

CONTROL DE TRABAJOS EN LA SHELL

EJERCICIO 1

```
$ vim progreso.sh
```

```
#!/bin/bash
( for i in `seq 00 99` ; do
echo $i
sleep 0.5
done ) |
zenity --progress
```

```
$ chmod u+x progreso.sh
```

```
$ ./progreso.sh
```

EJERCICIO 2

CTRL + C → Mata el proceso que tiene el foco de la terminal.

CTRL + Z → Para el proceso que tiene el foco de la terminal, es la propia terminal la que pasa a tener el foco de ejecución, el proceso parado no ha terminado aún, este permanece inactivo.

EJERCICIO 3

```
[cursoasr@asrserver Desktop]$ ./progreso.sh
Gtk-Message: GtkDialog mapped without a transient parent. This is discouraged.
^Z
[2]+  Stopped                  ./progreso.sh
[cursoasr@asrserver Desktop]$ jobs
[1]-  Running                  gedit &
[2]+  Stopped                  ./progreso.sh
[cursoasr@asrserver Desktop]$ bg 2
[2]+  ./progreso.sh &
[cursoasr@asrserver Desktop]$ fg 2
./progreso.sh
^C
```

EJERCICIO 4

```
[cursoasr@asrserver Desktop]$ ./progreso.sh&
[2] 9308
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[3] 9324
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[4] 9352
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.

[cursoasr@asrserver Desktop]$ jobs -l
[1] 4919 Running                gedit &
[2] 9308 Running                ./progreso.sh &
[3]- 9324 Running                ./progreso.sh &
[4]+ 9352 Running                ./progreso.sh &
```

```
[cursoasr@asrserver Desktop]$ fg %2
./progreso.sh
^C[cursoasr@asrserver Desktop]$ jobs -l
[1] 4919 Running gedit &
[3]- 9324 Running ./progreso.sh &
[4]+ 9352 Running ./progreso.sh &
```

EJERCICIO 5

(sleep 1; date ; cat - > /tmp/entrada; sleep 1; date) → Se ejecuta en primer plano normalmente.

(sleep 1; date ; cat - > /tmp/entrada; sleep 1; date)& → Este proceso es interrumpido ya que al estar ejecutandose en segundo plano, no tiene el control de la terminal y por ello no puede recibir datos de la entrada estándar, luego el proceso es abortado.

EJERCICIO 6

El programa progreso.sh se lanza en segundo plano, pero al cerrarse su proceso padre (la terminal) este muere con el.

nohup porgreso.sh hace que cuando la terminal se cierra el proceso pueda seguir ejecutándose.

EJERCICIO 7

```
[cursoasr@asrserver Desktop]$ kill -l
 1) SIGHUP   2) SIGINT   3) SIGQUIT  4) SIGILL   5) SIGTRAP
 6) SIGABRT  7) SIGBUS   8) SIGFPE   9) SIGKILL 10) SIGUSR1
11) SIGSEGV 12) SIGUSR2 13) SIGPIPE 14) SIGALRM 15) SIGTERM
16) SIGSTKFLT 17) SIGCHLD 18) SIGCONT 19) SIGSTOP 20) SIGTSTP
21) SIGTTIN 22) SIGTTOU 23) SIGURG  24) SIGXCPU 25) SIGXFSZ
26) SIGVTALRM 27) SIGPROF 28) SIGWINCH 29) SIGIO   30) SIGPWR
31) SIGSYS  34) SIGRTMIN  35) SIGRTMIN+1 36) SIGRTMIN+2 37) SIGRTMIN+3
38) SIGRTMIN+4 39) SIGRTMIN+5 40) SIGRTMIN+6 41) SIGRTMIN+7 42)
SIGRTMIN+8
43) SIGRTMIN+9 44) SIGRTMIN+10 45) SIGRTMIN+11 46) SIGRTMIN+12 47)
SIGRTMIN+13
48) SIGRTMIN+14 49) SIGRTMIN+15 50) SIGRTMAX-14 51) SIGRTMAX-13 52)
SIGRTMAX-12
53) SIGRTMAX-11 54) SIGRTMAX-10 55) SIGRTMAX-9 56) SIGRTMAX-8 57)
SIGRTMAX-7
58) SIGRTMAX-6 59) SIGRTMAX-5 60) SIGRTMAX-4 61) SIGRTMAX-3 62)
SIGRTMAX-2
63) SIGRTMAX-1 64) SIGRTMAX
```

```
[cursoasr@asrserver Desktop]$ ./progreso.sh&
[1] 18798
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[2] 18811
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[3] 18829
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
```

```
[cursoasr@asrserver Desktop]$ pkill p*greso.*
[1] Terminated ./progreso.sh
[2]- Terminated ./progreso.sh
[3]+ Terminated ./progreso.sh
```

MONITORIZACIÓN DE PROCESOS

EJERCICIO 1

```
[cursoasr@asrserver Desktop]$ ps
  PID TTY          TIME CMD
 16399 pts/0    00:00:00 bash
 19182 pts/0    00:00:00 ps
```

EJERCICIO 2

```
[cursoasr@asrserver Desktop]$ ps -l -u cursoasr
 F S      UID      PID  PPID  C  PRI  NI ADDR SZ WCHAN  TTY          TIME CMD
 1 S    1000    1552     1   0   80   0 - 97458 poll_s ?    00:00:00 gnome-keyring-
 4 S    1000    1614   1539   0   80   0 - 143829 poll_s ?    00:00:00 gnome-session
 1 S    1000    1621     1   0   80   0 - 3487 poll_s ?    00:00:00 dbus-launch
 1 S    1000    1622     1   0   80   0 - 9521 ep_pol ?    00:00:00 dbus-daemon
 0 S    1000    1687     1   0   80   0 - 76642 poll_s ?    00:00:00 gvfsd
 0 S    1000    1691     1   0   80   0 - 90284 futex_ ?    00:00:00 gvfsd-fuse
 1 S    1000    1764     1   0   80   0 - 37036 wait ?    00:00:00 VBoxClient
 1 S    1000    1766   1764   0   80   0 - 54100 rtR0Se ?    00:00:00 VBoxClient
 1 S    1000    1775     1   0   80   0 - 37036 wait ?    00:00:00 VBoxClient
 1 S    1000    1777   1775   0   80   0 - 37036 poll_s ?    00:00:00 VBoxClient
 1 S    1000    1782     1   0   80   0 - 37036 wait ?    00:00:00 VBoxClient
 1 S    1000    1783   1782   0   80   0 - 53586 rtR0Se ?    00:00:00 VBoxClient
 1 S    1000    1785     1   0   80   0 - 37036 wait ?    00:00:00 VBoxClient
 1 S    1000    1789   1785   0   80   0 - 53715 futex_ ?    00:00:05 VBoxClient
 1 S    1000    1799   1614   0   80   0 - 13213 poll_s ?    00:00:00 ssh-agent
 0 S    1000    1815     1   0   80   0 - 85004 poll_s ?    00:00:00 at-spi-bus-lau
 0 S    1000    1819   1815   0   80   0 - 9217 ep_pol ?    00:00:00 dbus-daemon
 0 S    1000    1824     1   0   80   0 - 32422 poll_s ?    00:00:00 at-spi2-regist
 0 S    1000    1842   1614   0   80   0 - 289798 poll_s ?    00:00:00 gnome-settings
 1 S    1000    1853     1   0   69 -11 - 139993 poll_s ?    00:00:00 pulseaudio
 0 S    1000    1866     1   0   80   0 - 129176 poll_s ?    00:00:00 gsd-printer
 0 S    1000    1907   1614   0   80   0 - 360065 poll_s ?    00:00:21 gnome-shell
 0 S    1000    1944   1907   0   80   0 - 117491 poll_s ?    00:00:00 ibus-daemon
 0 S    1000    1951   1944   0   80   0 - 98216 poll_s ?    00:00:00 ibus-dconf
 0 S    1000    1957     1   0   80   0 - 113046 poll_s ?    00:00:00 ibus-x11
 0 S    1000    1959     1   0   80   0 - 132781 poll_s ?    00:00:00 gnome-shell-ca
 0 S    1000    1969     1   0   80   0 - 167213 poll_s ?    00:00:00 evolution-sour
 0 S    1000    1976     1   0   80   0 - 80437 poll_s ?    00:00:00 mission-contro
 0 S    1000    1979     1   0   80   0 - 143771 poll_s ?    00:00:00 caribou
 0 S    1000    1990     1   0   80   0 - 100146 poll_s ?    00:00:00 gvfs-udisks2-v
 0 S    1000    1999     1   0   80   0 - 196766 poll_s ?    00:00:00 goa-daemon
 0 S    1000    2011     1   0   80   0 - 105441 poll_s ?    00:00:00 gvfs-afc-volum
 0 S    1000    2025     1   0   80   0 - 83608 poll_s ?    00:00:00 goa-identity-s
 0 S    1000    2030     1   0   80   0 - 78128 poll_s ?    00:00:00 gvfs-mtp-volum
 0 S    1000    2041     1   0   80   0 - 74933 poll_s ?    00:00:00 gvfs-goa-volum
 0 S    1000    2051     1   0   80   0 - 80397 poll_s ?    00:00:00 gvfs-gphoto2-v
 0 S    1000    2087   1614   0   80   0 - 251386 poll_s ?    00:00:00 nautilus
 0 S    1000    2094   1614   0   80   0 - 112854 poll_s ?    00:00:00 abrt-applet
 0 S    1000    2100   1614   0   99   - - 117427 poll_s ?    00:00:00 tracker-miner-
 0 S    1000    2128     1   0   80   0 - 134313 poll_s ?    00:00:00 tracker-store
 0 S    1000    2130   1614   0   99   19 - 177510 poll_s ?    00:00:00 tracker-miner-
 0 S    1000    2138   1614   0   99   19 - 178046 poll_s ?    00:00:00 tracker-extrac
 0 S    1000    2141   1614   0   99   - - 135862 poll_s ?    00:00:00 tracker-miner-
 0 S    1000    2143   1614   0   80   0 - 169999 poll_s ?    00:00:00 gnome-software
 0 S    1000    2150   1614   0   80   0 - 75151 poll_s ?    00:00:00 seapplet
 0 S    1000    2160     1   0   80   0 - 269872 poll_s ?    00:00:00 evolution-cale
 0 S    1000    2173     1   0   80   0 - 37458 poll_s ?    00:00:00 gconfd-2
 0 S    1000    2184     1   0   80   0 - 117863 poll_s ?    00:00:00 gvfsd-trash
 0 S    1000    2190   1944   0   80   0 - 79799 poll_s ?    00:00:00 ibus-engine-si
 0 S    1000    2253     1   0   80   0 - 59682 poll_s ?    00:00:00 gvfsd-metadata
 0 S    1000    2368     1   0   80   0 - 45166 poll_s ?    00:00:00 dconf-service
```

```

0 S 1000 2474 1 0 80 0 - 138733 poll_s ? 00:00:02 gnome-terminal
0 S 1000 2477 2474 0 80 0 - 2120 unix_s ? 00:00:00 gnome-pty-help
0 S 1000 2478 2474 0 80 0 - 29170 wait pts/0 00:00:00 bash
0 R 1000 6444 2478 0 80 0 - 34873 - pts/0 00:00:00 ps

```

```
[cursoasr@asrserver Desktop]$ ps -e -o pid,pgid,session,state,TTY,cmd
```

```

PID PGID SESS S TT CMD
1 1 1 S ? /usr/lib/systemd/systemd --switched-root --system
--deserialize 20
2 0 0 S ? [kthreadd]
3 0 0 S ? [ksoftirqd/0]
6 0 0 S ? [kworker/u2:0]
7 0 0 S ? [migration/0]
8 0 0 S ? [rcu_bh]
9 0 0 S ? [rcuob/0]
10 0 0 R ? [rcu_sched]
11 0 0 S ? [rcuos/0]
12 0 0 S ? [watchdog/0]
13 0 0 S ? [khelper]
14 0 0 S ? [kdevtmpfs]
15 0 0 S ? [netns]
16 0 0 S ? [perf]
17 0 0 S ? [writeback]
18 0 0 S ? [kintegrityd]
19 0 0 S ? [bioaset]
20 0 0 S ? [kblockd]
21 0 0 S ? [md]
22 0 0 R ? [kworker/0:1]
26 0 0 S ? [khungtaskd]
27 0 0 S ? [kswapd0]
28 0 0 S ? [ksmd]
29 0 0 S ? [khugepaged]
30 0 0 S ? [fsnotify_mark]
31 0 0 S ? [crypto]
39 0 0 S ? [kthrotld]
41 0 0 S ? [kmpath_rdacd]
42 0 0 S ? [kpsmoused]
43 0 0 S ? [ipv6_addrconf]
63 0 0 S ? [deferwq]
94 0 0 S ? [kauditd]
218 0 0 S ? [ata_sff]
237 0 0 S ? [scsi_eh_0]
239 0 0 S ? [scsi_tmf_0]
240 0 0 S ? [scsi_eh_1]
241 0 0 S ? [kworker/u2:2]
242 0 0 S ? [scsi_tmf_1]
243 0 0 S ? [scsi_eh_2]
244 0 0 S ? [scsi_tmf_2]
264 0 0 S ? [xfsalloc]
265 0 0 S ? [xfs_mru_cache]
266 0 0 S ? [xfs-buf/sda3]
267 0 0 S ? [xfs-data/sda3]
268 0 0 S ? [xfs-conv/sda3]
269 0 0 S ? [xfs-cil/sda3]
270 0 0 S ? [xfsaild/sda3]
354 354 354 S ? /usr/lib/systemd/systemd-journald
374 0 0 S ? [rpciod]
375 375 375 S ? /usr/sbin/lvmtools -f
388 388 388 S ? /usr/lib/systemd/systemd-udevd
409 0 0 S ? [iprt-VBoxWQueue]
433 0 0 S ? [xfs-buf/sda1]
435 0 0 S ? [xfs-data/sda1]
437 0 0 S ? [xfs-conv/sda1]
438 0 0 S ? [xfs-cil/sda1]

```

```

455      0      0 S ?      [xfsaild/sda1]
490    490    490 S ?      /sbin/auditd -n
500    500    500 S ?      /sbin/audispd
504    500    500 S ?      /usr/sbin/sedispach
514    514    514 S ?      /bin/dbus-daemon --system --address=systemd: --
nofork --nospidfile --systemd-activation
516    516    516 S ?      /usr/lib/systemd/systemd-logind
517    517    517 S ?      /usr/sbin/rsyslogd -n
518    518    518 S ?      /usr/sbin/ModemManager
520    520    520 S ?      /usr/sbin/abrttd -d -s
521    521    521 S ?      /usr/bin/abrt-watch-log -F Backtrace
/var/log/Xorg.0.log -- /usr/bin/abrt-dump-xorg -xD
534    534    534 S ?      /usr/sbin/smartd -n -q never
535    535    535 S ?      /usr/bin/python -Es /usr/sbin/firewalld --nofork --
nospid
536    536    536 S ?      /usr/bin/abrt-watch-log -F BUG: WARNING: at
WARNING: CPU: INFO: possible recursive locking de
537    537    537 R ?      /sbin/rngd -f
542    542    542 S ?      /usr/sbin/gssproxy -D
545    545    545 S ?      /usr/bin/lsmtd -d
546    546    546 S ?      avahi-daemon: running [asrserver.local]
547    547    547 S ?      /usr/libexec/accounts-daemon
554    546    546 S ?      avahi-daemon: chroot helper
555    555    555 S ?      /usr/libexec/rtkit-daemon
567    567    567 S ?      /usr/sbin/alsactl -s -n 19 -c -E ALSA_CONFIG_PATH=/
etc/alsa/alsactl.conf --initfile=/lib/alsa
570    570    570 S ?      /usr/lib/polkit-1/polkitd --no-debug
575    571    571 S ?      /bin/bash /usr/sbin/ksmtuned
644    640    640 S ?      /usr/sbin/VBoxService --pidfile /var/run/vboxadd-
service.sh
679    679    679 S ?      /usr/sbin/NetworkManager --no-daemon
729    729    729 S ?      /usr/sbin/wpa_supplicant -u -f
/var/log/wpa_supplicant.log -c /etc/wpa_supplicant/wpa_supplic
993    993    993 S ?      /usr/sbin/cupsd -f
995    995    995 S ?      /usr/bin/python -Es /usr/sbin/tuned -l -P
998    998    998 S ?      /usr/sbin/sshd -D
1026   1026   1026 S ?      /usr/sbin/atd -f
1027   1027   1027 S ?      /usr/sbin/gdm
1028   1028   1028 S ?      /usr/sbin/crond -n
1054   1054   1054 R tty1    /usr/bin/Xorg :0 -background none -noreset -audit 4
-verbose -auth /run/gdm/auth-for-gdm-vuXP
1210   1210   1210 S ?      /usr/libexec/postfix/master -w
1214   1210   1210 S ?      pickup -l -t unix -u
1215   1210   1210 S ?      qmgr -l -t unix -u
1310   1310   1310 S ?      /usr/libexec/upowerd
1323   1323   1323 S ?      /usr/libexec/colord
1392   1392   1392 S ?      /usr/libexec/packagekitd
1438   1438   1438 S ?      /usr/lib/udisks2/udisksd --no-debug
1539   1027   1027 S ?      gdm-session-worker [pam/gdm-password]
1552   1551   1551 S ?      /usr/bin/gnome-keyring-daemon --daemonize --login
1600   1600   1279 S ?      ibus-daemon --xim --panel disable
1603   1600   1279 S ?      /usr/libexec/ibus-dconf
1606   1600   1279 S ?      /usr/libexec/ibus-x11 --kill-daemon
1614   1614   1614 S ?      gnome-session --session gnome-classic
1621   1614   1614 S ?      dbus-launch --sh-syntax --exit-with-session
1622   1622   1622 S ?      /bin/dbus-daemon --fork --print-pid 4 --print-
address 6 --session
1687   1622   1622 S ?      /usr/libexec/gvfsd
1691   1622   1622 S ?      /usr/libexec/gvfsd-fuse /run/user/1000/gvfs -f -o
big_writes
1764   1762   1762 S ?      /usr/bin/VBoxClient --clipboard
1766   1762   1762 S ?      /usr/bin/VBoxClient --clipboard
1775   1773   1773 S ?      /usr/bin/VBoxClient --display
1777   1773   1773 S ?      /usr/bin/VBoxClient --display

```

```

1782 1778 1778 S ? /usr/bin/VBoxClient --seamless
1783 1778 1778 S ? /usr/bin/VBoxClient --seamless
1785 1784 1784 S ? /usr/bin/VBoxClient --draganddrop
1789 1784 1784 S ? /usr/bin/VBoxClient --draganddrop
1799 1799 1799 S ? /usr/bin/ssh-agent /bin/sh -c exec -l /bin/bash -c
"env GNOME_SHELL_SESSION_MODE=classic gnome
1815 1622 1622 S ? /usr/libexec/at-spi-bus-launcher
1819 1622 1622 S ? /bin/dbus-daemon
--config-file=/etc/at-spi2/accessibility.conf --nofork --print-address 3
1824 1622 1622 S ? /usr/libexec/at-spi2-registryd --use-gnome-session
1842 1614 1614 S ? /usr/libexec/gnome-settings-daemon
1853 1851 1851 S ? /usr/bin/pulseaudio --start --log-target=syslog
1866 1614 1614 S ? /usr/libexec/gsd-printer
1897 1897 1897 S ? /usr/libexec/bluetooth/bluetoothd
1907 1614 1614 S ? /usr/bin/gnome-shell
1944 1944 1614 S ? ibus-daemon --xim --panel disable
1951 1944 1614 S ? /usr/libexec/ibus-dconf
1957 1944 1614 S ? /usr/libexec/ibus-x11 --kill-daemon
1959 1622 1622 S ? /usr/libexec/gnome-shell-calendar-server
1969 1622 1622 S ? /usr/libexec/evolution-source-registry
1976 1622 1622 S ? /usr/libexec/mission-control-5
1979 1622 1622 S ? /usr/libexec/caribou
1990 1622 1622 S ? /usr/libexec/gvfs-udisks2-volume-monitor
1999 1622 1622 S ? /usr/libexec/goa-daemon
2011 1622 1622 S ? /usr/libexec/gvfs-afc-volume-monitor
2025 1622 1622 S ? /usr/libexec/goa-identity-service
2030 1622 1622 S ? /usr/libexec/gvfs-mtp-volume-monitor
2041 1622 1622 S ? /usr/libexec/gvfs-goa-volume-monitor
2051 1622 1622 S ? /usr/libexec/gvfs-gphoto2-volume-monitor
2087 1614 1614 S ? nautilus --no-default-window --force-desktop
2094 1614 1614 S ? abrt-applet
2100 1614 1614 S ? /usr/libexec/tracker-miner-user-guides
2128 1622 1622 S ? /usr/libexec/tracker-store
2130 1614 1614 S ? /usr/libexec/tracker-miner-fs
2138 1614 1614 S ? /usr/libexec/tracker-extract
2141 1614 1614 S ? /usr/libexec/tracker-miner-apps
2143 1614 1614 S ? /usr/bin/gnome-software --gapplication-service
2150 1614 1614 S ? /usr/bin/seaplet
2160 1622 1622 S ? /usr/libexec/evolution-calendar-factory
2173 1622 1622 S ? /usr/libexec/gconfd-2
2184 1622 1622 S ? /usr/libexec/gvfsd-trash --spawner :1.3
/org/gtk/gvfs/exec_spaw/0
2190 1944 1614 S ? /usr/libexec/ibus-engine-simple
2253 1622 1622 S ? /usr/libexec/gvfsd-metadata
2368 1622 1622 S ? /usr/libexec/dconf-service
2474 1622 1622 S ? /usr/libexec/gnome-terminal-server
2477 1622 1622 S ? gnome-pty-helper
2478 2478 2478 S pts/0 /bin/bash
6093 0 0 S ? [kworker/0:1H]
7056 0 0 S ? [kworker/0:2]
7095 0 0 S ? [kworker/0:2H]
7653 0 0 S ? [kworker/0:0]
8534 571 571 S ? sleep 60
8540 388 388 S ? /usr/lib/systemd/systemd-udevd
8541 388 388 S ? /usr/lib/systemd/systemd-udevd
8546 8546 2478 R pts/0 ps -e -o pid,pgid,session,state,TTY,cmd

```

Por defecto cada proceso constituye su propio grupo.

Los programas que se ejecutan en la misma shell tienen el mismo id de sesión.

EJERCICIO3

```
[cursoasr@asrserver Desktop]$ pgrep -l .*gnome.*
```

```
1552 gnome-keyring-d
1614 gnome-session
1842 gnome-settings-
1907 gnome-shell
1959 gnome-shell-cal
2143 gnome-software
2474 gnome-terminal-
2477 gnome-pty-helpe
```

```
[cursoasr@asrserver Desktop]$ pgrep -l .*daemon
```

```
514 dbus-daemon
546 avahi-daemon
547 accounts-daemon
554 avahi-daemon
555 rtkit-daemon
1600 ibus-daemon
1622 dbus-daemon
1819 dbus-daemon
1944 ibus-daemon
1999 goa-daemon
```

EJERCICIO 4

OK

EJERCICIO 5

```
[cursoasr@asrserver Desktop]$ lsof /var/log/messages
```

```
[cursoasr@asrserver Desktop]$ lsof +D /etc
```

```
lsof: WARNING: can't opendir(/etc/mail/spamassassin/sa-update-keys): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/cups/ssl): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/sudoers.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/vmware-tools/GuestProxyData/trusted): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/audisp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/libvirt): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/ipsec.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/grub.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/firewalld): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/named): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/polkit-1/localauthority): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/polkit-1/rules.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/audit): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/selinux/targeted/modules/tmp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/selinux/targeted/modules/active): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/cache): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/backup): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/archive): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/dhcp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/pki/rsyslog): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/pki/CA/private): Permission denied
```

COMMAND	PID	USER	FD	TYPE	DEVICE	SIZE/OFF	NODE	NAME
---------	-----	------	----	------	--------	----------	------	------

gnome-ses	1614	cursoasr	mem	REG	8,3	395	12927223	
-----------	------	----------	-----	-----	-----	-----	----------	--

/etc/dconf/db/distro

gnome-ses	1614	cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
-----------	------	----------	-----	-----	-----	-----	---------	--------------------

gnome-ses	1614	cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
-----------	------	----------	-----	-----	-----	-----	---------	---------------------

at-spi-bu	1815	cursoasr	mem	REG	8,3	395	12927223	
-----------	------	----------	-----	-----	-----	-----	----------	--

/etc/dconf/db/distro

at-spi-bu	1815	cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
-----------	------	----------	-----	-----	-----	-----	---------	--------------------

at-spi-bu	1815	cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
-----------	------	----------	-----	-----	-----	-----	---------	---------------------

gnome-set 1842 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-set 1842 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-set 1842 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-set 1842 cursoasr	17r	REG	8,3	65536	458181	
/etc/pki/nssdb/cert8.db						
gnome-set 1842 cursoasr	18r	REG	8,3	16384	458183	
/etc/pki/nssdb/key3.db						
gnome-set 1842 cursoasr	19r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	20r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	22r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	28r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	30r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	35r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-she 1907 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-she 1907 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-she 1907 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
ibus-dconf 1951 cursoasr	mem	REG	8,3	3851	12789041	/etc/dconf/db/ibus
gnome-she 1959 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-she 1959 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-she 1959 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
mission-c 1976 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
mission-c 1976 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
mission-c 1976 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
goa-daemo 1999 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
goa-daemo 1999 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
goa-daemo 1999 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
nautilus 2087 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
nautilus 2087 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
nautilus 2087 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-s 2128 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-s 2128 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-s 2128 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-m 2130 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-m 2130 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-m 2130 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-e 2138 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-e 2138 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-e 2138 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-sof 2143 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-sof 2143 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-sof 2143 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
evolution 2160 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
evolution 2160 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
evolution 2160 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-ter 2474 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-ter 2474 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site


```
gnome-ter 2474 cursoasr mem REG 8,3 104 9886487 /etc/dconf/db/local
```

```
[cursoasr@asrserver Desktop]$ ps
```

PID	TTY	TIME	CMD
2478	pts/0	00:00:00	bash
14042	pts/0	00:00:00	progreso.sh
14044	pts/0	00:00:00	progreso.sh
14319	pts/0	00:00:00	sleep <defunct>
18534	pts/0	00:00:00	ps

```
[cursoasr@asrserver Desktop]$ lsof -p 2478
```

COMMAND	PID	USER	FD	TYPE	DEVICE	SIZE/OFF	NODE	NAME
bash	2478	cursoasr	cwd	DIR	8,3	56	21035631	/home/cursoasr/Desktop
bash	2478	cursoasr	rtd	DIR	8,3	4096	128	/
bash	2478	cursoasr	txt	REG	8,3	960376	8872757	/usr/bin/bash
bash	2478	cursoasr	mem	REG	8,3	57824	16985990	/usr/lib64/libnss_files-2.17.so
bash	2478	cursoasr	mem	REG	8,3	106065056	8872748	/usr/lib/locale/locale-archive
bash	2478	cursoasr	mem	REG	8,3	2107816	16985972	/usr/lib64/libc-2.17.so
bash	2478	cursoasr	mem	REG	8,3	19512	16985978	/usr/lib64/libdl-2.17.so
bash	2478	cursoasr	mem	REG	8,3	174520	17069624	/usr/lib64/libtinfo.so.5.9
bash	2478	cursoasr	mem	REG	8,3	164432	16985965	/usr/lib64/ld-2.17.so
bash	2478	cursoasr	mem	REG	8,3	26254	17036605	/usr/lib64/gconv/gconv-modules.cache
bash	2478	cursoasr	0u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	1u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	2u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	255u	CHR	136,0	0t0	3	/dev/pts/0

MONITORIZACIÓN DE LA MEMORIA Y ENTRADA/SALIDA

EJERCICIO 1

```
[cursoasr@asrserver Desktop]$ free
```

	total	used	free	shared	buff/cache	available
Mem:	4047372	517796	3114208	10620	415368	3276664
Swap:	1048572	0	1048572			

- buff/cache: Memoria que esta siendo utilizada por el kernel a modo de memoria cache para acelerar operaciones de disco, permitiendo que los datos se almacenen y se lean desde la memoria.

