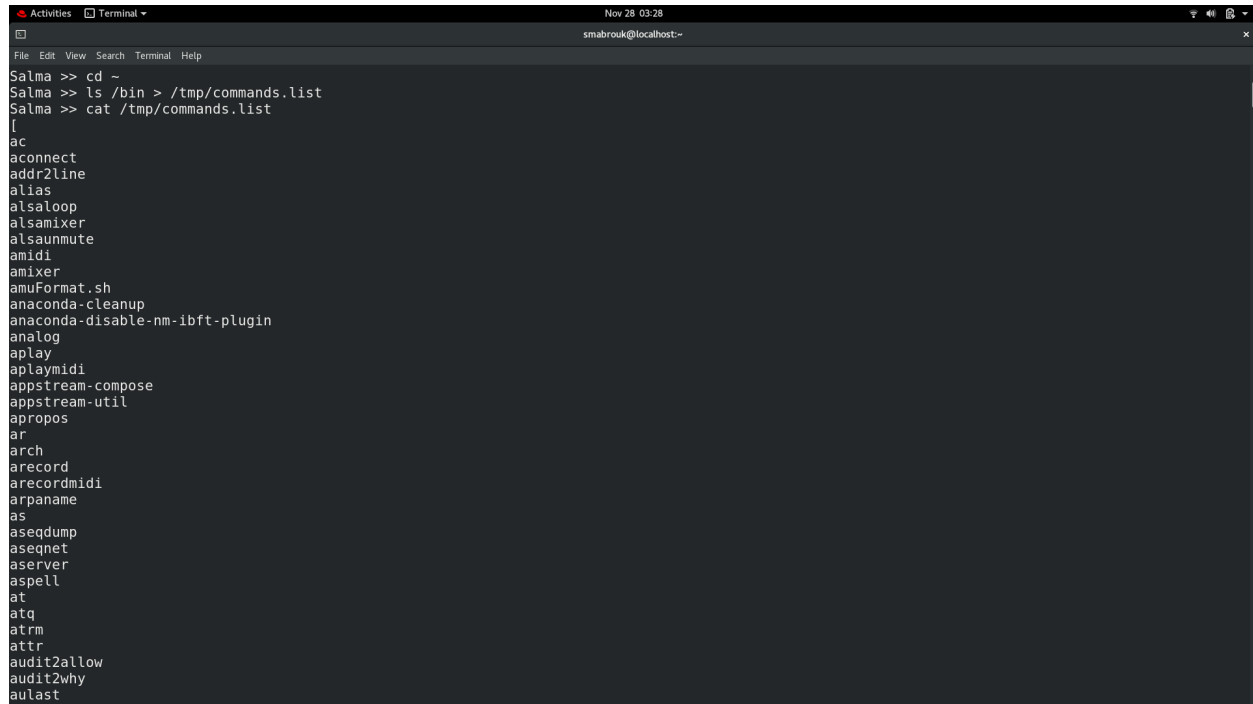


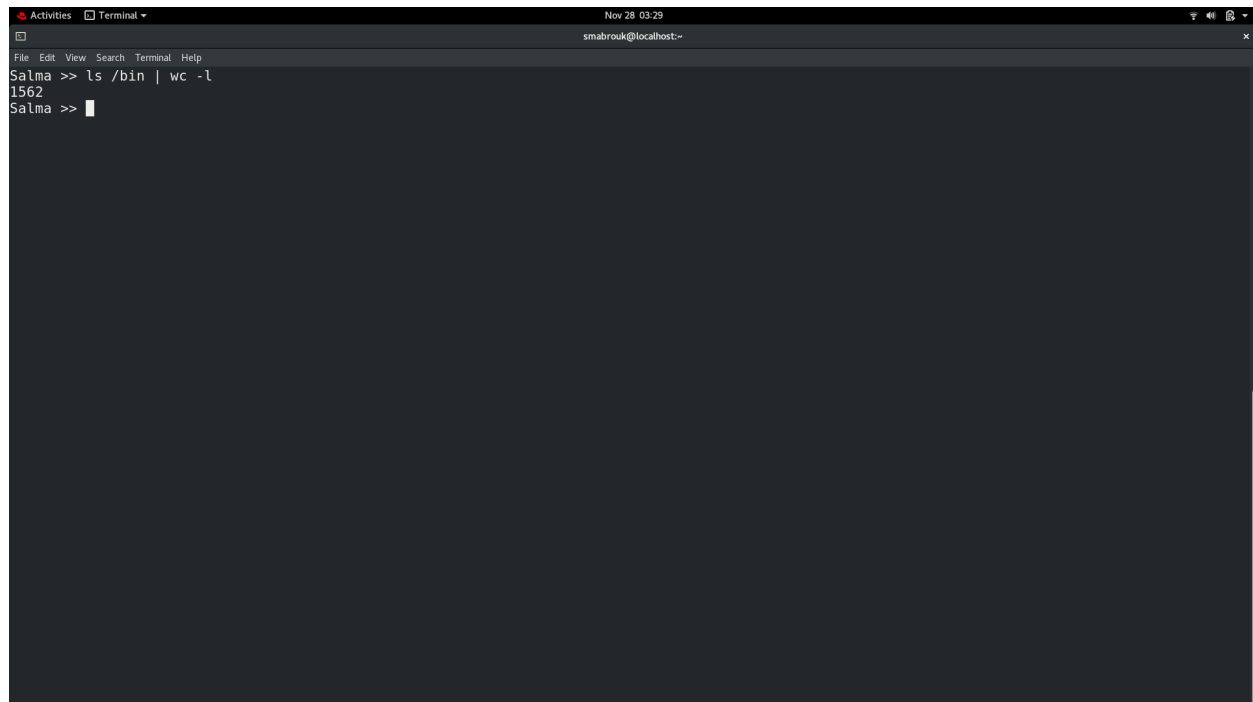
RHSA1 - Lab 4

1. List the user commands and redirect the output to /tmp/commands.list

A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Nov 28 03:28, smabrouk@localhost). The user 'Salma' enters the following commands: 'cd ~', 'ls /bin > /tmp/commands.list', and 'cat /tmp/commands.list'. The output of the last command is a list of 50 commands from /bin, including 'ac', 'aconect', 'addr2line', 'alias', 'alsaloop', 'alsamixer', 'alsaunmute', 'amidi', 'amixer', 'amuFormat.sh', 'anaconda-cleanup', 'anaconda-disable-nm-ibft-plugin', 'analog', 'aplay', 'aplaymidi', 'appstream-compose', 'appstream-util', 'apropos', 'ar', 'arch', 'arecord', 'arecordmidi', 'arpname', 'as', 'aseqdump', 'aseqnet', 'aserver', 'aspell', 'at', 'atq', 'atrm', 'attr', 'audit2allow', 'audit2why', and 'aulast'.

