

- 1. Com o "ps" verifique os processos de todos os usuários vinculados a um terminal com seus respectivos nomes;

```
root@debian:/home/kauan# ps -au
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
kauan      865  0.0  0.1 159140 5860 tty2    Ss1+  08:35   0:00 /usr/libexec/gdm-wayland-session /usr/bin/gnome-session
kauan      871  0.0  0.4 298492 16364 tty2    Sl+   08:35   0:00 /usr/libexec/gnome-session-binary --systemd
kauan     30928  0.0  0.1  7840  4788 pts/0    Ss   14:56   0:00 -bash
root     30946  0.0  0.1  9992  4876 pts/0    S    14:56   0:00 su root
root     30947  0.0  0.0   7100  3868 pts/0    S    14:56   0:00 bash
root     30952  0.0  0.0   9784  3476 pts/0    R+   14:57   0:00 ps -au
root@debian:/home/kauan#
```

- 2. Com o "ps" verifique os processos de todos os usuários com seus respectivos nomes, inclusive aqueles que não tenham sido vinculados a um terminal;

```
root@debian:/home/kauan# ps -aux
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root         1  0.0  0.2 99680 10732 ?        Ss   08:34   0:04 /sbin/init
root         2  0.0  0.0      0      0 ?        S    08:34   0:00 [kthreadd]
root         3  0.0  0.0      0      0 ?        I<   08:34   0:00 [rcu_gp]
root         4  0.0  0.0      0      0 ?        I<   08:34   0:00 [rcu_par_gp]
root         6  0.0  0.0      0      0 ?        I<   08:34   0:00 [kworker/0:0H-events_highpri]
root         8  0.0  0.0      0      0 ?        I<   08:34   0:00 [mm_percpu_wq]
root         9  0.0  0.0      0      0 ?        S    08:34   0:00 [rcu_tasks_rude_]
root        10  0.0  0.0      0      0 ?        S    08:34   0:00 [rcu_tasks_trace]
root        11  0.0  0.0      0      0 ?        S    08:34   0:02 [ksoftirqd/0]
root        12  0.0  0.0      0      0 ?        I    08:34   0:00 [rcu_sched]
root        13  0.0  0.0      0      0 ?        S    08:34   0:00 [migration/0]
root        15  0.0  0.0      0      0 ?        S    08:34   0:00 [cpuhp/0]
root        17  0.0  0.0      0      0 ?        S    08:34   0:00 [kdevtmpfs]
root        18  0.0  0.0      0      0 ?        I<   08:34   0:00 [netns]
root        19  0.0  0.0      0      0 ?        S    08:34   0:00 [kauditd]
root        20  0.0  0.0      0      0 ?        S    08:34   0:00 [khungtaskd]
root        21  0.0  0.0      0      0 ?        S    08:34   0:00 [oom_reaper]
root        22  0.0  0.0      0      0 ?        I<   08:34   0:00 [writeback]
root        23  0.0  0.0      0      0 ?        S    08:34   0:01 [kcompactd0]
root        24  0.0  0.0      0      0 ?        SN   08:34   0:00 [ksmd]
root        25  0.0  0.0      0      0 ?        SN   08:34   0:01 [khugepaged]
root        43  0.0  0.0      0      0 ?        I<   08:34   0:00 [kintegrityd]
root        44  0.0  0.0      0      0 ?        I<   08:34   0:00 [kblockd]
root        45  0.0  0.0      0      0 ?        I<   08:34   0:00 [blkcg_punt_bio]
root        46  0.0  0.0      0      0 ?        I<   08:34   0:00 [edac-poller]
root        47  0.0  0.0      0      0 ?        I<   08:34   0:00 [devfreq_wq]
root        48  0.0  0.0      0      0 ?        I<   08:34   0:04 [kworker/0:1H-kblockd]
root        51  0.0  0.0      0      0 ?        S    08:34   0:00 [kswapd0]
root        52  0.0  0.0      0      0 ?        I<   08:34   0:00 [kthrotld]
root        53  0.0  0.0      0      0 ?        I<   08:34   0:00 [acpi_thermal_pm]
root        54  0.0  0.0      0      0 ?        I<   08:34   0:00 [ipv6_addrconf]
root        64  0.0  0.0      0      0 ?        I<   08:34   0:00 [kstrp]
root        67  0.0  0.0      0      0 ?        I<   08:34   0:00 [zswap-shrink]
```