EJERCICIO 2

```
[cursoasr@asrserver Desktop]$ vmstat
```

```
procs -----memory-----swap-- ----io---- -system-- -----cpu-----
 r b swpd free buff cache si so bi bo in cs us sy id wa st
 4 0 0 3096984 932 414988 0 0 24 2 100 256 1 0 98 0 0
```

EJERCICIO 3

```
[cursoasr@asrserver Desktop]$ iostat
```

```
Linux 3.10.0-327.el7.x86_64 (asrserver) 04/27/2018 _x86_64_ (1 CPU)
```

avg-cpu:	%user	%nice	%system	%iowait	%steal	%idle
	1.26	0.00	0.13	0.01	0.00	98.60

Device:	tps	kB_read/s	kB_wrtn/s	kB_read	kB_wrtn
sda	1.10	20.83	1.81	340049	29581

AUTOMATIZACIÓN DE PROCESOS CON CRON Y AT

EJERCICIO 1

```
45 0 * * sat
30 3 1 * *
```

EJERCICIO 2

```
[cursoasr@asrserver Desktop]$ whereis cron.d
cron: /etc/cron.hourly /etc/cron.daily /etc/cron.monthly /etc/cron.weekly
/etc/cron.d /etc/cron.deny /usr/share/man/man8/cron.8.gz
[cursoasr@asrserver Desktop]$ ls /etc/cron.d
0hourly pcp-pmie pcp-pmlogger raid-check sa-update sysstat
```

crond.d Es el directorio que contiene tareas ya programadas.

0hourly → Ejecuta las tareas del fichero /etc/cron.hourly cada hora.

raid-check → Ejecuta semanalmente una comprobación del disco.

EJERCICIO 3

```
[cursoasr@asrserver cron.d]$ crontab -e
no crontab for cursoasr - using an empty one
crontab: installing new crontab
```

```
[cursoasr@asrserver cron.d]$ crontab -l
*/5 * * * * date >> /tmp/fecha
```

EJERCICIO 4

OK

LOGS DEL SISTEMA

EJERCICIO 1

CONTROL DE TRABAJOS EN LA SHELL

EJERCICIO 1

```
$ vim progreso.sh
```

```
#!/bin/bash
( for i in `seq 00 99` ; do
echo $i
sleep 0.5
done ) |
zenity --progress
```

```
$ chmod u+x progreso.sh
```

```
$ ./progreso.sh
```

EJERCICIO 2

CTRL + C → Mata el proceso que tiene el foco de la terminal.

CTRL + Z → Para el proceso que tiene el foco de la terminal, es la propia terminal la que pasa a tener el foco de ejecución, el proceso parado no ha terminado aún, este permanece inactivo.

EJERCICIO 3

```
[cursoasr@asrserver Desktop]$ ./progreso.sh
Gtk-Message: GtkDialog mapped without a transient parent. This is discouraged.
^Z
[2]+  Stopped                  ./progreso.sh
[cursoasr@asrserver Desktop]$ jobs
[1]-  Running                  gedit &
[2]+  Stopped                  ./progreso.sh
[cursoasr@asrserver Desktop]$ bg 2
[2]+ ./progreso.sh &
[cursoasr@asrserver Desktop]$ fg 2
./progreso.sh
^C
```

EJERCICIO 4

```
[cursoasr@asrserver Desktop]$ ./progreso.sh&
[2] 9308
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[3] 9324
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[4] 9352
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.

[cursoasr@asrserver Desktop]$ jobs -l
[1] 4919 Running                  gedit &
[2] 9308 Running                  ./progreso.sh &
[3]- 9324 Running                  ./progreso.sh &
[4]+ 9352 Running                  ./progreso.sh &
```

```
[cursoasr@asrserver Desktop]$ fg %2
./progreso.sh
^C[cursoasr@asrserver Desktop]$ jobs -l
[1] 4919 Running          gedit &
[3]- 9324 Running        ./progreso.sh &
[4]+ 9352 Running        ./progreso.sh &
```

EJERCICIO 5

(sleep 1; date ; cat - > /tmp/entrada; sleep 1; date) → Se ejecuta en primer plano normalmente.

(sleep 1; date ; cat - > /tmp/entrada; sleep 1; date)& → Este proceso es interrumpido ya que al estar ejecutandose en segundo plano, no tiene el control de la terminal y por ello no puede recibir datos de la entrada estándar, luego el proceso es abortado.

EJERCICIO 6

El programa progreso.sh se lanza en segundo plano, pero al cerrarse su proceso padre (la terminal) este muere con el.

nohup porgreso.sh hace que cuando la terminal se cierra el proceso pueda seguir ejecutándose.

EJERCICIO 7

```
[cursoasr@asrserver Desktop]$ kill -l
 1) SIGHUP   2) SIGINT   3) SIGQUIT  4) SIGILL   5) SIGTRAP
 6) SIGABRT  7) SIGBUS   8) SIGFPE   9) SIGKILL 10) SIGUSR1
11) SIGSEGV 12) SIGUSR2 13) SIGPIPE 14) SIGALRM 15) SIGTERM
16) SIGSTKFLT 17) SIGCHLD 18) SIGCONT 19) SIGSTOP 20) SIGTSTP
21) SIGTTIN 22) SIGTTOU 23) SIGURG  24) SIGXCPU 25) SIGXFSZ
26) SIGVTALRM 27) SIGPROF 28) SIGWINCH 29) SIGIO   30) SIGPWR
31) SIGSYS  34) SIGRTMIN  35) SIGRTMIN+1 36) SIGRTMIN+2 37) SIGRTMIN+3
38) SIGRTMIN+4 39) SIGRTMIN+5 40) SIGRTMIN+6 41) SIGRTMIN+7 42)
SIGRTMIN+8
43) SIGRTMIN+9 44) SIGRTMIN+10 45) SIGRTMIN+11 46) SIGRTMIN+12 47)
SIGRTMIN+13
48) SIGRTMIN+14 49) SIGRTMIN+15 50) SIGRTMAX-14 51) SIGRTMAX-13 52)
SIGRTMAX-12
53) SIGRTMAX-11 54) SIGRTMAX-10 55) SIGRTMAX-9  56) SIGRTMAX-8  57)
SIGRTMAX-7
58) SIGRTMAX-6  59) SIGRTMAX-5  60) SIGRTMAX-4  61) SIGRTMAX-3  62)
SIGRTMAX-2
63) SIGRTMAX-1  64) SIGRTMAX
```

```
[cursoasr@asrserver Desktop]$ ./progreso.sh&
[1] 18798
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[2] 18811
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[3] 18829
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
```

```
[cursoasr@asrserver Desktop]$ pkill p*greso.*
[1] Terminated ./progreso.sh
[2]- Terminated ./progreso.sh
[3]+ Terminated ./progreso.sh
```

MONITORIZACIÓN DE PROCESOS

EJERCICIO 1

[cursoasr@asrserver Desktop]\$ ps

PID	TTY	TIME	CMD
16399	pts/0	00:00:00	bash
19182	pts/0	00:00:00	ps

EJERCICIO 2

[cursoasr@asrserver Desktop]\$ ps -l -u cursoasr

F	S	UID	PID	PPID	C	PRI	NI	ADDR	SZ	WCHAN	TTY	TIME	CMD
1	S	1000	1552	1	0	80	0	-	97458	poll_s ?		00:00:00	gnome-keyring-
4	S	1000	1614	1539	0	80	0	-	143829	poll_s ?		00:00:00	gnome-session
1	S	1000	1621	1	0	80	0	-	3487	poll_s ?		00:00:00	dbus-launch
1	S	1000	1622	1	0	80	0	-	9521	ep_pol ?		00:00:00	dbus-daemon
0	S	1000	1687	1	0	80	0	-	76642	poll_s ?		00:00:00	gvfsd
0	S	1000	1691	1	0	80	0	-	90284	futex_ ?		00:00:00	gvfsd-fuse
1	S	1000	1764	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1766	1764	0	80	0	-	54100	rtR0Se ?		00:00:00	VBoxClient
1	S	1000	1775	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1777	1775	0	80	0	-	37036	poll_s ?		00:00:00	VBoxClient
1	S	1000	1782	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1783	1782	0	80	0	-	53586	rtR0Se ?		00:00:00	VBoxClient
1	S	1000	1785	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1789	1785	0	80	0	-	53715	futex_ ?		00:00:05	VBoxClient
1	S	1000	1799	1614	0	80	0	-	13213	poll_s ?		00:00:00	ssh-agent
0	S	1000	1815	1	0	80	0	-	85004	poll_s ?		00:00:00	at-spi-bus-lau
0	S	1000	1819	1815	0	80	0	-	9217	ep_pol ?		00:00:00	dbus-daemon
0	S	1000	1824	1	0	80	0	-	32422	poll_s ?		00:00:00	at-spi2-regist
0	S	1000	1842	1614	0	80	0	-	289798	poll_s ?		00:00:00	gnome-settings
1	S	1000	1853	1	0	69	-11	-	139993	poll_s ?		00:00:00	pulseaudio
0	S	1000	1866	1	0	80	0	-	129176	poll_s ?		00:00:00	gsd-printer
0	S	1000	1907	1614	0	80	0	-	360065	poll_s ?		00:00:21	gnome-shell
0	S	1000	1944	1907	0	80	0	-	117491	poll_s ?		00:00:00	ibus-daemon
0	S	1000	1951	1944	0	80	0	-	98216	poll_s ?		00:00:00	ibus-dconf
0	S	1000	1957	1	0	80	0	-	113046	poll_s ?		00:00:00	ibus-x11
0	S	1000	1959	1	0	80	0	-	132781	poll_s ?		00:00:00	gnome-shell-ca
0	S	1000	1969	1	0	80	0	-	167213	poll_s ?		00:00:00	evolution-sour
0	S	1000	1976	1	0	80	0	-	80437	poll_s ?		00:00:00	mission-contro
0	S	1000	1979	1	0	80	0	-	143771	poll_s ?		00:00:00	caribou
0	S	1000	1990	1	0	80	0	-	100146	poll_s ?		00:00:00	gvfs-udisks2-v
0	S	1000	1999	1	0	80	0	-	196766	poll_s ?		00:00:00	goa-daemon
0	S	1000	2011	1	0	80	0	-	105441	poll_s ?		00:00:00	gvfs-afc-volum
0	S	1000	2025	1	0	80	0	-	83608	poll_s ?		00:00:00	goa-identity-s
0	S	1000	2030	1	0	80	0	-	78128	poll_s ?		00:00:00	gvfs-mtp-volum
0	S	1000	2041	1	0	80	0	-	74933	poll_s ?		00:00:00	gvfs-goa-volum
0	S	1000	2051	1	0	80	0	-	80397	poll_s ?		00:00:00	gvfs-gphoto2-v
0	S	1000	2087	1614	0	80	0	-	251386	poll_s ?		00:00:00	nautilus
0	S	1000	2094	1614	0	80	0	-	112854	poll_s ?		00:00:00	abrt-applet
0	S	1000	2100	1614	0	99	-	-	117427	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2128	1	0	80	0	-	134313	poll_s ?		00:00:00	tracker-store
0	S	1000	2130	1614	0	99	19	-	177510	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2138	1614	0	99	19	-	178046	poll_s ?		00:00:00	tracker-extrac
0	S	1000	2141	1614	0	99	-	-	135862	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2143	1614	0	80	0	-	169999	poll_s ?		00:00:00	gnome-software
0	S	1000	2150	1614	0	80	0	-	75151	poll_s ?		00:00:00	seapplet
0	S	1000	2160	1	0	80	0	-	269872	poll_s ?		00:00:00	evolution-cale
0	S	1000	2173	1	0	80	0	-	37458	poll_s ?		00:00:00	gconfd-2
0	S	1000	2184	1	0	80	0	-	117863	poll_s ?		00:00:00	gvfsd-trash
0	S	1000	2190	1944	0	80	0	-	79799	poll_s ?		00:00:00	ibus-engine-si
0	S	1000	2253	1	0	80	0	-	59682	poll_s ?		00:00:00	gvfsd-metadata
0	S	1000	2368	1	0	80	0	-	45166	poll_s ?		00:00:00	dconf-service

```

0 S 1000 2474 1 0 80 0 - 138733 poll_s ? 00:00:02 gnome-terminal
0 S 1000 2477 2474 0 80 0 - 2120 unix_s ? 00:00:00 gnome-pty-help
0 S 1000 2478 2474 0 80 0 - 29170 wait pts/0 00:00:00 bash
0 R 1000 6444 2478 0 80 0 - 34873 - pts/0 00:00:00 ps

```

```
[cursoasr@asrserver Desktop]$ ps -e -o pid,pgid,session,state,TTY,cmd
```

```

  PID  PGID  SESS S TT      CMD
    1      1      1 S ?      /usr/lib/systemd/systemd --switched-root --system
--deserialize 20
    2      0      0 S ?      [kthreadd]
    3      0      0 S ?      [ksoftirqd/0]
    6      0      0 S ?      [kworker/u2:0]
    7      0      0 S ?      [migration/0]
    8      0      0 S ?      [rcu_bh]
    9      0      0 S ?      [rcuob/0]
   10      0      0 R ?      [rcu_sched]
   11      0      0 S ?      [rcuos/0]
   12      0      0 S ?      [watchdog/0]
   13      0      0 S ?      [khelper]
   14      0      0 S ?      [kdevtmpfs]
   15      0      0 S ?      [netns]
   16      0      0 S ?      [perf]
   17      0      0 S ?      [writeback]
   18      0      0 S ?      [kintegrityd]
   19      0      0 S ?      [bioaset]
   20      0      0 S ?      [kblockd]
   21      0      0 S ?      [md]
   22      0      0 R ?      [kworker/0:1]
   26      0      0 S ?      [khungtaskd]
   27      0      0 S ?      [kswapd0]
   28      0      0 S ?      [ksmd]
   29      0      0 S ?      [khugepaged]
   30      0      0 S ?      [fsnotify_mark]
   31      0      0 S ?      [crypto]
   39      0      0 S ?      [kthrotld]
   41      0      0 S ?      [kmpath_rdacd]
   42      0      0 S ?      [kpsmoused]
   43      0      0 S ?      [ipv6_addrconf]
   63      0      0 S ?      [deferwq]
   94      0      0 S ?      [kauditd]
  218      0      0 S ?      [ata_sff]
  237      0      0 S ?      [scsi_eh_0]
  239      0      0 S ?      [scsi_tmf_0]
  240      0      0 S ?      [scsi_eh_1]
  241      0      0 S ?      [kworker/u2:2]
  242      0      0 S ?      [scsi_tmf_1]
  243      0      0 S ?      [scsi_eh_2]
  244      0      0 S ?      [scsi_tmf_2]
  264      0      0 S ?      [xfsalloc]
  265      0      0 S ?      [xfs_mru_cache]
  266      0      0 S ?      [xfs-buf/sda3]
  267      0      0 S ?      [xfs-data/sda3]
  268      0      0 S ?      [xfs-conv/sda3]
  269      0      0 S ?      [xfs-cil/sda3]
  270      0      0 S ?      [xfsaild/sda3]
  354     354     354 S ?      /usr/lib/systemd/systemd-journald
  374      0      0 S ?      [rpciod]
  375     375     375 S ?      /usr/sbin/lvmtools -f
  388     388     388 S ?      /usr/lib/systemd/systemd-udevd
  409      0      0 S ?      [iprt-VBoxWQueue]
  433      0      0 S ?      [xfs-buf/sda1]
  435      0      0 S ?      [xfs-data/sda1]
  437      0      0 S ?      [xfs-conv/sda1]
  438      0      0 S ?      [xfs-cil/sda1]

```

```

455      0      0 S ?      [xfsaild/sda1]
490    490    490 S ?      /sbin/auditd -n
500    500    500 S ?      /sbin/audispd
504    500    500 S ?      /usr/sbin/sedispach
514    514    514 S ?      /bin/dbus-daemon --system --address=systemd: --
nofork --nospidfile --systemd-activation
516    516    516 S ?      /usr/lib/systemd/systemd-logind
517    517    517 S ?      /usr/sbin/rsyslogd -n
518    518    518 S ?      /usr/sbin/ModemManager
520    520    520 S ?      /usr/sbin/abrt-d -s
521    521    521 S ?      /usr/bin/abrt-watch-log -F Backtrace
/var/log/Xorg.0.log -- /usr/bin/abrt-dump-xorg -xD
534    534    534 S ?      /usr/sbin/smartd -n -q never
535    535    535 S ?      /usr/bin/python -Es /usr/sbin/firewalld --nofork --
nospid
536    536    536 S ?      /usr/bin/abrt-watch-log -F BUG: WARNING: at
WARNING: CPU: INFO: possible recursive locking de
537    537    537 R ?      /sbin/rngd -f
542    542    542 S ?      /usr/sbin/gssproxy -D
545    545    545 S ?      /usr/bin/lsmc -d
546    546    546 S ?      avahi-daemon: running [asrserver.local]
547    547    547 S ?      /usr/libexec/accounts-daemon
554    546    546 S ?      avahi-daemon: chroot helper
555    555    555 S ?      /usr/libexec/rtkit-daemon
567    567    567 S ?      /usr/sbin/alsactl -s -n 19 -c -E ALSA_CONFIG_PATH=/
etc/alsa/alsactl.conf --initfile=/lib/alsa
570    570    570 S ?      /usr/lib/polkit-1/polkitd --no-debug
575    571    571 S ?      /bin/bash /usr/sbin/ksmtuned
644    640    640 S ?      /usr/sbin/VBoxService --pidfile /var/run/vboxadd-
service.sh
679    679    679 S ?      /usr/sbin/NetworkManager --no-daemon
729    729    729 S ?      /usr/sbin/wpa_supplicant -u -f
/var/log/wpa_supplicant.log -c /etc/wpa_supplicant/wpa_supplic
993    993    993 S ?      /usr/sbin/cupsd -f
995    995    995 S ?      /usr/bin/python -Es /usr/sbin/tuned -l -P
998    998    998 S ?      /usr/sbin/sshd -D
1026   1026   1026 S ?      /usr/sbin/atd -f
1027   1027   1027 S ?      /usr/sbin/gdm
1028   1028   1028 S ?      /usr/sbin/crond -n
1054   1054   1054 R tty1    /usr/bin/Xorg :0 -background none -noreset -audit 4
-verbose -auth /run/gdm/auth-for-gdm-vuXP
1210   1210   1210 S ?      /usr/libexec/postfix/master -w
1214   1210   1210 S ?      pickup -l -t unix -u
1215   1210   1210 S ?      qmgr -l -t unix -u
1310   1310   1310 S ?      /usr/libexec/upowerd
1323   1323   1323 S ?      /usr/libexec/colord
1392   1392   1392 S ?      /usr/libexec/packagekitd
1438   1438   1438 S ?      /usr/lib/udisks2/udisksd --no-debug
1539   1027   1027 S ?      gdm-session-worker [pam/gdm-password]
1552   1551   1551 S ?      /usr/bin/gnome-keyring-daemon --daemonize --login
1600   1600   1279 S ?      ibus-daemon --xim --panel disable
1603   1600   1279 S ?      /usr/libexec/ibus-dconf
1606   1600   1279 S ?      /usr/libexec/ibus-x11 --kill-daemon
1614   1614   1614 S ?      gnome-session --session gnome-classic
1621   1614   1614 S ?      dbus-launch --sh-syntax --exit-with-session
1622   1622   1622 S ?      /bin/dbus-daemon --fork --print-pid 4 --print-
address 6 --session
1687   1622   1622 S ?      /usr/libexec/gvfsd
1691   1622   1622 S ?      /usr/libexec/gvfsd-fuse /run/user/1000/gvfs -f -o
big_writes
1764   1762   1762 S ?      /usr/bin/VBoxClient --clipboard
1766   1762   1762 S ?      /usr/bin/VBoxClient --clipboard
1775   1773   1773 S ?      /usr/bin/VBoxClient --display
1777   1773   1773 S ?      /usr/bin/VBoxClient --display

```



```

1782 1778 1778 S ? /usr/bin/VBoxClient --seamless
1783 1778 1778 S ? /usr/bin/VBoxClient --seamless
1785 1784 1784 S ? /usr/bin/VBoxClient --draganddrop
1789 1784 1784 S ? /usr/bin/VBoxClient --draganddrop
1799 1799 1799 S ? /usr/bin/ssh-agent /bin/sh -c exec -l /bin/bash -c
"env GNOME_SHELL_SESSION_MODE=classic gnome
1815 1622 1622 S ? /usr/libexec/at-spi-bus-launcher
1819 1622 1622 S ? /bin/dbus-daemon
--config-file=/etc/at-spi2/accessibility.conf --nofork --print-address 3
1824 1622 1622 S ? /usr/libexec/at-spi2-registryd --use-gnome-session
1842 1614 1614 S ? /usr/libexec/gnome-settings-daemon
1853 1851 1851 S ? /usr/bin/pulseaudio --start --log-target=syslog
1866 1614 1614 S ? /usr/libexec/gsd-printer
1897 1897 1897 S ? /usr/libexec/bluetooth/bluetoothd
1907 1614 1614 S ? /usr/bin/gnome-shell
1944 1944 1614 S ? ibus-daemon --xim --panel disable
1951 1944 1614 S ? /usr/libexec/ibus-dconf
1957 1944 1614 S ? /usr/libexec/ibus-x11 --kill-daemon
1959 1622 1622 S ? /usr/libexec/gnome-shell-calendar-server
1969 1622 1622 S ? /usr/libexec/evolution-source-registry
1976 1622 1622 S ? /usr/libexec/mission-control-5
1979 1622 1622 S ? /usr/libexec/caribou
1990 1622 1622 S ? /usr/libexec/gvfs-udisks2-volume-monitor
1999 1622 1622 S ? /usr/libexec/goa-daemon
2011 1622 1622 S ? /usr/libexec/gvfs-afc-volume-monitor
2025 1622 1622 S ? /usr/libexec/goa-identity-service
2030 1622 1622 S ? /usr/libexec/gvfs-mtp-volume-monitor
2041 1622 1622 S ? /usr/libexec/gvfs-goa-volume-monitor
2051 1622 1622 S ? /usr/libexec/gvfs-gphoto2-volume-monitor
2087 1614 1614 S ? nautilus --no-default-window --force-desktop
2094 1614 1614 S ? abrt-applet
2100 1614 1614 S ? /usr/libexec/tracker-miner-user-guides
2128 1622 1622 S ? /usr/libexec/tracker-store
2130 1614 1614 S ? /usr/libexec/tracker-miner-fs
2138 1614 1614 S ? /usr/libexec/tracker-extract
2141 1614 1614 S ? /usr/libexec/tracker-miner-apps
2143 1614 1614 S ? /usr/bin/gnome-software --gapplication-service
2150 1614 1614 S ? /usr/bin/seapplet
2160 1622 1622 S ? /usr/libexec/evolution-calendar-factory
2173 1622 1622 S ? /usr/libexec/gconfd-2
2184 1622 1622 S ? /usr/libexec/gvfsd-trash --spawner :1.3
/org/gtk/gvfs/exec_spaw/0
2190 1944 1614 S ? /usr/libexec/ibus-engine-simple
2253 1622 1622 S ? /usr/libexec/gvfsd-metadata
2368 1622 1622 S ? /usr/libexec/dconf-service
2474 1622 1622 S ? /usr/libexec/gnome-terminal-server
2477 1622 1622 S ? gnome-pty-helper
2478 2478 2478 S pts/0 /bin/bash
6093 0 0 S ? [kworker/0:1H]
7056 0 0 S ? [kworker/0:2]
7095 0 0 S ? [kworker/0:2H]
7653 0 0 S ? [kworker/0:0]
8534 571 571 S ? sleep 60
8540 388 388 S ? /usr/lib/systemd/systemd-udevd
8541 388 388 S ? /usr/lib/systemd/systemd-udevd
8546 8546 2478 R pts/0 ps -e -o pid,pgid,session,state,TTY,cmd

```

Por defecto cada proceso constituye su propio grupo.

Los programas que se ejecutan en la misma shell tienen el mismo id de sesión.