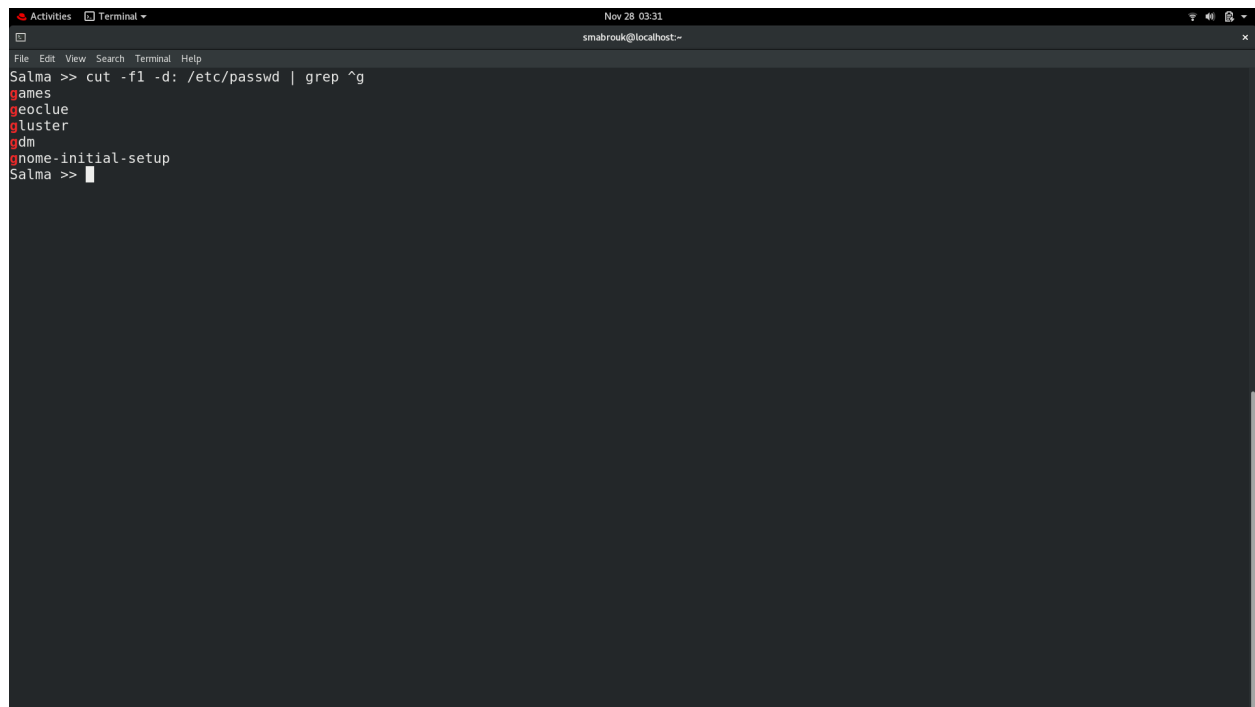
```
Salma >> cd ~
Salma >> ls /bin > /tmp/commands.list
Salma >> cat /tmp/commands.list
[
ac
aconect
addr2line
alias
alsaloop
alsamixer
alsaunmute
amidi
amixer
amuFormat.sh
anaconda-cleanup
anaconda-disable-nm-ibft-plugin
analog
aplay
aplaymidi
appstream-compose
appstream-util
apropos
ar
arch
arecord
arecordmidi
arpname
as
aseqdump
aseqnet
aserver
aspell
at
atq
atrm
attr
audit2allow
audit2why
aulast
```

2. Count the number of user commands

A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Nov 28 03:29, smabrouk@localhost). The user 'Salma' enters the command 'ls /bin | wc -l'. The output is '1562'.

