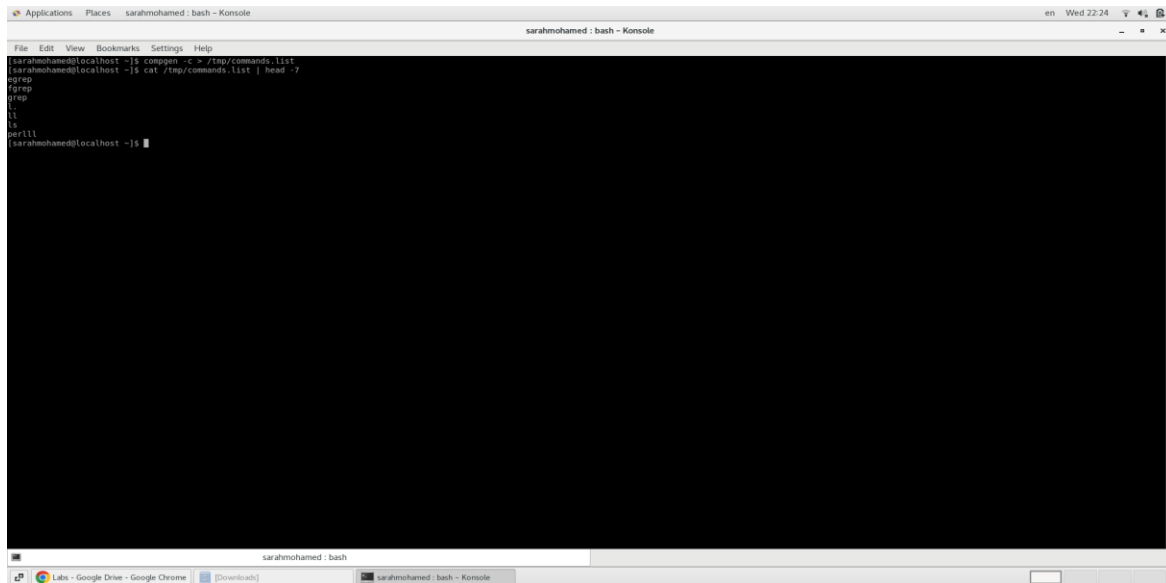


Lab 4

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

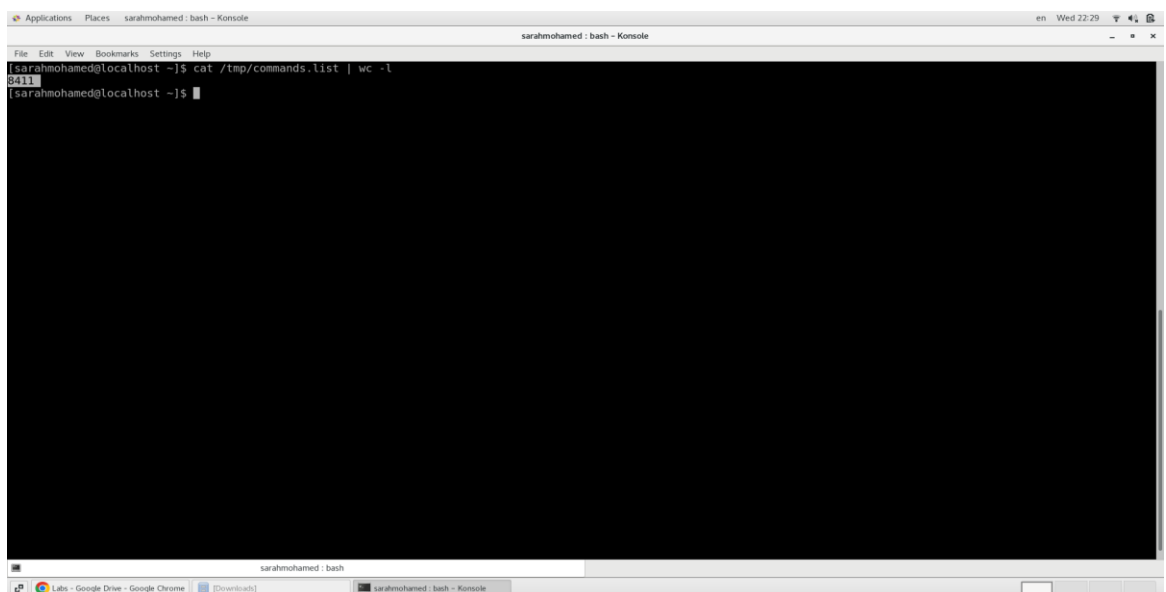


A terminal window titled 'sarahmohamed : bash - Konsole' showing the following commands and their outputs:

```
[sarahmohamed@localhost ~]$ congeen -c > /tmp/commands.list
[sarahmohamed@localhost ~]$ cat /tmp/commands.list | head -7
esrep
fgrep
grep
ll
ls
perill
[sarahmohamed@localhost ~]$
```

2.