- 3. Com o "ps" verifique os processos de todos os usuários vinculados a um terminal com seus respectivos nomes, além disso filtre somente os processos do seu usuário;

```
root@debian:/home/kauan# ps -au | grep kauan
kauan      865    0.0  0.1 159140  5860 tty2      Ssl+ 08:35   0:00 /usr/libexec/gdm-wayland-session /usr/bin/gnome-session
kauan      871    0.0  0.4 298492 16364 tty2      Sl+   08:35   0:00 /usr/libexec/gnome-session-binary --systemd
kauan     30928    0.0  0.1   7840  4788 pts/0    Ss   14:56   0:00 -bash
root       30988    0.0  0.0   6200   648 pts/0    S+   15:02   0:00 grep kauan
root@debian:/home/kauan#
```

```
root@debian:/home/kauan# ps -au -U kauan
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
kauan      834    0.0  0.2  15716  9320 ?        Ss   08:35   0:00 /lib/systemd/systemd --user
kauan      835    0.0  0.0  101492  2836 ?        S    08:35   0:00 (sd-pam)
kauan      854    0.0  0.1   90460  5704 ?        S<sl 08:35   0:00 /usr/bin/pipewire
kauan      855    0.0  0.6  894156 26848 ?        S<sl 08:35   0:00 /usr/bin/pulseaudio --daemonize=no --log-target=journal
kauan      857    0.0  0.6  583740 25576 ?        Sns1 08:35   0:00 /usr/libexec/tracker-miner-fs
kauan      861    0.0  0.2  237816  8384 ?        Sl   08:35   0:00 /usr/bin/gnome-keyring-daemon --daemonize --login
kauan      865    0.0  0.1  159140  5860 tty2      Ssl+ 08:35   0:00 /usr/libexec/gdm-wayland-session /usr/bin/gnome-session
kauan      867    0.0  0.1   9288  5904 ?        Ss   08:35   0:00 /usr/bin/dbus-daemon --session --address=systemd: --nofork --nopid
kauan      871    0.0  0.4  298492 16364 tty2      Sl+  08:35   0:00 /usr/libexec/gnome-session-binary --systemd
kauan      880    0.0  0.1   85300  6556 ?        S<l  08:35   0:00 /usr/bin/pipewire-media-session
kauan      903    0.0  0.1  237240  7912 ?        Ssl  08:35   0:00 /usr/libexec/gvfsd
kauan      913    0.0  0.2  379924  8172 ?        Sl   08:35   0:00 /usr/libexec/gvfsd-fuse /run/user/1000/gvfs -f
kauan      939    0.0  0.1   88176  4332 ?        Ssl  08:35   0:00 /usr/libexec/gnome-session-ctl --monitor
kauan      940    0.0  0.3  349624 14164 ?        Ssl  08:35   0:00 /usr/libexec/gvfs-udisks2-volume-monitor
kauan      941    0.0  0.0   5964  3768 ?        Ss   08:35   0:00 ssh-agent -D -a /run/user/1000/openssh_agent
kauan      942    0.0  0.4  593944 17716 ?        Ssl  08:35   0:00 /usr/libexec/gnome-session-binary --systemd-service --session=gnom
kauan      963    0.0  0.2  233396  8328 ?        Ssl  08:35   0:00 /usr/libexec/gvfs-goa-volume-monitor
kauan      968    0.0  6.0 3373276 243800 ?        Ssl  08:35   0:16 /usr/bin/gnome-shell
kauan      971    0.0  0.1  307280  6500 ?        Sl   08:35   0:00 /usr/libexec/at-spi-bus-launcher --launch-immediately
kauan      978    0.0  1.0  624356 40696 ?        Sl   08:35   0:00 /usr/libexec/goa-daemon
kauan      980    0.0  0.1   8172  4568 ?        S    08:35   0:00 /usr/bin/dbus-daemon --config-file=/usr/share/defaults/at-spi2/acc
kauan      993    0.0  0.2  312424 11220 ?        Sl   08:35   0:00 /usr/libexec/goa-identity-service
kauan     1005    0.0  1.1  455400 46176 ?        Sl   08:35   0:00 /usr/bin/Xwayland :0 -rootless -noreset -accesssx -core -auth /run/
kauan     1006    0.0  0.1  233176  6516 ?        Ssl  08:35   0:00 /usr/libexec/gvfs-mtp-volume-monitor
kauan     1010    0.0  0.1  235412  7020 ?        Ssl  08:35   0:00 /usr/libexec/gvfs-gphoto2-volume-monitor
kauan     1038    0.0  0.2  311888  8068 ?        Ssl  08:35   0:02 /usr/libexec/gvfs-afc-volume-monitor
kauan     1039    0.0  0.1  233232  6488 ?        Ssl  08:35   0:00 /usr/libexec/xdg-permission-store
kauan     1047    0.0  0.5  581376 20616 ?        Sl   08:35   0:00 /usr/libexec/gnome-shell-calendar-server
kauan     1054    0.0  0.6  680408 26540 ?        Ssl  08:35   0:00 /usr/libexec/evolution-source-registry
kauan     1061    0.0  0.1  156012  5636 ?        Sl   08:35   0:00 /usr/libexec/dconf-service
kauan     1066    0.0  0.8  727100 35088 ?        Ssl  08:35   0:00 /usr/libexec/evolution-calendar-factory
kauan     1077    0.0  0.7  677088 29312 ?        Ssl  08:35   0:00 /usr/libexec/evolution-addressbook-factory
kauan     1080    0.0  0.7  2527100 30268 ?        Sl   08:35   0:00 /usr/bin/gjs /usr/share/gnome-shell/org.gnome.Shell.Notifications
```