EJERCICIO3

```
[cursoasr@asrserver Desktop]$ pgrep -l .*gnome.*
```

```
1552 gnome-keyring-d
1614 gnome-session
1842 gnome-settings-
1907 gnome-shell
1959 gnome-shell-cal
2143 gnome-software
2474 gnome-terminal-
2477 gnome-pty-helpe
```

```
[cursoasr@asrserver Desktop]$ pgrep -l .*daemon
```

```
514 dbus-daemon
546 avahi-daemon
547 accounts-daemon
554 avahi-daemon
555 rtkit-daemon
1600 ibus-daemon
1622 dbus-daemon
1819 dbus-daemon
1944 ibus-daemon
1999 goa-daemon
```

EJERCICIO 4

OK

EJERCICIO 5

```
[cursoasr@asrserver Desktop]$ lsof /var/log/messages
```

```
[cursoasr@asrserver Desktop]$ lsof +D /etc
```

```
lsof: WARNING: can't opendir(/etc/mail/spamassassin/sa-update-keys): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/cups/ssl): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/sudoers.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/vmware-tools/GuestProxyData/trusted): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/audisp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/libvirt): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/ipsec.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/grub.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/firewalld): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/named): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/polkit-1/localauthority): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/polkit-1/rules.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/audit): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/selinux/targeted/modules/tmp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/selinux/targeted/modules/active): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/cache): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/backup): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/archive): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/dhcp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/pki/rsyslog): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/pki/CA/private): Permission denied
```

COMMAND	PID	USER	FD	TYPE	DEVICE	SIZE/OFF	NODE	NAME
---------	-----	------	----	------	--------	----------	------	------

gnome-ses	1614	cursoasr	mem	REG	8,3	395	12927223	
-----------	------	----------	-----	-----	-----	-----	----------	--

```
/etc/dconf/db/distro
```

gnome-ses	1614	cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
-----------	------	----------	-----	-----	-----	-----	---------	--------------------

gnome-ses	1614	cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
-----------	------	----------	-----	-----	-----	-----	---------	---------------------

at-spi-bu	1815	cursoasr	mem	REG	8,3	395	12927223	
-----------	------	----------	-----	-----	-----	-----	----------	--

```
/etc/dconf/db/distro
```

at-spi-bu	1815	cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
-----------	------	----------	-----	-----	-----	-----	---------	--------------------

at-spi-bu	1815	cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
-----------	------	----------	-----	-----	-----	-----	---------	---------------------

gnome-set 1842 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-set 1842 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-set 1842 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-set 1842 cursoasr	17r	REG	8,3	65536	458181	
/etc/pki/nssdb/cert8.db						
gnome-set 1842 cursoasr	18r	REG	8,3	16384	458183	
/etc/pki/nssdb/key3.db						
gnome-set 1842 cursoasr	19r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	20r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	22r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	28r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	30r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	35r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-she 1907 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-she 1907 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-she 1907 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
ibus-dconf 1951 cursoasr	mem	REG	8,3	3851	12789041	/etc/dconf/db/ibus
gnome-she 1959 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-she 1959 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-she 1959 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
mission-c 1976 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
mission-c 1976 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
mission-c 1976 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
goa-daemo 1999 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
goa-daemo 1999 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
goa-daemo 1999 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
nautilus 2087 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
nautilus 2087 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
nautilus 2087 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-s 2128 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-s 2128 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-s 2128 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-m 2130 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-m 2130 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-m 2130 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-e 2138 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-e 2138 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-e 2138 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-sof 2143 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-sof 2143 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-sof 2143 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
evolution 2160 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
evolution 2160 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
evolution 2160 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-ter 2474 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-ter 2474 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site

```
gnome-ter 2474 cursoasr mem REG 8,3 104 9886487 /etc/dconf/db/local
```

```
[cursoasr@asrserver Desktop]$ ps
```

PID	TTY	TIME	CMD
2478	pts/0	00:00:00	bash
14042	pts/0	00:00:00	progreso.sh
14044	pts/0	00:00:00	progreso.sh
14319	pts/0	00:00:00	sleep <defunct>
18534	pts/0	00:00:00	ps

```
[cursoasr@asrserver Desktop]$ lsof -p 2478
```

COMMAND	PID	USER	FD	TYPE	DEVICE	SIZE/OFF	NODE	NAME
bash	2478	cursoasr	cwd	DIR	8,3	56	21035631	/home/cursoasr/Desktop
bash	2478	cursoasr	rtd	DIR	8,3	4096	128	/
bash	2478	cursoasr	txt	REG	8,3	960376	8872757	/usr/bin/bash
bash	2478	cursoasr	mem	REG	8,3	57824	16985990	/usr/lib64/libnss_files-2.17.so
bash	2478	cursoasr	mem	REG	8,3	106065056	8872748	/usr/lib/locale/locale-archive
bash	2478	cursoasr	mem	REG	8,3	2107816	16985972	/usr/lib64/libc-2.17.so
bash	2478	cursoasr	mem	REG	8,3	19512	16985978	/usr/lib64/libdl-2.17.so
bash	2478	cursoasr	mem	REG	8,3	174520	17069624	/usr/lib64/libtinfo.so.5.9
bash	2478	cursoasr	mem	REG	8,3	164432	16985965	/usr/lib64/ld-2.17.so
bash	2478	cursoasr	mem	REG	8,3	26254	17036605	/usr/lib64/gconv/gconv-modules.cache
bash	2478	cursoasr	0u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	1u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	2u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	255u	CHR	136,0	0t0	3	/dev/pts/0

MONITORIZACIÓN DE LA MEMORIA Y ENTRADA/SALIDA

EJERCICIO 1

```
[cursoasr@asrserver Desktop]$ free
```

	total	used	free	shared	buff/cache	available
Mem:	4047372	517796	3114208	10620	415368	3276664
Swap:	1048572	0	1048572			

- buff/cache: Memoria que esta siendo utilizada por el kernel a modo de memoria cache para acelerar operaciones de disco, permitiendo que los datos se almacenen y se lean desde la memoria.

EJERCICIO 2

```
[cursoasr@asrserver Desktop]$ vmstat
```

```
procs -----memory-----swap-- ----io---- -system-- -----cpu-----
 r b swpd free buff cache si so bi bo in cs us sy id wa st
 4 0 0 3096984 932 414988 0 0 24 2 100 256 1 0 98 0 0
```

EJERCICIO 3

```
[cursoasr@asrserver Desktop]$ iostat
```

```
Linux 3.10.0-327.el7.x86_64 (asrserver) 04/27/2018 _x86_64_ (1 CPU)
```

avg-cpu:	%user	%nice	%system	%iowait	%steal	%idle
	1.26	0.00	0.13	0.01	0.00	98.60

Device:	tps	kB_read/s	kB_wrtn/s	kB_read	kB_wrtn
sda	1.10	20.83	1.81	340049	29581

AUTOMATIZACIÓN DE PROCESOS CON CRON Y AT

EJERCICIO 1

```
45 0 * * sat
30 3 1 * *
```

EJERCICIO 2

```
[cursoasr@asrserver Desktop]$ whereis cron.d
cron: /etc/cron.hourly /etc/cron.daily /etc/cron.monthly /etc/cron.weekly
/etc/cron.d /etc/cron.deny /usr/share/man/man8/cron.8.gz
[cursoasr@asrserver Desktop]$ ls /etc/cron.d
0hourly pcp-pmie pcp-pmlogger raid-check sa-update sysstat
```

crond.d Es el directorio que contiene tareas ya programadas.

0hourly → Ejecuta las tareas del fichero /etc/cron.hourly cada hora.

raid-check → Ejecuta semanalmente una comprobación del disco.

EJERCICIO 3

```
[cursoasr@asrserver cron.d]$ crontab -e
no crontab for cursoasr - using an empty one
crontab: installing new crontab
```

```
[cursoasr@asrserver cron.d]$ crontab -l
*/5 * * * * date >> /tmp/fecha
```

EJERCICIO 4

OK

LOGS DEL SISTEMA

EJERCICIO 1

CONTROL DE TRABAJOS EN LA SHELL

EJERCICIO 1

```
$ vim progreso.sh
```

```
#!/bin/bash
( for i in `seq 00 99` ; do
echo $i
sleep 0.5
done ) |
zenity --progress
```

```
$ chmod u+x progreso.sh
```

```
$ ./progreso.sh
```

EJERCICIO 2

CTRL + C → Mata el proceso que tiene el foco de la terminal.

CTRL + Z → Para el proceso que tiene el foco de la terminal, es la propia terminal la que pasa a tener el foco de ejecución, el proceso parado no ha terminado aún, este permanece inactivo.

EJERCICIO 3

```
[cursoasr@asrserver Desktop]$ ./progreso.sh
Gtk-Message: GtkDialog mapped without a transient parent. This is discouraged.
^Z
[2]+  Stopped                  ./progreso.sh
[cursoasr@asrserver Desktop]$ jobs
[1]-  Running                  gedit &
[2]+  Stopped                  ./progreso.sh
[cursoasr@asrserver Desktop]$ bg 2
[2]+ ./progreso.sh &
[cursoasr@asrserver Desktop]$ fg 2
./progreso.sh
^C
```

EJERCICIO 4

```
[cursoasr@asrserver Desktop]$ ./progreso.sh&
[2] 9308
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[3] 9324
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[4] 9352
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.

[cursoasr@asrserver Desktop]$ jobs -l
[1] 4919 Running                  gedit &
[2] 9308 Running                  ./progreso.sh &
[3]- 9324 Running                  ./progreso.sh &
[4]+ 9352 Running                  ./progreso.sh &
```

```
[cursoasr@asrserver Desktop]$ fg %2
./progreso.sh
^C[cursoasr@asrserver Desktop]$ jobs -l
[1] 4919 Running gedit &
[3]- 9324 Running ./progreso.sh &
[4]+ 9352 Running ./progreso.sh &
```

EJERCICIO 5

(sleep 1; date ; cat - > /tmp/entrada; sleep 1; date) → Se ejecuta en primer plano normalmente.

(sleep 1; date ; cat - > /tmp/entrada; sleep 1; date)& → Este proceso es interrumpido ya que al estar ejecutandose en segundo plano, no tiene el control de la terminal y por ello no puede recibir datos de la entrada estándar, luego el proceso es abortado.

EJERCICIO 6

El programa progreso.sh se lanza en segundo plano, pero al cerrarse su proceso padre (la terminal) este muere con el.

nohup porgreso.sh hace que cuando la terminal se cierra el proceso pueda seguir ejecutándose.

EJERCICIO 7

```
[cursoasr@asrserver Desktop]$ kill -l
 1) SIGHUP   2) SIGINT   3) SIGQUIT  4) SIGILL   5) SIGTRAP
 6) SIGABRT  7) SIGBUS   8) SIGFPE   9) SIGKILL 10) SIGUSR1
11) SIGSEGV 12) SIGUSR2 13) SIGPIPE 14) SIGALRM 15) SIGTERM
16) SIGSTKFLT 17) SIGCHLD 18) SIGCONT 19) SIGSTOP 20) SIGTSTP
21) SIGTTIN 22) SIGTTOU 23) SIGURG  24) SIGXCPU 25) SIGXFSZ
26) SIGVTALRM 27) SIGPROF 28) SIGWINCH 29) SIGIO   30) SIGPWR
31) SIGSYS  34) SIGRTMIN  35) SIGRTMIN+1 36) SIGRTMIN+2 37) SIGRTMIN+3
38) SIGRTMIN+4 39) SIGRTMIN+5 40) SIGRTMIN+6 41) SIGRTMIN+7 42)
SIGRTMIN+8
43) SIGRTMIN+9 44) SIGRTMIN+10 45) SIGRTMIN+11 46) SIGRTMIN+12 47)
SIGRTMIN+13
48) SIGRTMIN+14 49) SIGRTMIN+15 50) SIGRTMAX-14 51) SIGRTMAX-13 52)
SIGRTMAX-12
53) SIGRTMAX-11 54) SIGRTMAX-10 55) SIGRTMAX-9  56) SIGRTMAX-8  57)
SIGRTMAX-7
58) SIGRTMAX-6  59) SIGRTMAX-5  60) SIGRTMAX-4  61) SIGRTMAX-3  62)
SIGRTMAX-2
63) SIGRTMAX-1  64) SIGRTMAX
```

```
[cursoasr@asrserver Desktop]$ ./progreso.sh&
[1] 18798
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[2] 18811
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[3] 18829
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
```

```
[cursoasr@asrserver Desktop]$ pkill p*greso.*
[1] Terminated ./progreso.sh
[2]- Terminated ./progreso.sh
[3]+ Terminated ./progreso.sh
```


MONITORIZACIÓN DE PROCESOS

EJERCICIO 1

[cursoasr@asrserver Desktop]\$ ps

PID	TTY	TIME	CMD
16399	pts/0	00:00:00	bash
19182	pts/0	00:00:00	ps

EJERCICIO 2

[cursoasr@asrserver Desktop]\$ ps -l -u cursoasr

F	S	UID	PID	PPID	C	PRI	NI	ADDR	SZ	WCHAN	TTY	TIME	CMD
1	S	1000	1552	1	0	80	0	-	97458	poll_s ?		00:00:00	gnome-keyring-
4	S	1000	1614	1539	0	80	0	-	143829	poll_s ?		00:00:00	gnome-session
1	S	1000	1621	1	0	80	0	-	3487	poll_s ?		00:00:00	dbus-launch
1	S	1000	1622	1	0	80	0	-	9521	ep_pol ?		00:00:00	dbus-daemon
0	S	1000	1687	1	0	80	0	-	76642	poll_s ?		00:00:00	gvfsd
0	S	1000	1691	1	0	80	0	-	90284	futex_ ?		00:00:00	gvfsd-fuse
1	S	1000	1764	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1766	1764	0	80	0	-	54100	rtR0Se ?		00:00:00	VBoxClient
1	S	1000	1775	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1777	1775	0	80	0	-	37036	poll_s ?		00:00:00	VBoxClient
1	S	1000	1782	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1783	1782	0	80	0	-	53586	rtR0Se ?		00:00:00	VBoxClient
1	S	1000	1785	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1789	1785	0	80	0	-	53715	futex_ ?		00:00:05	VBoxClient
1	S	1000	1799	1614	0	80	0	-	13213	poll_s ?		00:00:00	ssh-agent
0	S	1000	1815	1	0	80	0	-	85004	poll_s ?		00:00:00	at-spi-bus-lau
0	S	1000	1819	1815	0	80	0	-	9217	ep_pol ?		00:00:00	dbus-daemon
0	S	1000	1824	1	0	80	0	-	32422	poll_s ?		00:00:00	at-spi2-regist
0	S	1000	1842	1614	0	80	0	-	289798	poll_s ?		00:00:00	gnome-settings
1	S	1000	1853	1	0	69	-11	-	139993	poll_s ?		00:00:00	pulseaudio
0	S	1000	1866	1	0	80	0	-	129176	poll_s ?		00:00:00	gsd-printer
0	S	1000	1907	1614	0	80	0	-	360065	poll_s ?		00:00:21	gnome-shell
0	S	1000	1944	1907	0	80	0	-	117491	poll_s ?		00:00:00	ibus-daemon
0	S	1000	1951	1944	0	80	0	-	98216	poll_s ?		00:00:00	ibus-dconf
0	S	1000	1957	1	0	80	0	-	113046	poll_s ?		00:00:00	ibus-x11
0	S	1000	1959	1	0	80	0	-	132781	poll_s ?		00:00:00	gnome-shell-ca
0	S	1000	1969	1	0	80	0	-	167213	poll_s ?		00:00:00	evolution-sour
0	S	1000	1976	1	0	80	0	-	80437	poll_s ?		00:00:00	mission-contro
0	S	1000	1979	1	0	80	0	-	143771	poll_s ?		00:00:00	caribou
0	S	1000	1990	1	0	80	0	-	100146	poll_s ?		00:00:00	gvfs-udisks2-v
0	S	1000	1999	1	0	80	0	-	196766	poll_s ?		00:00:00	goa-daemon
0	S	1000	2011	1	0	80	0	-	105441	poll_s ?		00:00:00	gvfs-afc-volum
0	S	1000	2025	1	0	80	0	-	83608	poll_s ?		00:00:00	goa-identity-s
0	S	1000	2030	1	0	80	0	-	78128	poll_s ?		00:00:00	gvfs-mtp-volum
0	S	1000	2041	1	0	80	0	-	74933	poll_s ?		00:00:00	gvfs-goa-volum
0	S	1000	2051	1	0	80	0	-	80397	poll_s ?		00:00:00	gvfs-gphoto2-v
0	S	1000	2087	1614	0	80	0	-	251386	poll_s ?		00:00:00	nautilus
0	S	1000	2094	1614	0	80	0	-	112854	poll_s ?		00:00:00	abrt-applet
0	S	1000	2100	1614	0	99	-	-	117427	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2128	1	0	80	0	-	134313	poll_s ?		00:00:00	tracker-store
0	S	1000	2130	1614	0	99	19	-	177510	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2138	1614	0	99	19	-	178046	poll_s ?		00:00:00	tracker-extrac
0	S	1000	2141	1614	0	99	-	-	135862	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2143	1614	0	80	0	-	169999	poll_s ?		00:00:00	gnome-software
0	S	1000	2150	1614	0	80	0	-	75151	poll_s ?		00:00:00	seapplet
0	S	1000	2160	1	0	80	0	-	269872	poll_s ?		00:00:00	evolution-cale
0	S	1000	2173	1	0	80	0	-	37458	poll_s ?		00:00:00	gconfd-2
0	S	1000	2184	1	0	80	0	-	117863	poll_s ?		00:00:00	gvfsd-trash
0	S	1000	2190	1944	0	80	0	-	79799	poll_s ?		00:00:00	ibus-engine-si
0	S	1000	2253	1	0	80	0	-	59682	poll_s ?		00:00:00	gvfsd-metadata
0	S	1000	2368	1	0	80	0	-	45166	poll_s ?		00:00:00	dconf-service

```

0 S 1000 2474 1 0 80 0 - 138733 poll_s ? 00:00:02 gnome-terminal
0 S 1000 2477 2474 0 80 0 - 2120 unix_s ? 00:00:00 gnome-pty-help
0 S 1000 2478 2474 0 80 0 - 29170 wait pts/0 00:00:00 bash
0 R 1000 6444 2478 0 80 0 - 34873 - pts/0 00:00:00 ps

```

```
[cursoasr@asrserver Desktop]$ ps -e -o pid,pgid,session,state,TTY,cmd
```

```

  PID  PGID  SESS S TT      CMD
    1      1    1 S ?      /usr/lib/systemd/systemd --switched-root --system
--deserialize 20
    2      0    0 S ?      [kthreadd]
    3      0    0 S ?      [ksoftirqd/0]
    6      0    0 S ?      [kworker/u2:0]
    7      0    0 S ?      [migration/0]
    8      0    0 S ?      [rcu_bh]
    9      0    0 S ?      [rcuob/0]
   10      0    0 R ?      [rcu_sched]
   11      0    0 S ?      [rcuos/0]
   12      0    0 S ?      [watchdog/0]
   13      0    0 S ?      [khelper]
   14      0    0 S ?      [kdevtmpfs]
   15      0    0 S ?      [netns]
   16      0    0 S ?      [perf]
   17      0    0 S ?      [writeback]
   18      0    0 S ?      [kintegrityd]
   19      0    0 S ?      [bioaset]
   20      0    0 S ?      [kblockd]
   21      0    0 S ?      [md]
   22      0    0 R ?      [kworker/0:1]
   26      0    0 S ?      [khungtaskd]
   27      0    0 S ?      [kswapd0]
   28      0    0 S ?      [ksmd]
   29      0    0 S ?      [khugepaged]
   30      0    0 S ?      [fsnotify_mark]
   31      0    0 S ?      [crypto]
   39      0    0 S ?      [kthrotld]
   41      0    0 S ?      [kmpath_rdacd]
   42      0    0 S ?      [kpsmoused]
   43      0    0 S ?      [ipv6_addrconf]
   63      0    0 S ?      [deferwq]
   94      0    0 S ?      [kauditd]
  218      0    0 S ?      [ata_sff]
  237      0    0 S ?      [scsi_eh_0]
  239      0    0 S ?      [scsi_tmf_0]
  240      0    0 S ?      [scsi_eh_1]
  241      0    0 S ?      [kworker/u2:2]
  242      0    0 S ?      [scsi_tmf_1]
  243      0    0 S ?      [scsi_eh_2]
  244      0    0 S ?      [scsi_tmf_2]
  264      0    0 S ?      [xfsalloc]
  265      0    0 S ?      [xfs_mru_cache]
  266      0    0 S ?      [xfs-buf/sda3]
  267      0    0 S ?      [xfs-data/sda3]
  268      0    0 S ?      [xfs-conv/sda3]
  269      0    0 S ?      [xfs-cil/sda3]
  270      0    0 S ?      [xfsaild/sda3]
  354    354    354 S ?      /usr/lib/systemd/systemd-journald
  374      0    0 S ?      [rpciod]
  375    375    375 S ?      /usr/sbin/lvmtools -f
  388    388    388 S ?      /usr/lib/systemd/systemd-udevd
  409      0    0 S ?      [iprt-VBoxWQueue]
  433      0    0 S ?      [xfs-buf/sda1]
  435      0    0 S ?      [xfs-data/sda1]
  437      0    0 S ?      [xfs-conv/sda1]
  438      0    0 S ?      [xfs-cil/sda1]

```

```

455      0      0 S ?      [xfssaild/sda1]
490    490    490 S ?      /sbin/auditd -n
500    500    500 S ?      /sbin/audispd
504    500    500 S ?      /usr/sbin/sedispach
514    514    514 S ?      /bin/dbus-daemon --system --address=systemd: --
nofork --nospidfile --systemd-activation
516    516    516 S ?      /usr/lib/systemd/systemd-logind
517    517    517 S ?      /usr/sbin/rsyslogd -n
518    518    518 S ?      /usr/sbin/ModemManager
520    520    520 S ?      /usr/sbin/abrt-d -s
521    521    521 S ?      /usr/bin/abrt-watch-log -F Backtrace
/var/log/Xorg.0.log -- /usr/bin/abrt-dump-xorg -xD
534    534    534 S ?      /usr/sbin/smartd -n -q never
535    535    535 S ?      /usr/bin/python -Es /usr/sbin/firewalld --nofork --
nospid
536    536    536 S ?      /usr/bin/abrt-watch-log -F BUG: WARNING: at
WARNING: CPU: INFO: possible recursive locking de
537    537    537 R ?      /sbin/rngd -f
542    542    542 S ?      /usr/sbin/gssproxy -D
545    545    545 S ?      /usr/bin/lsmc -d
546    546    546 S ?      avahi-daemon: running [asrserver.local]
547    547    547 S ?      /usr/libexec/accounts-daemon
554    546    546 S ?      avahi-daemon: chroot helper
555    555    555 S ?      /usr/libexec/rtkit-daemon
567    567    567 S ?      /usr/sbin/alsactl -s -n 19 -c -E ALSA_CONFIG_PATH=/
etc/alsa/alsactl.conf --initfile=/lib/alsa
570    570    570 S ?      /usr/lib/polkit-1/polkitd --no-debug
575    571    571 S ?      /bin/bash /usr/sbin/ksmtuned
644    640    640 S ?      /usr/sbin/VBoxService --pidfile /var/run/vboxadd-
service.sh
679    679    679 S ?      /usr/sbin/NetworkManager --no-daemon
729    729    729 S ?      /usr/sbin/wpa_supplicant -u -f
/var/log/wpa_supplicant.log -c /etc/wpa_supplicant/wpa_supplic
993    993    993 S ?      /usr/sbin/cupsd -f
995    995    995 S ?      /usr/bin/python -Es /usr/sbin/tuned -l -P
998    998    998 S ?      /usr/sbin/sshd -D
1026   1026   1026 S ?      /usr/sbin/atd -f
1027   1027   1027 S ?      /usr/sbin/gdm
1028   1028   1028 S ?      /usr/sbin/crond -n
1054   1054   1054 R tty1    /usr/bin/Xorg :0 -background none -noreset -audit 4
-verbose -auth /run/gdm/auth-for-gdm-vuXP
1210   1210   1210 S ?      /usr/libexec/postfix/master -w
1214   1210   1210 S ?      pickup -l -t unix -u
1215   1210   1210 S ?      qmgr -l -t unix -u
1310   1310   1310 S ?      /usr/libexec/upowerd
1323   1323   1323 S ?      /usr/libexec/colord
1392   1392   1392 S ?      /usr/libexec/packagekitd
1438   1438   1438 S ?      /usr/lib/udisks2/udisksd --no-debug
1539   1027   1027 S ?      gdm-session-worker [pam/gdm-password]
1552   1551   1551 S ?      /usr/bin/gnome-keyring-daemon --daemonize --login
1600   1600   1279 S ?      ibus-daemon --xim --panel disable
1603   1600   1279 S ?      /usr/libexec/ibus-dconf
1606   1600   1279 S ?      /usr/libexec/ibus-x11 --kill-daemon
1614   1614   1614 S ?      gnome-session --session gnome-classic
1621   1614   1614 S ?      dbus-launch --sh-syntax --exit-with-session
1622   1622   1622 S ?      /bin/dbus-daemon --fork --print-pid 4 --print-
address 6 --session
1687   1622   1622 S ?      /usr/libexec/gvfsd
1691   1622   1622 S ?      /usr/libexec/gvfsd-fuse /run/user/1000/gvfs -f -o
big_writes
1764   1762   1762 S ?      /usr/bin/VBoxClient --clipboard
1766   1762   1762 S ?      /usr/bin/VBoxClient --clipboard
1775   1773   1773 S ?      /usr/bin/VBoxClient --display
1777   1773   1773 S ?      /usr/bin/VBoxClient --display

```

```

1782 1778 1778 S ? /usr/bin/VBoxClient --seamless
1783 1778 1778 S ? /usr/bin/VBoxClient --seamless
1785 1784 1784 S ? /usr/bin/VBoxClient --draganddrop
1789 1784 1784 S ? /usr/bin/VBoxClient --draganddrop
1799 1799 1799 S ? /usr/bin/ssh-agent /bin/sh -c exec -l /bin/bash -c
"env GNOME_SHELL_SESSION_MODE=classic gnome
1815 1622 1622 S ? /usr/libexec/at-spi-bus-launcher
1819 1622 1622 S ? /bin/dbus-daemon
--config-file=/etc/at-spi2/accessibility.conf --nofork --print-address 3
1824 1622 1622 S ? /usr/libexec/at-spi2-registryd --use-gnome-session
1842 1614 1614 S ? /usr/libexec/gnome-settings-daemon
1853 1851 1851 S ? /usr/bin/pulseaudio --start --log-target=syslog
1866 1614 1614 S ? /usr/libexec/gsd-printer
1897 1897 1897 S ? /usr/libexec/bluetooth/bluetoothd
1907 1614 1614 S ? /usr/bin/gnome-shell
1944 1944 1614 S ? ibus-daemon --xim --panel disable
1951 1944 1614 S ? /usr/libexec/ibus-dconf
1957 1944 1614 S ? /usr/libexec/ibus-x11 --kill-daemon
1959 1622 1622 S ? /usr/libexec/gnome-shell-calendar-server
1969 1622 1622 S ? /usr/libexec/evolution-source-registry
1976 1622 1622 S ? /usr/libexec/mission-control-5
1979 1622 1622 S ? /usr/libexec/caribou
1990 1622 1622 S ? /usr/libexec/gvfs-udisks2-volume-monitor
1999 1622 1622 S ? /usr/libexec/goa-daemon
2011 1622 1622 S ? /usr/libexec/gvfs-afc-volume-monitor
2025 1622 1622 S ? /usr/libexec/goa-identity-service
2030 1622 1622 S ? /usr/libexec/gvfs-mtp-volume-monitor
2041 1622 1622 S ? /usr/libexec/gvfs-goa-volume-monitor
2051 1622 1622 S ? /usr/libexec/gvfs-gphoto2-volume-monitor
2087 1614 1614 S ? nautilus --no-default-window --force-desktop
2094 1614 1614 S ? abrt-applet
2100 1614 1614 S ? /usr/libexec/tracker-miner-user-guides
2128 1622 1622 S ? /usr/libexec/tracker-store
2130 1614 1614 S ? /usr/libexec/tracker-miner-fs
2138 1614 1614 S ? /usr/libexec/tracker-extract
2141 1614 1614 S ? /usr/libexec/tracker-miner-apps
2143 1614 1614 S ? /usr/bin/gnome-software --gapplication-service
2150 1614 1614 S ? /usr/bin/seaplet
2160 1622 1622 S ? /usr/libexec/evolution-calendar-factory
2173 1622 1622 S ? /usr/libexec/gconfd-2
2184 1622 1622 S ? /usr/libexec/gvfsd-trash --spawner :1.3
/org/gtk/gvfs/exec_spaw/0
2190 1944 1614 S ? /usr/libexec/ibus-engine-simple
2253 1622 1622 S ? /usr/libexec/gvfsd-metadata
2368 1622 1622 S ? /usr/libexec/dconf-service
2474 1622 1622 S ? /usr/libexec/gnome-terminal-server
2477 1622 1622 S ? gnome-pty-helper
2478 2478 2478 S pts/0 /bin/bash
6093 0 0 S ? [kworker/0:1H]
7056 0 0 S ? [kworker/0:2]
7095 0 0 S ? [kworker/0:2H]
7653 0 0 S ? [kworker/0:0]
8534 571 571 S ? sleep 60
8540 388 388 S ? /usr/lib/systemd/systemd-udevd
8541 388 388 S ? /usr/lib/systemd/systemd-udevd
8546 8546 2478 R pts/0 ps -e -o pid,pgid,session,state,TTY,cmd

```

Por defecto cada proceso constituye su propio grupo.

