




Esercizio S2/L2

Comandi Shell Linux

```
top - 11:59:15 up 8 min, 2 users, load average: 0.11, 0.31, 0.26
Tasks: 194 total, 1 running, 193 sleeping, 0 stopped, 0 zombie
%Cpu(s): 1.5 us, 2.1 sy, 0.0 ni, 96.3 id, 0.0 wa, 0.0 hi, 0.1 si, 0.0 st
MiB Mem : 3914.8 total, 2324.2 free, 1269.7 used, 562.2 buff/cache
MiB Swap: 975.0 total, 975.0 free, 0.0 used. 2645.1 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1763	kali	20	0	4735444	392344	151312	S	11.3	9.8	0:24.69	gnome-shell
1467	kali	20	0	381700	121564	74724	S	9.0	3.0	0:10.46	Xorg
2550	kali	20	0	781520	55600	41816	S	5.5	1.4	0:00.85	gnome-terminal-
1590	kali	20	0	218320	2944	2688	S	0.3	0.1	0:01.42	VBoxClient
1668	kali	20	0	217908	3328	2944	S	0.3	0.1	0:00.18	VBoxClient
2374	kali	20	0	474816	15692	11776	S	0.3	0.4	0:00.13	xdg-desktop-por
2446	root	20	0	0	0	0	I	0.3	0.0	0:00.07	kworker/0:3-events
2535	root	20	0	0	0	0	I	0.3	0.0	0:00.29	kworker/2:0-events
1	root	20	0	21148	12624	9424	S	0.0	0.3	0:01.91	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.04	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-events_highpri
9	root	20	0	0	0	0	I	0.0	0.0	0:02.65	kworker/u8:0-flush-8:0
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	0:00.09	ksoftirqd/0
15	root	20	0	0	0	0	I	0.0	0.0	0:00.41	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
18	root	20	0	0	0	0	I	0.0	0.0	0:00.12	kworker/0:1-cgwb_release
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	0:00.67	migration/1
23	root	20	0	0	0	0	S	0.0	0.0	0:00.03	ksoftirqd/1
25	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/1:0H-events_highpri
26	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/2
27	root	-51	0	0	0	0	S	0.0	0.0	0:00.00	idle_inject/2
28	root	rt	0	0	0	0	S	0.0	0.0	0:00.68	migration/2
29	root	20	0	0	0	0	S	0.0	0.0	0:00.03	ksoftirqd/2
32	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/3
33	root	-51	0	0	0	0	S	0.0	0.0	0:00.00	idle_inject/3
34	root	rt	0	0	0	0	S	0.0	0.0	0:00.71	migration/3
35	root	20	0	0	0	0	S	0.0	0.0	0:00.07	ksoftirqd/3
37	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/3:0H-events_highpri
40	root	20	0	0	0	0	I	0.0	0.0	0:00.09	kworker/u8:2-events_unbound
41	root	20	0	0	0	0	S	0.0	0.0	0:00.02	kdevtmpfs



Controlliamo i processi attivi con il comando “Top” (slide 2), in cui possiamo vedere le colonne PID, ovvero il numero identificativo del processo; User, l'utente che esegue il processo; Command, il nome del comando che ha avviato il processo.

```
(kali@kali)-[~/Desktop]
$ top | grep root
```

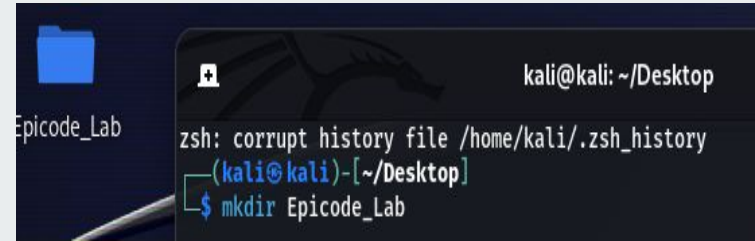
1	root	20	0	21148	12624	9424	S	0.0	0.3	0:01.91	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.04	kthreadd
3	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_gp
4	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_par+
5	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	slub_fl+
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	netns
8	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker+
9	root	20	0	0	0	0	I	0.0	0.0	0:02.68	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	0:00.10	ksoftir+
15	root	20	0	0	0	0	I	0.0	0.0	0:00.46	rcu_pre+
16	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migrati+

Qui visualizziamo i processi del root.

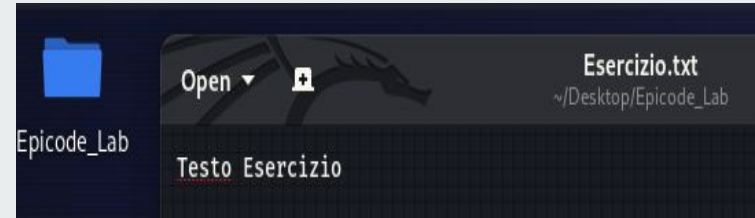
Qui invece visualizziamo i processi di Kali.

