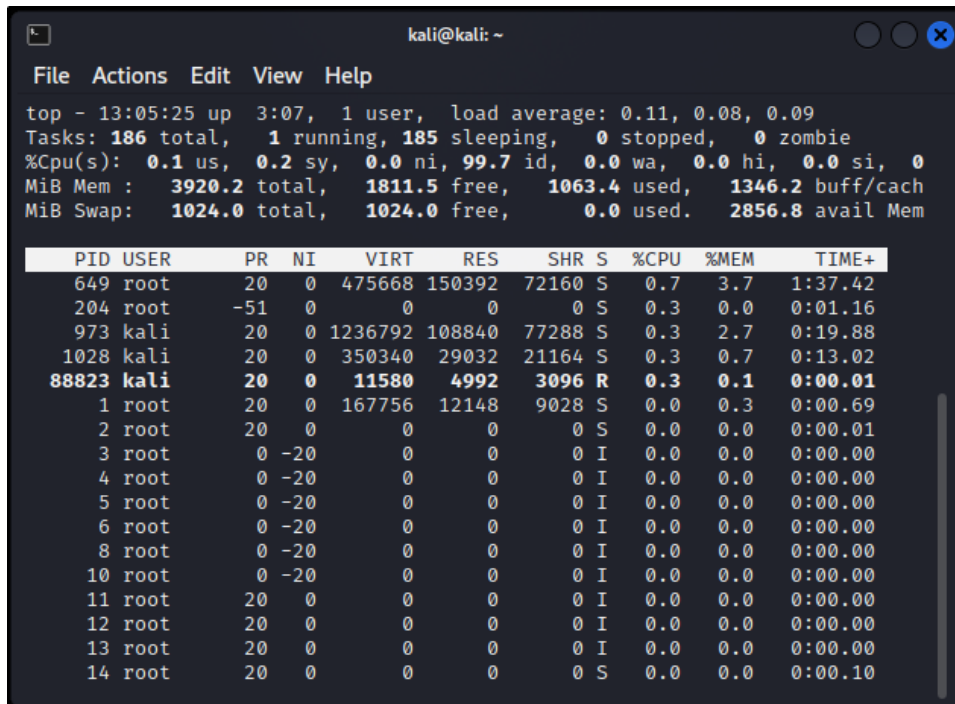


REPORT UNIT 1.2

MODULO 2

Controllo i processi operativi sulla macchina Linux con il comando **top** (table of process) dal terminale per mostrare i processi attivi in tempo reale ed i task del kernel.



```
File Actions Edit View Help
top - 13:05:25 up 3:07, 1 user, load average: 0.11, 0.08, 0.09
Tasks: 186 total, 1 running, 185 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.1 us, 0.2 sy, 0.0 ni, 99.7 id, 0.0 wa, 0.0 hi, 0.0 si, 0
MiB Mem : 3920.2 total, 1811.5 free, 1063.4 used, 1346.2 buff/cach
MiB Swap: 1024.0 total, 1024.0 free, 0.0 used. 2856.8 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+
649	root	20	0	475668	150392	72160	S	0.7	3.7	1:37.42
204	root	-51	0	0	0	0	S	0.3	0.0	0:01.16
973	kali	20	0	1236792	108840	77288	S	0.3	2.7	0:19.88
1028	kali	20	0	350340	29032	21164	S	0.3	0.7	0:13.02
88823	kali	20	0	11580	4992	3096	R	0.3	0.1	0:00.01
1	root	20	0	167756	12148	9028	S	0.0	0.3	0:00.69
2	root	20	0	0	0	0	S	0.0	0.0	0:00.01
3	root	0	-20	0	0	0	I	0.0	0.0	0:00.00
4	root	0	-20	0	0	0	I	0.0	0.0	0:00.00
5	root	0	-20	0	0	0	I	0.0	0.0	0:00.00
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00
8	root	0	-20	0	0	0	I	0.0	0.0	0:00.00
10	root	0	-20	0	0	0	I	0.0	0.0	0:00.00
11	root	20	0	0	0	0	I	0.0	0.0	0:00.00
12	root	20	0	0	0	0	I	0.0	0.0	0:00.00
13	root	20	0	0	0	0	I	0.0	0.0	0:00.00
14	root	20	0	0	0	0	S	0.0	0.0	0:00.10

Il **PID** (process identifier) identifica il numero del processo, l'**USER** mostra il nome dell'utente mentre **COMMAND** è il programma o utility che è eseguito nella command line.

Filtro i risultati del comando top con **top | grep** per mostrare solo i risultati in esecuzione per l'utente **root** e successivamente per l'utente **kali**.

```
kali@kali: ~  
File Actions Edit View Help  
top - 13:17:51 up 3:19, 1 user, load average: 0.01, 0.04, 0.07  
649 root 20 0 476084 149372 71140 S 2.0 3.7 1:44.79 Xorg  
362 root 20 0 8260 5500 1792 S 0.3 0.1 0:00.40 haveged  
1 root 20 0 167756 12148 9028 S 0.0 0.3 0:00.70 systemd  
2 root 20 0 0 0 0 S 0.0 0.0 0:00.01 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 0:00.11 ksoftir+  
16 root rt 0 0 0 0 S 0.0 0.0 0:00.07 migrati+  
18 root 20 0 0 0 0 S 0.0 0.0 0:00.00 cpuhp/0  
20 root rt 0 0 0 0 S 0.0 0.0 0:00.42 migrati+  
  