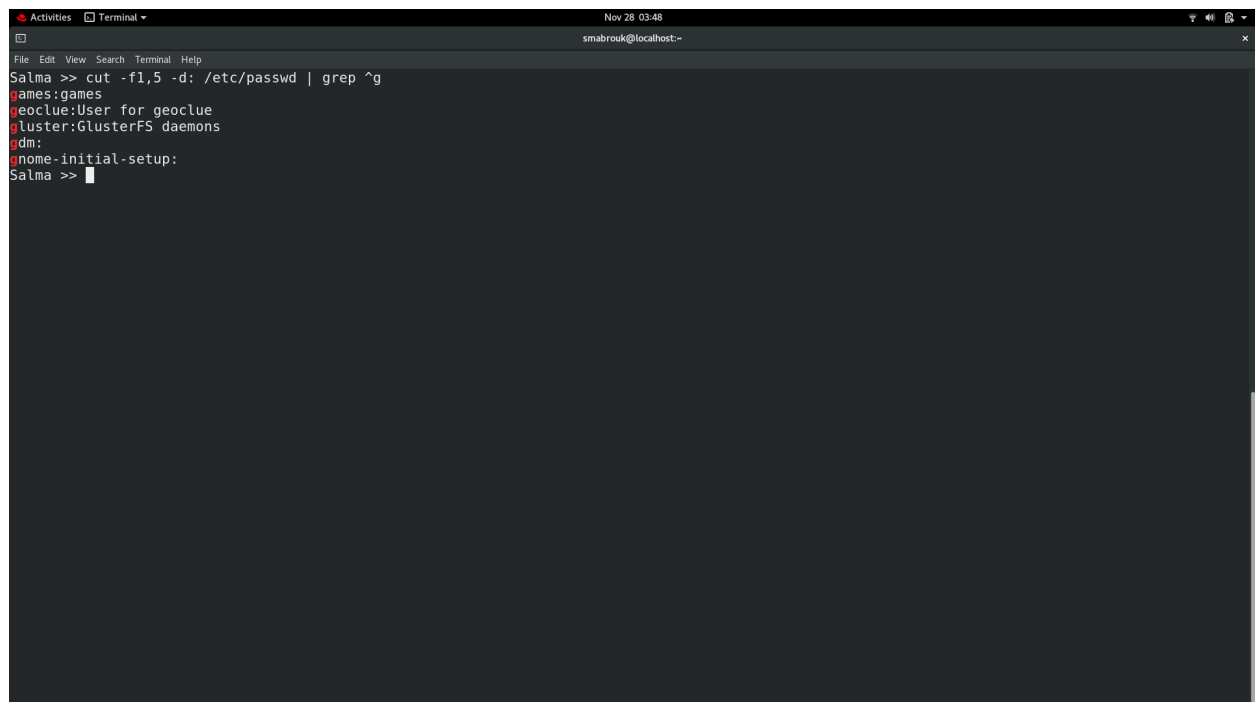
```
Salma >> ls /bin | wc -l
1562
Salma >>
```

3. Get all the users names whose first character in their login is ‘g’.



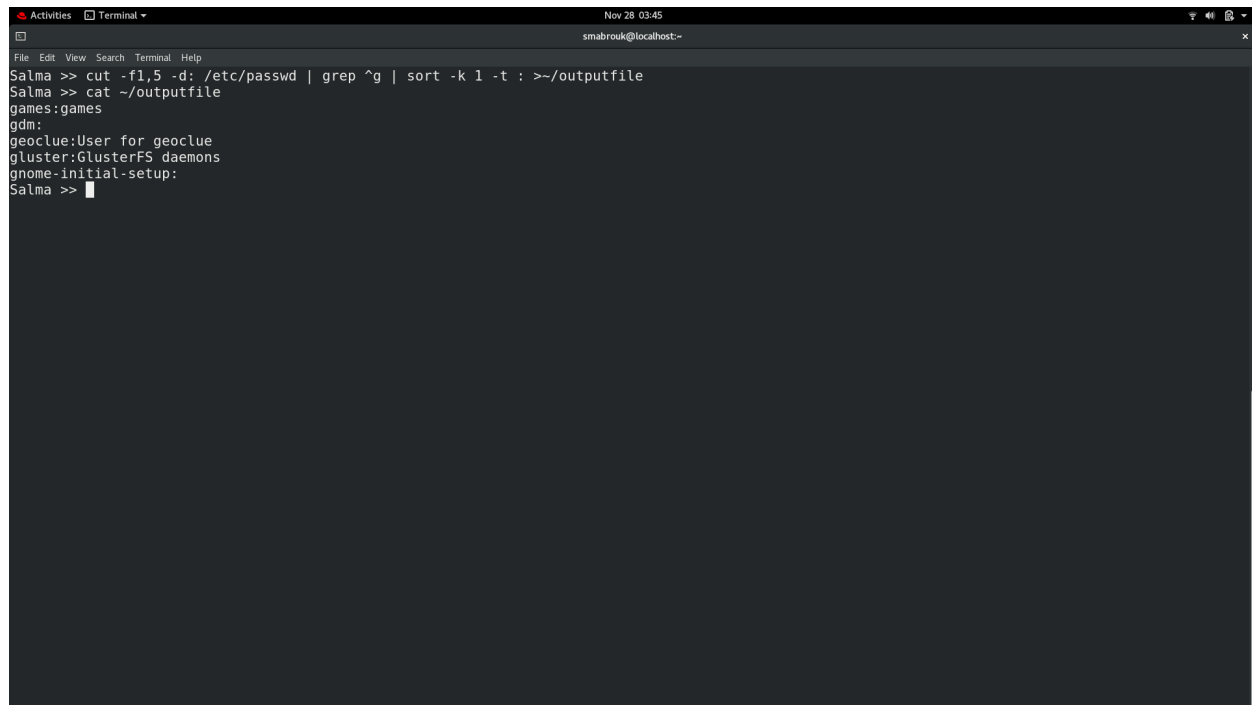
```
Activities Terminal Nov 28 03:31 smabrouk@localhost~
File Edit View Search Terminal Help
Salma >> cut -f1 -d: /etc/passwd | grep ^g
games
geoclue
gluster
gdm
gnome-initial-setup
Salma >>
```