```
(kali@kali)-[~/Desktop]
$ top | grep kali
1763 kali      20    0 4732584 395416 148640 S   5.3   9.9   1:06.15 gnome-s+
2630 kali      20    0 12116    5120    3072 R   5.3   0.1   0:00.01 top
1467 kali      20    0 382052 121948  74724 S  10.3   3.0   0:18.53 Xorg
1763 kali      20    0 4732584 395416 148640 S   9.6   9.9   1:06.44 gnome-s+
2550 kali      20    0 773324  56112  41944 S   4.3   1.4   0:03.69 gnome-t+
1590 kali      20    0 218320   2944   2688 S   0.7   0.1   0:02.39 VBoxCli+
1668 kali      20    0 217908   3328   2944 S   0.3   0.1   0:00.28 VBoxCli+
2630 kali      20    0 12116    5120    3072 R   0.3   0.1   0:00.02 top
1763 kali      20    0 4732584 395416 148640 S   8.2   9.9   1:06.69 gnome-s+
1467 kali      20    0 382052 121948  74724 S   4.3   3.0   0:18.66 Xorg
2550 kali      20    0 773324  56112  41944 S   1.0   1.4   0:03.72 gnome-t+
1586 kali      20    0 217804   3200   2816 S   0.3   0.1   0:00.86 VBoxCli+
1819 kali      20    0 1301604 94568   66528 S   0.3   2.4   0:00.66 mutter+
1933 kali      20    0 238296   9920   7168 S   0.3   0.2   0:00.22 at-spi2+
1763 kali      20    0 4732584 395416 148640 S   9.0   9.9   1:06.96 gnome-s+
1467 kali      20    0 382052 121948  74724 S   4.0   3.0   0:18.78 Xorg
2550 kali      20    0 773324  56112  41944 S   0.7   1.4   0:03.74 gnome-t+
1590 kali      20    0 218320   2944   2688 S   0.3   0.1   0:02.40 VBoxCli+
1951 kali      20    0 386624 13780   6784 S   0.3   0.3   0:00.81 ibus-da+
2630 kali      20    0 12116    5120    3072 R   0.3   0.1   0:00.03 top
1763 kali      20    0 4732584 395416 148640 S   7.6   9.9   1:07.19 gnome-s+
1467 kali      20    0 382052 121948  74724 S   1.7   3.0   0:18.83 Xorg
1590 kali      20    0 218320   2944   2688 S   0.3   0.1   0:02.41 VBoxCli+
1763 kali      20    0 4732584 395416 148640 S   7.3   9.9   1:07.41 gnome-s+
1467 kali      20    0 382052 121948  74724 S   0.3   3.0   0:18.84 Xorg
2630 kali      20    0 12116    5120    3072 R   0.3   0.1   0:00.04 top
1763 kali      20    0 4732584 395416 148640 S  11.0   9.9   1:07.78 gnome-s+
1467 kali      20    0 382052 121948  74724 S   1.5   3.0   0:18.89 Xorg
2630 kali      20    0 12116    5120    3072 R   0.9   0.1   0:00.07 top
1586 kali      20    0 217804   3200   2816 S   0.6   0.1   0:00.88 VBoxCli+
1590 kali      20    0 218320   2944   2688 S   0.3   0.1   0:02.42 VBoxCli+
2550 kali      20    0 773324  56112  41944 S   0.3   1.4   0:03.75 gnome-t+
1467 kali      20    0 382052 121948  74724 S  11.1   3.0   0:19.23 Xorg
1763 kali      20    0 4732584 395416 148640 S  10.1   9.9   1:08.09 gnome-s+
2550 kali      20    0 773324  56112  41944 S   2.9   1.4   0:03.84 gnome-t+
1586 kali      20    0 217804   3200   2816 S   0.3   0.1   0:00.89 VBoxCli+
1590 kali      20    0 218320   2944   2688 S   0.3   0.1   0:02.43 VBoxCli+
1763 kali      20    0 4732584 395416 148640 S   9.3   9.9   1:08.37 gnome-s+
1467 kali      20    0 382052 121948  74724 S   7.0   3.0   0:19.44 Xorg
2550 kali      20    0 773324  56112  41944 S   3.3   1.4   0:03.94 gnome-t+
1586 kali      20    0 217804   3200   2816 S   1.3   0.1   0:00.93 VBoxCli+
1590 kali      20    0 218320   2944   2688 S   0.3   0.1   0:02.44 VBoxCli+
1763 kali      20    0 4732584 397336 148640 S   7.0   9.9   1:08.58 gnome-s+
1467 kali      20    0 382052 121948  74724 S   2.3   3.0   0:19.51 Xorg
2550 kali      20    0 773324  56112  41944 S   0.7   1.4   0:03.96 gnome-t+
1933 kali      20    0 238296   9920   7168 S   0.3   0.2   0:00.23 at-spi2+
2630 kali      20    0 12116    5120    3072 R   0.3   0.1   0:00.08 top
```

Creiamo una nuova directory tramite il comando “**mkdir**” nella directory /home/kali/Desktop. Dentro di essa creiamo il file Esercizio.txt, dopodichè utilizziamo il comando “**nano**” per modificarlo e salviamo la modifica.