Los programas que se ejecutan en la misma shell tienen el mismo id de sesión.

EJERCICIO3

```
[cursoasr@asrserver Desktop]$ pgrep -l .*gnome.*
```

```
1552 gnome-keyring-d
1614 gnome-session
1842 gnome-settings-
1907 gnome-shell
1959 gnome-shell-cal
2143 gnome-software
2474 gnome-terminal-
2477 gnome-pty-helpe
```

```
[cursoasr@asrserver Desktop]$ pgrep -l .*daemon
```

```
514 dbus-daemon
546 avahi-daemon
547 accounts-daemon
554 avahi-daemon
555 rtkit-daemon
1600 ibus-daemon
1622 dbus-daemon
1819 dbus-daemon
1944 ibus-daemon
1999 goa-daemon
```

EJERCICIO 4

OK

EJERCICIO 5

```
[cursoasr@asrserver Desktop]$ lsof /var/log/messages
```

```
[cursoasr@asrserver Desktop]$ lsof +D /etc
```

```
lsof: WARNING: can't opendir(/etc/mail/spamassassin/sa-update-keys): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/cups/ssl): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/sudoers.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/vmware-tools/GuestProxyData/trusted): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/audisp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/libvirt): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/ipsec.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/grub.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/firewalld): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/named): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/polkit-1/localauthority): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/polkit-1/rules.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/audit): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/selinux/targeted/modules/tmp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/selinux/targeted/modules/active): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/cache): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/backup): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/archive): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/dhcp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/pki/rsyslog): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/pki/CA/private): Permission denied
```

```
COMMAND      PID      USER      FD      TYPE  DEVICE  SIZE/OFF      NODE NAME
```

```
gnome-ses 1614 cursoasr mem      REG     8,3      395 12927223
```

```
/etc/dconf/db/distro
```

```
gnome-ses 1614 cursoasr mem      REG     8,3      104 9886486 /etc/dconf/db/site
```

```
gnome-ses 1614 cursoasr mem      REG     8,3      104 9886487 /etc/dconf/db/local
```

```
at-spi-bu 1815 cursoasr mem      REG     8,3      395 12927223
```

```
/etc/dconf/db/distro
```

```
at-spi-bu 1815 cursoasr mem      REG     8,3      104 9886486 /etc/dconf/db/site
```

```
at-spi-bu 1815 cursoasr mem      REG     8,3      104 9886487 /etc/dconf/db/local
```

gnome-set 1842 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-set 1842 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-set 1842 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-set 1842 cursoasr	17r	REG	8,3	65536	458181	
/etc/pki/nssdb/cert8.db						
gnome-set 1842 cursoasr	18r	REG	8,3	16384	458183	
/etc/pki/nssdb/key3.db						
gnome-set 1842 cursoasr	19r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	20r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	22r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	28r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	30r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	35r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-she 1907 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-she 1907 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-she 1907 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
ibus-dconf 1951 cursoasr	mem	REG	8,3	3851	12789041	/etc/dconf/db/ibus
gnome-she 1959 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-she 1959 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-she 1959 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
mission-c 1976 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
mission-c 1976 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
mission-c 1976 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
goa-daemo 1999 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
goa-daemo 1999 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
goa-daemo 1999 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
nautilus 2087 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
nautilus 2087 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
nautilus 2087 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-s 2128 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-s 2128 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-s 2128 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-m 2130 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-m 2130 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-m 2130 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-e 2138 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-e 2138 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-e 2138 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-sof 2143 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-sof 2143 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-sof 2143 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
evolution 2160 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
evolution 2160 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
evolution 2160 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-ter 2474 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-ter 2474 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site

```
gnome-ter 2474 cursoasr mem REG 8,3 104 9886487 /etc/dconf/db/local
```

```
[cursoasr@asrserver Desktop]$ ps
```

PID	TTY	TIME	CMD
2478	pts/0	00:00:00	bash
14042	pts/0	00:00:00	progreso.sh
14044	pts/0	00:00:00	progreso.sh
14319	pts/0	00:00:00	sleep <defunct>
18534	pts/0	00:00:00	ps

```
[cursoasr@asrserver Desktop]$ lsof -p 2478
```

COMMAND	PID	USER	FD	TYPE	DEVICE	SIZE/OFF	NODE	NAME
bash	2478	cursoasr	cwd	DIR	8,3	56	21035631	/home/cursoasr/Desktop
bash	2478	cursoasr	rtd	DIR	8,3	4096	128	/
bash	2478	cursoasr	txt	REG	8,3	960376	8872757	/usr/bin/bash
bash	2478	cursoasr	mem	REG	8,3	57824	16985990	/usr/lib64/libnss_files-2.17.so
bash	2478	cursoasr	mem	REG	8,3	106065056	8872748	/usr/lib/locale/locale-archive
bash	2478	cursoasr	mem	REG	8,3	2107816	16985972	/usr/lib64/libc-2.17.so
bash	2478	cursoasr	mem	REG	8,3	19512	16985978	/usr/lib64/libdl-2.17.so
bash	2478	cursoasr	mem	REG	8,3	174520	17069624	/usr/lib64/libtinfo.so.5.9
bash	2478	cursoasr	mem	REG	8,3	164432	16985965	/usr/lib64/ld-2.17.so
bash	2478	cursoasr	mem	REG	8,3	26254	17036605	/usr/lib64/gconv/gconv-modules.cache
bash	2478	cursoasr	0u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	1u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	2u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	255u	CHR	136,0	0t0	3	/dev/pts/0

MONITORIZACIÓN DE LA MEMORIA Y ENTRADA/SALIDA

EJERCICIO 1

```
[cursoasr@asrserver Desktop]$ free
```

	total	used	free	shared	buff/cache	available
Mem:	4047372	517796	3114208	10620	415368	3276664
Swap:	1048572	0	1048572			

- buff/cache: Memoria que esta siendo utilizada por el kernel a modo de memoria cache para acelerar operaciones de disco, permitiendo que los datos se almacenen y se lean desde la memoria.

EJERCICIO 2

```
[cursoasr@asrserver Desktop]$ vmstat
```

```
procs -----memory-----swap-- ----io---- -system-- -----cpu-----
r b swpd free buff cache si so bi bo in cs us sy id wa st
4 0 0 3096984 932 414988 0 0 24 2 100 256 1 0 98 0 0
```

EJERCICIO 3

```
[cursoasr@asrserver Desktop]$ iostat
```

```
Linux 3.10.0-327.el7.x86_64 (asrserver) 04/27/2018 _x86_64_ (1 CPU)
```

avg-cpu:	%user	%nice	%system	%iowait	%steal	%idle
	1.26	0.00	0.13	0.01	0.00	98.60

Device:	tps	kB_read/s	kB_wrtn/s	kB_read	kB_wrtn
sda	1.10	20.83	1.81	340049	29581

AUTOMATIZACIÓN DE PROCESOS CON CRON Y AT

EJERCICIO 1

```
45 0 * * sat
30 3 1 * *
```

EJERCICIO 2

```
[cursoasr@asrserver Desktop]$ whereis cron.d
cron: /etc/cron.hourly /etc/cron.daily /etc/cron.monthly /etc/cron.weekly
/etc/cron.d /etc/cron.deny /usr/share/man/man8/cron.8.gz
[cursoasr@asrserver Desktop]$ ls /etc/cron.d
0hourly pcp-pmie pcp-pmlogger raid-check sa-update sysstat
```

crond.d Es el directorio que contiene tareas ya programadas.

0hourly → Ejecuta las tareas del fichero /etc/cron.hourly cada hora.

raid-check → Ejecuta semanalmente una comprobación del disco.

EJERCICIO 3

```
[cursoasr@asrserver cron.d]$ crontab -e
no crontab for cursoasr - using an empty one
crontab: installing new crontab
```

```
[cursoasr@asrserver cron.d]$ crontab -l
*/5 * * * * date >> /tmp/fecha
```

EJERCICIO 4

OK

LOGS DEL SISTEMA

EJERCICIO 1

CONTROL DE TRABAJOS EN LA SHELL

EJERCICIO 1

```
$ vim progreso.sh
```

```
#!/bin/bash
( for i in `seq 00 99` ; do
echo $i
sleep 0.5
done ) |
zenity --progress
```

```
$ chmod u+x progreso.sh
```

```
$ ./progreso.sh
```

EJERCICIO 2

CTRL + C → Mata el proceso que tiene el foco de la terminal.

CTRL + Z → Para el proceso que tiene el foco de la terminal, es la propia terminal la que pasa a tener el foco de ejecución, el proceso parado no ha terminado aún, este permanece inactivo.

EJERCICIO 3

```
[cursoasr@asrserver Desktop]$ ./progreso.sh
Gtk-Message: GtkDialog mapped without a transient parent. This is discouraged.
^Z
[2]+  Stopped                  ./progreso.sh
[cursoasr@asrserver Desktop]$ jobs
[1]-  Running                  gedit &
[2]+  Stopped                  ./progreso.sh
[cursoasr@asrserver Desktop]$ bg 2
[2]+ ./progreso.sh &
[cursoasr@asrserver Desktop]$ fg 2
./progreso.sh
^C
```

EJERCICIO 4

```
[cursoasr@asrserver Desktop]$ ./progreso.sh&
[2] 9308
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[3] 9324
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[4] 9352
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.

[cursoasr@asrserver Desktop]$ jobs -l
[1] 4919 Running                  gedit &
[2] 9308 Running                  ./progreso.sh &
[3]- 9324 Running                  ./progreso.sh &
[4]+ 9352 Running                  ./progreso.sh &
```

```
[cursoasr@asrserver Desktop]$ fg %2
./progreso.sh
^C[cursoasr@asrserver Desktop]$ jobs -l
[1] 4919 Running gedit &
[3]- 9324 Running ./progreso.sh &
[4]+ 9352 Running ./progreso.sh &
```

EJERCICIO 5

(sleep 1; date ; cat - > /tmp/entrada; sleep 1; date) → Se ejecuta en primer plano normalmente.

(sleep 1; date ; cat - > /tmp/entrada; sleep 1; date)& → Este proceso es interrumpido ya que al estar ejecutandose en segundo plano, no tiene el control de la terminal y por ello no puede recibir datos de la entrada estándar, luego el proceso es abortado.

EJERCICIO 6

El programa progreso.sh se lanza en segundo plano, pero al cerrarse su proceso padre (la terminal) este muere con el.

nohup porgreso.sh hace que cuando la terminal se cierra el proceso pueda seguir ejecutándose.

EJERCICIO 7

```
[cursoasr@asrserver Desktop]$ kill -l
 1) SIGHUP   2) SIGINT   3) SIGQUIT  4) SIGILL   5) SIGTRAP
 6) SIGABRT  7) SIGBUS   8) SIGFPE   9) SIGKILL 10) SIGUSR1
11) SIGSEGV 12) SIGUSR2 13) SIGPIPE 14) SIGALRM 15) SIGTERM
16) SIGSTKFLT 17) SIGCHLD 18) SIGCONT 19) SIGSTOP 20) SIGTSTP
21) SIGTTIN 22) SIGTTOU 23) SIGURG  24) SIGXCPU 25) SIGXFSZ
26) SIGVTALRM 27) SIGPROF 28) SIGWINCH 29) SIGIO   30) SIGPWR
31) SIGSYS  34) SIGRTMIN  35) SIGRTMIN+1 36) SIGRTMIN+2 37) SIGRTMIN+3
38) SIGRTMIN+4 39) SIGRTMIN+5 40) SIGRTMIN+6 41) SIGRTMIN+7 42)
SIGRTMIN+8
43) SIGRTMIN+9 44) SIGRTMIN+10 45) SIGRTMIN+11 46) SIGRTMIN+12 47)
SIGRTMIN+13
48) SIGRTMIN+14 49) SIGRTMIN+15 50) SIGRTMAX-14 51) SIGRTMAX-13 52)
SIGRTMAX-12
53) SIGRTMAX-11 54) SIGRTMAX-10 55) SIGRTMAX-9 56) SIGRTMAX-8 57)
SIGRTMAX-7
58) SIGRTMAX-6 59) SIGRTMAX-5 60) SIGRTMAX-4 61) SIGRTMAX-3 62)
SIGRTMAX-2
63) SIGRTMAX-1 64) SIGRTMAX
```

```
[cursoasr@asrserver Desktop]$ ./progreso.sh&
[1] 18798
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[2] 18811
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[3] 18829
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
```

```
[cursoasr@asrserver Desktop]$ pkill p*greso.*
[1] Terminated ./progreso.sh
[2]- Terminated ./progreso.sh
[3]+ Terminated ./progreso.sh
```

MONITORIZACIÓN DE PROCESOS

EJERCICIO 1

```
[cursoasr@asrserver Desktop]$ ps
```

PID	TTY	TIME	CMD
16399	pts/0	00:00:00	bash
19182	pts/0	00:00:00	ps

EJERCICIO 2

```
[cursoasr@asrserver Desktop]$ ps -l -u cursoasr
```

F	S	UID	PID	PPID	C	PRI	NI	ADDR	SZ	WCHAN	TTY	TIME	CMD
1	S	1000	1552	1	0	80	0	-	97458	poll_s ?		00:00:00	gnome-keyring-
4	S	1000	1614	1539	0	80	0	-	143829	poll_s ?		00:00:00	gnome-session
1	S	1000	1621	1	0	80	0	-	3487	poll_s ?		00:00:00	dbus-launch
1	S	1000	1622	1	0	80	0	-	9521	ep_pol ?		00:00:00	dbus-daemon
0	S	1000	1687	1	0	80	0	-	76642	poll_s ?		00:00:00	gvfsd
0	S	1000	1691	1	0	80	0	-	90284	futex_ ?		00:00:00	gvfsd-fuse
1	S	1000	1764	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1766	1764	0	80	0	-	54100	rtR0Se ?		00:00:00	VBoxClient
1	S	1000	1775	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1777	1775	0	80	0	-	37036	poll_s ?		00:00:00	VBoxClient
1	S	1000	1782	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1783	1782	0	80	0	-	53586	rtR0Se ?		00:00:00	VBoxClient
1	S	1000	1785	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1789	1785	0	80	0	-	53715	futex_ ?		00:00:05	VBoxClient
1	S	1000	1799	1614	0	80	0	-	13213	poll_s ?		00:00:00	ssh-agent
0	S	1000	1815	1	0	80	0	-	85004	poll_s ?		00:00:00	at-spi-bus-lau
0	S	1000	1819	1815	0	80	0	-	9217	ep_pol ?		00:00:00	dbus-daemon
0	S	1000	1824	1	0	80	0	-	32422	poll_s ?		00:00:00	at-spi2-regist
0	S	1000	1842	1614	0	80	0	-	289798	poll_s ?		00:00:00	gnome-settings
1	S	1000	1853	1	0	69	-11	-	139993	poll_s ?		00:00:00	pulseaudio
0	S	1000	1866	1	0	80	0	-	129176	poll_s ?		00:00:00	gsd-printer
0	S	1000	1907	1614	0	80	0	-	360065	poll_s ?		00:00:21	gnome-shell
0	S	1000	1944	1907	0	80	0	-	117491	poll_s ?		00:00:00	ibus-daemon
0	S	1000	1951	1944	0	80	0	-	98216	poll_s ?		00:00:00	ibus-dconf
0	S	1000	1957	1	0	80	0	-	113046	poll_s ?		00:00:00	ibus-x11
0	S	1000	1959	1	0	80	0	-	132781	poll_s ?		00:00:00	gnome-shell-ca
0	S	1000	1969	1	0	80	0	-	167213	poll_s ?		00:00:00	evolution-sour
0	S	1000	1976	1	0	80	0	-	80437	poll_s ?		00:00:00	mission-contro
0	S	1000	1979	1	0	80	0	-	143771	poll_s ?		00:00:00	caribou
0	S	1000	1990	1	0	80	0	-	100146	poll_s ?		00:00:00	gvfs-udisks2-v
0	S	1000	1999	1	0	80	0	-	196766	poll_s ?		00:00:00	goa-daemon
0	S	1000	2011	1	0	80	0	-	105441	poll_s ?		00:00:00	gvfs-afc-volum
0	S	1000	2025	1	0	80	0	-	83608	poll_s ?		00:00:00	goa-identity-s
0	S	1000	2030	1	0	80	0	-	78128	poll_s ?		00:00:00	gvfs-mtp-volum
0	S	1000	2041	1	0	80	0	-	74933	poll_s ?		00:00:00	gvfs-goa-volum
0	S	1000	2051	1	0	80	0	-	80397	poll_s ?		00:00:00	gvfs-gphoto2-v
0	S	1000	2087	1614	0	80	0	-	251386	poll_s ?		00:00:00	nautilus
0	S	1000	2094	1614	0	80	0	-	112854	poll_s ?		00:00:00	abrt-applet
0	S	1000	2100	1614	0	99	-	-	117427	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2128	1	0	80	0	-	134313	poll_s ?		00:00:00	tracker-store
0	S	1000	2130	1614	0	99	19	-	177510	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2138	1614	0	99	19	-	178046	poll_s ?		00:00:00	tracker-extrac
0	S	1000	2141	1614	0	99	-	-	135862	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2143	1614	0	80	0	-	169999	poll_s ?		00:00:00	gnome-software
0	S	1000	2150	1614	0	80	0	-	75151	poll_s ?		00:00:00	seapplet
0	S	1000	2160	1	0	80	0	-	269872	poll_s ?		00:00:00	evolution-cale
0	S	1000	2173	1	0	80	0	-	37458	poll_s ?		00:00:00	gconfd-2
0	S	1000	2184	1	0	80	0	-	117863	poll_s ?		00:00:00	gvfsd-trash
0	S	1000	2190	1944	0	80	0	-	79799	poll_s ?		00:00:00	ibus-engine-si
0	S	1000	2253	1	0	80	0	-	59682	poll_s ?		00:00:00	gvfsd-metadata
0	S	1000	2368	1	0	80	0	-	45166	poll_s ?		00:00:00	dconf-service

```

0 S 1000 2474 1 0 80 0 - 138733 poll_s ? 00:00:02 gnome-terminal
0 S 1000 2477 2474 0 80 0 - 2120 unix_s ? 00:00:00 gnome-pty-help
0 S 1000 2478 2474 0 80 0 - 29170 wait pts/0 00:00:00 bash
0 R 1000 6444 2478 0 80 0 - 34873 - pts/0 00:00:00 ps

```

```
[cursoasr@asrserver Desktop]$ ps -e -o pid,pgid,session,state,TTY,cmd
```

```

  PID  PGID  SESS S TT      CMD
    1      1      1 S ?      /usr/lib/systemd/systemd --switched-root --system
--deserialize 20
    2      0      0 S ?      [kthreadd]
    3      0      0 S ?      [ksoftirqd/0]
    6      0      0 S ?      [kworker/u2:0]
    7      0      0 S ?      [migration/0]
    8      0      0 S ?      [rcu_bh]
    9      0      0 S ?      [rcuob/0]
   10      0      0 R ?      [rcu_sched]
   11      0      0 S ?      [rcuos/0]
   12      0      0 S ?      [watchdog/0]
   13      0      0 S ?      [khelper]
   14      0      0 S ?      [kdevtmpfs]
   15      0      0 S ?      [netns]
   16      0      0 S ?      [perf]
   17      0      0 S ?      [writeback]
   18      0      0 S ?      [kintegrityd]
   19      0      0 S ?      [bioaset]
   20      0      0 S ?      [kblockd]
   21      0      0 S ?      [md]
   22      0      0 R ?      [kworker/0:1]
   26      0      0 S ?      [khungtaskd]
   27      0      0 S ?      [kswapd0]
   28      0      0 S ?      [ksmd]
   29      0      0 S ?      [khugepaged]
   30      0      0 S ?      [fsnotify_mark]
   31      0      0 S ?      [crypto]
   39      0      0 S ?      [kthrotld]
   41      0      0 S ?      [kmpath_rdacd]
   42      0      0 S ?      [kpsmoused]
   43      0      0 S ?      [ipv6_addrconf]
   63      0      0 S ?      [deferwq]
   94      0      0 S ?      [kauditd]
  218      0      0 S ?      [ata_sff]
  237      0      0 S ?      [scsi_eh_0]
  239      0      0 S ?      [scsi_tmf_0]
  240      0      0 S ?      [scsi_eh_1]
  241      0      0 S ?      [kworker/u2:2]
  242      0      0 S ?      [scsi_tmf_1]
  243      0      0 S ?      [scsi_eh_2]
  244      0      0 S ?      [scsi_tmf_2]
  264      0      0 S ?      [xfsalloc]
  265      0      0 S ?      [xfs_mru_cache]
  266      0      0 S ?      [xfs-buf/sda3]
  267      0      0 S ?      [xfs-data/sda3]
  268      0      0 S ?      [xfs-conv/sda3]
  269      0      0 S ?      [xfs-cil/sda3]
  270      0      0 S ?      [xfsaild/sda3]
  354     354     354 S ?      /usr/lib/systemd/systemd-journald
  374      0      0 S ?      [rpciod]
  375     375     375 S ?      /usr/sbin/lvmtools -f
  388     388     388 S ?      /usr/lib/systemd/systemd-udev
  409      0      0 S ?      [iprt-VBoxWQueue]
  433      0      0 S ?      [xfs-buf/sda1]
  435      0      0 S ?      [xfs-data/sda1]
  437      0      0 S ?      [xfs-conv/sda1]
  438      0      0 S ?      [xfs-cil/sda1]

```

```

455      0      0 S ?      [xfsaild/sda1]
490    490    490 S ?      /sbin/auditd -n
500    500    500 S ?      /sbin/audispd
504    500    500 S ?      /usr/sbin/sedispach
514    514    514 S ?      /bin/dbus-daemon --system --address=systemd: --
nofork --nospidfile --systemd-activation
516    516    516 S ?      /usr/lib/systemd/systemd-logind
517    517    517 S ?      /usr/sbin/rsyslogd -n
518    518    518 S ?      /usr/sbin/ModemManager
520    520    520 S ?      /usr/sbin/abrt-d -s
521    521    521 S ?      /usr/bin/abrt-watch-log -F Backtrace
/var/log/Xorg.0.log -- /usr/bin/abrt-dump-xorg -xD
534    534    534 S ?      /usr/sbin/smartd -n -q never
535    535    535 S ?      /usr/bin/python -Es /usr/sbin/firewalld --nofork --
nospid
536    536    536 S ?      /usr/bin/abrt-watch-log -F BUG: WARNING: at
WARNING: CPU: INFO: possible recursive locking de
537    537    537 R ?      /sbin/rngd -f
542    542    542 S ?      /usr/sbin/gssproxy -D
545    545    545 S ?      /usr/bin/lsmc -d
546    546    546 S ?      avahi-daemon: running [asrserver.local]
547    547    547 S ?      /usr/libexec/accounts-daemon
554    546    546 S ?      avahi-daemon: chroot helper
555    555    555 S ?      /usr/libexec/rtkit-daemon
567    567    567 S ?      /usr/sbin/alsactl -s -n 19 -c -E ALSA_CONFIG_PATH=/
etc/alsa/alsactl.conf --initfile=/lib/alsa
570    570    570 S ?      /usr/lib/polkit-1/polkitd --no-debug
575    571    571 S ?      /bin/bash /usr/sbin/ksmtuned
644    640    640 S ?      /usr/sbin/VBoxService --pidfile /var/run/vboxadd-
service.sh
679    679    679 S ?      /usr/sbin/NetworkManager --no-daemon
729    729    729 S ?      /usr/sbin/wpa_supplicant -u -f
/var/log/wpa_supplicant.log -c /etc/wpa_supplicant/wpa_supplic
993    993    993 S ?      /usr/sbin/cupsd -f
995    995    995 S ?      /usr/bin/python -Es /usr/sbin/tuned -l -P
998    998    998 S ?      /usr/sbin/sshd -D
1026   1026   1026 S ?      /usr/sbin/atd -f
1027   1027   1027 S ?      /usr/sbin/gdm
1028   1028   1028 S ?      /usr/sbin/crond -n
1054   1054   1054 R tty1    /usr/bin/Xorg :0 -background none -noreset -audit 4
-verbose -auth /run/gdm/auth-for-gdm-vuXP
1210   1210   1210 S ?      /usr/libexec/postfix/master -w
1214   1210   1210 S ?      pickup -l -t unix -u
1215   1210   1210 S ?      qmgr -l -t unix -u
1310   1310   1310 S ?      /usr/libexec/upowerd
1323   1323   1323 S ?      /usr/libexec/colord
1392   1392   1392 S ?      /usr/libexec/packagekitd
1438   1438   1438 S ?      /usr/lib/udisks2/udisksd --no-debug
1539   1027   1027 S ?      gdm-session-worker [pam/gdm-password]
1552   1551   1551 S ?      /usr/bin/gnome-keyring-daemon --daemonize --login
1600   1600   1279 S ?      ibus-daemon --xim --panel disable
1603   1600   1279 S ?      /usr/libexec/ibus-dconf
1606   1600   1279 S ?      /usr/libexec/ibus-x11 --kill-daemon
1614   1614   1614 S ?      gnome-session --session gnome-classic
1621   1614   1614 S ?      dbus-launch --sh-syntax --exit-with-session
1622   1622   1622 S ?      /bin/dbus-daemon --fork --print-pid 4 --print-
address 6 --session
1687   1622   1622 S ?      /usr/libexec/gvfsd
1691   1622   1622 S ?      /usr/libexec/gvfsd-fuse /run/user/1000/gvfs -f -o
big_writes
1764   1762   1762 S ?      /usr/bin/VBoxClient --clipboard
1766   1762   1762 S ?      /usr/bin/VBoxClient --clipboard
1775   1773   1773 S ?      /usr/bin/VBoxClient --display
1777   1773   1773 S ?      /usr/bin/VBoxClient --display

```

```

1782 1778 1778 S ? /usr/bin/VBoxClient --seamless
1783 1778 1778 S ? /usr/bin/VBoxClient --seamless
1785 1784 1784 S ? /usr/bin/VBoxClient --draganddrop
1789 1784 1784 S ? /usr/bin/VBoxClient --draganddrop
1799 1799 1799 S ? /usr/bin/ssh-agent /bin/sh -c exec -l /bin/bash -c
"env GNOME_SHELL_SESSION_MODE=classic gnome
1815 1622 1622 S ? /usr/libexec/at-spi-bus-launcher
1819 1622 1622 S ? /bin/dbus-daemon
--config-file=/etc/at-spi2/accessibility.conf --nofork --print-address 3
1824 1622 1622 S ? /usr/libexec/at-spi2-registryd --use-gnome-session
1842 1614 1614 S ? /usr/libexec/gnome-settings-daemon
1853 1851 1851 S ? /usr/bin/pulseaudio --start --log-target=syslog
1866 1614 1614 S ? /usr/libexec/gsd-printer
1897 1897 1897 S ? /usr/libexec/bluetooth/bluetoothd
1907 1614 1614 S ? /usr/bin/gnome-shell
1944 1944 1614 S ? ibus-daemon --xim --panel disable
1951 1944 1614 S ? /usr/libexec/ibus-dconf
1957 1944 1614 S ? /usr/libexec/ibus-x11 --kill-daemon
1959 1622 1622 S ? /usr/libexec/gnome-shell-calendar-server
1969 1622 1622 S ? /usr/libexec/evolution-source-registry
1976 1622 1622 S ? /usr/libexec/mission-control-5
1979 1622 1622 S ? /usr/libexec/caribou
1990 1622 1622 S ? /usr/libexec/gvfs-udisks2-volume-monitor
1999 1622 1622 S ? /usr/libexec/goa-daemon
2011 1622 1622 S ? /usr/libexec/gvfs-afc-volume-monitor
2025 1622 1622 S ? /usr/libexec/goa-identity-service
2030 1622 1622 S ? /usr/libexec/gvfs-mtp-volume-monitor
2041 1622 1622 S ? /usr/libexec/gvfs-goa-volume-monitor
2051 1622 1622 S ? /usr/libexec/gvfs-gphoto2-volume-monitor
2087 1614 1614 S ? nautilus --no-default-window --force-desktop
2094 1614 1614 S ? abrt-applet
2100 1614 1614 S ? /usr/libexec/tracker-miner-user-guides
2128 1622 1622 S ? /usr/libexec/tracker-store
2130 1614 1614 S ? /usr/libexec/tracker-miner-fs
2138 1614 1614 S ? /usr/libexec/tracker-extract
2141 1614 1614 S ? /usr/libexec/tracker-miner-apps
2143 1614 1614 S ? /usr/bin/gnome-software --gapplication-service
2150 1614 1614 S ? /usr/bin/seapplet
2160 1622 1622 S ? /usr/libexec/evolution-calendar-factory
2173 1622 1622 S ? /usr/libexec/gconfd-2
2184 1622 1622 S ? /usr/libexec/gvfsd-trash --spawner :1.3
/org/gtk/gvfs/exec_spaw/0
2190 1944 1614 S ? /usr/libexec/ibus-engine-simple
2253 1622 1622 S ? /usr/libexec/gvfsd-metadata
2368 1622 1622 S ? /usr/libexec/dconf-service
2474 1622 1622 S ? /usr/libexec/gnome-terminal-server
2477 1622 1622 S ? gnome-pty-helper
2478 2478 2478 S pts/0 /bin/bash
6093 0 0 S ? [kworker/0:1H]
7056 0 0 S ? [kworker/0:2]
7095 0 0 S ? [kworker/0:2H]
7653 0 0 S ? [kworker/0:0]
8534 571 571 S ? sleep 60
8540 388 388 S ? /usr/lib/systemd/systemd-udevd
8541 388 388 S ? /usr/lib/systemd/systemd-udevd
8546 8546 2478 R pts/0 ps -e -o pid,pgid,session,state,ttty,cmd

```

Por defecto cada proceso constituye su propio grupo.