Count the number of user commands

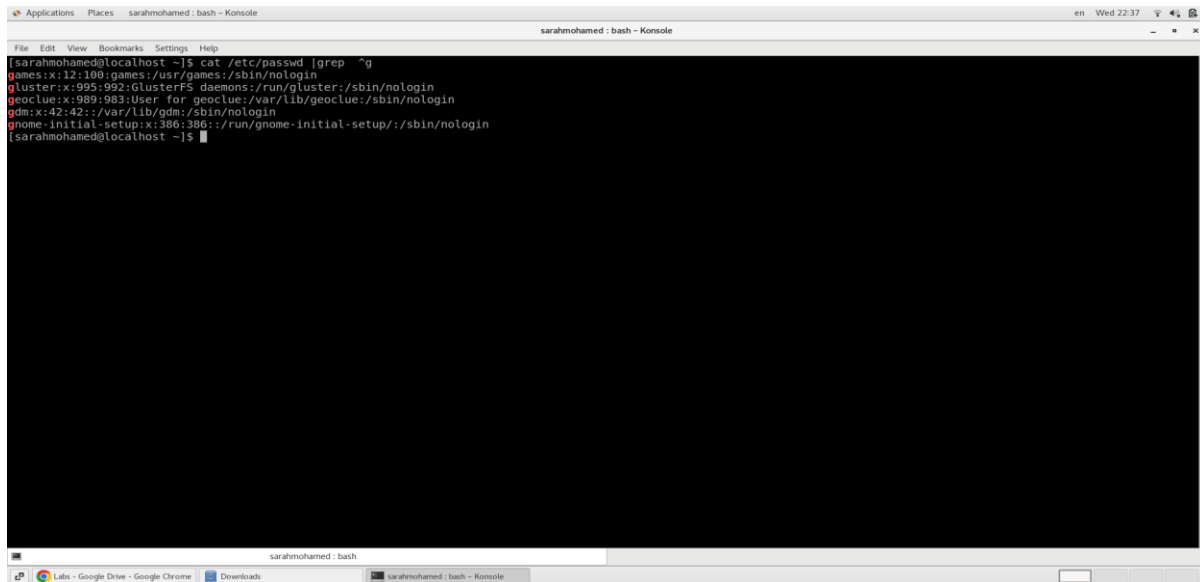


A terminal window titled 'sarahmohamed : bash - Konsole' showing the following commands and their outputs:

```
[sarahmohamed@localhost ~]$ cat /tmp/commands.list | wc -l
8411
[sarahmohamed@localhost ~]$
```

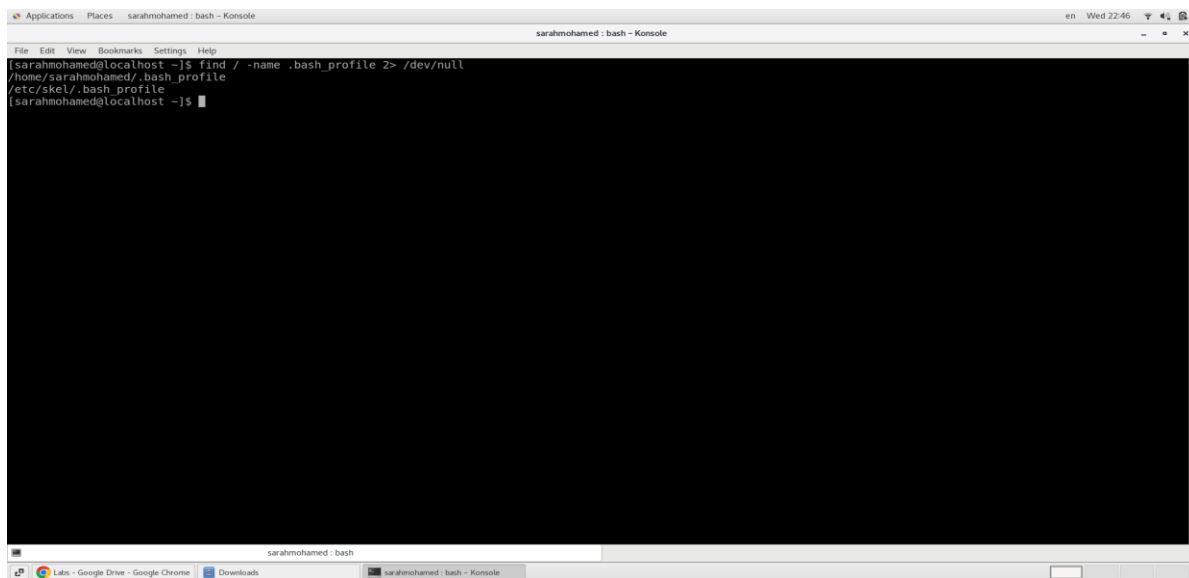
3.

Get all the users names whose first character in their login is 'g'.



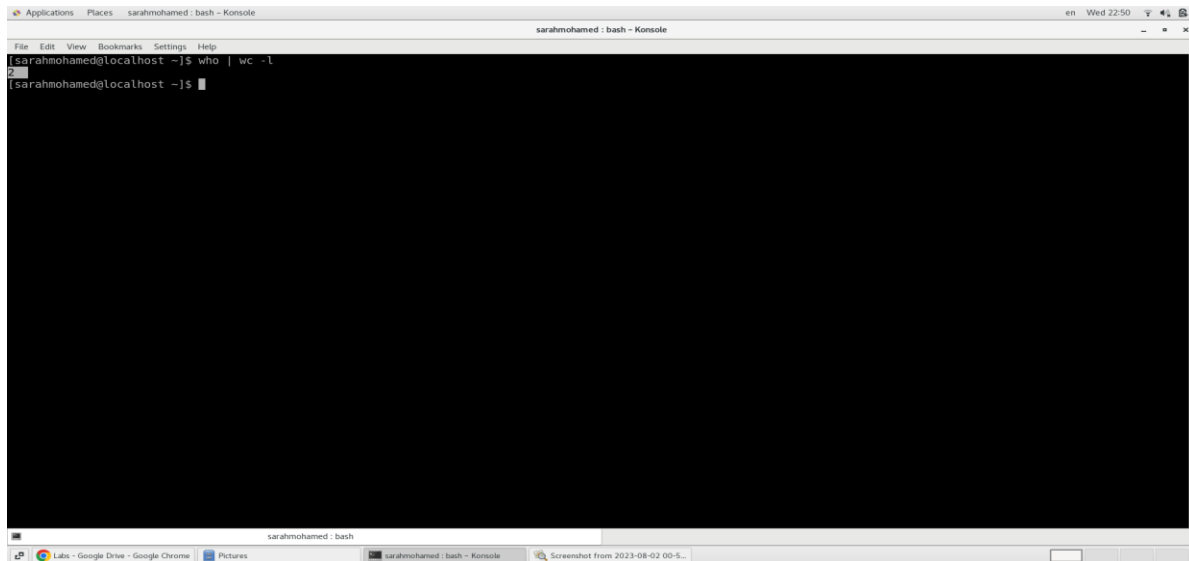
```
Applications  Places  sarahmohamed : bash - Konsole  en  Wed 22:37  [Icons]
sarahmohamed : bash - Konsole
File Edit View Bookmarks Settings Help
[sarahmohamed@localhost ~]$ cat /etc/passwd | grep ^g
games:x:12:100:games:/usr/games:/sbin/nologin
gluster:x:995:992:GlusterFS daemons:/run/gluster:/sbin/nologin
geoclue:x:989:983:User for geoclue:/var/lib/geoclue:/sbin/nologin
gdm:x:42:42:/:/var/lib/gdm:/sbin/nologin
gnome-initial-setup:x:386:386:/:run/gnome-initial-setup:/sbin/nologin
[sarahmohamed@localhost ~]$
```