```
kali@kali: ~/Desktop
zsh: corrupt history file /home/kali/.zsh_history
(kali@kali)~[~/Desktop]
$ mkdir Epicode_Lab
```

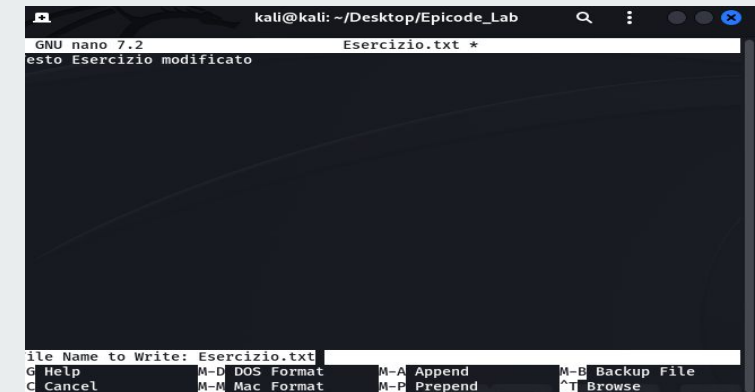


Open ▾ +

Esercizio.txt
~/Desktop/Epicode_Lab


Epicode_Lab

Testo Esercizio



```
kali@kali: ~/Desktop/Epicode_Lab
GNU nano 7.2 Esercizio.txt *
esto Esercizio modificato
```

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



Utilizziamo il comando “cat”
per visualizzare il corpo del file,
poi il comando “ls -la” per
visualizzare i permessi ed il
comando “chmod” per
modificarli.


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

```
(kali@kali)-[~/Desktop/Epicode_Lab]
$ ls -la Esercizio.txt
-rw-r--r-- 1 kali kali 27 Nov 28 12:23 Esercizio.txt

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

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

(kali@kali)-[~/Desktop/Epicode_Lab]
$ ls -la Esercizio.txt
-rwxrw-r-- 1 kali kali 27 Nov 28 12:23 Esercizio.txt
```



Creiamo quindi un nuovo utente tramite il comando “**useradd**” ed impostiamo un password con “**passwd**”.
Cambiamo di nuovo i permessi così da non far leggere il file .txt al nuovo utente.