18 root 20 0 0 0 0 S 0.0 0.0 0:00.00 cpuhp/0  
  
19 root 20 0 0 0 0 S 0.0 0.0 0:00.00 cpuhp/1  
  
20 root rt 0 0 0 0 S 0.0 0.0 0:00.42 migrati+
```

```
kali@kali: ~  
File Actions Edit View Help  
(kali@kali)-[~]  
$ top | grep kali  
913 kali 20 0 217956 2400 2052 S 0.3 0.1 0:23.04 VBoxCli+  
973 kali 20 0 1236792 108840 77288 S 0.3 2.7 0:21.24 xfwm4  
1028 kali 20 0 350340 29036 21164 S 0.3 0.7 0:13.83 panel-1+  
88770 kali 20 0 440252 105836 84608 S 0.3 2.6 0:00.89 qtermin+  
905 kali 20 0 217440 2528 2172 S 0.3 0.1 0:04.17 VBoxCli+  
913 kali 20 0 217956 2400 2052 S 0.3 0.1 0:23.05 VBoxCli+  
973 kali 20 0 1236792 108840 77288 S 0.3 2.7 0:21.25 xfwm4  
1026 kali 20 0 358700 41764 21728 S 0.3 1.0 0:14.37 panel-1+  
913 kali 20 0 217956 2400 2052 S 0.3 0.1 0:23.06 VBoxCli+  
95166 kali 20 0 11580 5092 3196 R 0.3 0.1 0:00.01 top  
973 kali 20 0 1236792 108840 77288 S 0.3 2.7 0:21.26 xfwm4  
1028 kali 20 0 350340 29036 21164 S 0.3 0.7 0:13.84 panel-1+  
913 kali 20 0 217956 2400 2052 S 0.3 0.1 0:23.07 VBoxCli+  
1026 kali 20 0 358700 41764 21728 S 0.3 1.0 0:14.38 panel-1+  
823 kali 20 0 9684 5472 4276 S 0.6 0.1 0:02.79 dbus-da+  
913 kali 20 0 217956 2400 2052 S 0.3 0.1 0:23.08 VBoxCli+  
913 kali 20 0 217956 2400 2052 S 0.3 0.1 0:23.09 VBoxCli+  
973 kali 20 0 1236792 108840 77288 S 0.3 2.7 0:21.27 xfwm4  
1028 kali 20 0 350340 29036 21164 S 0.3 0.7 0:13.85 panel-1+  
95166 kali 20 0 11580 5092 3196 R 0.3 0.1 0:00.02 top  
1090 kali 20 0 347660 36592 20884 S 2.7 0.9 0:00.27 xfce4-n+
```

Creo una nuova directory chiamata **Epicode_Lab** nella directory /home/kali/Desktop.

Successivamente mi sposto nella directory e creo il file **Esercizio.txt**

```
kali@kali: ~/Desktop/Epicode_Lab
File Actions Edit View Help
(kali@kali)~[~]
$ cd /home/kali/Desktop
(kali@kali)~/Desktop[
$ mkdir Epicode_Lab
(kali@kali)~/Desktop[
$ cd /home/kali/Desktop/Epicode_Lab
(kali@kali)~/Desktop/Epicode_Lab[
$ touch Esercizio.txt
(kali@kali)~/Desktop/Epicode_Lab[
$ sudo nano Esercizio.txt
[sudo] password for kali: 
```

Modifico il file di testo appena creato con l'editor **nano**.

```
kali@kali: ~/Desktop/Epicode_Lab
File Actions Edit View Help
GNU nano 7.2 Esercizio.txt
[ ASCII art of a cat ]
[ Wrote 13 lines ]
^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
```

Leggo a schermo il file con il comando **cat**, controllo i permessi del file con il comando **ls -l** e li modifico facendo in modo che l'utente corrente abbia tutti i privilegi(r,w,x), il gruppo (r,w) e gli altri utenti solo la lettura(r).

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

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

(kali@kali)~[~/Desktop/Epicode_Lab]
$ ls -la Esercizio.txt
-rw-r--r-- 1 kali kali 1183 May  9 13:31 Esercizio.txt

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

Creo un nuovo utente con il comando **useradd**, imposto la password con **passwd** e cambio i privilegi del file in modo che gli altri utenti non siano abilitati alla lettura, in seguito sposto il file creato nella cartella root.

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

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

(kali@kali)~[~/Desktop/Epicode_Lab]
$ sudo userdel meow

(kali@kali)~[~/Desktop/Epicode_Lab]
$ sudo useradd meow

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

(kali@kali)~[~/Desktop/Epicode_Lab]
$ chmod 363 Esercizio.txt

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

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

Cambio utente con il comando **su** e provo ad aprire il file di testo creato.

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

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

(kali@kali)-[~/Desktop/Epicode_Lab]
$ chmod 363 Esercizio.txt

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

(kali@kali)-[~/Desktop/Epicode_Lab]
$ su meow
Password:
$ cd /
$ dir
bin          etc          lib          lost+found  proc        srv          usr
boot         home         lib32        media       root        swapfile    var
dev          initrd.img   lib64        mnt         run         sys         vmlinuz
Esercizio.txt  initrd.img.old libx32       opt         sbin        tmp         vmlinuz.old
$ sudo nano Esercizio.txt
[sudo] password for meow: 
```

Mi appare l'errore "permission denied" ovvero permesso negato.

```
kali@kali: ~/Desktop/Epicode_Lab
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
```

Modifico i permessi del file per fare in modo che l'user creato possa leggerlo.