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



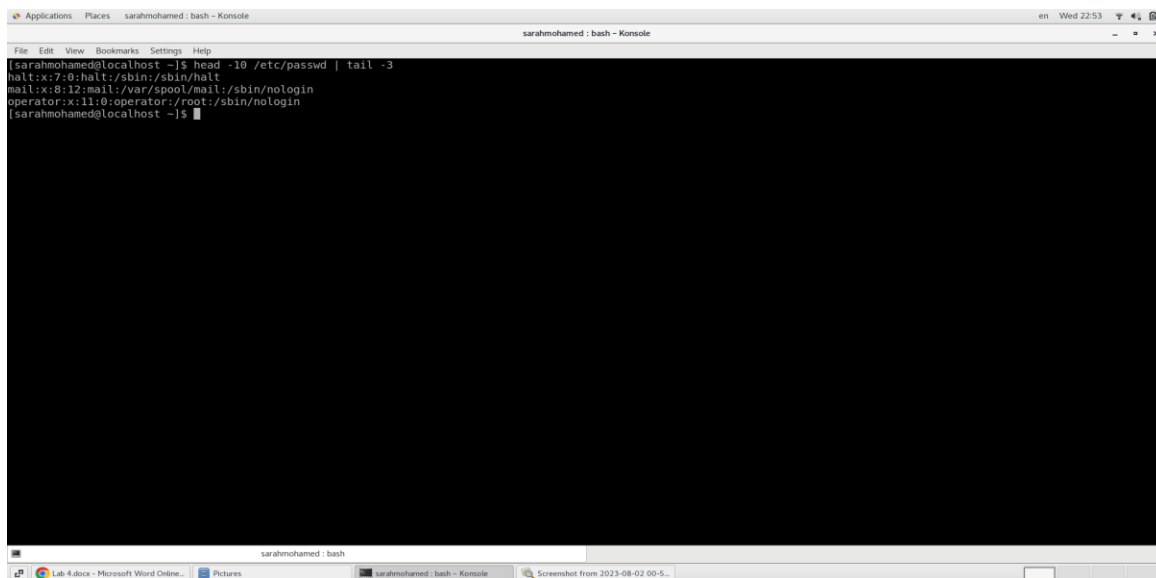
```
Applications  Places  sarahmohamed : bash - Konsole  en  Wed 22:46  [Icons]
sarahmohamed : bash - Konsole
File Edit View Bookmarks Settings Help
[sarahmohamed@localhost ~]$ find / -name .bash_profile 2> /dev/null
/home/sarahmohamed/.bash_profile
/etc/skel/.bash_profile
[sarahmohamed@localhost ~]$
```

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



```
Applications  Places  sarahmohamed : bash - Konsole  en  Wed 22:50
sarahmohamed : bash - Konsole
File Edit View Bookmarks Settings Help
[sarahmohamed@localhost ~]$ who | wc -l
2
[sarahmohamed@localhost ~]$
```

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

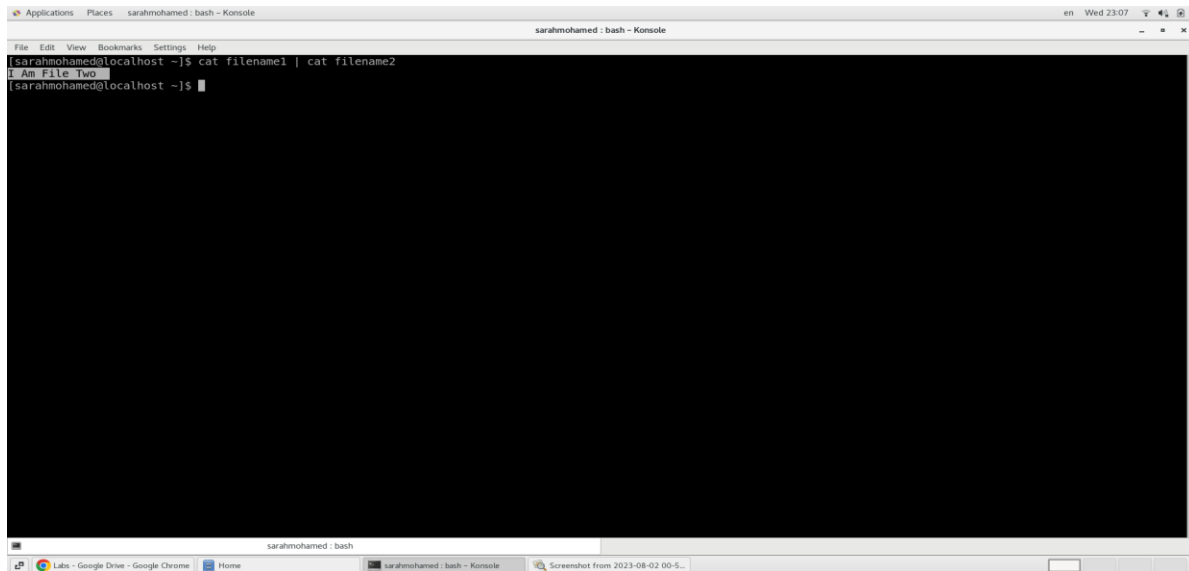


```
Applications  Places  sarahmohamed : bash - Konsole  en  Wed 22:53
sarahmohamed : bash - Konsole
File Edit View Bookmarks Settings Help
[sarahmohamed@localhost ~]$ head -10 /etc/passwd | tail -3
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
[sarahmohamed@localhost ~]$
```

9.