- 4. Exiba uma lista hierárquica de processos em um formato de árvore (todos do sistema);

```

root@debian:/# pstree
systemd├─ModemManager─2*[{ModemManager}]
      ├─NetworkManager─2*[{NetworkManager}]
      ├─accounts-daemon─2*[{accounts-daemon}]
      ├─avahi-daemon─avahi-daemon
      ├─colord─2*[{colord}]
      ├─cron
      ├─dbus-daemon
      ├─fwupd─4*[{fwupd}]
      └─gdm3├─gdm-session-wor├─gdm-wayland-ses├─gnome-session-b─3*[{gnome-session-b}]
            │               │               │   └─2*[{gdm-wayland-ses}]
            │               └─2*[{gdm-session-wor}]
            └─2*[{gdm3}]
      └─gnome-keyring-d─3*[{gnome-keyring-d}]
      └─packagekitd─2*[{packagekitd}]
      └─polkitd─2*[{polkitd}]
      └─rsyslogd─3*[{rsyslogd}]
      └─rtkit-daemon─2*[{rtkit-daemon}]
      └─sshd─sshd─sshd─bash─su─bash─pstree
      └─switcheroo-cont─2*[{switcheroo-cont}]
systemd├─(sd-pam)
      ├─at-spi2-registr─2*[{at-spi2-registr}]
      ├─dbus-daemon
      ├─dconf-service─2*[{dconf-service}]
      ├─evolution-addre─5*[{evolution-addre}]
      ├─evolution-calen─8*[{evolution-calen}]
      ├─evolution-sourc─3*[{evolution-sourc}]
      ├─gjs─4*[{gjs}]
      ├─gnome-calendar─5*[{gnome-calendar}]
      └─gnome-session-b├─at-spi-bus-laun├─dbus-daemon
                      │               │   └─3*[{at-spi-bus-laun}]
                      │               └─evolution-alarm─5*[{evolution-alarm}]
                      │               └─gnome-software─4*[{gnome-software}]
                      │               └─gsd-disk-utilit─2*[{gsd-disk-utilit}]
                      └─3*[{gnome-session-b}]
      └─gnome-session-c─{gnome-session-c}
      └─gnome-shell├─Xwayland─4*[{Xwayland}]
                  └─ibus-daemon├─ibus-dconf─3*[{ibus-dconf}]
                                └─ibus-engine-sim─2*[{ibus-engine-sim}]
                                └─ibus-extension─3*[{ibus-extension-}]
                                └─2*[{ibus-daemon}]
                  └─10*[{gnome-shell}]
      └─gnome-shell-cal─5*[{gnome-shell-cal}]