Los programas que se ejecutan en la misma shell tienen el mismo id de sesión.

EJERCICIO3

```
[cursoasr@asrserver Desktop]$ pgrep -l .*gnome.*
```



```
1552 gnome-keyring-d
1614 gnome-session
1842 gnome-settings-
1907 gnome-shell
1959 gnome-shell-cal
2143 gnome-software
2474 gnome-terminal-
2477 gnome-pty-helpe
```

```
[cursoasr@asrserver Desktop]$ pgrep -l .*daemon
```

```
514 dbus-daemon
546 avahi-daemon
547 accounts-daemon
554 avahi-daemon
555 rtkit-daemon
1600 ibus-daemon
1622 dbus-daemon
1819 dbus-daemon
1944 ibus-daemon
1999 goa-daemon
```

EJERCICIO 4

OK

EJERCICIO 5

```
[cursoasr@asrserver Desktop]$ lsof /var/log/messages
```

```
[cursoasr@asrserver Desktop]$ lsof +D /etc
```

```
lsof: WARNING: can't opendir(/etc/mail/spamassassin/sa-update-keys): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/cups/ssl): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/sudoers.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/vmware-tools/GuestProxyData/trusted): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/audisp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/libvirt): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/ipsec.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/grub.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/firewalld): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/named): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/polkit-1/localauthority): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/polkit-1/rules.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/audit): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/selinux/targeted/modules/tmp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/selinux/targeted/modules/active): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/cache): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/backup): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/archive): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/dhcp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/pki/rsyslog): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/pki/CA/private): Permission denied
```

COMMAND	PID	USER	FD	TYPE	DEVICE	SIZE/OFF	NODE	NAME
---------	-----	------	----	------	--------	----------	------	------

gnome-ses	1614	cursoasr	mem	REG	8,3	395	12927223	
-----------	------	----------	-----	-----	-----	-----	----------	--

```
/etc/dconf/db/distro
```

gnome-ses	1614	cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
-----------	------	----------	-----	-----	-----	-----	---------	--------------------

gnome-ses	1614	cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
-----------	------	----------	-----	-----	-----	-----	---------	---------------------

at-spi-bu	1815	cursoasr	mem	REG	8,3	395	12927223	
-----------	------	----------	-----	-----	-----	-----	----------	--

```
/etc/dconf/db/distro
```

at-spi-bu	1815	cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
-----------	------	----------	-----	-----	-----	-----	---------	--------------------

at-spi-bu	1815	cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
-----------	------	----------	-----	-----	-----	-----	---------	---------------------

gnome-set 1842 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-set 1842 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-set 1842 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-set 1842 cursoasr	17r	REG	8,3	65536	458181	
/etc/pki/nssdb/cert8.db						
gnome-set 1842 cursoasr	18r	REG	8,3	16384	458183	
/etc/pki/nssdb/key3.db						
gnome-set 1842 cursoasr	19r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	20r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	22r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	28r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	30r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	35r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-she 1907 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-she 1907 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-she 1907 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
ibus-dconf 1951 cursoasr	mem	REG	8,3	3851	12789041	/etc/dconf/db/ibus
gnome-she 1959 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-she 1959 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-she 1959 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
mission-c 1976 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
mission-c 1976 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
mission-c 1976 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
goa-daemo 1999 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
goa-daemo 1999 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
goa-daemo 1999 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
nautilus 2087 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
nautilus 2087 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
nautilus 2087 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-s 2128 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-s 2128 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-s 2128 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-m 2130 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-m 2130 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-m 2130 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-e 2138 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-e 2138 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-e 2138 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-sof 2143 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-sof 2143 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-sof 2143 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
evolution 2160 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
evolution 2160 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
evolution 2160 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-ter 2474 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-ter 2474 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site

```
gnome-ter 2474 cursoasr mem REG 8,3 104 9886487 /etc/dconf/db/local
```

```
[cursoasr@asrserver Desktop]$ ps
```

PID	TTY	TIME	CMD
2478	pts/0	00:00:00	bash
14042	pts/0	00:00:00	progreso.sh
14044	pts/0	00:00:00	progreso.sh
14319	pts/0	00:00:00	sleep <defunct>
18534	pts/0	00:00:00	ps

```
[cursoasr@asrserver Desktop]$ lsof -p 2478
```

COMMAND	PID	USER	FD	TYPE	DEVICE	SIZE/OFF	NODE	NAME
bash	2478	cursoasr	cwd	DIR	8,3	56	21035631	/home/cursoasr/Desktop
bash	2478	cursoasr	rtd	DIR	8,3	4096	128	/
bash	2478	cursoasr	txt	REG	8,3	960376	8872757	/usr/bin/bash
bash	2478	cursoasr	mem	REG	8,3	57824	16985990	/usr/lib64/libnss_files-2.17.so
bash	2478	cursoasr	mem	REG	8,3	106065056	8872748	/usr/lib/locale/locale-archive
bash	2478	cursoasr	mem	REG	8,3	2107816	16985972	/usr/lib64/libc-2.17.so
bash	2478	cursoasr	mem	REG	8,3	19512	16985978	/usr/lib64/libdl-2.17.so
bash	2478	cursoasr	mem	REG	8,3	174520	17069624	/usr/lib64/libtinfo.so.5.9
bash	2478	cursoasr	mem	REG	8,3	164432	16985965	/usr/lib64/ld-2.17.so
bash	2478	cursoasr	mem	REG	8,3	26254	17036605	/usr/lib64/gconv/gconv-modules.cache
bash	2478	cursoasr	0u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	1u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	2u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	255u	CHR	136,0	0t0	3	/dev/pts/0

MONITORIZACIÓN DE LA MEMORIA Y ENTRADA/SALIDA

EJERCICIO 1

```
[cursoasr@asrserver Desktop]$ free
```

	total	used	free	shared	buff/cache	available
Mem:	4047372	517796	3114208	10620	415368	3276664
Swap:	1048572	0	1048572			

- buff/cache: Memoria que esta siendo utilizada por el kernel a modo de memoria cache para acelerar operaciones de disco, permitiendo que los datos se almacenen y se lean desde la memoria.

EJERCICIO 2

```
[cursoasr@asrserver Desktop]$ vmstat
```

```
procs -----memory-----swap-- ----io-----system-- -----cpu-----
 r b swpd free buff cache si so bi bo in cs us sy id wa st
 4 0 0 3096984 932 414988 0 0 24 2 100 256 1 0 98 0 0
```

EJERCICIO 3

```
[cursoasr@asrserver Desktop]$ iostat
```

```
Linux 3.10.0-327.el7.x86_64 (asrserver) 04/27/2018 _x86_64_ (1 CPU)
```

avg-cpu:	%user	%nice	%system	%iowait	%steal	%idle
	1.26	0.00	0.13	0.01	0.00	98.60

Device:	tps	kB_read/s	kB_wrtn/s	kB_read	kB_wrtn
sda	1.10	20.83	1.81	340049	29581

AUTOMATIZACIÓN DE PROCESOS CON CRON Y AT

EJERCICIO 1

```
45 0 * * sat
30 3 1 * *
```

EJERCICIO 2

```
[cursoasr@asrserver Desktop]$ whereis cron.d
cron: /etc/cron.hourly /etc/cron.daily /etc/cron.monthly /etc/cron.weekly
/etc/cron.d /etc/cron.deny /usr/share/man/man8/cron.8.gz
[cursoasr@asrserver Desktop]$ ls /etc/cron.d
0hourly pcp-pmie pcp-pmlogger raid-check sa-update sysstat
```

crond.d Es el directorio que contiene tareas ya programadas.

0hourly → Ejecuta las tareas del fichero /etc/cron.hourly cada hora.

raid-check → Ejecuta semanalmente una comprobación del disco.

EJERCICIO 3

```
[cursoasr@asrserver cron.d]$ crontab -e
no crontab for cursoasr - using an empty one
crontab: installing new crontab
```

```
[cursoasr@asrserver cron.d]$ crontab -l
*/5 * * * * date >> /tmp/fecha
```

EJERCICIO 4

OK

LOGS DEL SISTEMA

EJERCICIO 1

CONTROL DE TRABAJOS EN LA SHELL

EJERCICIO 1

```
$ vim progreso.sh
```

```
#!/bin/bash
( for i in `seq 00 99` ; do
echo $i
sleep 0.5
done ) |
zenity --progress
```

```
$ chmod u+x progreso.sh
```

```
$ ./progreso.sh
```

EJERCICIO 2

CTRL + C → Mata el proceso que tiene el foco de la terminal.

CTRL + Z → Para el proceso que tiene el foco de la terminal, es la propia terminal la que pasa a tener el foco de ejecución, el proceso parado no ha terminado aún, este permanece inactivo.

EJERCICIO 3

```
[cursoasr@asrserver Desktop]$ ./progreso.sh
Gtk-Message: GtkDialog mapped without a transient parent. This is discouraged.
^Z
[2]+  Stopped                  ./progreso.sh
[cursoasr@asrserver Desktop]$ jobs
[1]-  Running                  gedit &
[2]+  Stopped                  ./progreso.sh
[cursoasr@asrserver Desktop]$ bg 2
[2]+ ./progreso.sh &
[cursoasr@asrserver Desktop]$ fg 2
./progreso.sh
^C
```

EJERCICIO 4

```
[cursoasr@asrserver Desktop]$ ./progreso.sh&
[2] 9308
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[3] 9324
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[4] 9352
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.

[cursoasr@asrserver Desktop]$ jobs -l
[1] 4919 Running                  gedit &
[2] 9308 Running                  ./progreso.sh &
[3]- 9324 Running                  ./progreso.sh &
[4]+ 9352 Running                  ./progreso.sh &
```

```
[cursoasr@asrserver Desktop]$ fg %2
./progreso.sh
^C[cursoasr@asrserver Desktop]$ jobs -l
[1] 4919 Running gedit &
[3]- 9324 Running ./progreso.sh &
[4]+ 9352 Running ./progreso.sh &
```

EJERCICIO 5

(sleep 1; date ; cat - > /tmp/entrada; sleep 1; date) → Se ejecuta en primer plano normalmente.

(sleep 1; date ; cat - > /tmp/entrada; sleep 1; date)& → Este proceso es interrumpido ya que al estar ejecutandose en segundo plano, no tiene el control de la terminal y por ello no puede recibir datos de la entrada estándar, luego el proceso es abortado.

EJERCICIO 6

El programa progreso.sh se lanza en segundo plano, pero al cerrarse su proceso padre (la terminal) este muere con el.

nohup porgreso.sh hace que cuando la terminal se cierra el proceso pueda seguir ejecutándose.

EJERCICIO 7

```
[cursoasr@asrserver Desktop]$ kill -l
 1) SIGHUP   2) SIGINT   3) SIGQUIT  4) SIGILL   5) SIGTRAP
 6) SIGABRT  7) SIGBUS   8) SIGFPE   9) SIGKILL 10) SIGUSR1
11) SIGSEGV 12) SIGUSR2 13) SIGPIPE 14) SIGALRM 15) SIGTERM
16) SIGSTKFLT 17) SIGCHLD 18) SIGCONT 19) SIGSTOP 20) SIGTSTP
21) SIGTTIN 22) SIGTTOU 23) SIGURG  24) SIGXCPU 25) SIGXFSZ
26) SIGVTALRM 27) SIGPROF 28) SIGWINCH 29) SIGIO   30) SIGPWR
31) SIGSYS  34) SIGRTMIN  35) SIGRTMIN+1 36) SIGRTMIN+2 37) SIGRTMIN+3
38) SIGRTMIN+4 39) SIGRTMIN+5 40) SIGRTMIN+6 41) SIGRTMIN+7 42)
SIGRTMIN+8
43) SIGRTMIN+9 44) SIGRTMIN+10 45) SIGRTMIN+11 46) SIGRTMIN+12 47)
SIGRTMIN+13
48) SIGRTMIN+14 49) SIGRTMIN+15 50) SIGRTMAX-14 51) SIGRTMAX-13 52)
SIGRTMAX-12
53) SIGRTMAX-11 54) SIGRTMAX-10 55) SIGRTMAX-9 56) SIGRTMAX-8 57)
SIGRTMAX-7
58) SIGRTMAX-6 59) SIGRTMAX-5 60) SIGRTMAX-4 61) SIGRTMAX-3 62)
SIGRTMAX-2
63) SIGRTMAX-1 64) SIGRTMAX
```

```
[cursoasr@asrserver Desktop]$ ./progreso.sh&
[1] 18798
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[2] 18811
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[3] 18829
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
```

```
[cursoasr@asrserver Desktop]$ pkill p*greso.*
[1] Terminated ./progreso.sh
[2]- Terminated ./progreso.sh
[3]+ Terminated ./progreso.sh
```

MONITORIZACIÓN DE PROCESOS

EJERCICIO 1

[cursoasr@asrserver Desktop]\$ ps

PID	TTY	TIME	CMD
16399	pts/0	00:00:00	bash
19182	pts/0	00:00:00	ps

EJERCICIO 2

[cursoasr@asrserver Desktop]\$ ps -l -u cursoasr

F	S	UID	PID	PPID	C	PRI	NI	ADDR	SZ	WCHAN	TTY	TIME	CMD
1	S	1000	1552	1	0	80	0	-	97458	poll_s ?		00:00:00	gnome-keyring-
4	S	1000	1614	1539	0	80	0	-	143829	poll_s ?		00:00:00	gnome-session
1	S	1000	1621	1	0	80	0	-	3487	poll_s ?		00:00:00	dbus-launch
1	S	1000	1622	1	0	80	0	-	9521	ep_pol ?		00:00:00	dbus-daemon
0	S	1000	1687	1	0	80	0	-	76642	poll_s ?		00:00:00	gvfsd
0	S	1000	1691	1	0	80	0	-	90284	futex_ ?		00:00:00	gvfsd-fuse
1	S	1000	1764	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1766	1764	0	80	0	-	54100	rtR0Se ?		00:00:00	VBoxClient
1	S	1000	1775	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1777	1775	0	80	0	-	37036	poll_s ?		00:00:00	VBoxClient
1	S	1000	1782	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1783	1782	0	80	0	-	53586	rtR0Se ?		00:00:00	VBoxClient
1	S	1000	1785	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1789	1785	0	80	0	-	53715	futex_ ?		00:00:05	VBoxClient
1	S	1000	1799	1614	0	80	0	-	13213	poll_s ?		00:00:00	ssh-agent
0	S	1000	1815	1	0	80	0	-	85004	poll_s ?		00:00:00	at-spi-bus-lau
0	S	1000	1819	1815	0	80	0	-	9217	ep_pol ?		00:00:00	dbus-daemon
0	S	1000	1824	1	0	80	0	-	32422	poll_s ?		00:00:00	at-spi2-regist
0	S	1000	1842	1614	0	80	0	-	289798	poll_s ?		00:00:00	gnome-settings
1	S	1000	1853	1	0	69	-11	-	139993	poll_s ?		00:00:00	pulseaudio
0	S	1000	1866	1	0	80	0	-	129176	poll_s ?		00:00:00	gsd-printer
0	S	1000	1907	1614	0	80	0	-	360065	poll_s ?		00:00:21	gnome-shell
0	S	1000	1944	1907	0	80	0	-	117491	poll_s ?		00:00:00	ibus-daemon
0	S	1000	1951	1944	0	80	0	-	98216	poll_s ?		00:00:00	ibus-dconf
0	S	1000	1957	1	0	80	0	-	113046	poll_s ?		00:00:00	ibus-x11
0	S	1000	1959	1	0	80	0	-	132781	poll_s ?		00:00:00	gnome-shell-ca
0	S	1000	1969	1	0	80	0	-	167213	poll_s ?		00:00:00	evolution-sour
0	S	1000	1976	1	0	80	0	-	80437	poll_s ?		00:00:00	mission-contro
0	S	1000	1979	1	0	80	0	-	143771	poll_s ?		00:00:00	caribou
0	S	1000	1990	1	0	80	0	-	100146	poll_s ?		00:00:00	gvfs-udisks2-v
0	S	1000	1999	1	0	80	0	-	196766	poll_s ?		00:00:00	goa-daemon
0	S	1000	2011	1	0	80	0	-	105441	poll_s ?		00:00:00	gvfs-afc-volum
0	S	1000	2025	1	0	80	0	-	83608	poll_s ?		00:00:00	goa-identity-s
0	S	1000	2030	1	0	80	0	-	78128	poll_s ?		00:00:00	gvfs-mtp-volum
0	S	1000	2041	1	0	80	0	-	74933	poll_s ?		00:00:00	gvfs-goa-volum
0	S	1000	2051	1	0	80	0	-	80397	poll_s ?		00:00:00	gvfs-gphoto2-v
0	S	1000	2087	1614	0	80	0	-	251386	poll_s ?		00:00:00	nautilus
0	S	1000	2094	1614	0	80	0	-	112854	poll_s ?		00:00:00	abrt-applet
0	S	1000	2100	1614	0	99	-	-	117427	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2128	1	0	80	0	-	134313	poll_s ?		00:00:00	tracker-store
0	S	1000	2130	1614	0	99	19	-	177510	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2138	1614	0	99	19	-	178046	poll_s ?		00:00:00	tracker-extrac
0	S	1000	2141	1614	0	99	-	-	135862	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2143	1614	0	80	0	-	169999	poll_s ?		00:00:00	gnome-software
0	S	1000	2150	1614	0	80	0	-	75151	poll_s ?		00:00:00	seapplet
0	S	1000	2160	1	0	80	0	-	269872	poll_s ?		00:00:00	evolution-cale
0	S	1000	2173	1	0	80	0	-	37458	poll_s ?		00:00:00	gconfd-2
0	S	1000	2184	1	0	80	0	-	117863	poll_s ?		00:00:00	gvfsd-trash
0	S	1000	2190	1944	0	80	0	-	79799	poll_s ?		00:00:00	ibus-engine-si
0	S	1000	2253	1	0	80	0	-	59682	poll_s ?		00:00:00	gvfsd-metadata
0	S	1000	2368	1	0	80	0	-	45166	poll_s ?		00:00:00	dconf-service

```

0 S 1000 2474 1 0 80 0 - 138733 poll_s ? 00:00:02 gnome-terminal
0 S 1000 2477 2474 0 80 0 - 2120 unix_s ? 00:00:00 gnome-pty-help
0 S 1000 2478 2474 0 80 0 - 29170 wait pts/0 00:00:00 bash
0 R 1000 6444 2478 0 80 0 - 34873 - pts/0 00:00:00 ps

```

```
[cursoasr@asrserver Desktop]$ ps -e -o pid,pgid,session,state,TTY,cmd
```

```

  PID  PGID  SESS S TT      CMD
    1      1      1 S ?      /usr/lib/systemd/systemd --switched-root --system
--deserialize 20
    2      0      0 S ?      [kthreadd]
    3      0      0 S ?      [ksoftirqd/0]
    6      0      0 S ?      [kworker/u2:0]
    7      0      0 S ?      [migration/0]
    8      0      0 S ?      [rcu_bh]
    9      0      0 S ?      [rcuob/0]
   10      0      0 R ?      [rcu_sched]
   11      0      0 S ?      [rcuos/0]
   12      0      0 S ?      [watchdog/0]
   13      0      0 S ?      [khelper]
   14      0      0 S ?      [kdevtmpfs]
   15      0      0 S ?      [netns]
   16      0      0 S ?      [perf]
   17      0      0 S ?      [writeback]
   18      0      0 S ?      [kintegrityd]
   19      0      0 S ?      [bioaset]
   20      0      0 S ?      [kblockd]
   21      0      0 S ?      [md]
   22      0      0 R ?      [kworker/0:1]
   26      0      0 S ?      [khungtaskd]
   27      0      0 S ?      [kswapd0]
   28      0      0 S ?      [ksmd]
   29      0      0 S ?      [khugepaged]
   30      0      0 S ?      [fsnotify_mark]
   31      0      0 S ?      [crypto]
   39      0      0 S ?      [kthrotld]
   41      0      0 S ?      [kmpath_rdacd]
   42      0      0 S ?      [kpsmoused]
   43      0      0 S ?      [ipv6_addrconf]
   63      0      0 S ?      [deferwq]
   94      0      0 S ?      [kauditd]
  218      0      0 S ?      [ata_sff]
  237      0      0 S ?      [scsi_eh_0]
  239      0      0 S ?      [scsi_tmf_0]
  240      0      0 S ?      [scsi_eh_1]
  241      0      0 S ?      [kworker/u2:2]
  242      0      0 S ?      [scsi_tmf_1]
  243      0      0 S ?      [scsi_eh_2]
  244      0      0 S ?      [scsi_tmf_2]
  264      0      0 S ?      [xfsalloc]
  265      0      0 S ?      [xfs_mru_cache]
  266      0      0 S ?      [xfs-buf/sda3]
  267      0      0 S ?      [xfs-data/sda3]
  268      0      0 S ?      [xfs-conv/sda3]
  269      0      0 S ?      [xfs-cil/sda3]
  270      0      0 S ?      [xfsaild/sda3]
  354     354     354 S ?      /usr/lib/systemd/systemd-journald
  374      0      0 S ?      [rpciod]
  375     375     375 S ?      /usr/sbin/lvmtools -f
  388     388     388 S ?      /usr/lib/systemd/systemd-udevd
  409      0      0 S ?      [iprt-VBoxWQueue]
  433      0      0 S ?      [xfs-buf/sda1]
  435      0      0 S ?      [xfs-data/sda1]
  437      0      0 S ?      [xfs-conv/sda1]
  438      0      0 S ?      [xfs-cil/sda1]

```



```

455      0      0 S ?      [xfssaild/sda1]
490    490    490 S ?      /sbin/auditd -n
500    500    500 S ?      /sbin/audispd
504    500    500 S ?      /usr/sbin/sedispach
514    514    514 S ?      /bin/dbus-daemon --system --address=systemd: --
nofork --nospidfile --systemd-activation
516    516    516 S ?      /usr/lib/systemd/systemd-logind
517    517    517 S ?      /usr/sbin/rsyslogd -n
518    518    518 S ?      /usr/sbin/ModemManager
520    520    520 S ?      /usr/sbin/abrt-d -s
521    521    521 S ?      /usr/bin/abrt-watch-log -F Backtrace
/var/log/Xorg.0.log -- /usr/bin/abrt-dump-xorg -xD
534    534    534 S ?      /usr/sbin/smartd -n -q never
535    535    535 S ?      /usr/bin/python -Es /usr/sbin/firewalld --nofork --
nospid
536    536    536 S ?      /usr/bin/abrt-watch-log -F BUG: WARNING: at
WARNING: CPU: INFO: possible recursive locking de
537    537    537 R ?      /sbin/rngd -f
542    542    542 S ?      /usr/sbin/gssproxy -D
545    545    545 S ?      /usr/bin/lsmc -d
546    546    546 S ?      avahi-daemon: running [asrserver.local]
547    547    547 S ?      /usr/libexec/accounts-daemon
554    546    546 S ?      avahi-daemon: chroot helper
555    555    555 S ?      /usr/libexec/rtkit-daemon
567    567    567 S ?      /usr/sbin/alsactl -s -n 19 -c -E ALSA_CONFIG_PATH=/
etc/alsa/alsactl.conf --initfile=/lib/alsa
570    570    570 S ?      /usr/lib/polkit-1/polkitd --no-debug
575    571    571 S ?      /bin/bash /usr/sbin/ksmtuned
644    640    640 S ?      /usr/sbin/VBoxService --pidfile /var/run/vboxadd-
service.sh
679    679    679 S ?      /usr/sbin/NetworkManager --no-daemon
729    729    729 S ?      /usr/sbin/wpa_supplicant -u -f
/var/log/wpa_supplicant.log -c /etc/wpa_supplicant/wpa_supplic
993    993    993 S ?      /usr/sbin/cupsd -f
995    995    995 S ?      /usr/bin/python -Es /usr/sbin/tuned -l -P
998    998    998 S ?      /usr/sbin/sshd -D
1026   1026   1026 S ?      /usr/sbin/atd -f
1027   1027   1027 S ?      /usr/sbin/gdm
1028   1028   1028 S ?      /usr/sbin/crond -n
1054   1054   1054 R tty1    /usr/bin/Xorg :0 -background none -noreset -audit 4
-verbose -auth /run/gdm/auth-for-gdm-vuXP
1210   1210   1210 S ?      /usr/libexec/postfix/master -w
1214   1210   1210 S ?      pickup -l -t unix -u
1215   1210   1210 S ?      qmgr -l -t unix -u
1310   1310   1310 S ?      /usr/libexec/upowerd
1323   1323   1323 S ?      /usr/libexec/colord
1392   1392   1392 S ?      /usr/libexec/packagekitd
1438   1438   1438 S ?      /usr/lib/udisks2/udisksd --no-debug
1539   1027   1027 S ?      gdm-session-worker [pam/gdm-password]
1552   1551   1551 S ?      /usr/bin/gnome-keyring-daemon --daemonize --login
1600   1600   1279 S ?      ibus-daemon --xim --panel disable
1603   1600   1279 S ?      /usr/libexec/ibus-dconf
1606   1600   1279 S ?      /usr/libexec/ibus-x11 --kill-daemon
1614   1614   1614 S ?      gnome-session --session gnome-classic
1621   1614   1614 S ?      dbus-launch --sh-syntax --exit-with-session
1622   1622   1622 S ?      /bin/dbus-daemon --fork --print-pid 4 --print-
address 6 --session
1687   1622   1622 S ?      /usr/libexec/gvfsd
1691   1622   1622 S ?      /usr/libexec/gvfsd-fuse /run/user/1000/gvfs -f -o
big_writes
1764   1762   1762 S ?      /usr/bin/VBoxClient --clipboard
1766   1762   1762 S ?      /usr/bin/VBoxClient --clipboard
1775   1773   1773 S ?      /usr/bin/VBoxClient --display
1777   1773   1773 S ?      /usr/bin/VBoxClient --display

