Atividade Gerenciamento de Processos

```
ubuntu@ip-172-31-28-92:~$ sudo adduser rita_03231044
Adding user `rita_03231044' ...
Adding new group `rita_03231044' (1002) ...
Adding new user `rita_03231044' (1002) with group `rita_0
3231044' ...
Creating home directory `/home/rita_03231044' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for rita_03231044
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] y
```

Conectando à máquina virtual
sudo adduser -> Criando novo usuário
y -> Confirmando as informações

```
rita_03231044@ip-172-31-28-92:/home/ubuntu$ su root
Password:
root@ip-172-31-28-92:/home/ubuntu# sudo usermod -aG sudo
rita_03231044
root@ip-172-31-28-92:/home/ubuntu#
```

Adicionando o usuário ao grupo de sudors

```
root@ip-172-31-28-92:/home/ubuntu# sudo apt update && sud
o apt upgrade -y
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jamm
y InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jamm
y-updates InRelease [119 kB]
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jamm
y-backports InRelease
Get:4 http://security.ubuntu.com/ubuntu jammy-security In
Release [110 kB]
```

Instalando atualizações

```
root@ip-172-31-28-92:/home/ubuntu# su rita_03231044
To run a command as administrator (user "root"), use "sud
o <command>".
See "man sudo_root" for details.

rita_03231044@ip-172-31-28-92:/home/ubuntu$
```

Mudando de usuário, de root para rita_03231044

```
top - 22:50:38 up 18 min,  1 user,  load average: 0.04,
Tasks: 172 total,   1 running, 171 sleeping,   0 stopped
%Cpu(s):  0.0 us,  6.2 sy,  0.0 ni, 93.8 id,  0.0 wa,  0
MiB Mem :    949.7 total,    104.2 free,    434.5 used,
MiB Swap:      0.0 total,      0.0 free,      0.0 used.

    PID USER      PR  NI    VIRT    RES    SHR S  %CPU
   2322 rita_03+  20   0   10548   4224   3456 R   6.2
      1 root      20   0  166668  12032   8320 S   0.0
      2 root      20   0       0      0      0 S   0.0
      3 root       0 -20       0      0      0 I   0.0
      4 root       0 -20       0      0      0 I   0.0
      5 root       0 -20       0      0      0 I   0.0
      6 root       0 -20       0      0      0 I   0.0
      8 root       0 -20       0      0      0 I   0.0
     10 root       0 -20       0      0      0 I   0.0
     11 root      20   0       0      0      0 I   0.0
```

Utilizando comando top

```
rita_03231044@ip-172-31-28-92:/home/ubuntu$ sudo vi
[sudo] password for rita_03231044:
```

```
[1]+  Stopped                 sudo vi
rita_03231044@ip-172-31-28-92:/home/ubuntu$
```

Abrindo o editor de texto vim como administrador e suspendendo o processo com ctrl Z


```
rita_03231044@ip-172-31-28-92:/home/ubuntu$ top
top - 22:55:06 up 22 min,  2 users,  load average: 0.00,
Tasks: 167 total,   1 running, 164 sleeping,   2 stopped
%Cpu(s):  0.0 us,  0.3 sy,  0.0 ni, 99.7 id,  0.0 wa,  0
MiB Mem :    949.7 total,    104.0 free,    425.7 used,
MiB Swap:      0.0 total,      0.0 free,      0.0 used.

    PID USER      PR  NI    VIRT    RES    SHR S  %CPU
      1 root      20   0  166668  12032   8320 S   0.0
      2 root      20   0       0      0      0 S   0.0
      3 root       0 -20       0      0      0 I   0.0
      4 root       0 -20       0      0      0 I   0.0
```

Comando top sendo usaod novamente para mostrar o gerenciamento das tarefas que é feito pelo terminal.
1 processo está rodando
164 estão parados
e 2 estão suspensos

```
rita_03231044@ip-172-31-28-92:/home/ubuntu$ nice -n -20 v
i
nice: cannot set niceness: Permission denied

[2]+  Stopped                 nice -n -20 vi
rita_03231044@ip-172-31-28-92:/home/ubuntu$ sudo nice -n
-20 vi

[3]+  Stopped                 sudo nice -n -20 vi
rita_03231044@ip-172-31-28-92:/home/ubuntu$

[4]+  Stopped                 sudo nice -n 20 vi
rita_03231044@ip-172-31-28-92:/home/ubuntu$
```