4. Get the logins name and full names (comment) of logins starts with “g”.



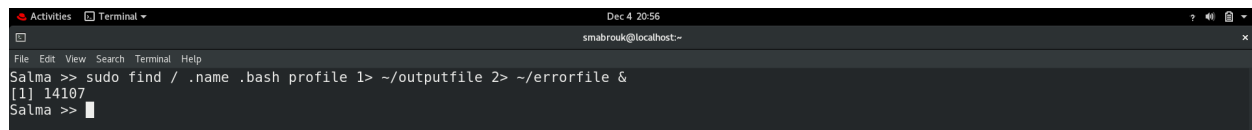
```
Activities Terminal Nov 28 03:48 smabrouk@localhost~
File Edit View Search Terminal Help
Salma >> cut -f1,5 -d: /etc/passwd | grep ^g
games:games
geoclue:User for geoclue
gluster:GlusterFS daemons
gdm:
gnome-initial-setup:
Salma >>
```

5. Save the output of the last command sorted by their full names in a file.



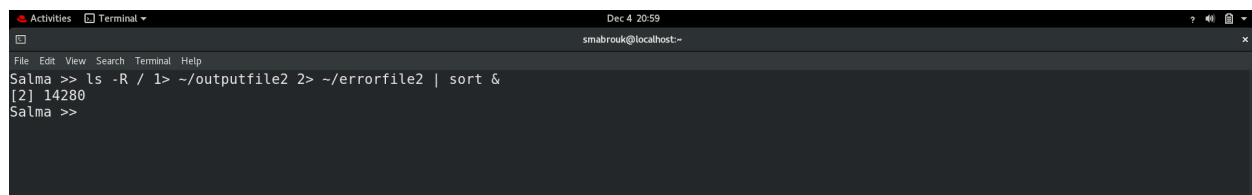
```
Nov 28 03:45
smabrouk@localhost~
File Edit View Search Terminal Help
Salma >> cut -f1,5 -d: /etc/passwd | grep ^g | sort -k 1 -t : >~/outputfile
Salma >> cat ~/outputfile
games:games
gdm:
geoclue:User for geoclue
gluster:GlusterFS daemons
gnome-initial-setup:
Salma >>
```

6. Write two commands: first: to search for all files on the system that named .bash_profile.



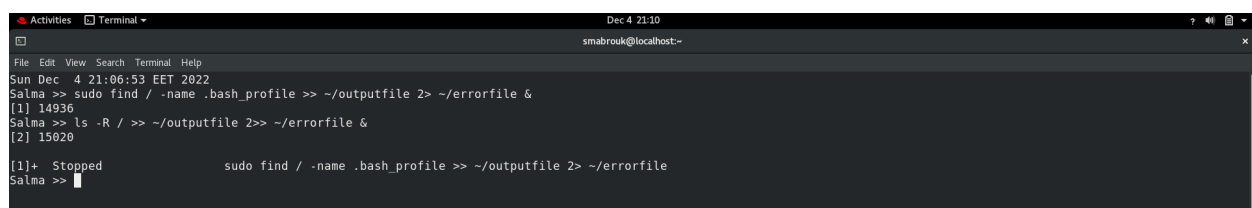
```
Dec 4 20:56
smabrouk@localhost~
File Edit View Search Terminal Help
Salma >> sudo find / -name .bash profile 1> ~/outputfile 2> ~/errorfile &
[1] 14107
Salma >>
```

Second: sorts the output of ls command on / recursively.



```
Dec 4 21:59
smabrouk@localhost~
File Edit View Search Terminal Help
Salma >> ls -R / 1> ~/outputfile2 2> ~/errorfile2 | sort &
[2] 14280
Salma >>
```