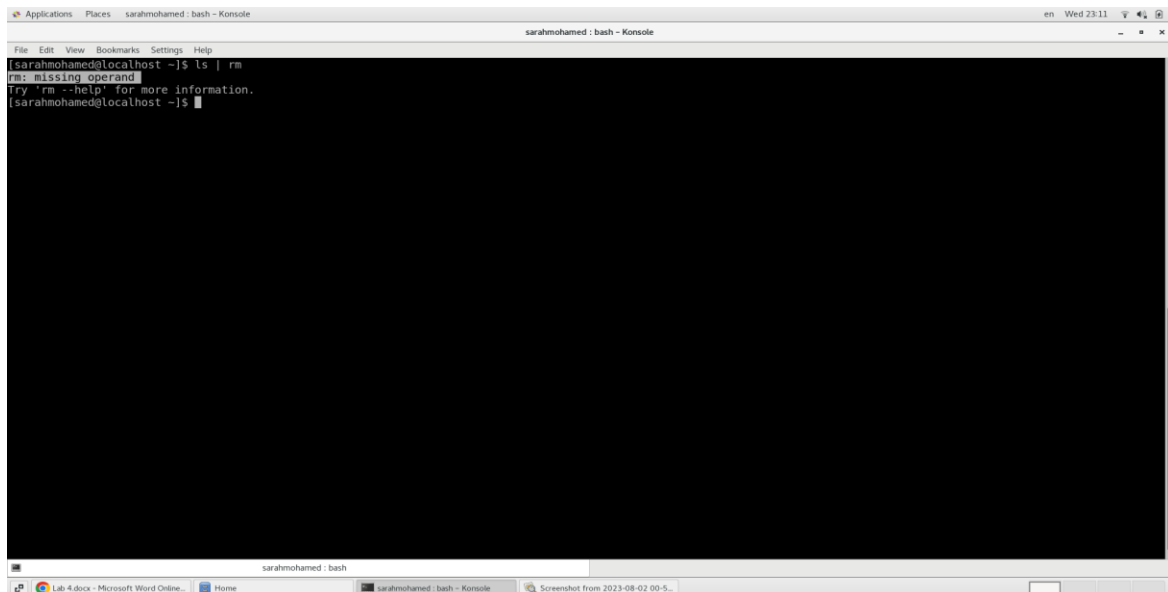
What happens if you execute:

- `cat filename1 | cat filename2`

A terminal window titled 'sarahmohamed : bash - Konsole' showing a command prompt. The user enters the command `cat filename1 | cat filename2`. The terminal output shows the contents of 'filename2', which is 'I Am File Two'. The terminal window has a menu bar with 'File', 'Edit', 'View', 'Bookmarks', 'Settings', and 'Help'. The bottom status bar shows 'sarahmohamed : bash'.

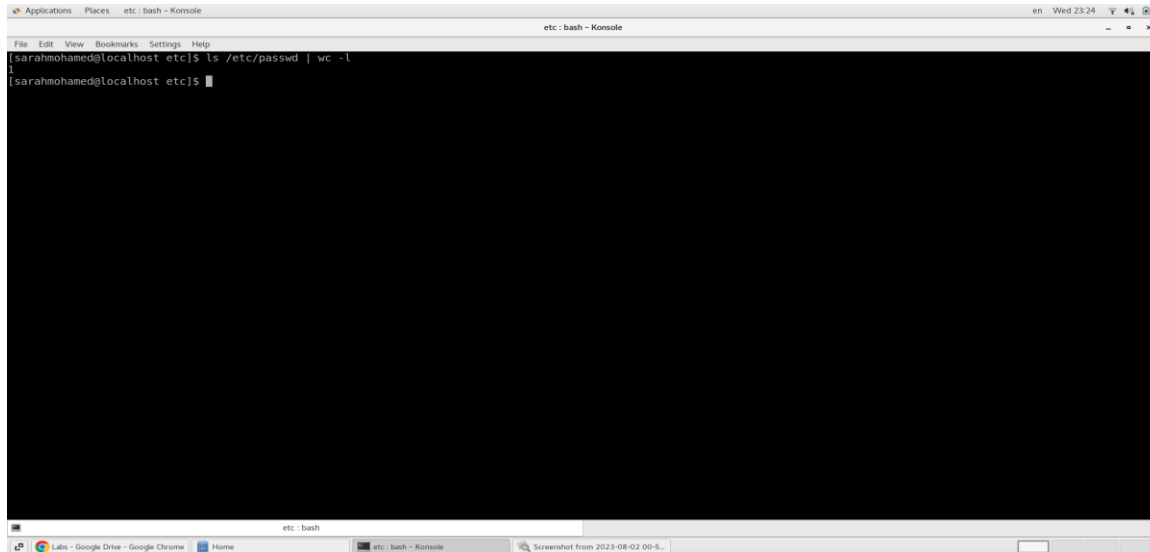
when you execute `cat filename1 | cat filename2`, the output of `cat filename1` is passed through the pipe and becomes the input of `cat filename2`. However, since `cat` displays the contents of a file, the effect of this command is to display the contents of `filename2` on the terminal, regardless of the contents of `filename1`.

- `ls | rm`

A terminal window titled 'sarahmohamed : bash - Konsole' showing a command prompt. The user enters the command `ls | rm`. The terminal output shows an error message: `rm: missing operand`. Below the error message, it says 'Try 'rm --help' for more information.' The terminal window has a menu bar with 'File', 'Edit', 'View', 'Bookmarks', 'Settings', and 'Help'. The bottom status bar shows 'sarahmohamed : bash'.

This command tries to pass the output of the `ls` command to the `rm` command. However, this will result in an error because the `rm` command expects file or directory names as arguments, not input from a pipe.