```

- 5. Exiba uma lista hierárquica de processos em um formato de árvore do seu usuário;

```

root@debian:/# pstree kauan
gdm-wayland-ses└─gnome-session-b──3*[{gnome-session-b}]
                └─2*[{gdm-wayland-ses}]

gnome-keyring-d──3*[{gnome-keyring-d}]

sshd──bash──su──bash──pstree

systemd└─(sd-pam)
        └─at-spi2-registr──2*[{at-spi2-registr}]
        └─dbus-daemon
        └─dconf-service──2*[{dconf-service}]
        └─evolution-addre──5*[{evolution-addre}]
        └─evolution-calen──8*[{evolution-calen}]
        └─evolution-sourc──3*[{evolution-sourc}]
        └─gjs──4*[{gjs}]
        └─gnome-calendar──5*[{gnome-calendar}]
        └─gnome-session-b└─at-spi-bus-laun└─dbus-daemon
                                └─3*[{at-spi-bus-laun}]
                                └─evolution-alarm──5*[{evolution-alarm}]
                                └─gnome-software──4*[{gnome-software}]
                                └─gsd-disk-utilit──2*[{gsd-disk-utilit}]
                                └─3*[{gnome-session-b}]
        └─gnome-session-c──{gnome-session-c}
        └─gnome-shell└─Xwayland──4*[{Xwayland}]
                    └─ibus-daemon└─ibus-dconf──3*[{ibus-dconf}]
                                └─ibus-engine-sim──2*[{ibus-engine-sim}]
                                └─ibus-extension──3*[{ibus-extension-}]
                                └─2*[{ibus-daemon}]
                    └─10*[{gnome-shell}]
        └─gnome-shell-cal──5*[{gnome-shell-cal}]
        └─goa-daemon──3*[{goa-daemon}]
        └─goa-identity-se──2*[{goa-identity-se}]
        └─gsd-a11y-settin──3*[{gsd-a11y-settin}]
        └─gsd-color──3*[{gsd-color}]
        └─gsd-datetime──3*[{gsd-datetime}]
        └─gsd-housekeepin──3*[{gsd-housekeepin}]
        └─gsd-keyboard──3*[{gsd-keyboard}]
        └─gsd-media-keys──3*[{gsd-media-keys}]
        └─gsd-power──3*[{gsd-power}]
        └─gsd-print-notif──2*[{gsd-print-notif}]
        └─gsd-printer──2*[{gsd-printer}]
        └─gsd-rfkill──2*[{gsd-rfkill}]

```

- 6. Exiba o status dos processos continuamente atualizados, com consumo da CPU, memória;

```
top - 15:06:28 up 6:31, 2 users, load average: 0,00, 0,00, 0,00
Tarefas: 154 total, 1 em exec., 153 dormindo, 0 parado, 0 zumbi
%Cpu(s): 0,0 us, 0,3 sy, 0,0 ni, 99,7 id, 0,0 wa, 0,0 hi, 0,0 si, 0,0 st
MB mem : 3931,6 total, 1403,1 livre, 793,0 usados, 1735,4 buff/cache
MB swap: 975,0 total, 975,0 livre, 0,0 usados, 2845,1 mem dispon.
```