```

```

1782 1778 1778 S ? /usr/bin/VBoxClient --seamless
1783 1778 1778 S ? /usr/bin/VBoxClient --seamless
1785 1784 1784 S ? /usr/bin/VBoxClient --draganddrop
1789 1784 1784 S ? /usr/bin/VBoxClient --draganddrop
1799 1799 1799 S ? /usr/bin/ssh-agent /bin/sh -c exec -l /bin/bash -c
"env GNOME_SHELL_SESSION_MODE=classic gnome
1815 1622 1622 S ? /usr/libexec/at-spi-bus-launcher
1819 1622 1622 S ? /bin/dbus-daemon
--config-file=/etc/at-spi2/accessibility.conf --nofork --print-address 3
1824 1622 1622 S ? /usr/libexec/at-spi2-registryd --use-gnome-session
1842 1614 1614 S ? /usr/libexec/gnome-settings-daemon
1853 1851 1851 S ? /usr/bin/pulseaudio --start --log-target=syslog
1866 1614 1614 S ? /usr/libexec/gsd-printer
1897 1897 1897 S ? /usr/libexec/bluetooth/bluetoothd
1907 1614 1614 S ? /usr/bin/gnome-shell
1944 1944 1614 S ? ibus-daemon --xim --panel disable
1951 1944 1614 S ? /usr/libexec/ibus-dconf
1957 1944 1614 S ? /usr/libexec/ibus-x11 --kill-daemon
1959 1622 1622 S ? /usr/libexec/gnome-shell-calendar-server
1969 1622 1622 S ? /usr/libexec/evolution-source-registry
1976 1622 1622 S ? /usr/libexec/mission-control-5
1979 1622 1622 S ? /usr/libexec/caribou
1990 1622 1622 S ? /usr/libexec/gvfs-udisks2-volume-monitor
1999 1622 1622 S ? /usr/libexec/goa-daemon
2011 1622 1622 S ? /usr/libexec/gvfs-afc-volume-monitor
2025 1622 1622 S ? /usr/libexec/goa-identity-service
2030 1622 1622 S ? /usr/libexec/gvfs-mtp-volume-monitor
2041 1622 1622 S ? /usr/libexec/gvfs-goa-volume-monitor
2051 1622 1622 S ? /usr/libexec/gvfs-gphoto2-volume-monitor
2087 1614 1614 S ? nautilus --no-default-window --force-desktop
2094 1614 1614 S ? abrt-applet
2100 1614 1614 S ? /usr/libexec/tracker-miner-user-guides
2128 1622 1622 S ? /usr/libexec/tracker-store
2130 1614 1614 S ? /usr/libexec/tracker-miner-fs
2138 1614 1614 S ? /usr/libexec/tracker-extract
2141 1614 1614 S ? /usr/libexec/tracker-miner-apps
2143 1614 1614 S ? /usr/bin/gnome-software --gapplication-service
2150 1614 1614 S ? /usr/bin/seapplet
2160 1622 1622 S ? /usr/libexec/evolution-calendar-factory
2173 1622 1622 S ? /usr/libexec/gconfd-2
2184 1622 1622 S ? /usr/libexec/gvfsd-trash --spawner :1.3
/org/gtk/gvfs/exec_spaw/0
2190 1944 1614 S ? /usr/libexec/ibus-engine-simple
2253 1622 1622 S ? /usr/libexec/gvfsd-metadata
2368 1622 1622 S ? /usr/libexec/dconf-service
2474 1622 1622 S ? /usr/libexec/gnome-terminal-server
2477 1622 1622 S ? gnome-pty-helper
2478 2478 2478 S pts/0 /bin/bash
6093 0 0 S ? [kworker/0:1H]
7056 0 0 S ? [kworker/0:2]
7095 0 0 S ? [kworker/0:2H]
7653 0 0 S ? [kworker/0:0]
8534 571 571 S ? sleep 60
8540 388 388 S ? /usr/lib/systemd/systemd-udevd
8541 388 388 S ? /usr/lib/systemd/systemd-udevd
8546 8546 2478 R pts/0 ps -e -o pid,pgid,session,state,TTY,cmd

```

Por defecto cada proceso constituye su propio grupo.

Los programas que se ejecutan en la misma shell tienen el mismo id de sesión.

EJERCICIO3

```
[cursoasr@asrserver Desktop]$ pgrep -l .*gnome.*
```

```
1552 gnome-keyring-d
1614 gnome-session
1842 gnome-settings-
1907 gnome-shell
1959 gnome-shell-cal
2143 gnome-software
2474 gnome-terminal-
2477 gnome-pty-helpe
```

```
[cursoasr@asrserver Desktop]$ pgrep -l .*daemon
```

```
514 dbus-daemon
546 avahi-daemon
547 accounts-daemon
554 avahi-daemon
555 rtkit-daemon
1600 ibus-daemon
1622 dbus-daemon
1819 dbus-daemon
1944 ibus-daemon
1999 goa-daemon
```

EJERCICIO 4

OK

EJERCICIO 5

```
[cursoasr@asrserver Desktop]$ lsof /var/log/messages
```

```
[cursoasr@asrserver Desktop]$ lsof +D /etc
```

```
lsof: WARNING: can't opendir(/etc/mail/spamassassin/sa-update-keys): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/cups/ssl): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/sudoers.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/vmware-tools/GuestProxyData/trusted): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/audisp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/libvirt): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/ipsec.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/grub.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/firewalld): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/named): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/polkit-1/localauthority): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/polkit-1/rules.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/audit): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/selinux/targeted/modules/tmp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/selinux/targeted/modules/active): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/cache): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/backup): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/archive): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/dhcp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/pki/rsyslog): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/pki/CA/private): Permission denied
```

COMMAND	PID	USER	FD	TYPE	DEVICE	SIZE/OFF	NODE	NAME
---------	-----	------	----	------	--------	----------	------	------

gnome-ses	1614	cursoasr	mem	REG	8,3	395	12927223	
-----------	------	----------	-----	-----	-----	-----	----------	--

/etc/dconf/db/distro

gnome-ses	1614	cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
-----------	------	----------	-----	-----	-----	-----	---------	--------------------

gnome-ses	1614	cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
-----------	------	----------	-----	-----	-----	-----	---------	---------------------

at-spi-bu	1815	cursoasr	mem	REG	8,3	395	12927223	
-----------	------	----------	-----	-----	-----	-----	----------	--

/etc/dconf/db/distro

at-spi-bu	1815	cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
-----------	------	----------	-----	-----	-----	-----	---------	--------------------

at-spi-bu	1815	cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
-----------	------	----------	-----	-----	-----	-----	---------	---------------------

gnome-set 1842 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-set 1842 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-set 1842 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-set 1842 cursoasr	17r	REG	8,3	65536	458181	
/etc/pki/nssdb/cert8.db						
gnome-set 1842 cursoasr	18r	REG	8,3	16384	458183	
/etc/pki/nssdb/key3.db						
gnome-set 1842 cursoasr	19r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	20r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	22r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	28r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	30r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	35r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-she 1907 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-she 1907 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-she 1907 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
ibus-dconf 1951 cursoasr	mem	REG	8,3	3851	12789041	/etc/dconf/db/ibus
gnome-she 1959 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-she 1959 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-she 1959 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
mission-c 1976 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
mission-c 1976 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
mission-c 1976 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
goa-daemo 1999 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
goa-daemo 1999 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
goa-daemo 1999 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
nautilus 2087 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
nautilus 2087 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
nautilus 2087 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-s 2128 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-s 2128 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-s 2128 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-m 2130 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-m 2130 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-m 2130 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-e 2138 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-e 2138 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-e 2138 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-sof 2143 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-sof 2143 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-sof 2143 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
evolution 2160 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
evolution 2160 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
evolution 2160 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-ter 2474 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-ter 2474 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site

```
gnome-ter 2474 cursoasr mem REG 8,3 104 9886487 /etc/dconf/db/local
```

```
[cursoasr@asrserver Desktop]$ ps
```

PID	TTY	TIME	CMD
2478	pts/0	00:00:00	bash
14042	pts/0	00:00:00	progreso.sh
14044	pts/0	00:00:00	progreso.sh
14319	pts/0	00:00:00	sleep <defunct>
18534	pts/0	00:00:00	ps

```
[cursoasr@asrserver Desktop]$ lsof -p 2478
```

COMMAND	PID	USER	FD	TYPE	DEVICE	SIZE/OFF	NODE	NAME
bash	2478	cursoasr	cwd	DIR	8,3	56	21035631	/home/cursoasr/Desktop
bash	2478	cursoasr	rtd	DIR	8,3	4096	128	/
bash	2478	cursoasr	txt	REG	8,3	960376	8872757	/usr/bin/bash
bash	2478	cursoasr	mem	REG	8,3	57824	16985990	/usr/lib64/libnss_files-2.17.so
bash	2478	cursoasr	mem	REG	8,3	106065056	8872748	/usr/lib/locale/locale-archive
bash	2478	cursoasr	mem	REG	8,3	2107816	16985972	/usr/lib64/libc-2.17.so
bash	2478	cursoasr	mem	REG	8,3	19512	16985978	/usr/lib64/libdl-2.17.so
bash	2478	cursoasr	mem	REG	8,3	174520	17069624	/usr/lib64/libtinfo.so.5.9
bash	2478	cursoasr	mem	REG	8,3	164432	16985965	/usr/lib64/ld-2.17.so
bash	2478	cursoasr	mem	REG	8,3	26254	17036605	/usr/lib64/gconv/gconv-modules.cache
bash	2478	cursoasr	0u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	1u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	2u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	255u	CHR	136,0	0t0	3	/dev/pts/0

MONITORIZACIÓN DE LA MEMORIA Y ENTRADA/SALIDA

EJERCICIO 1

```
[cursoasr@asrserver Desktop]$ free
```

	total	used	free	shared	buff/cache	available
Mem:	4047372	517796	3114208	10620	415368	3276664
Swap:	1048572	0	1048572			

- buff/cache: Memoria que esta siendo utilizada por el kernel a modo de memoria cache para acelerar operaciones de disco, permitiendo que los datos se almacenen y se lean desde la memoria.

EJERCICIO 2

```
[cursoasr@asrserver Desktop]$ vmstat
```

```
procs -----memory-----swap-- ----io---- -system-- -----cpu-----
 r b swpd free buff cache si so bi bo in cs us sy id wa st
 4 0 0 3096984 932 414988 0 0 24 2 100 256 1 0 98 0 0
```

EJERCICIO 3

```
[cursoasr@asrserver Desktop]$ iostat
```

```
Linux 3.10.0-327.el7.x86_64 (asrserver) 04/27/2018 _x86_64_ (1 CPU)
```

avg-cpu:	%user	%nice	%system	%iowait	%steal	%idle
	1.26	0.00	0.13	0.01	0.00	98.60

Device:	tps	kB_read/s	kB_wrtn/s	kB_read	kB_wrtn
sda	1.10	20.83	1.81	340049	29581

AUTOMATIZACIÓN DE PROCESOS CON CRON Y AT

EJERCICIO 1

```
45 0 * * sat
30 3 1 * *
```

EJERCICIO 2

```
[cursoasr@asrserver Desktop]$ whereis cron.d
cron: /etc/cron.hourly /etc/cron.daily /etc/cron.monthly /etc/cron.weekly
/etc/cron.d /etc/cron.deny /usr/share/man/man8/cron.8.gz
[cursoasr@asrserver Desktop]$ ls /etc/cron.d
0hourly pcp-pmie pcp-pmlogger raid-check sa-update sysstat
```

crond.d Es el directorio que contiene tareas ya programadas.

0hourly → Ejecuta las tareas del fichero /etc/cron.hourly cada hora.

raid-check → Ejecuta semanalmente una comprobación del disco.

EJERCICIO 3

```
[cursoasr@asrserver cron.d]$ crontab -e
no crontab for cursoasr - using an empty one
crontab: installing new crontab
```

```
[cursoasr@asrserver cron.d]$ crontab -l
*/5 * * * * date >> /tmp/fecha
```

EJERCICIO 4

OK

LOGS DEL SISTEMA

EJERCICIO 1

CONTROL DE TRABAJOS EN LA SHELL

EJERCICIO 1

```
$ vim progreso.sh
```

```
#!/bin/bash
( for i in `seq 00 99` ; do
echo $i
sleep 0.5
done ) |
zenity --progress
```

```
$ chmod u+x progreso.sh
```

```
$ ./progreso.sh
```

EJERCICIO 2

CTRL + C → Mata el proceso que tiene el foco de la terminal.

CTRL + Z → Para el proceso que tiene el foco de la terminal, es la propia terminal la que pasa a tener el foco de ejecución, el proceso parado no ha terminado aún, este permanece inactivo.

EJERCICIO 3

```
[cursoasr@asrserver Desktop]$ ./progreso.sh
Gtk-Message: GtkDialog mapped without a transient parent. This is discouraged.
^Z
[2]+  Stopped                  ./progreso.sh
[cursoasr@asrserver Desktop]$ jobs
[1]-  Running                  gedit &
[2]+  Stopped                  ./progreso.sh
[cursoasr@asrserver Desktop]$ bg 2
[2]+ ./progreso.sh &
[cursoasr@asrserver Desktop]$ fg 2
./progreso.sh
^C
```

EJERCICIO 4

```
[cursoasr@asrserver Desktop]$ ./progreso.sh&
[2] 9308
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[3] 9324
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[4] 9352
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.

[cursoasr@asrserver Desktop]$ jobs -l
[1] 4919 Running                  gedit &
[2] 9308 Running                  ./progreso.sh &
[3]- 9324 Running                  ./progreso.sh &
[4]+ 9352 Running                  ./progreso.sh &
```

```
[cursoasr@asrserver Desktop]$ fg %2
./progreso.sh
^C[cursoasr@asrserver Desktop]$ jobs -l
[1] 4919 Running gedit &
[3]- 9324 Running ./progreso.sh &
[4]+ 9352 Running ./progreso.sh &
```

EJERCICIO 5

(sleep 1; date ; cat - > /tmp/entrada; sleep 1; date) → Se ejecuta en primer plano normalmente.

(sleep 1; date ; cat - > /tmp/entrada; sleep 1; date)& → Este proceso es interrumpido ya que al estar ejecutandose en segundo plano, no tiene el control de la terminal y por ello no puede recibir datos de la entrada estándar, luego el proceso es abortado.

EJERCICIO 6

El programa progreso.sh se lanza en segundo plano, pero al cerrarse su proceso padre (la terminal) este muere con el.

nohup porgreso.sh hace que cuando la terminal se cierra el proceso pueda seguir ejecutándose.

EJERCICIO 7

```
[cursoasr@asrserver Desktop]$ kill -l
 1) SIGHUP   2) SIGINT   3) SIGQUIT  4) SIGILL   5) SIGTRAP
 6) SIGABRT  7) SIGBUS   8) SIGFPE   9) SIGKILL 10) SIGUSR1
11) SIGSEGV 12) SIGUSR2 13) SIGPIPE 14) SIGALRM 15) SIGTERM
16) SIGSTKFLT 17) SIGCHLD 18) SIGCONT 19) SIGSTOP 20) SIGTSTP
21) SIGTTIN 22) SIGTTOU 23) SIGURG  24) SIGXCPU 25) SIGXFSZ
26) SIGVTALRM 27) SIGPROF 28) SIGWINCH 29) SIGIO   30) SIGPWR
31) SIGSYS  34) SIGRTMIN  35) SIGRTMIN+1 36) SIGRTMIN+2 37) SIGRTMIN+3
38) SIGRTMIN+4 39) SIGRTMIN+5 40) SIGRTMIN+6 41) SIGRTMIN+7 42)
SIGRTMIN+8
43) SIGRTMIN+9 44) SIGRTMIN+10 45) SIGRTMIN+11 46) SIGRTMIN+12 47)
SIGRTMIN+13
48) SIGRTMIN+14 49) SIGRTMIN+15 50) SIGRTMAX-14 51) SIGRTMAX-13 52)
SIGRTMAX-12
53) SIGRTMAX-11 54) SIGRTMAX-10 55) SIGRTMAX-9 56) SIGRTMAX-8 57)
SIGRTMAX-7
58) SIGRTMAX-6 59) SIGRTMAX-5 60) SIGRTMAX-4 61) SIGRTMAX-3 62)
SIGRTMAX-2
63) SIGRTMAX-1 64) SIGRTMAX
```

```
[cursoasr@asrserver Desktop]$ ./progreso.sh&
[1] 18798
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[2] 18811
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[3] 18829
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
```

```
[cursoasr@asrserver Desktop]$ pkill p*greso.*
[1] Terminated ./progreso.sh
[2]- Terminated ./progreso.sh
[3]+ Terminated ./progreso.sh
```


MONITORIZACIÓN DE PROCESOS

EJERCICIO 1

[cursoasr@asrserver Desktop]\$ ps

PID	TTY	TIME	CMD
16399	pts/0	00:00:00	bash
19182	pts/0	00:00:00	ps

EJERCICIO 2

[cursoasr@asrserver Desktop]\$ ps -l -u cursoasr

F	S	UID	PID	PPID	C	PRI	NI	ADDR	SZ	WCHAN	TTY	TIME	CMD
1	S	1000	1552	1	0	80	0	-	97458	poll_s ?		00:00:00	gnome-keyring-
4	S	1000	1614	1539	0	80	0	-	143829	poll_s ?		00:00:00	gnome-session
1	S	1000	1621	1	0	80	0	-	3487	poll_s ?		00:00:00	dbus-launch
1	S	1000	1622	1	0	80	0	-	9521	ep_pol ?		00:00:00	dbus-daemon
0	S	1000	1687	1	0	80	0	-	76642	poll_s ?		00:00:00	gvfsd
0	S	1000	1691	1	0	80	0	-	90284	futex_ ?		00:00:00	gvfsd-fuse
1	S	1000	1764	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1766	1764	0	80	0	-	54100	rtR0Se ?		00:00:00	VBoxClient
1	S	1000	1775	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1777	1775	0	80	0	-	37036	poll_s ?		00:00:00	VBoxClient
1	S	1000	1782	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1783	1782	0	80	0	-	53586	rtR0Se ?		00:00:00	VBoxClient
1	S	1000	1785	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1789	1785	0	80	0	-	53715	futex_ ?		00:00:05	VBoxClient
1	S	1000	1799	1614	0	80	0	-	13213	poll_s ?		00:00:00	ssh-agent
0	S	1000	1815	1	0	80	0	-	85004	poll_s ?		00:00:00	at-spi-bus-lau
0	S	1000	1819	1815	0	80	0	-	9217	ep_pol ?		00:00:00	dbus-daemon
0	S	1000	1824	1	0	80	0	-	32422	poll_s ?		00:00:00	at-spi2-regist
0	S	1000	1842	1614	0	80	0	-	289798	poll_s ?		00:00:00	gnome-settings
1	S	1000	1853	1	0	69	-11	-	139993	poll_s ?		00:00:00	pulseaudio
0	S	1000	1866	1	0	80	0	-	129176	poll_s ?		00:00:00	gsd-printer
0	S	1000	1907	1614	0	80	0	-	360065	poll_s ?		00:00:21	gnome-shell
0	S	1000	1944	1907	0	80	0	-	117491	poll_s ?		00:00:00	ibus-daemon
0	S	1000	1951	1944	0	80	0	-	98216	poll_s ?		00:00:00	ibus-dconf
0	S	1000	1957	1	0	80	0	-	113046	poll_s ?		00:00:00	ibus-x11
0	S	1000	1959	1	0	80	0	-	132781	poll_s ?		00:00:00	gnome-shell-ca
0	S	1000	1969	1	0	80	0	-	167213	poll_s ?		00:00:00	evolution-sour
0	S	1000	1976	1	0	80	0	-	80437	poll_s ?		00:00:00	mission-contro
0	S	1000	1979	1	0	80	0	-	143771	poll_s ?		00:00:00	caribou
0	S	1000	1990	1	0	80	0	-	100146	poll_s ?		00:00:00	gvfs-udisks2-v
0	S	1000	1999	1	0	80	0	-	196766	poll_s ?		00:00:00	goa-daemon
0	S	1000	2011	1	0	80	0	-	105441	poll_s ?		00:00:00	gvfs-afc-volum
0	S	1000	2025	1	0	80	0	-	83608	poll_s ?		00:00:00	goa-identity-s
0	S	1000	2030	1	0	80	0	-	78128	poll_s ?		00:00:00	gvfs-mtp-volum
0	S	1000	2041	1	0	80	0	-	74933	poll_s ?		00:00:00	gvfs-goa-volum
0	S	1000	2051	1	0	80	0	-	80397	poll_s ?		00:00:00	gvfs-gphoto2-v
0	S	1000	2087	1614	0	80	0	-	251386	poll_s ?		00:00:00	nautilus
0	S	1000	2094	1614	0	80	0	-	112854	poll_s ?		00:00:00	abrt-applet
0	S	1000	2100	1614	0	99	-	-	117427	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2128	1	0	80	0	-	134313	poll_s ?		00:00:00	tracker-store
0	S	1000	2130	1614	0	99	19	-	177510	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2138	1614	0	99	19	-	178046	poll_s ?		00:00:00	tracker-extrac
0	S	1000	2141	1614	0	99	-	-	135862	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2143	1614	0	80	0	-	169999	poll_s ?		00:00:00	gnome-software
0	S	1000	2150	1614	0	80	0	-	75151	poll_s ?		00:00:00	seapplet
0	S	1000	2160	1	0	80	0	-	269872	poll_s ?		00:00:00	evolution-cale
0	S	1000	2173	1	0	80	0	-	37458	poll_s ?		00:00:00	gconfd-2
0	S	1000	2184	1	0	80	0	-	117863	poll_s ?		00:00:00	gvfsd-trash
0	S	1000	2190	1944	0	80	0	-	79799	poll_s ?		00:00:00	ibus-engine-si
0	S	1000	2253	1	0	80	0	-	59682	poll_s ?		00:00:00	gvfsd-metadata
0	S	1000	2368	1	0	80	0	-	45166	poll_s ?		00:00:00	dconf-service

```

0 S 1000 2474 1 0 80 0 - 138733 poll_s ? 00:00:02 gnome-terminal
0 S 1000 2477 2474 0 80 0 - 2120 unix_s ? 00:00:00 gnome-pty-help
0 S 1000 2478 2474 0 80 0 - 29170 wait pts/0 00:00:00 bash
0 R 1000 6444 2478 0 80 0 - 34873 - pts/0 00:00:00 ps

```

```
[cursoasr@asrserver Desktop]$ ps -e -o pid,pgid,session,state,TTY,cmd
```

```

  PID  PGID  SESS S TT      CMD
    1      1      1 S ?      /usr/lib/systemd/systemd --switched-root --system
--deserialize 20
    2      0      0 S ?      [kthreadd]
    3      0      0 S ?      [ksoftirqd/0]
    6      0      0 S ?      [kworker/u2:0]
    7      0      0 S ?      [migration/0]
    8      0      0 S ?      [rcu_bh]
    9      0      0 S ?      [rcuob/0]
   10      0      0 R ?      [rcu_sched]
   11      0      0 S ?      [rcuos/0]
   12      0      0 S ?      [watchdog/0]
   13      0      0 S ?      [khelper]
   14      0      0 S ?      [kdevtmpfs]
   15      0      0 S ?      [netns]
   16      0      0 S ?      [perf]
   17      0      0 S ?      [writeback]
   18      0      0 S ?      [kintegrityd]
   19      0      0 S ?      [bioaset]
   20      0      0 S ?      [kblockd]
   21      0      0 S ?      [md]
   22      0      0 R ?      [kworker/0:1]
   26      0      0 S ?      [khungtaskd]
   27      0      0 S ?      [kswapd0]
   28      0      0 S ?      [ksmd]
   29      0      0 S ?      [khugepaged]
   30      0      0 S ?      [fsnotify_mark]
   31      0      0 S ?      [crypto]
   39      0      0 S ?      [kthrotld]
   41      0      0 S ?      [kmpath_rdacd]
   42      0      0 S ?      [kpsmoused]
   43      0      0 S ?      [ipv6_addrconf]
   63      0      0 S ?      [deferwq]
   94      0      0 S ?      [kauditd]
  218      0      0 S ?      [ata_sff]
  237      0      0 S ?      [scsi_eh_0]
  239      0      0 S ?      [scsi_tmf_0]
  240      0      0 S ?      [scsi_eh_1]
  241      0      0 S ?      [kworker/u2:2]
  242      0      0 S ?      [scsi_tmf_1]
  243      0      0 S ?      [scsi_eh_2]
  244      0      0 S ?      [scsi_tmf_2]
  264      0      0 S ?      [xfsalloc]
  265      0      0 S ?      [xfs_mru_cache]
  266      0      0 S ?      [xfs-buf/sda3]
  267      0      0 S ?      [xfs-data/sda3]
  268      0      0 S ?      [xfs-conv/sda3]
  269      0      0 S ?      [xfs-cil/sda3]
  270      0      0 S ?      [xfsaild/sda3]
  354     354     354 S ?      /usr/lib/systemd/systemd-journald
  374      0      0 S ?      [rpciod]
  375     375     375 S ?      /usr/sbin/lvmetad -f
  388     388     388 S ?      /usr/lib/systemd/systemd-udevd
  409      0      0 S ?      [iprt-VBoxWQueue]
  433      0      0 S ?      [xfs-buf/sda1]
  435      0      0 S ?      [xfs-data/sda1]
  437      0      0 S ?      [xfs-conv/sda1]
  438      0      0 S ?      [xfs-cil/sda1]