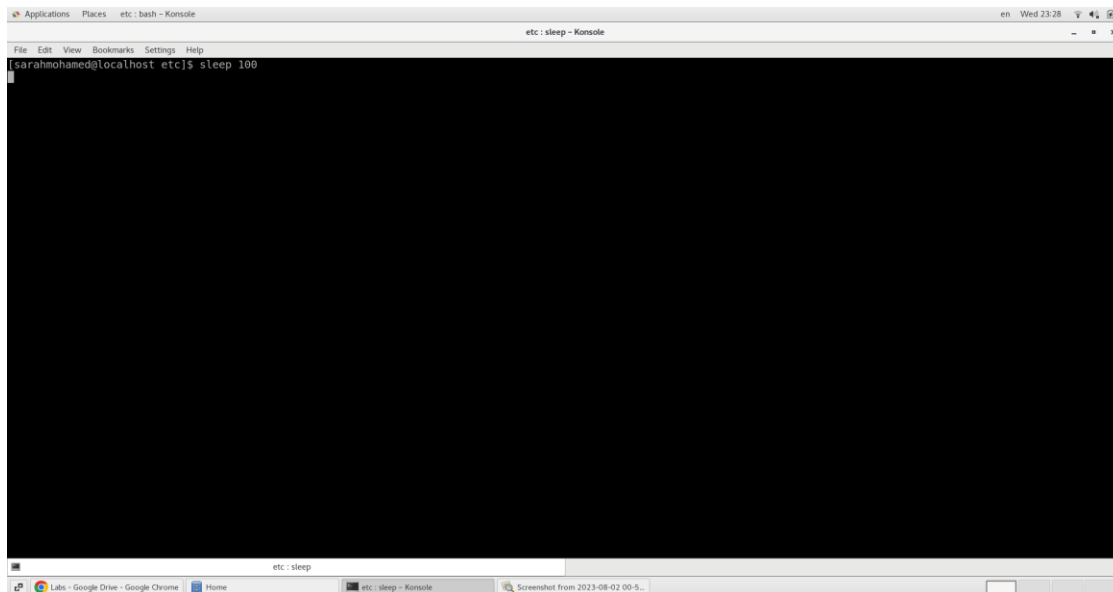
- `ls /etc/passwd | wc -l`



```
Applications  Places  etc: bash - Konsole  
etc: bash - Konsole  
File Edit View Bookmarks Settings Help  
[sarahmohamed@localhost etc]$ ls /etc/passwd | wc -l  
1  
[sarahmohamed@localhost etc]$
```

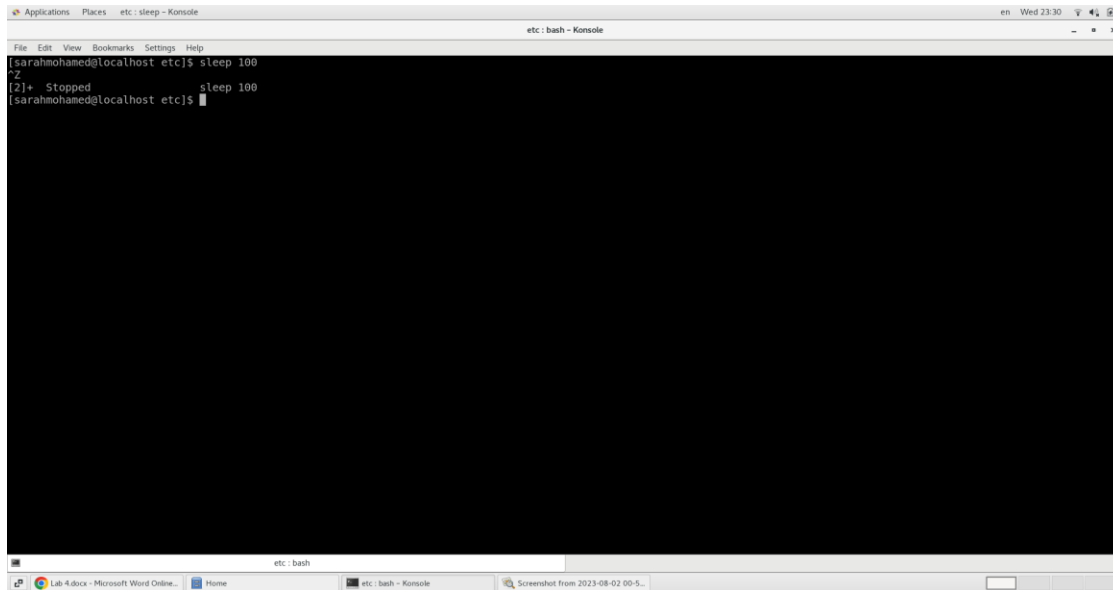
The Output of `ls => /etc/passwd , wc -l => 1`

10. Issue the command `sleep 100`.



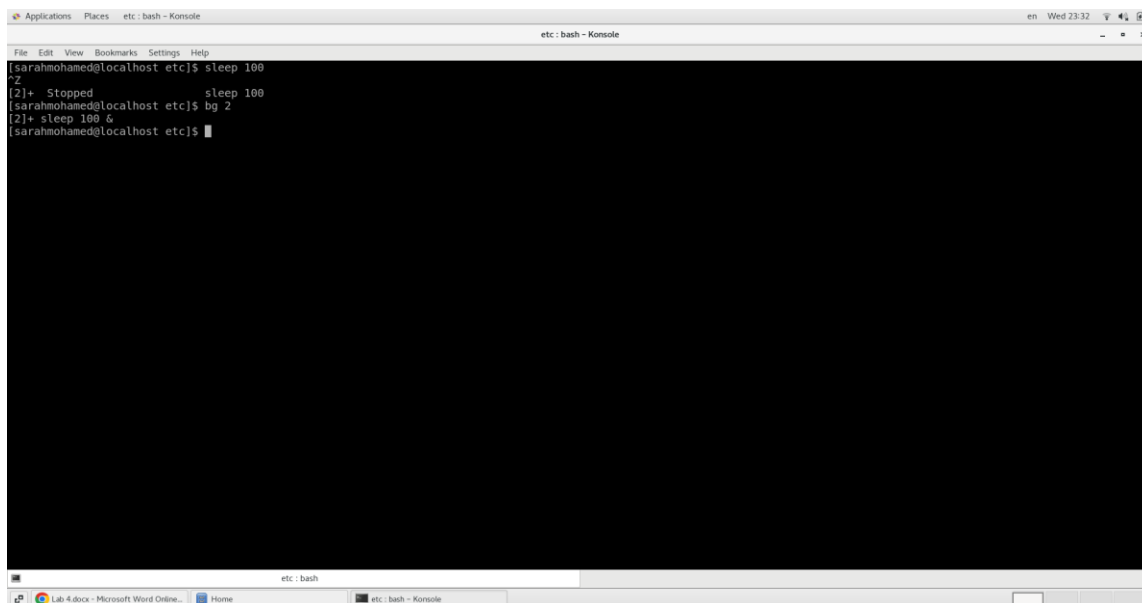
```
Applications  Places  etc: bash - Konsole  
etc: sleep - Konsole  
File Edit View Bookmarks Settings Help  
[sarahmohamed@localhost etc]$ sleep 100  
[sarahmohamed@localhost etc]$
```