Tentando editar o Ni inicialmente sem o sudo, onde o acesso foi negado e depois como sudo

```
top - 23:01:15 up 29 min,  4 users,  load average: 0.00,
Tasks: 174 total,   1 running, 166 sleeping,   7 stopped
%Cpu(s):  0.0 us,  0.3 sy,  0.0 ni, 99.7 id,  0.0 wa,  0
MiB Mem :    949.7 total,    104.0 free,    415.1 used,
MiB Swap:      0.0 total,      0.0 free,      0.0 used.

    PID USER      PR  NI    VIRT    RES    SHR S  %CPU
   2344 rita_03+  20   0   10648   4224   3456 R   0.3
      1 root      20   0  166668  12032   8320 S   0.0
      2 root      20   0       0      0      0 S   0.0
      3 root       0 -20       0      0      0 I   0.0
      4 root       0 -20       0      0      0 I   0.0
      5 root       0 -20       0      0      0 I   0.0
      6 root       0 -20       0      0      0 I   0.0
      8 root       0 -20       0      0      0 I   0.0
     10 root       0 -20       0      0      0 I   0.0
     11 root      20   0       0      0      0 I   0.0
     12 root      20   0       0      0      0 I   0.0
     13 root      20   0       0      0      0 S   0.0
     14 root      20   0       0      0      0 I   0.0
     15 root      rt   0       0      0      0 S   0.0
     16 root     -51   0       0      0      0 S   0.0
     18 root      20   0       0      0      0 S   0.0
     19 root      20   0       0      0      0 S   0.0
     20 root       0 -20       0      0      0 I   0.0
```

Comndo top apresentando quantos processos estão parados e rodando + a mudança do NI para -20 e PR para 20

```
rita_03231044@ip-172-31-28-92:/home/ubuntu$ vi

[6]+  Stopped                 vi
```

Abrindo novamente o editor e cancelando ele

```
rita_03231044@ip-172-31-28-92:/home/ubuntu$ jobs
[1]   Stopped                 sudo vi
[2]   Stopped                 nice -n -20 vi
[3]   Stopped                 sudo nice -n -20 vi
[4]   Stopped                 sudo nice -n 20 vi
[5]-  Stopped                 top
[6]+  Stopped                 vi
rita_03231044@ip-172-31-28-92:/home/ubuntu$ jobs -l
[1]   2327 Stopped                 sudo vi
[2]   2336 Stopped                 nice -n -20 vi
[3]   2338 Stopped                 sudo nice -n -20 vi
[4]   2341 Stopped                 sudo nice -n 20 vi
[5]-  2344 Stopped (signal)        top
[6]+  2348 Stopped                 vi
rita_03231044@ip-172-31-28-92:/home/ubuntu$ jobs -s
[1]   Stopped                 sudo vi
[2]   Stopped                 nice -n -20 vi
[3]   Stopped                 sudo nice -n -20 vi
[4]   Stopped                 sudo nice -n 20 vi
[5]-  Stopped                 top
[6]+  Stopped                 vi
rita_03231044@ip-172-31-28-92:/home/ubuntu$ jobs -p
2327
2336
2338
2341
2344
2348
rita_03231044@ip-172-31-28-92:/home/ubuntu$
```

jobs utilizado para listar esses processos
jobs -> apresenta o histórico
jobs -l -> apresenta o nome + o numero
jobs -s -> exibe o nome de cada processo
jobs -p -> exibe o numero de cada processo

```
rita_03231044@ip-172-31-28-92:/home/ubuntu$ ps
    PID TTY          TIME CMD
   1304 pts/0    00:00:00 bash
   1322 pts/0    00:00:00 bash
   2314 pts/0    00:00:00 bash
   2336 pts/0    00:00:00 vi
   2344 pts/0    00:00:00 top
   2348 pts/0    00:00:00 vi
   2632 pts/0    00:00:00 ps
```