Saving their output and error in 2 different files and sending them to the background.



```
Dec 4 21:10
smabrouk@localhost~
File Edit View Search Terminal Help
Sun Dec 4 21:06:53 EET 2022
Salma >> sudo find / -name .bash_profile >> ~/outputfile 2> ~/errorfile &
[1] 14936
Salma >> ls -R / >> ~/outputfile 2> ~/errorfile &
[2] 15020
[1]+ Stopped                  sudo find / -name .bash_profile >> ~/outputfile 2> ~/errorfile
Salma >>
```

7. Display the number of users who is logged now to the system.

```
Salma >> who
smabrouk tty2          2022-12-04 03:28 (tty2)
Salma >> who | wc -l
1
Salma >> who --count
smabrouk
# users=1
Salma >>
```

8. Display lines 7 to line 10 of /etc/passwd file

```
Salma >> head /etc/passwd | tail -4
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
Salma >>
```

9. What happens if you execute:

`cat filename1 | cat filename2`

```
Salma >> echo "HELLO" > filename1
Salma >> echo "WORLD" > filename2
Salma >> cat filename1 | cat filename2
WORLD
Salma >>
```

`ls | rm`

```
Salma >> ls | rm
rm: missing operand
Try 'rm --help' for more information.
Salma >>
```

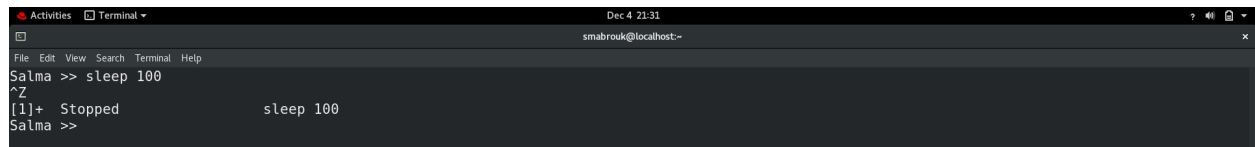
`ls /etc/passwd | wc -l`

```
Salma >> ls /etc/passwd | wc -l
1
Salma >>
```

10. Issue the command sleep 100.

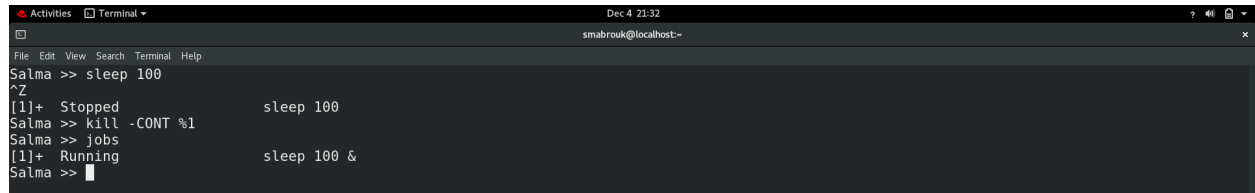
```
Salma >> sleep 100
```

11. Stop the last command.



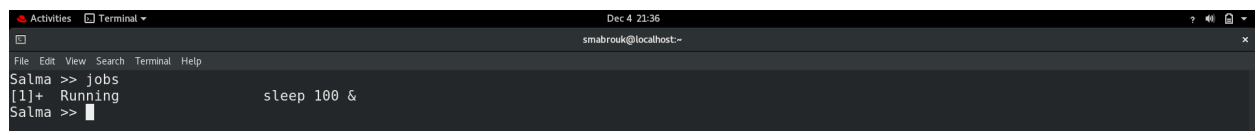
```
Salma >> sleep 100
^Z
[1]+  Stopped                  sleep 100
Salma >>
```

12. Resume the last command in the background



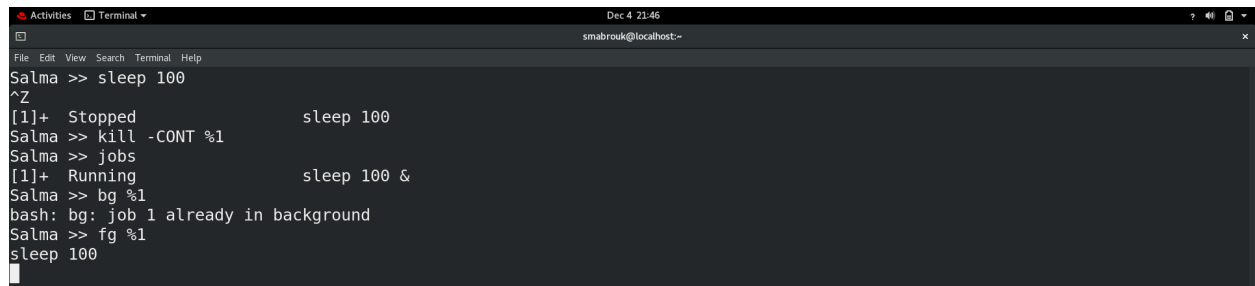
```
Salma >> sleep 100
^Z
[1]+  Stopped                  sleep 100
Salma >> kill -CONT %1
Salma >> jobs
[1]+  Running                  sleep 100 &
Salma >>
```