```

```

455      0      0 S ?      [xfsaild/sda1]
490    490    490 S ?      /sbin/auditd -n
500    500    500 S ?      /sbin/audispd
504    500    500 S ?      /usr/sbin/sedispach
514    514    514 S ?      /bin/dbus-daemon --system --address=systemd: --
nofork --nospidfile --systemd-activation
516    516    516 S ?      /usr/lib/systemd/systemd-logind
517    517    517 S ?      /usr/sbin/rsyslogd -n
518    518    518 S ?      /usr/sbin/ModemManager
520    520    520 S ?      /usr/sbin/abrttd -d -s
521    521    521 S ?      /usr/bin/abrt-watch-log -F Backtrace
/var/log/Xorg.0.log -- /usr/bin/abrt-dump-xorg -xD
534    534    534 S ?      /usr/sbin/smartd -n -q never
535    535    535 S ?      /usr/bin/python -Es /usr/sbin/firewalld --nofork --
nospid
536    536    536 S ?      /usr/bin/abrt-watch-log -F BUG: WARNING: at
WARNING: CPU: INFO: possible recursive locking de
537    537    537 R ?      /sbin/rngd -f
542    542    542 S ?      /usr/sbin/gssproxy -D
545    545    545 S ?      /usr/bin/lsmtd -d
546    546    546 S ?      avahi-daemon: running [asrserver.local]
547    547    547 S ?      /usr/libexec/accounts-daemon
554    546    546 S ?      avahi-daemon: chroot helper
555    555    555 S ?      /usr/libexec/rtkit-daemon
567    567    567 S ?      /usr/sbin/alsactl -s -n 19 -c -E ALSA_CONFIG_PATH=/
etc/alsa/alsactl.conf --initfile=/lib/alsa
570    570    570 S ?      /usr/lib/polkit-1/polkitd --no-debug
575    571    571 S ?      /bin/bash /usr/sbin/ksmtuned
644    640    640 S ?      /usr/sbin/VBoxService --pidfile /var/run/vboxadd-
service.sh
679    679    679 S ?      /usr/sbin/NetworkManager --no-daemon
729    729    729 S ?      /usr/sbin/wpa_supplicant -u -f
/var/log/wpa_supplicant.log -c /etc/wpa_supplicant/wpa_supplic
993    993    993 S ?      /usr/sbin/cupsd -f
995    995    995 S ?      /usr/bin/python -Es /usr/sbin/tuned -l -P
998    998    998 S ?      /usr/sbin/sshd -D
1026   1026   1026 S ?      /usr/sbin/atd -f
1027   1027   1027 S ?      /usr/sbin/gdm
1028   1028   1028 S ?      /usr/sbin/crond -n
1054   1054   1054 R tty1    /usr/bin/Xorg :0 -background none -noreset -audit 4
-verbose -auth /run/gdm/auth-for-gdm-vuXP
1210   1210   1210 S ?      /usr/libexec/postfix/master -w
1214   1210   1210 S ?      pickup -l -t unix -u
1215   1210   1210 S ?      qmgr -l -t unix -u
1310   1310   1310 S ?      /usr/libexec/upowerd
1323   1323   1323 S ?      /usr/libexec/colord
1392   1392   1392 S ?      /usr/libexec/packagekitd
1438   1438   1438 S ?      /usr/lib/udisks2/udisksd --no-debug
1539   1027   1027 S ?      gdm-session-worker [pam/gdm-password]
1552   1551   1551 S ?      /usr/bin/gnome-keyring-daemon --daemonize --login
1600   1600   1279 S ?      ibus-daemon --xim --panel disable
1603   1600   1279 S ?      /usr/libexec/ibus-dconf
1606   1600   1279 S ?      /usr/libexec/ibus-x11 --kill-daemon
1614   1614   1614 S ?      gnome-session --session gnome-classic
1621   1614   1614 S ?      dbus-launch --sh-syntax --exit-with-session
1622   1622   1622 S ?      /bin/dbus-daemon --fork --print-pid 4 --print-
address 6 --session
1687   1622   1622 S ?      /usr/libexec/gvfsd
1691   1622   1622 S ?      /usr/libexec/gvfsd-fuse /run/user/1000/gvfs -f -o
big_writes
1764   1762   1762 S ?      /usr/bin/VBoxClient --clipboard
1766   1762   1762 S ?      /usr/bin/VBoxClient --clipboard
1775   1773   1773 S ?      /usr/bin/VBoxClient --display
1777   1773   1773 S ?      /usr/bin/VBoxClient --display

```

```

1782 1778 1778 S ? /usr/bin/VBoxClient --seamless
1783 1778 1778 S ? /usr/bin/VBoxClient --seamless
1785 1784 1784 S ? /usr/bin/VBoxClient --draganddrop
1789 1784 1784 S ? /usr/bin/VBoxClient --draganddrop
1799 1799 1799 S ? /usr/bin/ssh-agent /bin/sh -c exec -l /bin/bash -c
"env GNOME_SHELL_SESSION_MODE=classic gnome
1815 1622 1622 S ? /usr/libexec/at-spi-bus-launcher
1819 1622 1622 S ? /bin/dbus-daemon
--config-file=/etc/at-spi2/accessibility.conf --nofork --print-address 3
1824 1622 1622 S ? /usr/libexec/at-spi2-registryd --use-gnome-session
1842 1614 1614 S ? /usr/libexec/gnome-settings-daemon
1853 1851 1851 S ? /usr/bin/pulseaudio --start --log-target=syslog
1866 1614 1614 S ? /usr/libexec/gsd-printer
1897 1897 1897 S ? /usr/libexec/bluetooth/bluetoothd
1907 1614 1614 S ? /usr/bin/gnome-shell
1944 1944 1614 S ? ibus-daemon --xim --panel disable
1951 1944 1614 S ? /usr/libexec/ibus-dconf
1957 1944 1614 S ? /usr/libexec/ibus-x11 --kill-daemon
1959 1622 1622 S ? /usr/libexec/gnome-shell-calendar-server
1969 1622 1622 S ? /usr/libexec/evolution-source-registry
1976 1622 1622 S ? /usr/libexec/mission-control-5
1979 1622 1622 S ? /usr/libexec/caribou
1990 1622 1622 S ? /usr/libexec/gvfs-udisks2-volume-monitor
1999 1622 1622 S ? /usr/libexec/goa-daemon
2011 1622 1622 S ? /usr/libexec/gvfs-afc-volume-monitor
2025 1622 1622 S ? /usr/libexec/goa-identity-service
2030 1622 1622 S ? /usr/libexec/gvfs-mtp-volume-monitor
2041 1622 1622 S ? /usr/libexec/gvfs-goa-volume-monitor
2051 1622 1622 S ? /usr/libexec/gvfs-gphoto2-volume-monitor
2087 1614 1614 S ? nautilus --no-default-window --force-desktop
2094 1614 1614 S ? abrt-applet
2100 1614 1614 S ? /usr/libexec/tracker-miner-user-guides
2128 1622 1622 S ? /usr/libexec/tracker-store
2130 1614 1614 S ? /usr/libexec/tracker-miner-fs
2138 1614 1614 S ? /usr/libexec/tracker-extract
2141 1614 1614 S ? /usr/libexec/tracker-miner-apps
2143 1614 1614 S ? /usr/bin/gnome-software --gapplication-service
2150 1614 1614 S ? /usr/bin/seapplet
2160 1622 1622 S ? /usr/libexec/evolution-calendar-factory
2173 1622 1622 S ? /usr/libexec/gconfd-2
2184 1622 1622 S ? /usr/libexec/gvfsd-trash --spawner :1.3
/org/gtk/gvfs/exec_spaw/0
2190 1944 1614 S ? /usr/libexec/ibus-engine-simple
2253 1622 1622 S ? /usr/libexec/gvfsd-metadata
2368 1622 1622 S ? /usr/libexec/dconf-service
2474 1622 1622 S ? /usr/libexec/gnome-terminal-server
2477 1622 1622 S ? gnome-pty-helper
2478 2478 2478 S pts/0 /bin/bash
6093 0 0 S ? [kworker/0:1H]
7056 0 0 S ? [kworker/0:2]
7095 0 0 S ? [kworker/0:2H]
7653 0 0 S ? [kworker/0:0]
8534 571 571 S ? sleep 60
8540 388 388 S ? /usr/lib/systemd/systemd-udevd
8541 388 388 S ? /usr/lib/systemd/systemd-udevd
8546 8546 2478 R pts/0 ps -e -o pid,pgid,session,state,TTY,cmd

```

Por defecto cada proceso constituye su propio grupo.

Los programas que se ejecutan en la misma shell tienen el mismo id de sesión.

EJERCICIO3

```
[cursoasr@asrserver Desktop]$ pgrep -l .*gnome.*
```

```
1552 gnome-keyring-d
1614 gnome-session
1842 gnome-settings-
1907 gnome-shell
1959 gnome-shell-cal
2143 gnome-software
2474 gnome-terminal-
2477 gnome-pty-helpe
```

```
[cursoasr@asrserver Desktop]$ pgrep -l .*daemon
```

```
514 dbus-daemon
546 avahi-daemon
547 accounts-daemon
554 avahi-daemon
555 rtkit-daemon
1600 ibus-daemon
1622 dbus-daemon
1819 dbus-daemon
1944 ibus-daemon
1999 goa-daemon
```

EJERCICIO 4

OK

EJERCICIO 5

```
[cursoasr@asrserver Desktop]$ lsof /var/log/messages
```

```
[cursoasr@asrserver Desktop]$ lsof +D /etc
```

```
lsof: WARNING: can't opendir(/etc/mail/spamassassin/sa-update-keys): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/cups/ssl): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/sudoers.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/vmware-tools/GuestProxyData/trusted): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/audisp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/libvirt): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/ipsec.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/grub.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/firewalld): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/named): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/polkit-1/localauthority): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/polkit-1/rules.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/audit): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/selinux/targeted/modules/tmp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/selinux/targeted/modules/active): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/cache): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/backup): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/archive): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/dhcp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/pki/rsyslog): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/pki/CA/private): Permission denied
```

COMMAND	PID	USER	FD	TYPE	DEVICE	SIZE/OFF	NODE	NAME
---------	-----	------	----	------	--------	----------	------	------

gnome-ses	1614	cursoasr	mem	REG	8,3	395	12927223	
-----------	------	----------	-----	-----	-----	-----	----------	--

```
/etc/dconf/db/distro
```

gnome-ses	1614	cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
-----------	------	----------	-----	-----	-----	-----	---------	--------------------

gnome-ses	1614	cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
-----------	------	----------	-----	-----	-----	-----	---------	---------------------

at-spi-bu	1815	cursoasr	mem	REG	8,3	395	12927223	
-----------	------	----------	-----	-----	-----	-----	----------	--

```
/etc/dconf/db/distro
```

at-spi-bu	1815	cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
-----------	------	----------	-----	-----	-----	-----	---------	--------------------

at-spi-bu	1815	cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
-----------	------	----------	-----	-----	-----	-----	---------	---------------------

gnome-set 1842 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-set 1842 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-set 1842 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-set 1842 cursoasr	17r	REG	8,3	65536	458181	
/etc/pki/nssdb/cert8.db						
gnome-set 1842 cursoasr	18r	REG	8,3	16384	458183	
/etc/pki/nssdb/key3.db						
gnome-set 1842 cursoasr	19r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	20r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	22r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	28r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	30r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	35r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-she 1907 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-she 1907 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-she 1907 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
ibus-dconf 1951 cursoasr	mem	REG	8,3	3851	12789041	/etc/dconf/db/ibus
gnome-she 1959 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-she 1959 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-she 1959 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
mission-c 1976 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
mission-c 1976 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
mission-c 1976 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
goa-daemo 1999 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
goa-daemo 1999 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
goa-daemo 1999 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
nautilus 2087 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
nautilus 2087 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
nautilus 2087 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-s 2128 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-s 2128 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-s 2128 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-m 2130 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-m 2130 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-m 2130 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-e 2138 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-e 2138 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-e 2138 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-sof 2143 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-sof 2143 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-sof 2143 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
evolution 2160 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
evolution 2160 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
evolution 2160 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-ter 2474 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-ter 2474 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site

```
gnome-ter 2474 cursoasr mem REG 8,3 104 9886487 /etc/dconf/db/local
```

```
[cursoasr@asrserver Desktop]$ ps
```

PID	TTY	TIME	CMD
2478	pts/0	00:00:00	bash
14042	pts/0	00:00:00	progreso.sh
14044	pts/0	00:00:00	progreso.sh
14319	pts/0	00:00:00	sleep <defunct>
18534	pts/0	00:00:00	ps

```
[cursoasr@asrserver Desktop]$ lsof -p 2478
```

COMMAND	PID	USER	FD	TYPE	DEVICE	SIZE/OFF	NODE	NAME
bash	2478	cursoasr	cwd	DIR	8,3	56	21035631	/home/cursoasr/Desktop
bash	2478	cursoasr	rtd	DIR	8,3	4096	128	/
bash	2478	cursoasr	txt	REG	8,3	960376	8872757	/usr/bin/bash
bash	2478	cursoasr	mem	REG	8,3	57824	16985990	/usr/lib64/libnss_files-2.17.so
bash	2478	cursoasr	mem	REG	8,3	106065056	8872748	/usr/lib/locale/locale-archive
bash	2478	cursoasr	mem	REG	8,3	2107816	16985972	/usr/lib64/libc-2.17.so
bash	2478	cursoasr	mem	REG	8,3	19512	16985978	/usr/lib64/libdl-2.17.so
bash	2478	cursoasr	mem	REG	8,3	174520	17069624	/usr/lib64/libtinfo.so.5.9
bash	2478	cursoasr	mem	REG	8,3	164432	16985965	/usr/lib64/ld-2.17.so
bash	2478	cursoasr	mem	REG	8,3	26254	17036605	/usr/lib64/gconv/gconv-modules.cache
bash	2478	cursoasr	0u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	1u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	2u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	255u	CHR	136,0	0t0	3	/dev/pts/0

MONITORIZACIÓN DE LA MEMORIA Y ENTRADA/SALIDA

EJERCICIO 1

```
[cursoasr@asrserver Desktop]$ free
```

	total	used	free	shared	buff/cache	available
Mem:	4047372	517796	3114208	10620	415368	3276664
Swap:	1048572	0	1048572			

- buff/cache: Memoria que esta siendo utilizada por el kernel a modo de memoria cache para acelerar operaciones de disco, permitiendo que los datos se almacenen y se lean desde la memoria.

EJERCICIO 2

```
[cursoasr@asrserver Desktop]$ vmstat
```

```
procs -----memory----- --swap-- -----io----- -system-- -----cpu-----
 r b swpd free buff cache si so bi bo in cs us sy id wa st
 4 0 0 3096984 932 414988 0 0 24 2 100 256 1 0 98 0 0
```

EJERCICIO 3

```
[cursoasr@asrserver Desktop]$ iostat
```

```
Linux 3.10.0-327.el7.x86_64 (asrserver) 04/27/2018 _x86_64_ (1 CPU)
```

avg-cpu:	%user	%nice	%system	%iowait	%steal	%idle
	1.26	0.00	0.13	0.01	0.00	98.60

Device:	tps	kB_read/s	kB_wrtn/s	kB_read	kB_wrtn
sda	1.10	20.83	1.81	340049	29581

AUTOMATIZACIÓN DE PROCESOS CON CRON Y AT

EJERCICIO 1

```
45 0 * * sat
30 3 1 * *
```

EJERCICIO 2

```
[cursoasr@asrserver Desktop]$ whereis cron.d
cron: /etc/cron.hourly /etc/cron.daily /etc/cron.monthly /etc/cron.weekly
/etc/cron.d /etc/cron.deny /usr/share/man/man8/cron.8.gz
[cursoasr@asrserver Desktop]$ ls /etc/cron.d
0hourly pcp-pmie pcp-pmlogger raid-check sa-update sysstat
```

crond.d Es el directorio que contiene tareas ya programadas.

0hourly → Ejecuta las tareas del fichero /etc/cron.hourly cada hora.

raid-check → Ejecuta semanalmente una comprobación del disco.

EJERCICIO 3

```
[cursoasr@asrserver cron.d]$ crontab -e
no crontab for cursoasr - using an empty one
crontab: installing new crontab
```

```
[cursoasr@asrserver cron.d]$ crontab -l
*/5 * * * * date >> /tmp/fecha
```

EJERCICIO 4

OK

LOGS DEL SISTEMA

EJERCICIO 1

CONTROL DE TRABAJOS EN LA SHELL

EJERCICIO 1

```
$ vim progreso.sh
```

```
#!/bin/bash
( for i in `seq 00 99` ; do
echo $i
sleep 0.5
done ) |
zenity --progress
```

```
$ chmod u+x progreso.sh
```

```
$ ./progreso.sh
```

EJERCICIO 2

CTRL + C → Mata el proceso que tiene el foco de la terminal.

CTRL + Z → Para el proceso que tiene el foco de la terminal, es la propia terminal la que pasa a tener el foco de ejecución, el proceso parado no ha terminado aún, este permanece inactivo.

EJERCICIO 3

```
[cursoasr@asrserver Desktop]$ ./progreso.sh
Gtk-Message: GtkDialog mapped without a transient parent. This is discouraged.
^Z
[2]+  Stopped                  ./progreso.sh
[cursoasr@asrserver Desktop]$ jobs
[1]-  Running                  gedit &
[2]+  Stopped                  ./progreso.sh
[cursoasr@asrserver Desktop]$ bg 2
[2]+ ./progreso.sh &
[cursoasr@asrserver Desktop]$ fg 2
./progreso.sh
^C
```

EJERCICIO 4

```
[cursoasr@asrserver Desktop]$ ./progreso.sh&
[2] 9308
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[3] 9324
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[4] 9352
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.

[cursoasr@asrserver Desktop]$ jobs -l
[1] 4919 Running                  gedit &
[2] 9308 Running                  ./progreso.sh &
[3]- 9324 Running                  ./progreso.sh &
[4]+ 9352 Running                  ./progreso.sh &
```

```
[cursoasr@asrserver Desktop]$ fg %2
./progreso.sh
^C[cursoasr@asrserver Desktop]$ jobs -l
[1] 4919 Running gedit &
[3]- 9324 Running ./progreso.sh &
[4]+ 9352 Running ./progreso.sh &
```

EJERCICIO 5

(sleep 1; date ; cat - > /tmp/entrada; sleep 1; date) → Se ejecuta en primer plano normalmente.

(sleep 1; date ; cat - > /tmp/entrada; sleep 1; date)& → Este proceso es interrumpido ya que al estar ejecutándose en segundo plano, no tiene el control de la terminal y por ello no puede recibir datos de la entrada estándar, luego el proceso es abortado.

EJERCICIO 6

El programa progreso.sh se lanza en segundo plano, pero al cerrarse su proceso padre (la terminal) este muere con el.

nohup porgreso.sh hace que cuando la terminal se cierra el proceso pueda seguir ejecutándose.

EJERCICIO 7

```
[cursoasr@asrserver Desktop]$ kill -l
 1) SIGHUP   2) SIGINT   3) SIGQUIT  4) SIGILL   5) SIGTRAP
 6) SIGABRT  7) SIGBUS   8) SIGFPE   9) SIGKILL 10) SIGUSR1
11) SIGSEGV 12) SIGUSR2 13) SIGPIPE 14) SIGALRM 15) SIGTERM
16) SIGSTKFLT 17) SIGCHLD 18) SIGCONT 19) SIGSTOP 20) SIGTSTP
21) SIGTTIN 22) SIGTTOU 23) SIGURG  24) SIGXCPU 25) SIGXFSZ
26) SIGVTALRM 27) SIGPROF 28) SIGWINCH 29) SIGIO   30) SIGPWR
31) SIGSYS  34) SIGRTMIN  35) SIGRTMIN+1 36) SIGRTMIN+2 37) SIGRTMIN+3
38) SIGRTMIN+4 39) SIGRTMIN+5 40) SIGRTMIN+6 41) SIGRTMIN+7 42)
SIGRTMIN+8
43) SIGRTMIN+9 44) SIGRTMIN+10 45) SIGRTMIN+11 46) SIGRTMIN+12 47)
SIGRTMIN+13
48) SIGRTMIN+14 49) SIGRTMIN+15 50) SIGRTMAX-14 51) SIGRTMAX-13 52)
SIGRTMAX-12
53) SIGRTMAX-11 54) SIGRTMAX-10 55) SIGRTMAX-9 56) SIGRTMAX-8 57)
SIGRTMAX-7
58) SIGRTMAX-6 59) SIGRTMAX-5 60) SIGRTMAX-4 61) SIGRTMAX-3 62)
SIGRTMAX-2
63) SIGRTMAX-1 64) SIGRTMAX
```

```
[cursoasr@asrserver Desktop]$ ./progreso.sh&
[1] 18798
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[2] 18811
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
./progreso.sh&
[3] 18829
[cursoasr@asrserver Desktop]$ Gtk-Message: GtkDialog mapped without a transient
parent. This is discouraged.
```

```
[cursoasr@asrserver Desktop]$ pkill p*greso.*
[1] Terminated ./progreso.sh
[2]- Terminated ./progreso.sh
[3]+ Terminated ./progreso.sh
```

MONITORIZACIÓN DE PROCESOS

EJERCICIO 1

[cursoasr@asrserver Desktop]\$ ps

PID	TTY	TIME	CMD
16399	pts/0	00:00:00	bash
19182	pts/0	00:00:00	ps

EJERCICIO 2

[cursoasr@asrserver Desktop]\$ ps -l -u cursoasr

F	S	UID	PID	PPID	C	PRI	NI	ADDR	SZ	WCHAN	TTY	TIME	CMD
1	S	1000	1552	1	0	80	0	-	97458	poll_s ?		00:00:00	gnome-keyring-
4	S	1000	1614	1539	0	80	0	-	143829	poll_s ?		00:00:00	gnome-session
1	S	1000	1621	1	0	80	0	-	3487	poll_s ?		00:00:00	dbus-launch
1	S	1000	1622	1	0	80	0	-	9521	ep_pol ?		00:00:00	dbus-daemon
0	S	1000	1687	1	0	80	0	-	76642	poll_s ?		00:00:00	gvfsd
0	S	1000	1691	1	0	80	0	-	90284	futex_ ?		00:00:00	gvfsd-fuse
1	S	1000	1764	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1766	1764	0	80	0	-	54100	rtR0Se ?		00:00:00	VBoxClient
1	S	1000	1775	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1777	1775	0	80	0	-	37036	poll_s ?		00:00:00	VBoxClient
1	S	1000	1782	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1783	1782	0	80	0	-	53586	rtR0Se ?		00:00:00	VBoxClient
1	S	1000	1785	1	0	80	0	-	37036	wait ?		00:00:00	VBoxClient
1	S	1000	1789	1785	0	80	0	-	53715	futex_ ?		00:00:05	VBoxClient
1	S	1000	1799	1614	0	80	0	-	13213	poll_s ?		00:00:00	ssh-agent
0	S	1000	1815	1	0	80	0	-	85004	poll_s ?		00:00:00	at-spi-bus-lau
0	S	1000	1819	1815	0	80	0	-	9217	ep_pol ?		00:00:00	dbus-daemon
0	S	1000	1824	1	0	80	0	-	32422	poll_s ?		00:00:00	at-spi2-regist
0	S	1000	1842	1614	0	80	0	-	289798	poll_s ?		00:00:00	gnome-settings
1	S	1000	1853	1	0	69	-11	-	139993	poll_s ?		00:00:00	pulseaudio
0	S	1000	1866	1	0	80	0	-	129176	poll_s ?		00:00:00	gsd-printer
0	S	1000	1907	1614	0	80	0	-	360065	poll_s ?		00:00:21	gnome-shell
0	S	1000	1944	1907	0	80	0	-	117491	poll_s ?		00:00:00	ibus-daemon
0	S	1000	1951	1944	0	80	0	-	98216	poll_s ?		00:00:00	ibus-dconf
0	S	1000	1957	1	0	80	0	-	113046	poll_s ?		00:00:00	ibus-x11
0	S	1000	1959	1	0	80	0	-	132781	poll_s ?		00:00:00	gnome-shell-ca
0	S	1000	1969	1	0	80	0	-	167213	poll_s ?		00:00:00	evolution-sour
0	S	1000	1976	1	0	80	0	-	80437	poll_s ?		00:00:00	mission-contro
0	S	1000	1979	1	0	80	0	-	143771	poll_s ?		00:00:00	caribou
0	S	1000	1990	1	0	80	0	-	100146	poll_s ?		00:00:00	gvfs-udisks2-v
0	S	1000	1999	1	0	80	0	-	196766	poll_s ?		00:00:00	goa-daemon
0	S	1000	2011	1	0	80	0	-	105441	poll_s ?		00:00:00	gvfs-afc-volum
0	S	1000	2025	1	0	80	0	-	83608	poll_s ?		00:00:00	goa-identity-s
0	S	1000	2030	1	0	80	0	-	78128	poll_s ?		00:00:00	gvfs-mtp-volum
0	S	1000	2041	1	0	80	0	-	74933	poll_s ?		00:00:00	gvfs-goa-volum
0	S	1000	2051	1	0	80	0	-	80397	poll_s ?		00:00:00	gvfs-gphoto2-v
0	S	1000	2087	1614	0	80	0	-	251386	poll_s ?		00:00:00	nautilus
0	S	1000	2094	1614	0	80	0	-	112854	poll_s ?		00:00:00	abrt-applet
0	S	1000	2100	1614	0	99	-	-	117427	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2128	1	0	80	0	-	134313	poll_s ?		00:00:00	tracker-store
0	S	1000	2130	1614	0	99	19	-	177510	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2138	1614	0	99	19	-	178046	poll_s ?		00:00:00	tracker-extrac
0	S	1000	2141	1614	0	99	-	-	135862	poll_s ?		00:00:00	tracker-miner-
0	S	1000	2143	1614	0	80	0	-	169999	poll_s ?		00:00:00	gnome-software
0	S	1000	2150	1614	0	80	0	-	75151	poll_s ?		00:00:00	seapplet
0	S	1000	2160	1	0	80	0	-	269872	poll_s ?		00:00:00	evolution-cale
0	S	1000	2173	1	0	80	0	-	37458	poll_s ?		00:00:00	gconfd-2
0	S	1000	2184	1	0	80	0	-	117863	poll_s ?		00:00:00	gvfsd-trash
0	S	1000	2190	1944	0	80	0	-	79799	poll_s ?		00:00:00	ibus-engine-si
0	S	1000	2253	1	0	80	0	-	59682	poll_s ?		00:00:00	gvfsd-metadata
0	S	1000	2368	1	0	80	0	-	45166	poll_s ?		00:00:00	dconf-service

```

0 S 1000 2474 1 0 80 0 - 138733 poll_s ? 00:00:02 gnome-terminal
0 S 1000 2477 2474 0 80 0 - 2120 unix_s ? 00:00:00 gnome-pty-help
0 S 1000 2478 2474 0 80 0 - 29170 wait pts/0 00:00:00 bash
0 R 1000 6444 2478 0 80 0 - 34873 - pts/0 00:00:00 ps