PID	USUARIO	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TEMPO+	COMANDO
30976	root	20	0	0	0	0	I	0,3	0,0	0:00.25	kworker/0:2-ata_sff
1	root	20	0	99680	10732	7872	S	0,0	0,3	0:04.61	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_gp
6	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kworker/0:0H-events_highpri
8	root	0	-20	0	0	0	I	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_rude_
10	root	20	0	0	0	0	S	0,0	0,0	0:00.00	rcu_tasks_trace
11	root	20	0	0	0	0	S	0,0	0,0	0:02.08	ksoftirqd/0
12	root	20	0	0	0	0	I	0,0	0,0	0:00.65	rcu_sched
13	root	rt	0	0	0	0	S	0,0	0,0	0:00.49	migration/0
15	root	20	0	0	0	0	S	0,0	0,0	0:00.00	cpuhp/0
17	root	20	0	0	0	0	S	0,0	0,0	0:00.00	kdevtmpfs
18	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	netns
19	root	20	0	0	0	0	S	0,0	0,0	0:00.00	kauditd
20	root	20	0	0	0	0	S	0,0	0,0	0:00.01	khungtaskd
21	root	20	0	0	0	0	S	0,0	0,0	0:00.00	oom_reaper
22	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	writeback
23	root	20	0	0	0	0	S	0,0	0,0	0:01.57	kcompactd0
24	root	25	5	0	0	0	S	0,0	0,0	0:00.00	ksmd
25	root	39	19	0	0	0	S	0,0	0,0	0:01.38	khugepaged
43	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kintegrityd
44	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kblockd
45	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	blkcg_punt_bio
46	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	edac-poller
47	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	devfreq_wq
48	root	0	-20	0	0	0	I	0,0	0,0	0:04.60	kworker/0:1H-kblockd
51	root	20	0	0	0	0	S	0,0	0,0	0:00.00	kswapd0
52	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kthrotld
53	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	acpi_thermal_pm
54	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	ipv6_addrconf
64	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kstrp
67	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	zswap-shrink
68	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kworker/u3:0
104	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	ata_sff

- 7. Exiba o status dos processos continuamente atualizados, com consumo da CPU, memória atualizados a cada 1s;

```
kauan@192.168.0.40:22 - Bitvise xterm - kauan@debian: ~
root@debian:/# top -d 1
```




```
top - 15:07:47 up 6:32, 2 users, load average: 0,00, 0,00, 0,00
Tarefas: 154 total, 1 em exec., 153 dormindo, 0 parado, 0 zumbi
%Cpu(s): 0,0 us, 1,0 sy, 0,0 ni, 99,0 id, 0,0 wa, 0,0 hi, 0,0 si, 0,0 st
MB mem : 3931,6 total, 1403,1 livre, 793,0 usados, 1735,4 buff/cache
MB swap: 975,0 total, 975,0 livre, 0,0 usados, 2845,1 mem dispon.
```

PID	USUARIO	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TEMPO+	COMANDO
1	root	20	0	99680	10732	7872	S	0,0	0,3	0:04.61	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_gp
6	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kworker/0:0H-events_highpri
8	root	0	-20	0	0	0	I	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_rude_
10	root	20	0	0	0	0	S	0,0	0,0	0:00.00	rcu_tasks_trace
11	root	20	0	0	0	0	S	0,0	0,0	0:02.09	ksoftirqd/0
12	root	20	0	0	0	0	I	0,0	0,0	0:00.66	rcu_sched
13	root	rt	0	0	0	0	S	0,0	0,0	0:00.49	migration/0
15	root	20	0	0	0	0	S	0,0	0,0	0:00.00	cpuhp/0
17	root	20	0	0	0	0	S	0,0	0,0	0:00.00	kdevtmpfs
18	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	netns
19	root	20	0	0	0	0	S	0,0	0,0	0:00.00	kauditd
20	root	20	0	0	0	0	S	0,0	0,0	0:00.01	khungtaskd
21	root	20	0	0	0	0	S	0,0	0,0	0:00.00	oom_reaper
22	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	writeback
23	root	20	0	0	0	0	S	0,0	0,0	0:01.58	kcompactd0
24	root	25	5	0	0	0	S	0,0	0,0	0:00.00	ksmd
25	root	39	19	0	0	0	S	0,0	0,0	0:01.38	khugepaged
43	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kintegrityd
44	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kblockd
45	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	blkcg_punt_bio
46	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	edac-poller
47	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	devfreq_wq
48	root	0	-20	0	0	0	I	0,0	0,0	0:04.60	kworker/0:1H-kblockd
51	root	20	0	0	0	0	S	0,0	0,0	0:00.00	kswapd0
52	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kthrotld
53	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	acpi_thermal_pm
54	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	ipv6_addrconf
64	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kstrp
67	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	zswap-shrink
68	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kworker/u3:0
104	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	ata_sff
105	root	20	0	0	0	0	S	0,0	0,0	0:00.02	scsi_eh_0