comando ps para exibir informações sobre os processos que estão ativos

```
rita_03231044@ip-172-31-28-92:/home/ubuntu$ ps -a
    PID TTY          TIME CMD
    759 tty1     00:00:01 Xorg
    773 tty1     00:00:00 dbus-run-sessio
    774 tty1     00:00:00 dbus-daemon
    775 tty1     00:00:00 gnome-session-b
    778 tty1     00:00:00 at-spi-bus-laun
    783 tty1     00:00:00 dbus-daemon
    795 tty1     00:00:02 gnome-shell
    807 tty1     00:00:00 xdg-permission-
    825 tty1     00:00:00 at-spi2-registr
    834 tty1     00:00:00 gsd-color
    836 tty1     00:00:00 gsd-print-notif
    838 tty1     00:00:00 gsd-a11y-settin
    841 tty1     00:00:00 gsd-power
    842 tty1     00:00:00 gsd-media-keys
    848 tty1     00:00:00 gsd-rfkill
    849 tty1     00:00:00 ibus-daemon
    850 tty1     00:00:00 gsd-keyboard
    851 tty1     00:00:00 gsd-wacom
    854 tty1     00:00:00 gsd-housekeepin
    857 tty1     00:00:00 gsd-sound
```

comando ps -a para exibir informações sobre os processos que estão ativos de outros usuários

```
rita_03231044@ip-172-31-28-92:/home/ubuntu$ ps -u
USER         PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
rita_03+    1304  0.0  0.4   8724  4480 pts/0    S    22:38   0:00 bash
rita_03+    1322  0.0  0.4   8724  4480 pts/0    S    22:42   0:00 bash
rita_03+    2314  0.0  0.5   8724  5504 pts/0    S    22:49   0:00 bash
rita_03+    2336  0.0  1.0  20932 10240 pts/0    T    22:57   0:00 vi
rita_03+    2344  0.0  0.4  10648  4224 pts/0    T    23:00   0:00 top
rita_03+    2348  0.0  1.0  20932 10496 pts/0    T    23:02   0:00 vi
rita_03+    2640  0.0  0.3  10112  3456 pts/0    R+   23:19   0:00 ps -u
```

comando ps -u para exibir informações sobre o nome do usuário e a data de início

```
rita_03231044@ip-172-31-28-92:/home/ubuntu$ ps -x
    PID TTY      STAT   TIME COMMAND
   1304 pts/0    S      0:00 bash
   1322 pts/0    S      0:00 bash
   2314 pts/0    S      0:00 bash
   2336 pts/0    T      0:00 vi
   2344 pts/0    T      0:00 top
   2348 pts/0    T      0:00 vi
   2641 pts/0    R+     0:00 ps -x
```

comando ps -x para exibir informações sobre os processos não associados ao terminal

```
rita_03231044@ip-172-31-28-92:/home/ubuntu$ ps -l
F S   UID     PID    PPID  C PRI  NI ADDR SZ WCHAN  TTY          TIME CMD
4 S  1002    1304    1303  0  80   0 -  2181 do_wai pts/0    00:00:00 bash
4 S  1002    1322    1321  0  80   0 -  2181 do_wai pts/0    00:00:00 bash
4 S  1002    2314    2313  0  80   0 -  2181 do_wai pts/0    00:00:00 bash
0 T  1002    2336    2314  0  80   0 -  5233 do_sig pts/0    00:00:00 vi
0 T  1002    2344    2314  0  80   0 -  2662 do_sig pts/0    00:00:00 top
0 T  1002    2348    2314  0  80   0 -  5233 do_sig pts/0    00:00:00 vi
0 R  1002    2642    2314  0  80   0 -  2528 -      pts/0    00:00:00 ps
```

