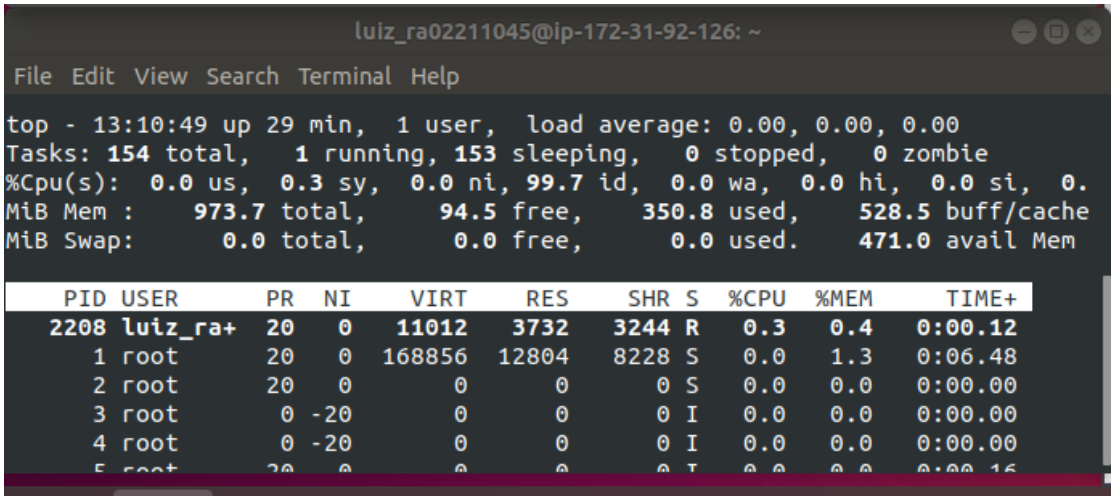
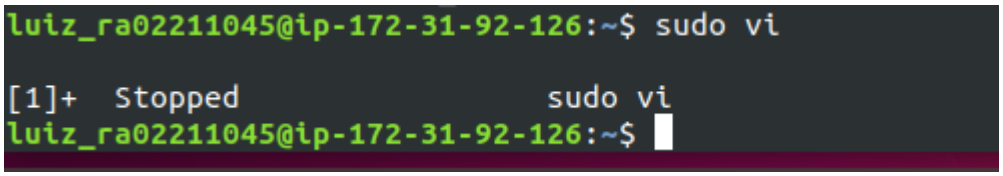
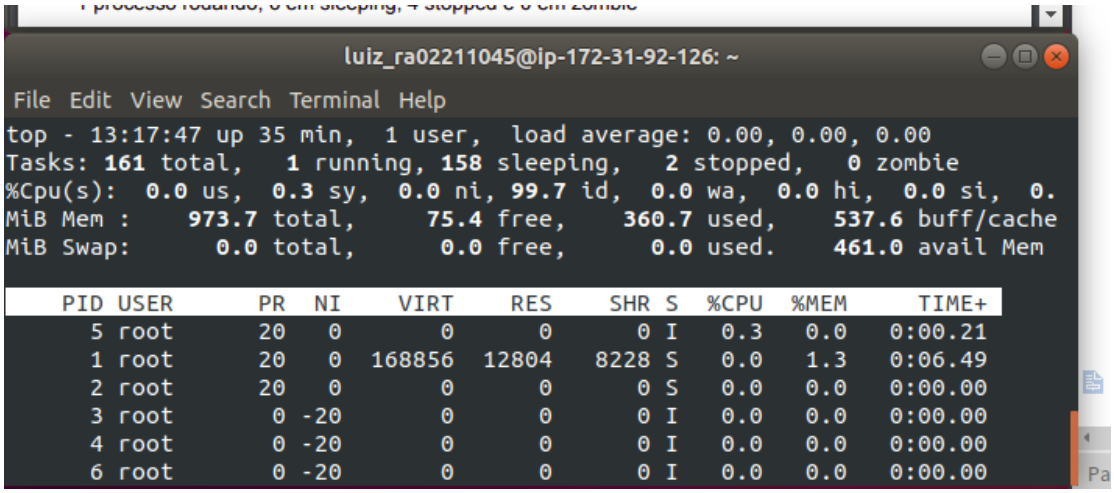






PID é o número do processo

User: a qual usuário está associado aquele PID, é o proprietário daquele processo

PR: prioridade real sob a perspectiva do kernel. PR pode variar entre -20 a +20, sendo que - 20 tem uma prioridade mais alta e +20 prioridades mais baixa. Quando o valor é igual a zero é neutro. Em linux temos 140 prioridades, que podem ser classificadas:

Alto - 20 -100

Padrão 0 120

Inferior +19 +139

NI - nice prioridade do comando

```
luiz_ra02211045@ip-172-31-92-126:~$ jobs
[1]   Stopped                 sudo nice -n -20 vi
[2]-  Stopped                 sudo nice -n -20 vi
[3]+  Stopped                 sudo nice -n 50 vi
luiz_ra02211045@ip-172-31-92-126:~$
```

```
luiz_ra02211045@ip-172-31-92-126:~$ jobs -l
[1]   8230 Stopped                 sudo nice -n -20 vi
[2]-  8236 Stopped                 sudo nice -n -20 vi
[3]+  8243 Stopped                 sudo nice -n 50 vi
luiz_ra02211045@ip-172-31-92-126:~$
```

```
[3]+  8243 Stopped                 sudo nice -n 50 vi
luiz_ra02211045@ip-172-31-92-126:~$ jobs -s
[1]   Stopped                 sudo nice -n -20 vi
[2]-  Stopped                 sudo nice -n -20 vi
[3]+  Stopped                 sudo nice -n 50 vi
luiz_ra02211045@ip-172-31-92-126:~$
```

```
luiz_ra02211045@ip-172-31-92-126:~$ jobs -p
8230
8236
8243
luiz_ra02211045@ip-172-31-92-126:~$
```

```
8243
luiz_ra02211045@ip-172-31-92-126:~$ ps
    PID TTY          TIME CMD
   8223 pts/0    00:00:00 bash
   8274 pts/0    00:00:00 ps
luiz_ra02211045@ip-172-31-92-126:~$
```

```
   8223 pts/0    00:00:00 bash
   8274 pts/0    00:00:00 ps
luiz_ra02211045@ip-172-31-92-126:~$ ps -a
    PID TTY          TIME CMD
   1121 tty1     00:00:01 Xorg
   1173 tty1     00:00:00 dbus-run-sessio
   1174 tty1     00:00:00 dbus-daemon
   1176 tty1     00:00:00 gnome-session-b
   1183 tty1     00:00:00 at-spi-bus-laun
   1188 tty1     00:00:00 dbus-daemon
   1222 tty1     00:00:04 gnome-shell
   1347 tty1     00:00:00 ibus-daemon
   1352 tty1     00:00:00 ibus-dconf
   1355 tty1     00:00:00 ibus-x11
   1359 tty1     00:00:00 ibus-portal
   1368 tty1     00:00:00 at-spi2-registr
   1442 tty1     00:00:00 gjs
   1459 tty1     00:00:00 gsd-color
   1460 tty1     00:00:00 gsd-print-notif
   1466 tty1     00:00:00 gsd-a11y-settin
   1472 tty1     00:00:00 gsd-power
   1475 tty1     00:00:00 gsd-media-keys
   1476 tty1     00:00:00 gsd-rfkill
   1480 tty1     00:00:00 gsd-keyboard
   1483 tty1     00:00:00 gsd-wacom
   1485 tty1     00:00:00 gsd-housekeepin
```

```
   8275 pts/0    00:00:00 ps
luiz_ra02211045@ip-172-31-92-126:~$ ps -u
USER         PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
luiz_ra+    8223  0.0  0.5  10008  5192 pts/0    S    23:19   0:00 bash
luiz_ra+    8276  0.0  0.3  10624  3364 pts/0    R+   23:31   0:00 ps -u
luiz_ra02211045@ip-172-31-92-126:~$
```