13. Issue the jobs command and see its output.



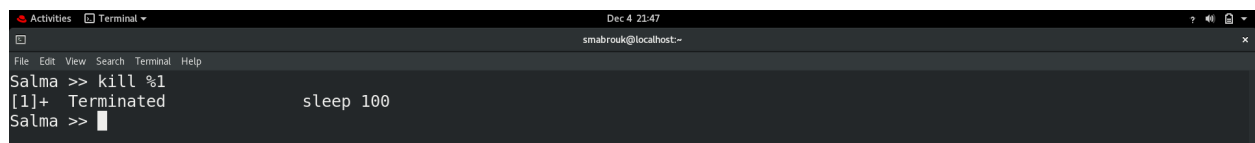
```
Salma >> jobs
[1]+  Running                  sleep 100 &
Salma >>
```

14. Send the sleep command to the foreground and send it again to the background.



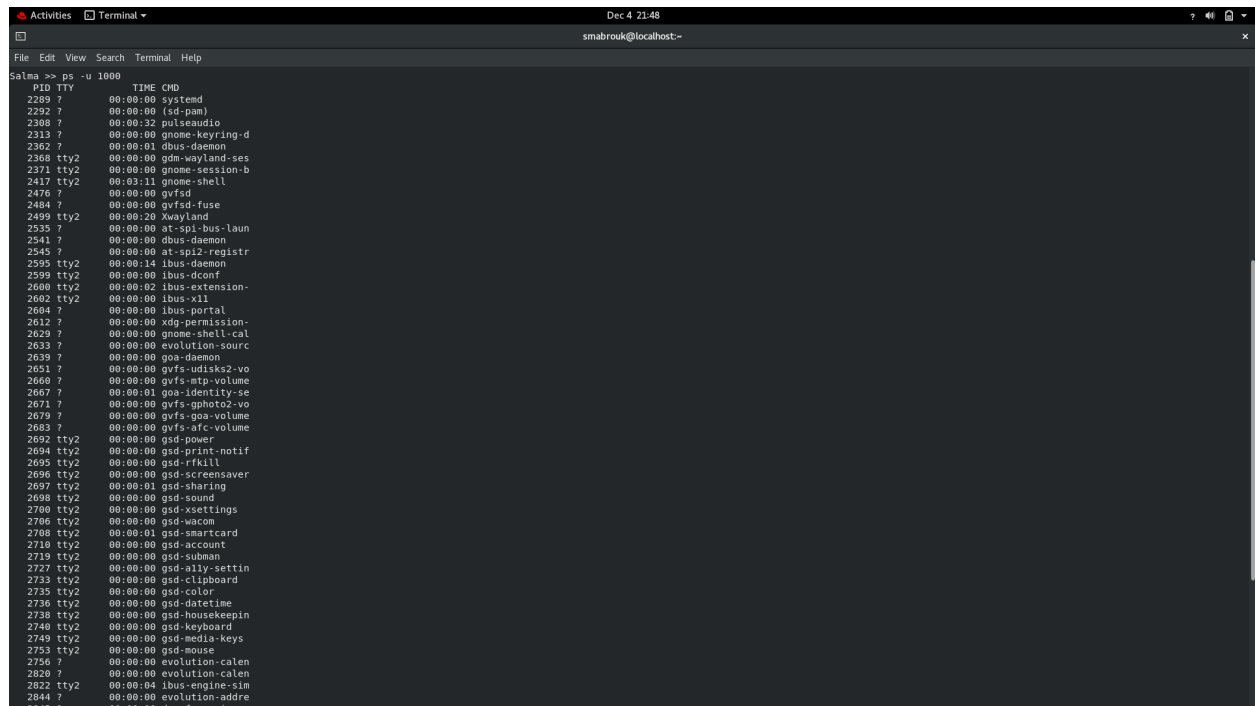
```
Salma >> sleep 100
^Z
[1]+  Stopped                  sleep 100
Salma >> kill -CONT %1
Salma >> jobs
[1]+  Running                  sleep 100 &
Salma >> bg %1
bash: bg: job 1 already in background
Salma >> fg %1
sleep 100
^Z
```