comando ps -l para exibir informações mais detalhadas sobre os processos

```
rita_03231044@ip-172-31-28-92:/home/ubuntu$ ps -e
    PID TTY          TIME CMD
      1 ?        00:00:05 systemd
      2 ?        00:00:00 kthreadd
      3 ?        00:00:00 rcu_gp
      4 ?        00:00:00 rcu_par_gp
      5 ?        00:00:00 slub_flushwq
      6 ?        00:00:00 netns
      8 ?        00:00:00 kworker/0:0H-events_highpri
     10 ?        00:00:00 mm_percpu_wq
     11 ?        00:00:00 rcu_tasks_rude_kthread
     12 ?        00:00:00 rcu_tasks_trace_kthread
     13 ?        00:00:00 ksoftirqd/0
     14 ?        00:00:00 rcu_sched
```

comando ps -e para exibir todos os processos ativos

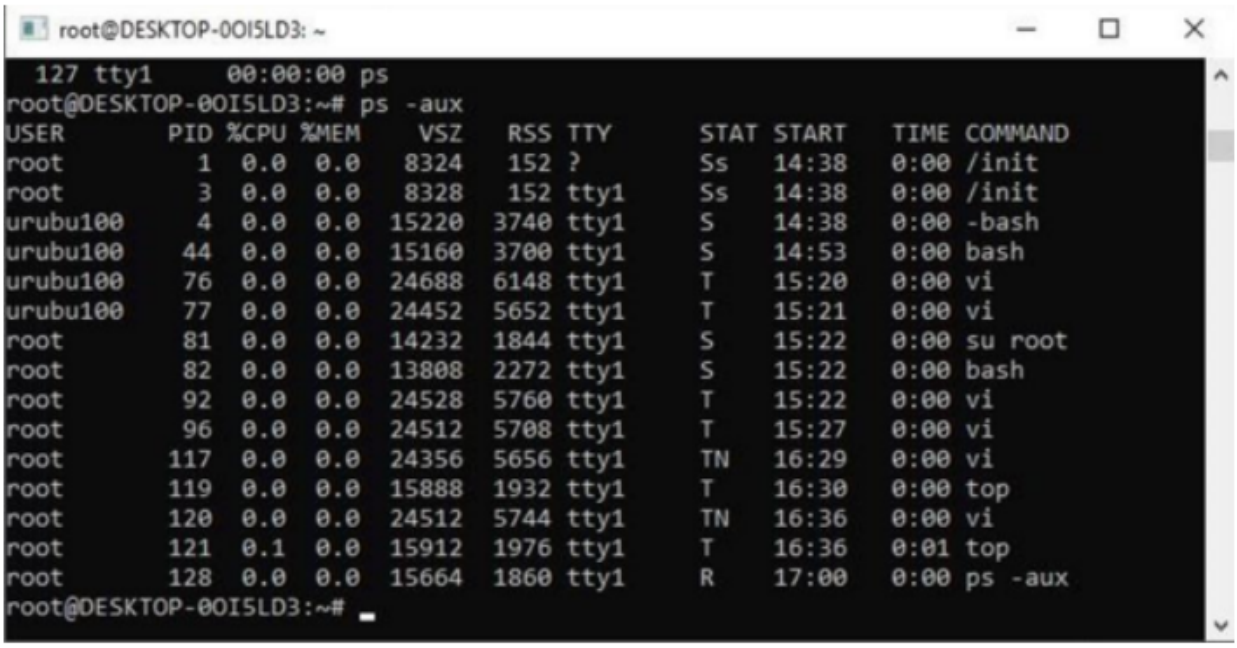
```
   2340 pts/2    00:00:00 vi
   2341 pts/0    00:00:00 sudo
   2342 pts/3    00:00:00 sudo
   2343 pts/3    00:00:00 vi
   2344 pts/0    00:00:00 top
   2348 pts/0    00:00:00 vi
   2352 ?        00:00:00 kworker/u30:1-events_power_effi
   2637 ?        00:00:00 kworker/u30:0-events_unbound
   2643 pts/0    00:00:00 ps
```

```
rita_03231044@ip-172-31-28-92:/home/ubuntu$ ps aux
USER         PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1  0.1  1.2 166668 12032 ?        Ss   22:32   0:05 /lib/systemd/systemd --system --deserialize 39
root           2  0.0  0.0      0     0 ?        S    22:32   0:00 [kthreadd]
root           3  0.0  0.0      0     0 ?        I<   22:32   0:00 [rcu_gp]
root           4  0.0  0.0      0     0 ?        I<   22:32   0:00 [rcu_par_gp]
root           5  0.0  0.0      0     0 ?        I<   22:32   0:00 [slub_flushwq]
root           6  0.0  0.0      0     0 ?        I<   22:32   0:00 [netns]
root           8  0.0  0.0      0     0 ?        I<   22:32   0:00 [kworker/0:0H-events_highpri]
root          10  0.0  0.0      0     0 ?        I<   22:32   0:00 [mm_percpu_wq]
```

```
root        2341  0.0  0.6  11608  5888 pts/0    T    22:59   0:00 sudo nice -n 20 vi
root        2342  0.0  0.2  11608  2448 pts/3    Ss   22:59   0:00 sudo nice -n 20 vi
root        2343  0.0  1.0  20932 10496 pts/3    TN+  22:59   0:00 vi
rita_03+    2344  0.0  0.4  10648  4224 pts/0    T    23:00   0:00 top
rita_03+    2348  0.0  1.0  20932 10496 pts/0    T    23:02   0:00 vi
root        2352  0.0  0.0      0     0 ?        I    23:06   0:00 [kworker/u30:1-events_unbound]
root        2637  0.0  0.0      0     0 ?        I    23:17   0:00 [kworker/u30:0-events_unbound]
rita_03+    2646  0.0  0.3  10112  3456 pts/0    R+   23:23   0:00 ps aux
```