- 8. Exiba o status dos processos continuamente atualizados e interativamente veja todas as CPUs do sistema;

```
top - 15:10:28 up 6:35, 2 users, load average: 0,00, 0,00, 0,00
Tarefas: 154 total, 1 em exec., 153 dormindo, 0 parado, 0 zumbi
%Cpu(s): 0,0 us, 1,0 sy, 0,0 ni, 99,0 id, 0,0 wa, 0,0 hi, 0,0 si, 0,0 st
MB mem : 3931,6 total, 1403,0 livre, 793,1 usados, 1735,5 buff/cache
MB swap: 975,0 total, 975,0 livre, 0,0 usados, 2845,0 mem dispon.
```

PID	USUARIO	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TEMPO+	COMANDO
4	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	rcu_par_gp
6	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kworker/0:0H-events_highpri
8	root	0	-20	0	0	0	I	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_rude_
10	root	20	0	0	0	0	S	0,0	0,0	0:00.00	rcu_tasks_trace
11	root	20	0	0	0	0	S	0,0	0,0	0:02.09	ksoftirqd/0
12	root	20	0	0	0	0	I	0,0	0,0	0:00.67	rcu_sched
13	root	rt	0	0	0	0	S	0,0	0,0	0:00.49	migration/0
15	root	20	0	0	0	0	S	0,0	0,0	0:00.00	cpuhp/0
17	root	20	0	0	0	0	S	0,0	0,0	0:00.00	kdevtmpfs
18	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	netns
19	root	20	0	0	0	0	S	0,0	0,0	0:00.00	kauditd
20	root	20	0	0	0	0	S	0,0	0,0	0:00.01	khungtaskd
21	root	20	0	0	0	0	S	0,0	0,0	0:00.00	oom_reaper
22	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	writeback
23	root	20	0	0	0	0	S	0,0	0,0	0:01.59	kcompactd0
24	root	25	5	0	0	0	S	0,0	0,0	0:00.00	ksmd
25	root	39	19	0	0	0	S	0,0	0,0	0:01.38	khugepaged
43	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kintegrityd
44	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kblockd
45	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	blkcg_punt_bio
46	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	edac-poller
47	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	devfreq_wq
48	root	0	-20	0	0	0	I	0,0	0,0	0:04.60	kworker/0:1H-kblockd
51	root	20	0	0	0	0	S	0,0	0,0	0:00.00	kswapd0
52	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kthrotld
53	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	acpi_thermal_pm
54	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	ipv6_addrconf
64	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kstrp
67	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	zswap-shrink
68	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kworker/u3:0
104	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	ata_sff
105	root	20	0	0	0	0	S	0,0	0,0	0:00.02	scsi_eh_0
106	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	scsi_tmf_0
107	root	20	0	0	0	0	S	0,0	0,0	0:00.01	scsi_eh_1
108	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	scsi_tmf_1

   kauan@192.168.0.40:22 - Bitwise xterm - kauan@debian: ~

```
top - 15:11:00 up 6:36, 2 users, load average: 0,00, 0,00, 0,00
Tarefas: 154 total, 1 em exec., 153 dormindo, 0 parado, 0 zumbi
%Cpu0 : 0,0 us, 1,0 sy, 0,0 ni, 99,0 id, 0,0 wa, 0,0 hi, 0,0 si, 0,0 st
MB mem : 3931,6 total, 1403,0 livre, 793,1 usados, 1735,5 buff/cache
MB swap: 975,0 total, 975,0 livre, 0,0 usados, 2845,0 mem dispon.
```


- 9. Crie um processo, em um terminal e em outro envie uma mensagem para que o processo seja terminado imediatamente, de forma drástica;

The image displays two terminal windows side-by-side, illustrating the creation and termination of a process.

Top Terminal Window: Shows a list of processes. The process with PID 8604 is highlighted, showing it is owned by 'kauan' and is running 'vim aula'.

