

ESERCIZIO SHELL LINUX

- Controllare i processi attivi sulla macchina Linux con il comando <<top>> e descrivere il significato di: PID, USER, COMMAND

```
File Edit View Shell Script Window Help
Terminal Emulator
Use the command line

kali@kali: ~
top - 15:11:47 up 0 days, 2 weeks, 0 load average: 1.25, 0.37, 0.12
Tasks: 169 total, 1 running, 168 sleeping, 0 stopped, 0 zombie
Cpu(s): 2.5 us, 2.4 sy, 0.0 ni, 94.4 id, 0.3 wa, 0.0 hi, 0.3 si, 0.0 st
Mem: 1981.2 total, 966.0 free, 622.0 used, 402.2 buff/cache
Mem Swap: 1024.0 total, 1024.0 free, 0.0 used, 1218.5 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR     %CPU  MEM%   TIME+  COMMAND
 659 root        20   0 373632 123744 58980 S   4.0  6.1  0:01.58 Xorg
1033 kali        20   0 469404 107588 88736 S   1.7  5.3  0:00.62 qterminal
946 kali        20   0 474796 46012 34376 S   1.3  2.3  0:00.37 xfce4-panel
912 kali        20   0 931100 103636 76980 S   1.0  5.1  0:00.62 xfwm4
957 kali        20   0 203960 27340 18216 S   1.0  1.3  0:00.40 panel-13-cpugra
863 kali        20   0 152916 2684 2208 S   0.7  0.1  0:00.06 VBoxClient
961 kali        20   0 350236 30164 20500 S   0.7  1.5  0:00.27 panel-15-genmon
1303 root        20   0 10200 3712 3100 R   0.7  0.2  0:00.03 top
1133 kali        20   0 312444 10060 6940 S   0.3  0.5  0:00.02 gvfs-afc-volume
1 root         20   0 102072 12044 8924 S   0.0  0.6  0:01.02 systemd
2 root         20   0 0 0 0 S   0.0  0.0  0:00.00 kthreadd
3 root         0 -20 0 0 0 S   0.0  0.0  0:00.00 rcu_gp
4 root         0 -20 0 0 0 S   0.0  0.0  0:00.00 rcu_par_gp
5 root         0 -20 0 0 0 S   0.0  0.0  0:00.00 slab_flushmq
6 root         0 -20 0 0 0 S   0.0  0.0  0:00.00 netns
7 root         20   0 0 0 0 S   0.0  0.0  0:00.00 kworker/0:0-ata_sff
8 root         0 -20 0 0 0 S   0.0  0.0  0:00.00 kworker/0:0n-events_highpri
9 root         0 0 0 0 0 S   0.0  0.0  0:01.38 kworker/u:1n-events_unbound
10 root        0 -20 0 0 0 S   0.0  0.0  0:00.00 mm_percpu_wq
11 root        20   0 0 0 0 S   0.0  0.0  0:00.00 rcu_tasks_kthread
12 root        20   0 0 0 0 S   0.0  0.0  0:00.00 rcu_tasks_rude_kthread
13 root        20   0 0 0 0 S   0.0  0.0  0:00.00 rcu_tasks_trace_kthread
14 root        20   0 0 0 0 S   0.0  0.0  0:00.04 ksoftirqd/0
15 root        20   0 0 0 0 S   0.0  0.0  0:00.07 rcu_preempt
16 root        rt  0 0 0 0 S   0.0  0.0  0:00.00 migration/0
```