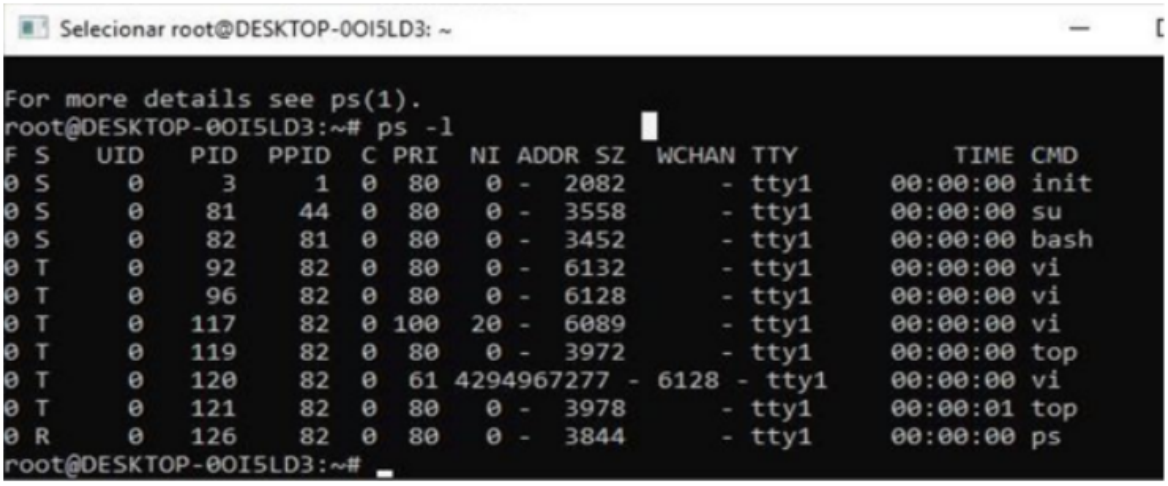
comando ps aux para exibir uma visão geral de todos os processos

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



vA coluna STAT é responsável pelo status do processo, então, Ss siginifica que o processo é uma sessão lider ou processo pai e TN que t é um processo que foi parado/interrompido e n um processo de baixa prioridade

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



ADDR SZ é o endereço de memória do processo e WCHAN é o endereço de memória do evento que o processo ta aguardando, quando nessa coluna há um - significa que o processo está em execução por isso não há endereço fixo para mostrar