Process	UID	PPID	PID	PPID	PGID	Session	Time	State	Command
kauan	906	0.0	0.1	233396	6244	?	Ss1	15:33	0:00 /usr/libex
kauan	910	0.0	0.9	550624	38656	?	S1	15:33	0:00 /usr/libex
kauan	917	0.0	0.2	312424	9048	?	S1	15:33	0:00 /usr/libex
kauan	923	0.0	0.2	233176	8428	?	Ss1	15:33	0:00 /usr/libex
kauan	927	0.0	0.1	235412	7032	?	Ss1	15:33	0:00 /usr/libex
kauan	931	0.0	0.1	311892	7964	?	Ss1	15:33	0:00 /usr/libex
kauan	946	0.0	0.1	7840	4764	pts/0	Ss	15:33	0:00 -bash
root	952	0.0	0.1	9992	4952	pts/0	S	15:33	0:00 su root
root	953	0.0	0.0	7100	3988	pts/0	S	15:33	0:00 bash
root	968	0.0	0.1	10024	5020	pts/0	S	15:33	0:00 su -
root	969	0.0	0.1	8656	5540	pts/0	S	15:33	0:00 -bash
root	1065	0.0	0.0	0	0	?	I	15:58	0:00 [kworker/u
root	1179	0.1	0.0	0	0	?	I	16:14	0:00 [kworker/6
root	1467	0.0	0.0	0	0	?	I	16:19	0:00 [kworker/u
www-data	6650	0.0	0.0	3432	168	?	Ss	16:19	0:00 /usr/bin/t
root	8360	0.0	0.4	193776	19876	?	Ss	16:19	0:00 /usr/sbin/
www-data	8362	0.0	0.2	194168	10136	?	S	16:19	0:00 /usr/sbin/
www-data	8363	0.0	0.2	194168	10136	?	S	16:19	0:00 /usr/sbin/
www-data	8364	0.0	0.2	194168	10136	?	S	16:19	0:00 /usr/sbin/
www-data	8365	0.0	0.2	194168	10136	?	S	16:19	0:00 /usr/sbin/
www-data	8366	0.0	0.2	194168	10136	?	S	16:19	0:00 /usr/sbin/
root	8567	0.1	0.0	0	0	?	I	16:20	0:00 [kworker/6
kauan	8582	0.0	0.1	7840	4776	pts/1	Ss	16:23	0:00 -bash
root	8586	0.0	0.1	9992	4956	pts/1	S	16:23	0:00 su root
root	8587	0.0	0.0	7100	3796	pts/1	S	16:23	0:00 bash
root	8588	0.0	0.1	10024	4476	pts/1	S	16:23	0:00 su -
root	8589	0.0	0.1	7860	4812	pts/1	S	16:23	0:00 -bash
root	8599	0.0	0.1	10000	4528	pts/0	S	16:24	0:00 su kauan
kauan	8600	0.0	0.1	7860	4816	pts/0	S	16:24	0:00 bash
kauan	8604	0.0	0.2	13884	8808	pts/0	S+	16:24	0:00 vim aula
root	8605	0.0	0.0	0	0	?	I	16:25	0:00 [kworker/u
root	8606	0.0	0.0	0	0	?	I	16:25	0:00 [kworker/u
root	8607	0.0	0.0	0	0	?	I	16:25	0:00 [kworker/6
root	8608	0.0	0.0	9784	3404	pts/1	R+	16:26	0:00 ps aux

Bottom Terminal Window: Shows the same list of processes. The process with PID 8604 is highlighted. The user enters the command 'kill -p 8604', which results in a message: '-bash: kill: p: especificação de sinal inválida'. Then, the user enters 'kill -9 8604', which successfully terminates the process.