```

```
[cursoasr@asrserver Desktop]$ ps -e -o pid,pgid,session,state,TTY,cmd
```

```

  PID  PGID  SESS S TT      CMD
    1      1      1 S ?      /usr/lib/systemd/systemd --switched-root --system
--deserialize 20
    2      0      0 S ?      [kthreadd]
    3      0      0 S ?      [ksoftirqd/0]
    6      0      0 S ?      [kworker/u2:0]
    7      0      0 S ?      [migration/0]
    8      0      0 S ?      [rcu_bh]
    9      0      0 S ?      [rcuob/0]
   10      0      0 R ?      [rcu_sched]
   11      0      0 S ?      [rcuos/0]
   12      0      0 S ?      [watchdog/0]
   13      0      0 S ?      [khelper]
   14      0      0 S ?      [kdevtmpfs]
   15      0      0 S ?      [netns]
   16      0      0 S ?      [perf]
   17      0      0 S ?      [writeback]
   18      0      0 S ?      [kintegrityd]
   19      0      0 S ?      [bioaset]
   20      0      0 S ?      [kblockd]
   21      0      0 S ?      [md]
   22      0      0 R ?      [kworker/0:1]
   26      0      0 S ?      [khungtaskd]
   27      0      0 S ?      [kswapd0]
   28      0      0 S ?      [ksmd]
   29      0      0 S ?      [khugepaged]
   30      0      0 S ?      [fsnotify_mark]
   31      0      0 S ?      [crypto]
   39      0      0 S ?      [kthrotld]
   41      0      0 S ?      [kmpath_rdacd]
   42      0      0 S ?      [kpsmoused]
   43      0      0 S ?      [ipv6_addrconf]
   63      0      0 S ?      [deferwq]
   94      0      0 S ?      [kauditd]
  218      0      0 S ?      [ata_sff]
  237      0      0 S ?      [scsi_eh_0]
  239      0      0 S ?      [scsi_tmf_0]
  240      0      0 S ?      [scsi_eh_1]
  241      0      0 S ?      [kworker/u2:2]
  242      0      0 S ?      [scsi_tmf_1]
  243      0      0 S ?      [scsi_eh_2]
  244      0      0 S ?      [scsi_tmf_2]
  264      0      0 S ?      [xfsalloc]
  265      0      0 S ?      [xfs_mru_cache]
  266      0      0 S ?      [xfs-buf/sda3]
  267      0      0 S ?      [xfs-data/sda3]
  268      0      0 S ?      [xfs-conv/sda3]
  269      0      0 S ?      [xfs-cil/sda3]
  270      0      0 S ?      [xfsaild/sda3]
  354     354     354 S ?      /usr/lib/systemd/systemd-journald
  374      0      0 S ?      [rpciod]
  375     375     375 S ?      /usr/sbin/lvmtools -f
  388     388     388 S ?      /usr/lib/systemd/systemd-udevd
  409      0      0 S ?      [iprt-VBoxWQueue]
  433      0      0 S ?      [xfs-buf/sda1]
  435      0      0 S ?      [xfs-data/sda1]
  437      0      0 S ?      [xfs-conv/sda1]
  438      0      0 S ?      [xfs-cil/sda1]

```

```

455      0      0 S ?      [xfssaild/sda1]
490    490    490 S ?      /sbin/auditd -n
500    500    500 S ?      /sbin/audispd
504    500    500 S ?      /usr/sbin/sedispach
514    514    514 S ?      /bin/dbus-daemon --system --address=systemd: --
nofork --nospidfile --systemd-activation
516    516    516 S ?      /usr/lib/systemd/systemd-logind
517    517    517 S ?      /usr/sbin/rsyslogd -n
518    518    518 S ?      /usr/sbin/ModemManager
520    520    520 S ?      /usr/sbin/abrt-d -s
521    521    521 S ?      /usr/bin/abrt-watch-log -F Backtrace
/var/log/Xorg.0.log -- /usr/bin/abrt-dump-xorg -xD
534    534    534 S ?      /usr/sbin/smartd -n -q never
535    535    535 S ?      /usr/bin/python -Es /usr/sbin/firewalld --nofork --
nospid
536    536    536 S ?      /usr/bin/abrt-watch-log -F BUG: WARNING: at
WARNING: CPU: INFO: possible recursive locking de
537    537    537 R ?      /sbin/rngd -f
542    542    542 S ?      /usr/sbin/gssproxy -D
545    545    545 S ?      /usr/bin/lsmc -d
546    546    546 S ?      avahi-daemon: running [asrserver.local]
547    547    547 S ?      /usr/libexec/accounts-daemon
554    546    546 S ?      avahi-daemon: chroot helper
555    555    555 S ?      /usr/libexec/rtkit-daemon
567    567    567 S ?      /usr/sbin/alsactl -s -n 19 -c -E ALSA_CONFIG_PATH=/
etc/alsa/alsactl.conf --initfile=/lib/alsa
570    570    570 S ?      /usr/lib/polkit-1/polkitd --no-debug
575    571    571 S ?      /bin/bash /usr/sbin/ksmtuned
644    640    640 S ?      /usr/sbin/VBoxService --pidfile /var/run/vboxadd-
service.sh
679    679    679 S ?      /usr/sbin/NetworkManager --no-daemon
729    729    729 S ?      /usr/sbin/wpa_supplicant -u -f
/var/log/wpa_supplicant.log -c /etc/wpa_supplicant/wpa_supplic
993    993    993 S ?      /usr/sbin/cupsd -f
995    995    995 S ?      /usr/bin/python -Es /usr/sbin/tuned -l -P
998    998    998 S ?      /usr/sbin/sshd -D
1026   1026   1026 S ?      /usr/sbin/atd -f
1027   1027   1027 S ?      /usr/sbin/gdm
1028   1028   1028 S ?      /usr/sbin/crond -n
1054   1054   1054 R tty1    /usr/bin/Xorg :0 -background none -noreset -audit 4
-verbose -auth /run/gdm/auth-for-gdm-vuXP
1210   1210   1210 S ?      /usr/libexec/postfix/master -w
1214   1210   1210 S ?      pickup -l -t unix -u
1215   1210   1210 S ?      qmgr -l -t unix -u
1310   1310   1310 S ?      /usr/libexec/upowerd
1323   1323   1323 S ?      /usr/libexec/colord
1392   1392   1392 S ?      /usr/libexec/packagekitd
1438   1438   1438 S ?      /usr/lib/udisks2/udisksd --no-debug
1539   1027   1027 S ?      gdm-session-worker [pam/gdm-password]
1552   1551   1551 S ?      /usr/bin/gnome-keyring-daemon --daemonize --login
1600   1600   1279 S ?      ibus-daemon --xim --panel disable
1603   1600   1279 S ?      /usr/libexec/ibus-dconf
1606   1600   1279 S ?      /usr/libexec/ibus-x11 --kill-daemon
1614   1614   1614 S ?      gnome-session --session gnome-classic
1621   1614   1614 S ?      dbus-launch --sh-syntax --exit-with-session
1622   1622   1622 S ?      /bin/dbus-daemon --fork --print-pid 4 --print-
address 6 --session
1687   1622   1622 S ?      /usr/libexec/gvfsd
1691   1622   1622 S ?      /usr/libexec/gvfsd-fuse /run/user/1000/gvfs -f -o
big_writes
1764   1762   1762 S ?      /usr/bin/VBoxClient --clipboard
1766   1762   1762 S ?      /usr/bin/VBoxClient --clipboard
1775   1773   1773 S ?      /usr/bin/VBoxClient --display
1777   1773   1773 S ?      /usr/bin/VBoxClient --display

```

```

1782 1778 1778 S ? /usr/bin/VBoxClient --seamless
1783 1778 1778 S ? /usr/bin/VBoxClient --seamless
1785 1784 1784 S ? /usr/bin/VBoxClient --draganddrop
1789 1784 1784 S ? /usr/bin/VBoxClient --draganddrop
1799 1799 1799 S ? /usr/bin/ssh-agent /bin/sh -c exec -l /bin/bash -c
"env GNOME_SHELL_SESSION_MODE=classic gnome
1815 1622 1622 S ? /usr/libexec/at-spi-bus-launcher
1819 1622 1622 S ? /bin/dbus-daemon
--config-file=/etc/at-spi2/accessibility.conf --nofork --print-address 3
1824 1622 1622 S ? /usr/libexec/at-spi2-registryd --use-gnome-session
1842 1614 1614 S ? /usr/libexec/gnome-settings-daemon
1853 1851 1851 S ? /usr/bin/pulseaudio --start --log-target=syslog
1866 1614 1614 S ? /usr/libexec/gsd-printer
1897 1897 1897 S ? /usr/libexec/bluetooth/bluetoothd
1907 1614 1614 S ? /usr/bin/gnome-shell
1944 1944 1614 S ? ibus-daemon --xim --panel disable
1951 1944 1614 S ? /usr/libexec/ibus-dconf
1957 1944 1614 S ? /usr/libexec/ibus-x11 --kill-daemon
1959 1622 1622 S ? /usr/libexec/gnome-shell-calendar-server
1969 1622 1622 S ? /usr/libexec/evolution-source-registry
1976 1622 1622 S ? /usr/libexec/mission-control-5
1979 1622 1622 S ? /usr/libexec/caribou
1990 1622 1622 S ? /usr/libexec/gvfs-udisks2-volume-monitor
1999 1622 1622 S ? /usr/libexec/goa-daemon
2011 1622 1622 S ? /usr/libexec/gvfs-afc-volume-monitor
2025 1622 1622 S ? /usr/libexec/goa-identity-service
2030 1622 1622 S ? /usr/libexec/gvfs-mtp-volume-monitor
2041 1622 1622 S ? /usr/libexec/gvfs-goa-volume-monitor
2051 1622 1622 S ? /usr/libexec/gvfs-gphoto2-volume-monitor
2087 1614 1614 S ? nautilus --no-default-window --force-desktop
2094 1614 1614 S ? abrt-applet
2100 1614 1614 S ? /usr/libexec/tracker-miner-user-guides
2128 1622 1622 S ? /usr/libexec/tracker-store
2130 1614 1614 S ? /usr/libexec/tracker-miner-fs
2138 1614 1614 S ? /usr/libexec/tracker-extract
2141 1614 1614 S ? /usr/libexec/tracker-miner-apps
2143 1614 1614 S ? /usr/bin/gnome-software --gapplication-service
2150 1614 1614 S ? /usr/bin/seapplet
2160 1622 1622 S ? /usr/libexec/evolution-calendar-factory
2173 1622 1622 S ? /usr/libexec/gconfd-2
2184 1622 1622 S ? /usr/libexec/gvfsd-trash --spawner :1.3
/org/gtk/gvfs/exec_spaw/0
2190 1944 1614 S ? /usr/libexec/ibus-engine-simple
2253 1622 1622 S ? /usr/libexec/gvfsd-metadata
2368 1622 1622 S ? /usr/libexec/dconf-service
2474 1622 1622 S ? /usr/libexec/gnome-terminal-server
2477 1622 1622 S ? gnome-pty-helper
2478 2478 2478 S pts/0 /bin/bash
6093 0 0 S ? [kworker/0:1H]
7056 0 0 S ? [kworker/0:2]
7095 0 0 S ? [kworker/0:2H]
7653 0 0 S ? [kworker/0:0]
8534 571 571 S ? sleep 60
8540 388 388 S ? /usr/lib/systemd/systemd-udevd
8541 388 388 S ? /usr/lib/systemd/systemd-udevd
8546 8546 2478 R pts/0 ps -e -o pid,pgid,session,state,ttty,cmd

```

Por defecto cada proceso constituye su propio grupo.

Los programas que se ejecutan en la misma shell tienen el mismo id de sesión.

EJERCICIO3

```
[cursoasr@asrserver Desktop]$ pgrep -l .*gnome.*
```

```
1552 gnome-keyring-d
1614 gnome-session
1842 gnome-settings-
1907 gnome-shell
1959 gnome-shell-cal
2143 gnome-software
2474 gnome-terminal-
2477 gnome-pty-helpe
```

```
[cursoasr@asrserver Desktop]$ pgrep -l .*daemon
```

```
514 dbus-daemon
546 avahi-daemon
547 accounts-daemon
554 avahi-daemon
555 rtkit-daemon
1600 ibus-daemon
1622 dbus-daemon
1819 dbus-daemon
1944 ibus-daemon
1999 goa-daemon
```

EJERCICIO 4

OK

EJERCICIO 5

```
[cursoasr@asrserver Desktop]$ lsof /var/log/messages
```

```
[cursoasr@asrserver Desktop]$ lsof +D /etc
```

```
lsof: WARNING: can't opendir(/etc/mail/spamassassin/sa-update-keys): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/cups/ssl): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/sudoers.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/vmware-tools/GuestProxyData/trusted): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/audisp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/libvirt): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/ipsec.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/grub.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/firewalld): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/named): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/polkit-1/localauthority): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/polkit-1/rules.d): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/audit): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/selinux/targeted/modules/tmp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/selinux/targeted/modules/active): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/cache): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/backup): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/lvm/archive): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/dhcp): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/pki/rsyslog): Permission denied
```

```
lsof: WARNING: can't opendir(/etc/pki/CA/private): Permission denied
```

COMMAND	PID	USER	FD	TYPE	DEVICE	SIZE/OFF	NODE	NAME
---------	-----	------	----	------	--------	----------	------	------

gnome-ses	1614	cursoasr	mem	REG	8,3	395	12927223	
-----------	------	----------	-----	-----	-----	-----	----------	--

```
/etc/dconf/db/distro
```

gnome-ses	1614	cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
-----------	------	----------	-----	-----	-----	-----	---------	--------------------

gnome-ses	1614	cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
-----------	------	----------	-----	-----	-----	-----	---------	---------------------

at-spi-bu	1815	cursoasr	mem	REG	8,3	395	12927223	
-----------	------	----------	-----	-----	-----	-----	----------	--

```
/etc/dconf/db/distro
```

at-spi-bu	1815	cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
-----------	------	----------	-----	-----	-----	-----	---------	--------------------

at-spi-bu	1815	cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
-----------	------	----------	-----	-----	-----	-----	---------	---------------------

gnome-set 1842 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-set 1842 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-set 1842 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-set 1842 cursoasr	17r	REG	8,3	65536	458181	
/etc/pki/nssdb/cert8.db						
gnome-set 1842 cursoasr	18r	REG	8,3	16384	458183	
/etc/pki/nssdb/key3.db						
gnome-set 1842 cursoasr	19r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	20r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	22r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	28r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	30r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-set 1842 cursoasr	35r	REG	8,3	0	19375784	
/etc/cups/client.conf						
gnome-she 1907 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-she 1907 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-she 1907 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
ibus-dconf 1951 cursoasr	mem	REG	8,3	3851	12789041	/etc/dconf/db/ibus
gnome-she 1959 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-she 1959 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-she 1959 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
mission-c 1976 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
mission-c 1976 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
mission-c 1976 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
goa-daemo 1999 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
goa-daemo 1999 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
goa-daemo 1999 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
nautilus 2087 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
nautilus 2087 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
nautilus 2087 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-s 2128 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-s 2128 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-s 2128 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-m 2130 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-m 2130 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-m 2130 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
tracker-e 2138 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
tracker-e 2138 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
tracker-e 2138 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-sof 2143 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-sof 2143 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
gnome-sof 2143 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
evolution 2160 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
evolution 2160 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site
evolution 2160 cursoasr	mem	REG	8,3	104	9886487	/etc/dconf/db/local
gnome-ter 2474 cursoasr	mem	REG	8,3	395	12927223	
/etc/dconf/db/distro						
gnome-ter 2474 cursoasr	mem	REG	8,3	104	9886486	/etc/dconf/db/site


```
gnome-ter 2474 cursoasr mem REG 8,3 104 9886487 /etc/dconf/db/local
```

```
[cursoasr@asrserver Desktop]$ ps
```

PID	TTY	TIME	CMD
2478	pts/0	00:00:00	bash
14042	pts/0	00:00:00	progreso.sh
14044	pts/0	00:00:00	progreso.sh
14319	pts/0	00:00:00	sleep <defunct>
18534	pts/0	00:00:00	ps

```
[cursoasr@asrserver Desktop]$ lsof -p 2478
```

COMMAND	PID	USER	FD	TYPE	DEVICE	SIZE/OFF	NODE	NAME
bash	2478	cursoasr	cwd	DIR	8,3	56	21035631	/home/cursoasr/Desktop
bash	2478	cursoasr	rtd	DIR	8,3	4096	128	/
bash	2478	cursoasr	txt	REG	8,3	960376	8872757	/usr/bin/bash
bash	2478	cursoasr	mem	REG	8,3	57824	16985990	/usr/lib64/libnss_files-2.17.so
bash	2478	cursoasr	mem	REG	8,3	106065056	8872748	/usr/lib/locale/locale-archive
bash	2478	cursoasr	mem	REG	8,3	2107816	16985972	/usr/lib64/libc-2.17.so
bash	2478	cursoasr	mem	REG	8,3	19512	16985978	/usr/lib64/libdl-2.17.so
bash	2478	cursoasr	mem	REG	8,3	174520	17069624	/usr/lib64/libtinfo.so.5.9
bash	2478	cursoasr	mem	REG	8,3	164432	16985965	/usr/lib64/ld-2.17.so
bash	2478	cursoasr	mem	REG	8,3	26254	17036605	/usr/lib64/gconv/gconv-modules.cache
bash	2478	cursoasr	0u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	1u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	2u	CHR	136,0	0t0	3	/dev/pts/0
bash	2478	cursoasr	255u	CHR	136,0	0t0	3	/dev/pts/0

MONITORIZACIÓN DE LA MEMORIA Y ENTRADA/SALIDA

EJERCICIO 1

```
[cursoasr@asrserver Desktop]$ free
```

	total	used	free	shared	buff/cache	available
Mem:	4047372	517796	3114208	10620	415368	3276664
Swap:	1048572	0	1048572			

- buff/cache: Memoria que esta siendo utilizada por el kernel a modo de memoria cache para acelerar operaciones de disco, permitiendo que los datos se almacenen y se lean desde la memoria.

EJERCICIO 2

```
[cursoasr@asrserver Desktop]$ vmstat
```

```
procs -----memory----- --swap-- -----io----- -system-- -----cpu-----
r b swpd free buff cache si so bi bo in cs us sy id wa st
4 0 0 3096984 932 414988 0 0 24 2 100 256 1 0 98 0 0
```

EJERCICIO 3

```
[cursoasr@asrserver Desktop]$ iostat
```

```
Linux 3.10.0-327.el7.x86_64 (asrserver) 04/27/2018 _x86_64_ (1 CPU)
```

avg-cpu:	%user	%nice	%system	%iowait	%steal	%idle
	1.26	0.00	0.13	0.01	0.00	98.60

Device:	tps	kB_read/s	kB_wrtn/s	kB_read	kB_wrtn
sda	1.10	20.83	1.81	340049	29581

AUTOMATIZACIÓN DE PROCESOS CON CRON Y AT

EJERCICIO 1

```
45 0 * * sat
30 3 1 * *
```

EJERCICIO 2

```
[cursoasr@asrserver Desktop]$ whereis cron.d
cron: /etc/cron.hourly /etc/cron.daily /etc/cron.monthly /etc/cron.weekly
/etc/cron.d /etc/cron.deny /usr/share/man/man8/cron.8.gz
[cursoasr@asrserver Desktop]$ ls /etc/cron.d
0hourly pcp-pmie pcp-pmlogger raid-check sa-update sysstat
```

crond.d Es el directorio que contiene tareas ya programadas.

0hourly → Ejecuta las tareas del fichero /etc/cron.hourly cada hora.

raid-check → Ejecuta semanalmente una comprobación del disco.

EJERCICIO 3

```
[cursoasr@asrserver cron.d]$ crontab -e
no crontab for cursoasr - using an empty one
crontab: installing new crontab
```

```
[cursoasr@asrserver cron.d]$ crontab -l
*/5 * * * * date >> /tmp/fecha
```

EJERCICIO 4

OK

LOGS DEL SISTEMA

EJERCICIO 1

```
[root@asrserver Desktop]# yum list installed | grep rsyslog*
rsyslog.x86_64                                7.4.7-12.el7                                @anaconda
rsyslog-mmjsonparse.x86_64                  7.4.7-12.el7                                @anaconda
```

```
[root@asrserver Desktop]# systemctl list-units | grep rsyslog*
rsyslog.service    loaded active running    System Logging Service
```

EJERCICIO 2

```
[root@asrserver log]# cat /etc/rsyslog.conf
#### RULES ####

# Log all kernel messages to the console.
# Logging much else clutters up the screen.
#kern.*                                          /dev/console

# Log anything (except mail) of level info or higher.
# Don't log private authentication messages!
*.info;mail.none;authpriv.none;cron.none      /var/log/messages

# The authpriv file has restricted access.
authpriv.*                                     /var/log/secure

# Log all the mail messages in one place.
mail.*                                          -/var/log/maillog

# Log cron stuff
cron.*                                          /var/log/cron

# Everybody gets emergency messages
*.emerg                                         :omusrmsg:*

# Save news errors of level crit and higher in a special file.
uucp,news.crit                                 /var/log/spooler

# Save boot messages also to boot.log
local7.*                                       /var/log/boot.log

# ### begin forwarding rule ###
# The statement between the begin ... end define a SINGLE forwarding
# rule. They belong together, do NOT split them. If you create multiple
# forwarding rules, duplicate the whole block!
# Remote Logging (we use TCP for reliable delivery)
#
# An on-disk queue is created for this action. If the remote host is
# down, messages are spooled to disk and sent when it is up again.
#$ActionQueueFileName fwdRule1 # unique name prefix for spool files
#$ActionQueueMaxDiskSpace 1g    # 1gb space limit (use as much as possible)
#$ActionQueueSaveOnShutdown on  # save messages to disk on shutdown
#$ActionQueueType LinkedList    # run asynchronously
#$ActionResumeRetryCount -1     # infinite retries if host is down
# remote host is: name/ip:port, e.g. 192.168.0.1:514, port optional
#*. * @@remote-host:514
# ### end of the forwarding rule ###
```

Sección RULES: <servicio>.<severidad>

Los servicios son: authpriv, cron, kern, mail, news, user y uucp.

Niveles de severidad: debug,info, notice, warn, err, crit, alert, emerg.

El nivel establecido determina la importancia del mensaje:

- LOG_EMERG system is unusable
- LOG_ALERT action must be taken immediately
- LOG_CRIT critical conditions
- LOG_ERR error conditions
- LOG_WARNING warning conditions
- LOG_NOTICE normal, but significant, condition
- LOG_INFO informational message
- LOG_DEBUG debug-level message

EJERCICIO 3

```
[root@asrserver Desktop]# ls /var/log
amanda    chrony    gdm        messages  sa        tallylog   wtmp
anaconda  cron      glusterfs  pcp        samba     tuned      Xorg.0.log
audit     cups      lastlog    pluto      secure    vboxadd-install.log Xorg.0.log.old
boot.log  dmesg     libvirt    ppp        speech-dispatcher  vboxadd-setup.log  Xorg.1.log
btmptmp   dmesg.old maillog    qemu-ga    spooler    wpa_supplicant.log  yum.log
```

boot.log → Mensajes relacionados con el inicio del sistema.

messages → Mensajes relacionados con el sistema de red.

secure → Mensajes relacionados con la seguridad del sistema.

dmesg → Mensajes del kernel.

EJERCICIO 4

```
[cursoasr@asrserver Desktop]$ cat /etc/logrotate.conf
# see "man logrotate" for details
# rotate log files weekly
weekly

# keep 4 weeks worth of backlogs
rotate 4

# create new (empty) log files after rotating old ones
create

# use date as a suffix of the rotated file
dateext

# uncomment this if you want your log files compressed
#compress

# RPM packages drop log rotation information into this directory
include /etc/logrotate.d

# no packages own wtmp and btmp -- we'll rotate them here
/var/log/wtmp {
    monthly
    create 0664 root utmp
    minsize 1M
    rotate 1
}

/var/log/btmp {
    missingok
    monthly
    create 0600 root utmp
    rotate 1
}

# system-specific logs may be also be configured here.

[cursoasr@asrserver Desktop]$ ls /etc/logrotate.d
chrony      libvirtd      ppp          syslog
cups        libvirtd.qemu psacct       vsftpd
glusterfs   named         samba        wpa_supplicant
iscsiuiolog numad         sa-update    yum
```

EJERCICIO 5

```
[cursoasr@asrserver Desktop]$ journalctl
```

EJERCICIO 6

```
[cursoasr@asrserver Desktop]$ journalctl --since="5 minutes ago"
```

```
-- Logs begin at Sat 2018-04-28 13:59:15 CEST, end at Sat 20
Apr 28 17:50:01 asrserver kernel: SELinux: initialized (dev
Apr 28 17:50:01 asrserver systemd[1]: Created slice user-0.s
Apr 28 17:50:01 asrserver systemd[1]: Starting user-0.slice.
Apr 28 17:50:01 asrserver systemd[1]: Started Session 43 of
Apr 28 17:50:01 asrserver systemd[1]: Starting Session 43 of
Apr 28 17:50:01 asrserver CROND[18402]: (root) CMD (/usr/lib
Apr 28 17:50:01 asrserver systemd[1]: Removed slice user-0.s
Apr 28 17:50:01 asrserver systemd[1]: Stopping user-0.slice.
```

EJERCICIO 7

```
[cursoasr@asrserver Desktop]$ cat /etc/systemd/journald.conf
```

```
# This file is part of systemd.
#
# systemd is free software; you can redistribute it and/or modify it
# under the terms of the GNU Lesser General Public License as published by
# the Free Software Foundation; either version 2.1 of the License, or
# (at your option) any later version.
#
# Entries in this file show the compile time defaults.
# You can change settings by editing this file.
# Defaults can be restored by simply deleting this file.
#
# See journald.conf(5) for details.
```

```
[Journal]
#Storage=auto
#Compress=yes
#Seal=yes
#SplitMode=uid
#SyncIntervalSec=5m
#RateLimitInterval=30s
#RateLimitBurst=1000
#SystemMaxUse=
#SystemKeepFree=
#SystemMaxFileSize=
#RuntimeMaxUse=
#RuntimeKeepFree=
#RuntimeMaxFileSize=
#MaxRetentionSec=
#MaxFileSec=1month
#ForwardToSyslog=no
#ForwardToKMsg=no
#ForwardToConsole=no
#ForwardToWall=yes
#TTYPath=/dev/console
#MaxLevelStore=debug
#MaxLevelSyslog=debug
#MaxLevelKMsg=notice
#MaxLevelConsole=info
#MaxLevelWall=emerg
```

- #Storage=auto: Si no existe /var/log/journal, no se va a crear y se utilizará /run/systemd/journal, es decir, los logs serán volátiles. Esta es la opción predeterminada.