PID =

USER =

COMMAND =

- Filtrare i risultati del comando top inviando l'output al comando grep (utilizzare la pipe <<|>> per mostrare solo i programmi in esecuzione per l'utente <<root>>) – Ripetere il punto 2, filtrando i risultati per mostrare solamente i processi in esecuzione dall'utente kali

```
(kali@kali)-[~]
$ top | grep root
 1 root        20   0 102072 12044 8924 S   0.0  0.6  0:01.03 systemd
 2 root        20   0 0 0 0 S   0.0  0.0  0:00.00 kthreadd
 3 root         0 -20 0 0 0 S   0.0  0.0  0:00.00 rcu_gp
 4 root         0 -20 0 0 0 S   0.0  0.0  0:00.00 rcu_par_gp
 5 root         0 -20 0 0 0 S   0.0  0.0  0:00.00 slab_flushmq
 6 root         0 -20 0 0 0 S   0.0  0.0  0:00.00 netns
 7 root         0 -20 0 0 0 S   0.0  0.0  0:00.00 kworker/0:0n-events_highpri
 8 root         0 -20 0 0 0 S   0.0  0.0  0:00.00 mm_percpu_wq
 9 root        20   0 0 0 0 S   0.0  0.0  0:00.00 rcu_tasks_kthread
10 root        20   0 0 0 0 S   0.0  0.0  0:00.00 rcu_tasks_rude_kthread
11 root        20   0 0 0 0 S   0.0  0.0  0:00.00 rcu_tasks_trace_kthread
12 root        20   0 0 0 0 S   0.0  0.0  0:00.04 ksoftirqd/0
13 root        20   0 0 0 0 S   0.0  0.0  0:00.05 ksoftirqd/1
14 root        20   0 0 0 0 S   0.0  0.0  0:00.00 migration/0
15 root        rt  0 0 0 0 S   0.0  0.0  0:00.00 kworker/u:1n-events_highpri
16 root        0 -20 0 0 0 S   0.0  0.0  0:00.04 kworker/u:1n-events_unbound
17 root        20   0 0 0 0 S   0.0  0.0  0:00.00 cpuphp/0
18 root        20   0 0 0 0 S   0.0  0.0  0:00.00 cpuphp/1
19 root        0 -20 0 0 0 S   0.0  0.0  0:00.15 migration/1
20 root        rt  0 0 0 0 S   0.0  0.0  0:00.00 ksoftirqd/1
21 root        20   0 0 0 0 S   0.0  0.0  0:00.00 kworker/1:0n-events_highpri
22 root        0 -20 0 0 0 S   0.0  0.0  0:00.00 kworker/u:1n-events_unbound
23 root        20   0 0 0 0 S   0.0  0.0  0:00.00 kworker/u:1n-events_unbound
24 root        0 -20 0 0 0 S   0.0  0.0  0:00.00 kworker/u:1n-events_unbound
25 root        20   0 0 0 0 S   0.0  0.0  0:00.00 kworker/u:1n-events_unbound
26 root        20   0 0 0 0 S   0.0  0.0  0:00.00 kworker/u:1n-events_unbound
27 root        0 -20 0 0 0 S   0.0  0.0  0:00.00 kworker/u:1n-events_unbound
28 root        20   0 0 0 0 S   0.0  0.0  0:00.00 kworker/u:1n-events_unbound
29 root        20   0 0 0 0 S   0.0  0.0  0:00.00 kworker/u:1n-events_unbound
30 root        20   0 0 0 0 S   0.0  0.0  0:00.00 kworker/u:1n-events_unbound
31 root        0 -20 0 0 0 S   0.0  0.0  0:00.00 kworker/u:1n-events_unbound
32 root        20   0 0 0 0 S   0.0  0.0  0:00.00 kworker/u:1n-events_unbound
33 root        20   0 0 0 0 S   0.0  0.0  0:00.00 kworker/u:1n-events_unbound
34 root        25   0 0 0 0 S   0.0  0.0  0:00.00 kworker/u:1n-events_unbound
35 root        39 19 0 0 0 S   0.0  0.0  0:00.24 khugepaged

(kali@kali)-[~]
$ top | grep kali
1033 kali        20   0 469564 108156 88980 S   6.2  5.3  0:04.32 qterminal
946 kali        20   0 475012 46464 34656 S   2.3  2.3  0:00.86 xfce4-panel
912 kali        20   0 931100 105852 76980 S   1.7  5.2  0:03.48 xfwm4
957 kali        20   0 203960 31504 18216 S   1.0  1.6  0:05:39 panel-13-cpugra
963 kali        20   0 333260 44888 32184 S   1.0  2.2  0:00:20 panel-17-notifi
961 kali        20   0 350236 30164 20500 S   0.7  1.5  0:02:88 panel-15-genmon
3704 kali        20   0 10196 3776 3112 R   0.7  0.2  0:00.03 top
863 kali        20   0 152916 2684 2208 S   0.3  0.1  0:01.41 VBoxClient
1033 kali        20   0 469564 108156 88980 S   0.3  5.3  0:04:39 qterminal
957 kali        20   0 203960 31504 18216 S   1.3  1.6  0:05:43 panel-13-cpugra
962 kali        20   0 592108 47860 34688 S   0.7  2.4  0:00:98 panel-16-pulsea
863 kali        20   0 152916 2684 2208 S   0.3  0.1  0:01.42 VBoxClient
912 kali        20   0 931100 105852 76980 S   0.3  5.2  0:03:40 xfwm4
961 kali        20   0 350236 30164 20500 S   0.3  1.5  0:02:81 panel-15-genmon
964 kali        20   0 325224 47764 32844 S   0.3  2.4  0:00:41 panel-18-power-
1033 kali        20   0 469564 108156 88980 S   0.3  5.3  0:04:34 qterminal
3704 kali        20   0 10196 3776 3112 R   0.3  0.2  0:00:04 top
```