15. Kill the sleep command.



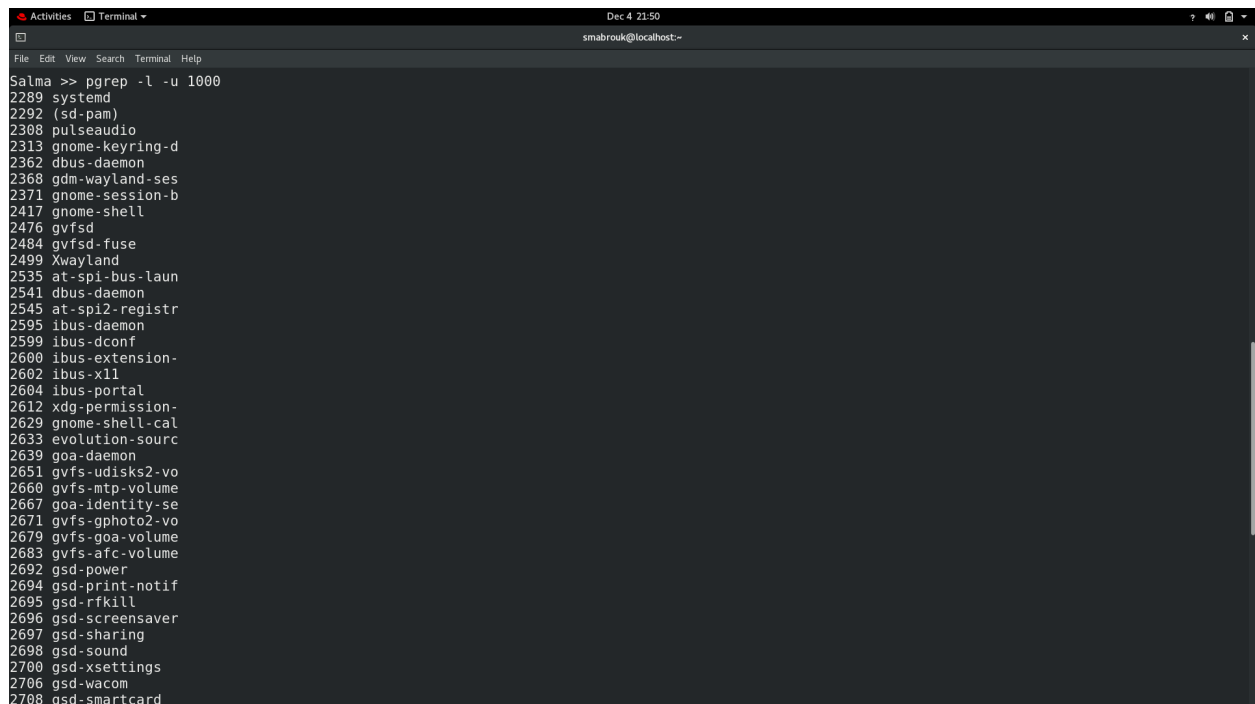
```
Salma >> kill %1
[1]+  Terminated              sleep 100
Salma >>
```

16. Display your processes only



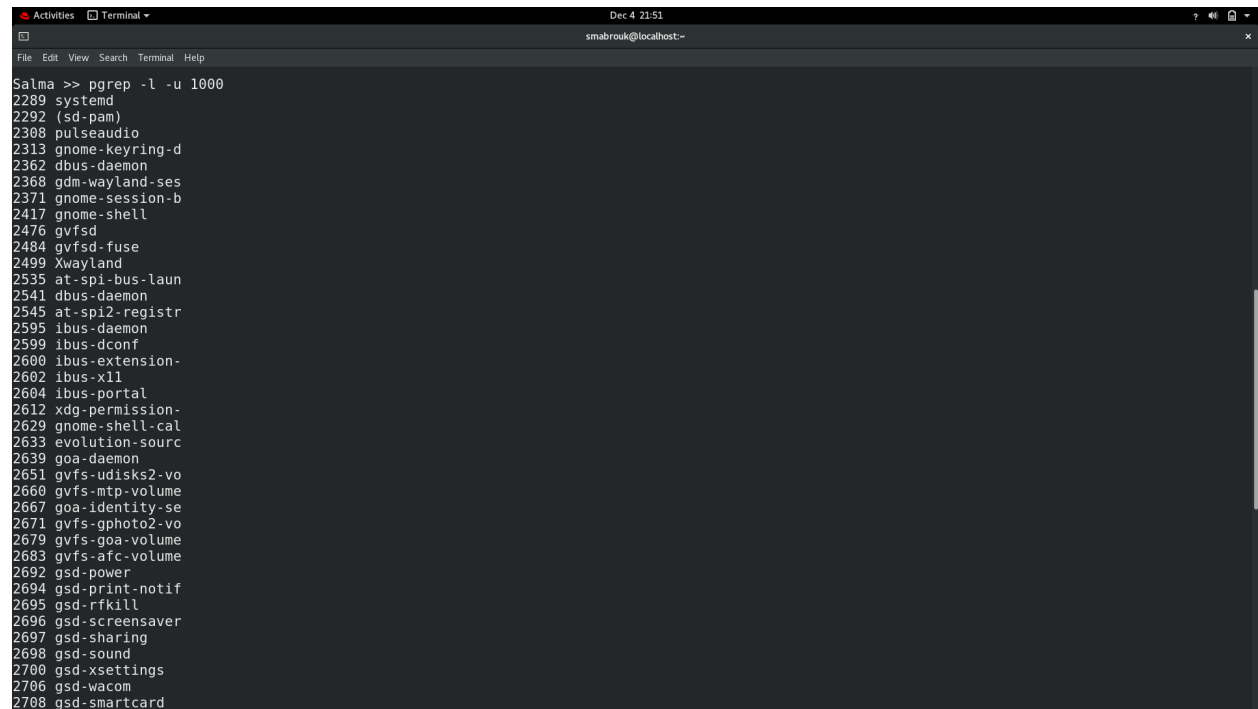
```
Salma >> ps -u 1000
  PID TTY          TIME CMD
 2289 ?        00:00:00 systemd
 2292 ?        00:00:00 (sd-pam)
 2308 ?        00:00:32 pulseaudio
 2313 ?        00:00:00 gnome-keyring-d
 2362 ?        00:00:01 dbus-daemon
 2368 tty2     00:00:00 gdm-wayland-ses
 2371 tty2     00:00:00 gnome-session-b
 2417 tty2     00:03:11 gnome-shell
 2476 ?        00:00:00 gvfsd
 2484 ?        00:00:00 gvfsd-fuse
 2499 tty2     00:00:20 Xwayland
 2535 ?        00:00:00 at-spi-bus-laun
 2541 ?        00:00:00 dbus-daemon
 2545 ?        00:00:00 at-spi2-registr
 2595 tty2     00:00:14 ibus-daemon
 2599 tty2     00:00:00 ibus-dconf
 2600 tty2     00:00:02 ibus-extension-
 2602 tty2     00:00:00 ibus-x11
 2604 ?        00:00:00 ibus-portal
 2612 ?        00:00:00 xdg-permission-
 2629 ?        00:00:00 gnome-shell-cal
 2633 ?        00:00:00 evolution-sourc
 2639 ?        00:00:00 goa-daemon
 2651 ?        00:00:00 gvfs-udisks2-vo
 2660 ?        00:00:00 gvfs-mtp-volume
 2667 ?        00:00:01 goa-identity-se
 2671 ?        00:00:00 gvfs-gphoto2-vo
 2679 ?        00:00:00 gvfs-goa-volume
 2683 ?        00:00:00 gvfs-afc-volume
 2692 tty2     00:00:00 gsd-power
 2694 tty2     00:00:00 gsd-print-notif
 2695 tty2     00:00:00 gsd-rfkill
 2696 tty2     00:00:00 gsd-screensaver
 2697 tty2     00:00:01 gsd-sharing
 2698 tty2     00:00:00 gsd-sound
 2700 tty2     00:00:00 gsd-xsettings
 2706 tty2     00:00:00 gsd-wacom
 2708 tty2     00:00:01 gsd-smartcard
 2710 tty2     00:00:00 gsd-account
 2719 tty2     00:00:00 gsd-subman
 2727 tty2     00:00:00 gsd-ally-settin
 2733 tty2     00:00:00 gsd-clipboard
 2735 tty2     00:00:00 gsd-color
 2736 tty2     00:00:00 gsd-datetime
 2738 tty2     00:00:00 gsd-housekeepin
 2740 tty2     00:00:00 gsd-keyboard
 2749 tty2     00:00:00 gsd-media-keys
 2753 tty2     00:00:00 gsd-mouse
 2756 ?        00:00:00 evolution-calen
 2820 ?        00:00:00 evolution-calen
 2822 tty2     00:00:04 ibus-engine-sim
 2844 ?        00:00:00 evolution-adddr
 2845 ?        00:00:00 dconf-tee
```