11. Stop the last command.



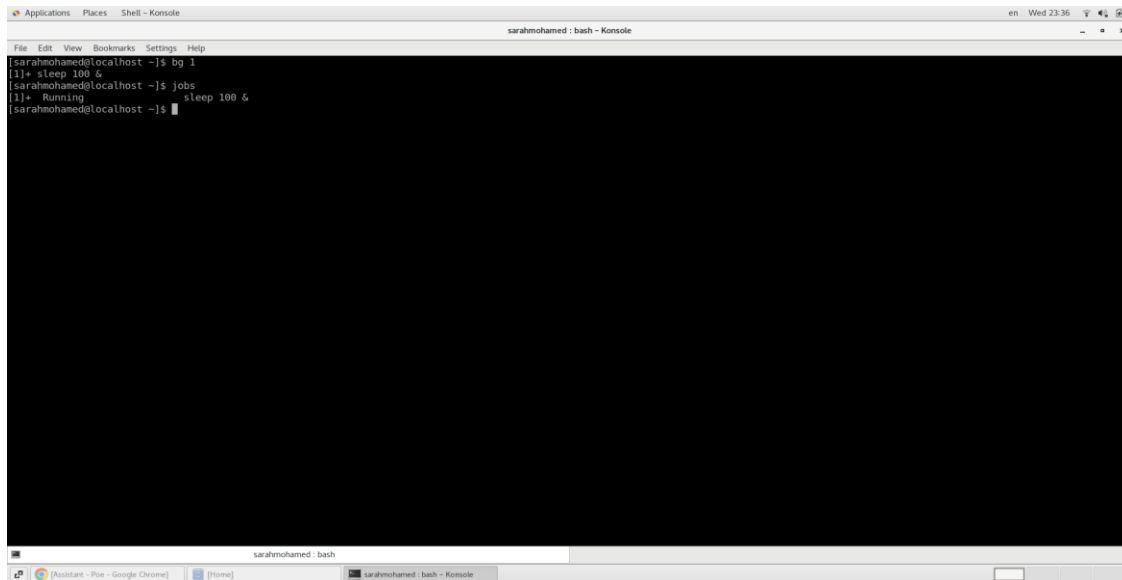
A terminal window titled "etc : bash - Konsole" showing a user named sarahmohamed@localhost. The user enters the command `sleep 100`. The prompt changes to `^Z`, and then the user presses `Ctrl+C`, resulting in the output `[2]+ Stopped sleep 100`. The prompt returns to `[sarahmohamed@localhost etc]$`.

12.Resume the last command in the background



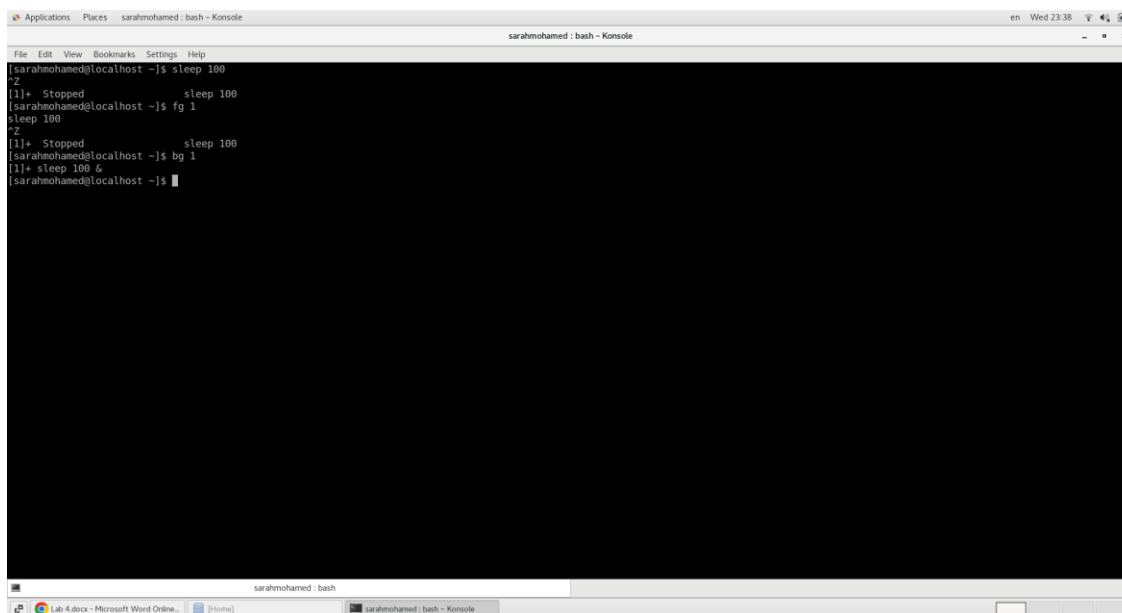
A terminal window titled "etc : bash - Konsole" showing the same user. The user enters `sleep 100`. The prompt changes to `^Z`. The user presses `Ctrl+C`, resulting in `[2]+ Stopped sleep 100`. Then, the user enters `bg 2`, which resumes the command in the background, showing `[2]+ sleep 100 &`. The prompt returns to `[sarahmohamed@localhost etc]$`.

13.Issue the jobs command and see its output.

A terminal window titled 'sarahmohamed : bash - Konsole' showing a series of commands and their outputs. The user runs 'bg 1', 'sleep 100 &', 'jobs', and 'sleep 100 &'. The output shows a background job running. The terminal interface includes a menu bar with 'File', 'Edit', 'View', 'Bookmarks', 'Settings', and 'Help'. The status bar at the bottom shows the current directory as '~' and the window title as 'sarahmohamed : bash - Konsole'.