- Creare una nuova directory chiamata <<Epicode_Lab>> nella seguente directory /home/kali/Desktop

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

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

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

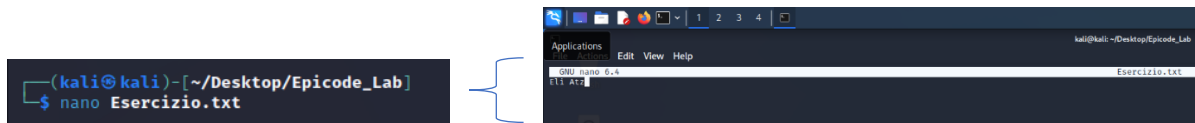
- Spostarsi nella directory appena creata e creare il file <<Esercizio.txt>>

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

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

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

- Modificare il file con l'editor di testo <<nano>>, e salvarlo.



- Utilizzare il comando <<cat>> per leggere a schermo il file.txt appena modificato

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

- Controllare i permessi del file con il comando ls -la. Modificare i privilegi del file in modo tale che l'utente corrente abbia tutti i privilegi (r,w,x), il gruppo (r,w), gli altri utenti solo la lettura

```
(kali@kali)-[~/Desktop/Epicode_Lab]
$ ls -la
total 12
drwxr-xr-x 2 kali kali 4096 Jan 31 16:05 .
drwxr-xr-x 3 kali kali 4096 Jan 31 15:56 ..
-rw-r--r-- 1 kali kali  8 Jan 31 16:01 Esercizio.txt

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

(kali@kali)-[~/Desktop/Epicode_Lab]
$ ls -la
total 12
drwxr-xr-x 2 kali kali 4096 Jan 31 16:05 .
drwxr-xr-x 3 kali kali 4096 Jan 31 15:56 ..
-rwxrw-r-- 1 kali kali  8 Jan 31 16:01 Esercizio.txt
```

- Utilizzare il comando <<useradd>> per creare un nuovo utente e <<passwd>> seguito dal nome utente per assegnare una password

```
(kali@kali)-[~/Desktop/Epicode_Lab]
$ useradd eliatz
useradd: Permission denied.
useradd: cannot lock /etc/passwd; try again later.

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

(kali@kali)-[~/Desktop/Epicode_Lab]
$ passwd eliatz
passwd: You may not view or modify password information for eliatz.

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

→ ricorda: per l'accesso e le azioni degli utenti devi usare <<sudo+comando>>!

- Con l'utente attuale cambiate i privilegi del file.txt creato in precedenza in modo tale che altri utenti non siano abilitati alla lettura

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

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

(kali@kali)-[~/Desktop/Epicode_Lab]
$ ls -la
total 12
drwxr-xr-x 2 kali kali 4096 Jan 31 16:05 .
drwxr-xr-x 3 kali kali 4096 Jan 31 15:56 ..
-rwxrw--- 1 kali kali  8 Jan 31 16:01 Esercizio.txt
```

Qui mi sono bloccata 😞