```
(kali㉿kali)-[~/Desktop]
$ sudo useradd kalinew
[sudo] password for kali:
useradd: user 'kalinew' already exists

(kali㉿kali)-[~/Desktop]
$ users
kali kali

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

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

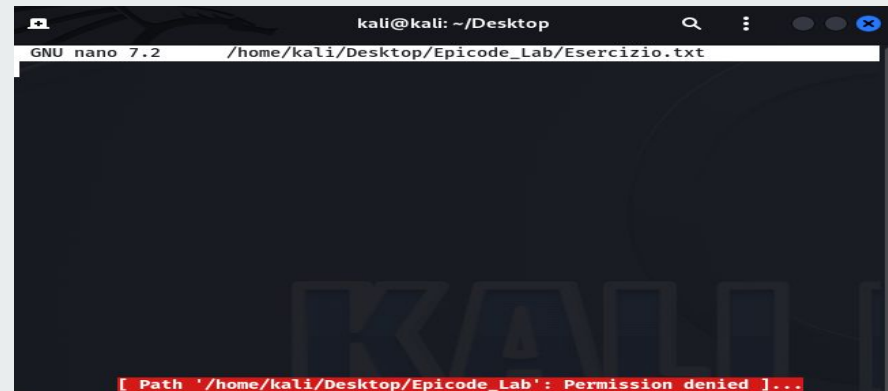
(kali㉿kali)-[~/Desktop]
$ ls -la /home/kali/Desktop/Epicode_Lab/Esercizio.txt
-rwxrwx---- 1 kali kali 27 Nov 28 12:23 /home/kali/Desktop/Epicode_Lab/Esercizio.txt
```


Spostiamo, con il comando “mv”, il file .txt nella directory di root, cambiamo utente in quello appena creato e proviamo a visualizzare il file, ma non avremo il permesso.


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

(kali@kali)-[~/Desktop]
$ ls -la /home/kali/Desktop/Epicode_Lab/Esercizio.txt
-rwxrW---- 1 kali kali 27 Nov 28 12:23 /home/kali/Desktop/Epicode_Lab/Esercizio.txt

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

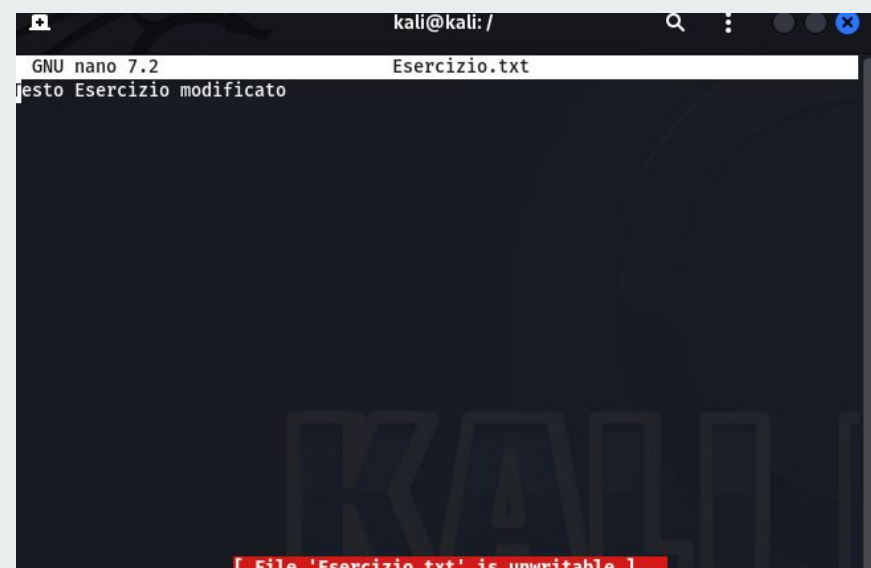



The screenshot shows a terminal window titled "kali@kali: ~/Desktop". The window contains the GNU nano 7.2 editor interface. The file path "/home/kali/Desktop/Epicode_Lab/Esercizio.txt" is visible in the title bar. At the bottom of the window, a red error message is displayed: "[Path '/home/kali/Desktop/Epicode_Lab': Permission denied]...".



Assegnamo di nuovo il permesso di lettura ed apriamo di nuovo il file .txt, che adesso verrà visualizzato.

```
(kali㉿kali)-[~]  
$ chmod o+r /Esercizio.txt  
  
(kali㉿kali)-[~]  
$ ls -la /Esercizio.txt  
-rwxrwx-r-- 1 kali kali 12 Nov 28 14:55 /Esercizio.txt
```





Per concludere, eliminiamo il file, la directory e l'utente, creati per questo esercizio.

```
(kali㉿kali)-[/]  
$ sudo rm Esercizio.txt
```

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

```
(kali㉿kali)-[~]  
$ sudo userdel kalineu
```

Fine.