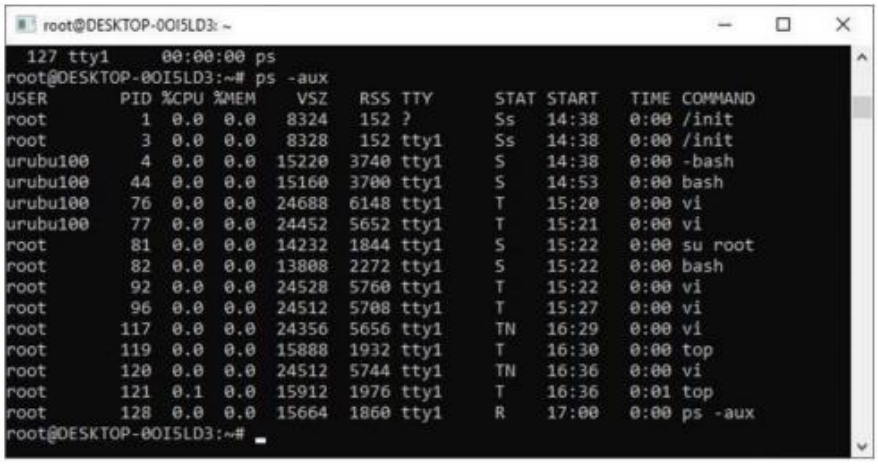
```
x: command not found
luiz_ra02211045@ip-172-31-92-126:~$ ps -x
    PID TTY      STAT   TIME COMMAND
   8223 pts/0    S      0:00 bash
   8298 pts/0    R+     0:00 ps -x
luiz_ra02211045@ip-172-31-92-126:~$
```

```
For more details see ps(1).
luiz_ra02211045@ip-172-31-92-126:~$ ps -l
F S   UID     PID    PPID  C PRI  NI ADDR SZ WCHAN  TTY          TIME CMD
4 S  1001    8223    8222  0  80   0 -  2502 do_wai pts/0    00:00:00 bash
0 R  1001    8300    8223  0  80   0 -  2636 -      pts/0    00:00:00 ps
luiz_ra02211045@ip-172-31-92-126:~$
```

```
0 R  1001     8300     8223  0  80   0 -  2636 -      pts/0    00:00:00 ps
luiz_ra02211045@ip-172-31-92-126:~$ ps -e
    PID TTY          TIME CMD
      1 ?        00:00:09 systemd
      2 ?        00:00:00 kthreadd
      3 ?        00:00:00 rcu_gp
      4 ?        00:00:00 rcu_par_gp
      6 ?        00:00:00 kworker/0:0H-events_highpri
      9 ?        00:00:00 mm_percpu_wq
     10 ?        00:00:00 rcu_tasks_rude_
     11 ?        00:00:00 rcu_tasks_trace
     12 ?        00:00:00 ksoftirqd/0
     13 ?        00:00:00 rcu_sched
     14 ?        00:00:00 migration/0
     15 ?        00:00:00 idle_inject/0
     16 ?        00:00:00 cpuhp/0
     17 ?        00:00:00 kdevtmpfs
     18 ?        00:00:00 netns
     19 ?        00:00:00 inet_frag_wq
     20 ?        00:00:00 kauditd
     21 ?        00:00:00 khungtaskd
     22 ?        00:00:00 oom_reaper
     23 ?        00:00:00 writeback
     24 ?        00:00:00 kcompactd0
```

```
   8301 pts/0    00:00:00 ps
luiz_ra02211045@ip-172-31-92-126:~$ ps -aux
USER         PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1  0.6  1.1 168960 11872 ?        Ss   23:08   0:09 /sbin/init
root           2  0.0  0.0      0     0 ?        S    23:08   0:00 [kthreadd]
root           3  0.0  0.0      0     0 ?        I<   23:08   0:00 [rcu_gp]
root           4  0.0  0.0      0     0 ?        I<   23:08   0:00 [rcu_par_gp]
root           6  0.0  0.0      0     0 ?        I<   23:08   0:00 [kworker/0:0H-events_highpri]
root           9  0.0  0.0      0     0 ?        I<   23:08   0:00 [mm_percpu_wq]
root          10  0.0  0.0      0     0 ?        S    23:08   0:00 [rcu_tasks_rude_]
root          11  0.0  0.0      0     0 ?        S    23:08   0:00 [rcu_tasks_trace]
root          12  0.0  0.0      0     0 ?        S    23:08   0:00 [ksoftirqd/0]
root          13  0.0  0.0      0     0 ?        I    23:08   0:00 [rcu_sched]
root          14  0.0  0.0      0     0 ?        S    23:08   0:00 [migration/0]
root          15  0.0  0.0      0     0 ?        S    23:08   0:00 [idle_inject/0]
root          16  0.0  0.0      0     0 ?        S    23:08   0:00 [cpuhp/0]
root          17  0.0  0.0      0     0 ?        S    23:08   0:00 [kdevtmpfs]
root          18  0.0  0.0      0     0 ?        I<   23:08   0:00 [netns]
root          19  0.0  0.0      0     0 ?        I<   23:08   0:00 [inet_frag_wq]
root          20  0.0  0.0      0     0 ?        S    23:08   0:00 [kauditd]
root          21  0.0  0.0      0     0 ?        S    23:08   0:00 [khungtaskd]
```

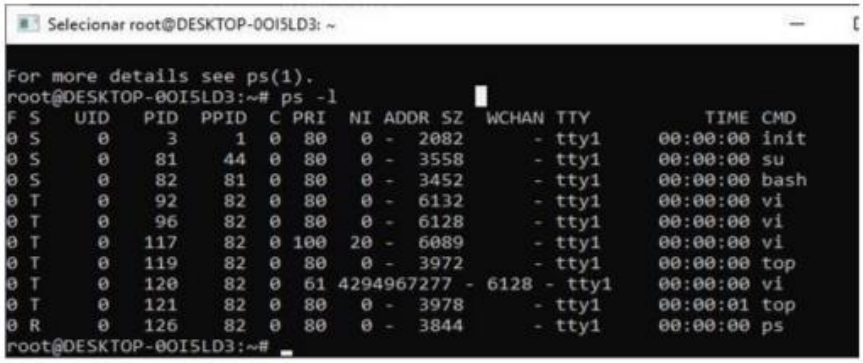
2) Na tela abaixo o que significa Ss e TN na coluna STAT, explique



S interruptible sleep (waiting for an event to complete)
s is a session leader

T stopped, either by a job control signal or because it is being traced.
N low-priority (nice to other users)

3) O que significa ADDR SZ e WCHAN na tela abaixo, explique



ADDR	Memory address of the process
SZ	Virtual memory usage
WCHAN	Memory address of the event the process is waiting for