17. Display all processes except yours



```
Salma >> pgrep -l -u 1000
2289 systemd
2292 (sd-pam)
2308 pulseaudio
2313 gnome-keyring-d
2362 dbus-daemon
2368 gdm-wayland-ses
2371 gnome-session-b
2417 gnome-shell
2476 gvfsd
2484 gvfsd-fuse
2499 Xwayland
2535 at-spi-bus-laun
2541 dbus-daemon
2545 at-spi2-registr
2595 ibus-daemon
2599 ibus-dconf
2600 ibus-extension-
2602 ibus-x11
2604 ibus-portal
2612 xdg-permission-
2629 gnome-shell-cal
2633 evolution-sourc
2639 goa-daemon
2651 gvfs-udisks2-vo
2660 gvfs-mtp-volume
2667 goa-identity-se
2671 gvfs-gphoto2-vo
2679 gvfs-goa-volume
2683 gvfs-afc-volume
2692 gsd-power
2694 gsd-print-notif
2695 gsd-rfkill
2696 gsd-screensaver
2697 gsd-sharing
2698 gsd-sound
2700 gsd-xsettings
2706 gsd-wacom
2708 gsd-smartcard
```

18. Use the pgrep command to list your processes only

A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Dec 4 21:51, smabrouk@localhost~). The prompt is 'Salma >>'. The command 'pgrep -l -u 1000' has been executed, resulting in a list of processes. The output is as follows:

```
Salma >> pgrep -l -u 1000
2289 systemd
2292 (sd-pam)
2308 pulseaudio
2313 gnome-keyring-d
2362 dbus-daemon
2368 gdm-wayland-ses
2371 gnome-session-b
2417 gnome-shell
2476 gvfsd
2484 gvfsd-fuse
2499 Xwayland
2535 at-spi-bus-laun
2541 dbus-daemon
2545 at-spi2-registr
2595 ibus-daemon
2599 ibus-dconf
2600 ibus-extension-
2602 ibus-x11
2604 ibus-portal
2612 xdg-permission-
2629 gnome-shell-cal
2633 evolution-sourc
2639 goa-daemon
2651 gvfs-udisks2-vo
2660 gvfs-mtp-volume
2667 goa-identity-se
2671 gvfs-gphoto2-vo
2679 gvfs-goa-volume
2683 gvfs-afc-volume
2692 gsd-power
2694 gsd-print-notif
2695 gsd-rfkill
2696 gsd-screensaver
2697 gsd-sharing
2698 gsd-sound
2700 gsd-xsettings
2706 gsd-wacom
2708 gsd-smartcard
```

19. Kill your processes only.

Kill all -u 1000