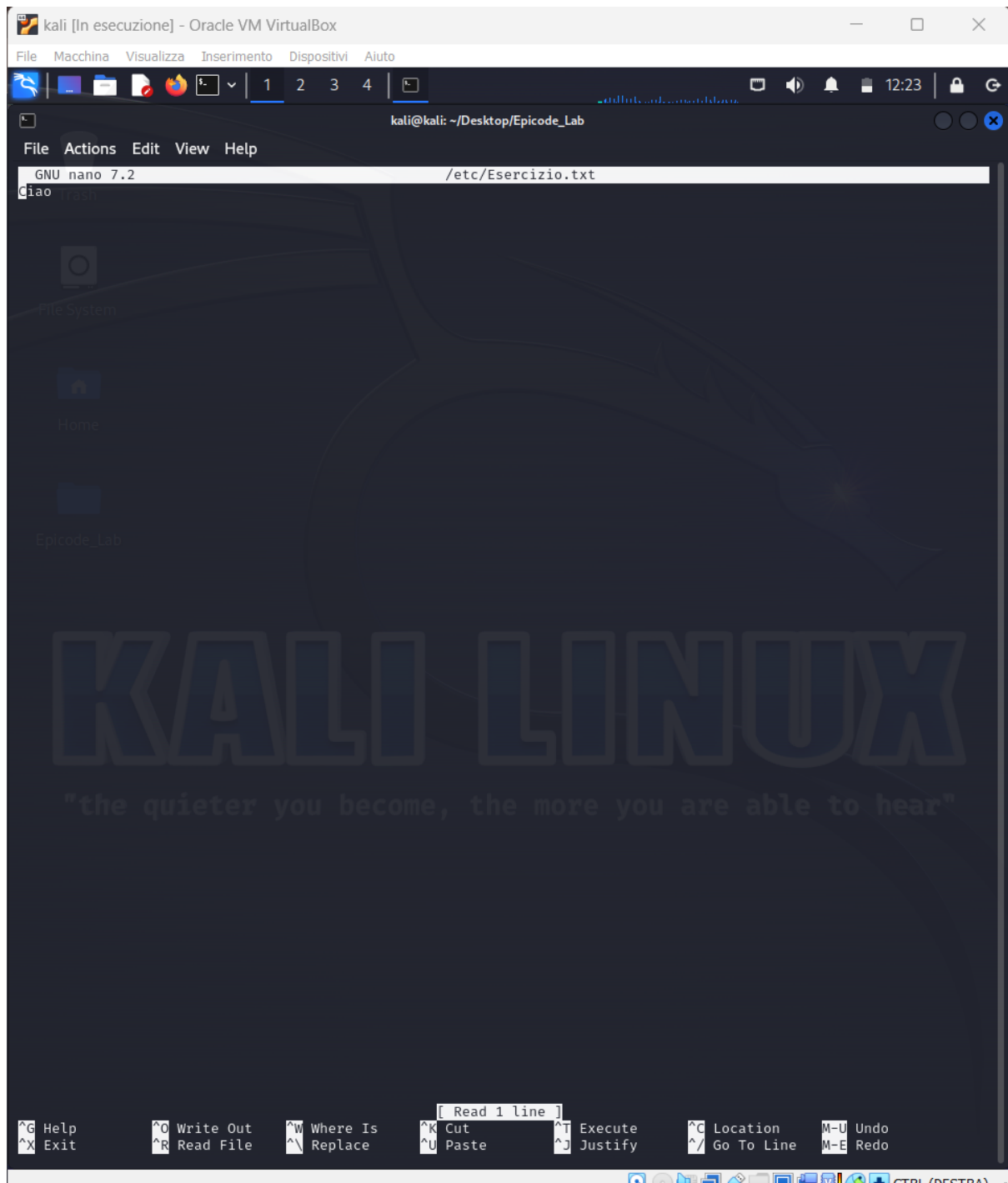
Ho continuato creando una nuova directory dal nome «Epicode_Lab» nella directory /home/kali/Desktop.

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

Entrata nella directory appena creata, creo il file “Esercizio.txt”.

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

Modifico il file con l'editor di testo “nano” creando la scritta “ciao”.



Con il comando `ls -la` controllo i permessi del file appena creato.

```
(kali@kali)-[~/Desktop/Epicode_Lab]
$ ls -al
total 8
drwxr-xr-x 2 kali kali 4096 Nov 28 12:20 .
drwxr-xr-x 3 kali kali 4096 Nov 28 12:11 ..
-rw-r--r-- 1 kali kali    0 Nov 28 12:20 Esercizio.txt
```

Conoscendo i permessi, posso modificarli.

```

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

(kali㉿kali)-[~/Desktop/Epicode_Lab]
$ chmod u+r+w+x Esercizio.txt

(kali㉿kali)-[~/Desktop/Epicode_Lab]
$ chmod g+r+w Esercizio.txt

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

```

Creo un nuovo utente assegnandogli un nome utente e una password e lo utilizzo per visualizzare il file creato poco prima.

```

(kali㉿kali)-[~]
$ sudo useradd kali2
[sudo] password for kali:

(kali㉿kali)-[~]
$ passwd kali2
passwd: You may not view or modify password information for kali2.

(kali㉿kali)-[~]
$ sudo passwd kali2
New password:
Retype new password:
passwd: password updated successfully

```

Cambio i permessi del file in modo tale che altri utenti non siano abilitati alla lettura e lo sposto nella directory di root e controllo che il divieto sia attivo con l'utente nuovo.

```

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

```

```

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

```

```

(kali㉿kali)-[~/Desktop/Epicode_Lab]
$ su kali2
Password:
$ █

```

```

(kali㉿kali)-[~/Desktop/Epicode_Lab]
$ su kali2
Password:
$ Esercizio.txt
sh: 1: Esercizio.txt: not found
$ cat Esercizio.txt
cat: Esercizio.txt: No such file or directory
$ ls -l /home/kali/Desktop/Epicode_Lab/Esercizio.txt
ls: cannot access '/home/kali/Desktop/Epicode_Lab/Esercizio.txt': Permission denied
$ █

```

In conclusione, l'errore rilevato è che all'utente kali2 viene negato il permesso di lettura così come impostato da me. L'esercizio ha avuto l'esito finale che mi aspettavo.

Modifico nuovamente i permessi e abilito gli altri utenti alla lettura. Utilizzo Kali2 per leggere il file. Ora l'utente Kali2 è in grado di leggere il file.”.

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

```
$ ls /  
Esercizio.txt  boot  etc  initrd.img  lib  lib64  media  opt  root  sbin  sys  usr  vmlinuz  
bin           dev   home  initrd.img.old  lib32  lost+found  mnt  proc  run  srv  tmp  var  vmlinuz.old  
$ ls -l Esercizio.txt  
-rw-r--r-- 1 kali kali 0 Nov 28 16:35 Esercizio.txt  
$ nano Esercizio.txt  
Unable to create directory /home/kali2/.local/share/nano/: No such file or directory  
It is required for saving/loading search history or cursor positions.
```