- 10. Crie três processos em foreground em seu terminal, coloque todos em background, verifique o ID de todos e coloque o terceiro em foreground novamente.

```
root@debian:/home/kauan/kauan# jobs -l
[1] 8665 Parado vim arquivo
[2]- 8666 Parado vim arquivo2
[3]+ 8671 Parado vim arquivo3
root@debian:/home/kauan/kauan# fg 3
```

- 11. Atribua prioridade máxima para todos os processos do seu usuário.

```
root@debian:/home# renice -20 -u kauan
1000 (user ID) com prioridade antiga 0, prioridade nova -20
root@debian:/home#
```

- 12. Crie um processo e mude a prioridade dele para -1 em tempo de execução. Além disso, verifique e comprove se a prioridade realmente foi alterada.

```
0 S 1000 906 835 0 60 -20 - 58349 - ? 00:00:00 gvfs-go-a-volume
0 S 1000 910 835 0 60 -20 - 137656 - ? 00:00:00 goa-daemon
0 S 1000 917 835 0 60 -20 - 78106 - ? 00:00:00 goa-identity-se
0 S 1000 923 835 0 60 -20 - 58294 - ? 00:00:00 gvfs-mtp-volume
0 S 1000 927 835 0 60 -20 - 58853 - ? 00:00:00 gvfs-gphoto2-vo
0 S 1000 931 835 0 60 -20 - 77973 - ? 00:00:00 gvfs-afc-volume
0 S 1000 8620 866 0 60 -20 - 1960 - pts/0 00:00:00 bash
4 S 1000 8677 8676 0 60 -20 - 1965 - pts/0 00:00:00 bash
4 S 1000 8750 8749 0 79 -1 - 2043 - pts/0 00:00:00 bash
0 S 1000 8766 866 0 60 -20 - 1960 - pts/1 00:00:00 bash
0 S 1000 8793 8750 0 80 0 - 3494 - pts/0 00:00:00 vim
root@debian:~# renice -1 -p 8793
8793 (process ID) com prioridade antiga 0, prioridade nova -1
root@debian:~# ps -lu kauan
```

F	S	UID	PID	PPID	C	PRI	NI	ADDR	SZ	WCHAN	TTY	TIME	CMD
4	S	1000	835	1	0	60	-20	-	3867	-	?	00:00:00	systemd
5	S	1000	836	835	0	60	-20	-	25369	-	?	00:00:00	(sd-pam)
0	S	1000	855	835	0	60	-20	-	22615	-	?	00:00:00	pipewire
0	S	1000	856	835	0	60	-20	-	92468	-	?	00:00:00	pulseaudio
0	S	1000	858	835	0	60	-	-	164338	-	?	00:00:00	tracker-miner-f
5	S	1000	866	683	0	60	-20	-	3680	-	?	00:00:05	sshd
0	S	1000	867	835	0	60	-20	-	2043	-	?	00:00:00	dbus-daemon
0	S	1000	869	855	0	60	-20	-	21325	-	?	00:00:00	pipewire-media-
0	S	1000	888	835	0	60	-20	-	59310	-	?	00:00:00	gvfsd
0	S	1000	893	835	0	60	-20	-	94981	-	?	00:00:00	gvfsd-fuse
0	S	1000	901	835	0	60	-20	-	87407	-	?	00:00:00	gvfs-udisks2-vo
0	S	1000	906	835	0	60	-20	-	58349	-	?	00:00:00	gvfs-go-a-volume
0	S	1000	910	835	0	60	-20	-	137656	-	?	00:00:00	goa-daemon
0	S	1000	917	835	0	60	-20	-	78106	-	?	00:00:00	goa-identity-se
0	S	1000	923	835	0	60	-20	-	58294	-	?	00:00:00	gvfs-mtp-volume
0	S	1000	927	835	0	60	-20	-	58853	-	?	00:00:00	gvfs-gphoto2-vo
0	S	1000	931	835	0	60	-20	-	77973	-	?	00:00:00	gvfs-afc-volume
0	S	1000	8620	866	0	60	-20	-	1960	-	pts/0	00:00:00	bash
4	S	1000	8677	8676	0	60	-20	-	1965	-	pts/0	00:00:00	bash
4	S	1000	8750	8749	0	79	-1	-	2043	-	pts/0	00:00:00	bash
0	S	1000	8766	866	0	60	-20	-	1960	-	pts/1	00:00:00	bash
0	S	1000	8793	8750	0	79	-1	-	3494	-	pts/0	00:00:00	vim

```
root@debian:~#
```