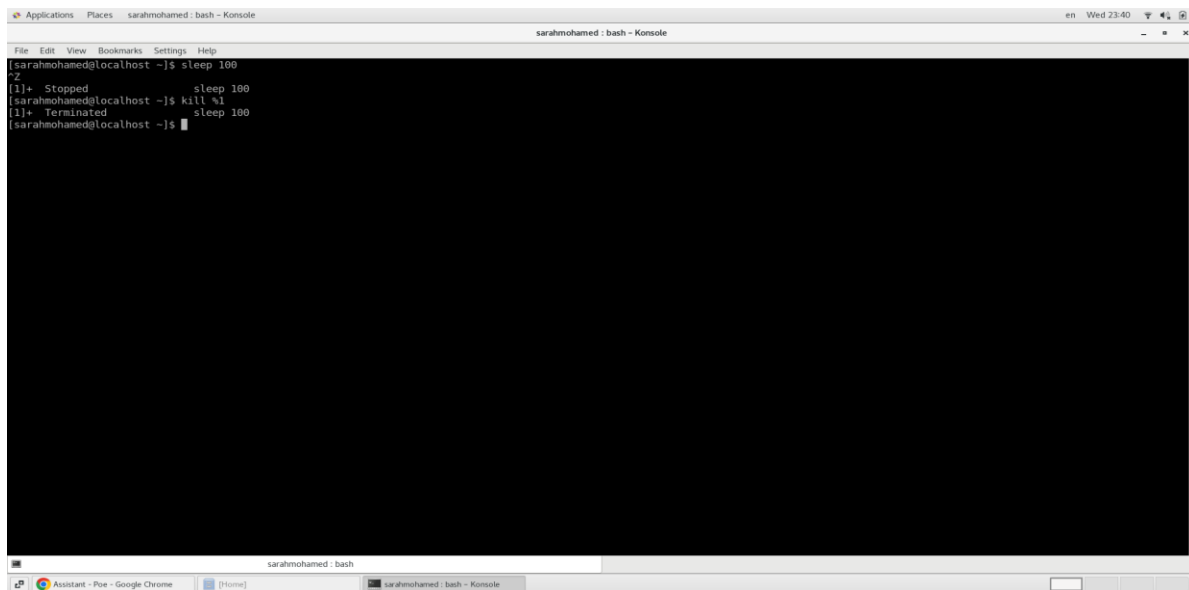
```
sarahmohamed@localhost ~]$ bg 1
[1]+  sleep 100 &
sarahmohamed@localhost ~]$ jobs
[1]+  Running                  sleep 100 &
sarahmohamed@localhost ~]$
```

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

A terminal window titled 'sarahmohamed : bash - Konsole' showing the user managing a background process. The user runs 'sleep 100', presses Ctrl-Z to stop it, then 'fg 1' to bring it to the foreground, and 'bg 1' to send it back to the background. The output shows the process being stopped and then resumed in the background. The terminal interface includes a menu bar with 'File', 'Edit', 'View', 'Bookmarks', 'Settings', and 'Help'. The status bar at the bottom shows the current directory as '~' and the window title as 'sarahmohamed : bash - Konsole'.

```
sarahmohamed@localhost ~]$ sleep 100
^Z
[1]+  Stopped                  sleep 100
sarahmohamed@localhost ~]$ fg 1
sleep 100
^Z
[1]+  Stopped                  sleep 100
sarahmohamed@localhost ~]$ bg 1
[1]+  sleep 100 &
sarahmohamed@localhost ~]$
```

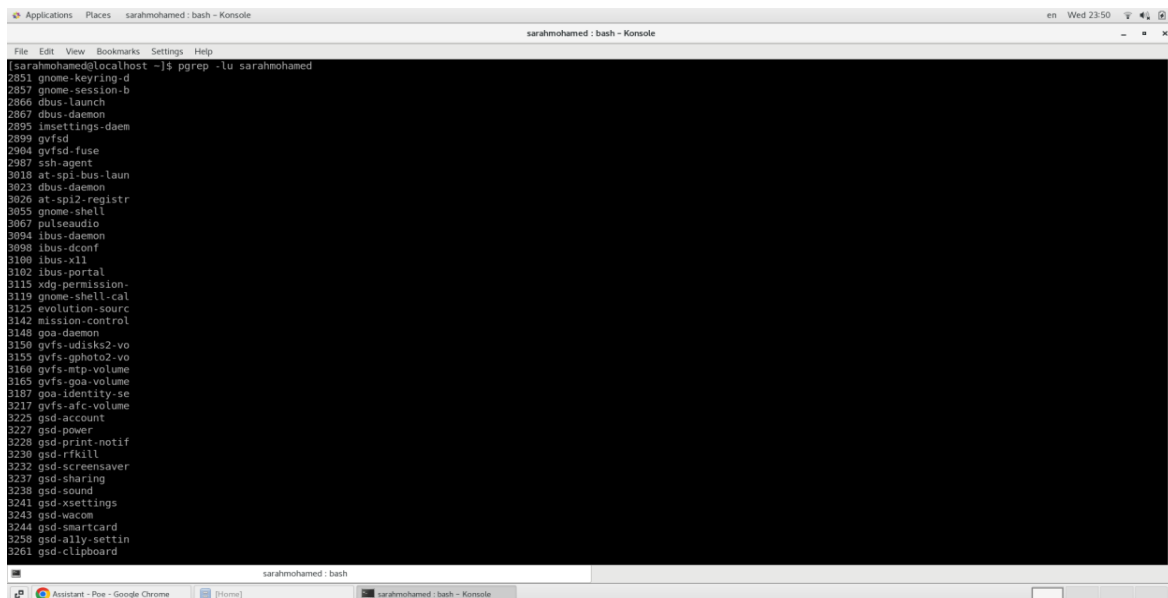
15. Kill the sleep command.



A terminal window titled "sarahmohamed : bash - Konsole" showing the execution of process management commands. The user runs `sleep 100`, which is then terminated with `kill %1`. The terminal output shows the process being stopped and then terminated.

```
sarahmohamed@localhost ~]$ sleep 100
^Z
[1]+  Stopped                  sleep 100
sarahmohamed@localhost ~]$ kill %1
[1]+  Terminated              sleep 100
sarahmohamed@localhost ~]$
```

16.Display your processes only



A terminal window titled "sarahmohamed : bash - Konsole" showing the output of the `pgrep -lu sarahmohamed` command. The output lists various system and user processes running under the sarahmohamed user, including gnome-keyring-d, gnome-session-b, dbus-launch, dbus-daemon, lmsettings-daemon, gvfsd, gvfsd-fuse, ssh-agent, at-spi-bus-laun, dbus-daemon, at-spi2-registr, gnome-shell, pulseaudio, ibus-daemon, ibus-dconf, ibus-x11, ibus-portal, xdg-permission-, gnome-shell-cal, evolution-sourc, mission-control, goa-daemon, gvfs-udisks2-vo, gvfs-gphoto2-vo, gvfs-mtp-volume, gvfs-goa-volume, goa-identity-se, gvfs-afc-volume, gsd-account, gsd-power, gsd-print-notif, gsd-rfkill, gsd-screensaver, gsd-sharing, gsd-sound, gsd-xsettings, gsd-wacom, gsd-smartcard, gsd-ally-settin, and gsd-clipboard.

```
sarahmohamed@localhost ~]$ pgrep -lu sarahmohamed
2851 gnome-keyring-d
2857 gnome-session-b
2866 dbus-launch
2867 dbus-daemon
2895 lmsettings-daemon
2899 gvfsd
2904 gvfsd-fuse
2987 ssh-agent
3018 at-spi-bus-laun
3023 dbus-daemon
3026 at-spi2-registr
3055 gnome-shell
3067 pulseaudio
3094 ibus-daemon
3098 ibus-dconf
3100 ibus-x11
3102 ibus-portal
3115 xdg-permission-
3119 gnome-shell-cal
3125 evolution-sourc
3142 mission-control
3140 goa-daemon
3150 gvfs-udisks2-vo
3155 gvfs-gphoto2-vo
3160 gvfs-mtp-volume
3165 gvfs-goa-volume
3187 goa-identity-se
3217 gvfs-afc-volume
3225 gsd-account
3227 gsd-power
3228 gsd-print-notif
3230 gsd-rfkill
3232 gsd-screensaver
3237 gsd-sharing
3238 gsd-sound
3241 gsd-xsettings
3243 gsd-wacom
3244 gsd-smartcard
3258 gsd-ally-settin
3261 gsd-clipboard
```



```
Applications Places sarahmohamed : bash - Konsole en Wed 23:57
sarahmohamed : bash - Konsole
File Edit View Bookmarks Settings Help
[sarahmohamed@localhost ~]$ ps -u sarahmohamed
PID TTY TIME CMD
2851 ? 00:00:00 gnome-keyring-d
2857 ? 00:00:00 gnome-session-b
2866 ? 00:00:00 dbus-launch
2867 ? 00:00:00 dbus-daemon
2895 ? 00:00:00 imsettings-daem
2899 ? 00:00:00 gvfsd
2904 ? 00:00:00 gvfsd-fuse
2987 ? 00:00:00 ssh-agent
3018 ? 00:00:00 at-spi-bus-laun
3023 ? 00:00:00 dbus-daemon
3026 ? 00:00:02 at-spi2-registr
3025 ? 00:00:07 gnome-shell
3067 ? 00:00:07 pulseaudio
3094 ? 00:00:06 ibus-daemon
3098 ? 00:00:00 ibus-dconf
3100 ? 00:00:00 ibus-x11
3102 ? 00:00:00 ibus-portal
3115 ? 00:00:00 xdg-permission-
3119 ? 00:00:00 gnome-shell-cal
3125 ? 00:00:00 evolution-sourc
3142 ? 00:00:01 mission-control
3148 ? 00:00:00 goa-daemon
3150 ? 00:00:00 gvfs-udisks2-vo
3155 ? 00:00:00 gvfs-gphoto2-vo
3160 ? 00:00:00 gvfs-mtp-volume
3165 ? 00:00:00 gvfs-goa-volume
3187 ? 00:00:00 goa-identity-se
3217 ? 00:00:00 gvfs-afc-volume
3225 ? 00:00:00 gsd-account
3227 ? 00:00:00 gsd-power
3228 ? 00:00:00 gsd-print-notif
3230 ? 00:00:00 gsd-rfkill
3232 ? 00:00:00 gsd-screensaver
3237 ? 00:00:01 gsd-sharing
3238 ? 00:00:00 gsd-sound
3241 ? 00:00:00 gsd-xsettings
3243 ? 00:00:00 gsd-wacom
3244 ? 00:00:05 gsd-smartcard
3258 ? 00:00:00 gsd-ally-settin
```

17.Display all processes except yours

```
Applications Places sarahmohamed : bash - Konsole en Wed 23:51
sarahmohamed : bash - Konsole
File Edit View Bookmarks Settings Help
[sarahmohamed@localhost ~]$ pgrep -vlu sarahmohamed
1 systemd
2 kthreadd
4 kworker/0:0H
6 ksoftirqd/0
7 migration/0
8 rcu_bh
9 rcu_sched
10 lru-add-drain
11 watchdog/0
12 watchdog/1
13 migration/1
14 ksoftirqd/1
16 kworker/1:0H
17 watchdog/2
18 migration/2
19 ksoftirqd/2
21 kworker/2:0H
22 watchdog/3
23 migration/3
24 ksoftirqd/3
26 kworker/3:0H
27 watchdog/4
28 migration/4
29 ksoftirqd/4
31 kworker/4:0H
32 watchdog/5
33 migration/5
34 ksoftirqd/5
36 kworker/5:0H
37 watchdog/6
38 migration/6
39 ksoftirqd/6
40 kworker/6:0H
41 kworker/6:0H
42 watchdog/7
43 migration/7
44 ksoftirqd/7
46 kworker/7:0H
48 kdevtmpfs
49 netns
```

```
Applications  Places  sarahmohamed : bash - Konsole  en  Wed 23:57  [Home]  sarahmohamed : bash - Konsole

File Edit View Bookmarks Settings Help
[sarahmohamed@localhost ~]$ ps -U sarahmohamed -N
PID TTY TIME CMD
1 ? 00:00:04 systemd
2 ? 00:00:00 kthreadd
4 ? 00:00:00 kworker/0:0H
6 ? 00:00:00 ksoftirq/0
7 ? 00:00:00 migration/0
8 ? 00:00:00 rcu_bh
9 ? 00:00:00 rcu_sched
10 ? 00:00:00 lru-add-drain
11 ? 00:00:00 watchdog/0
12 ? 00:00:00 watchdog/1
13 ? 00:00:00 migration/1
14 ? 00:00:00 ksoftirq/1
16 ? 00:00:00 kworker/1:0H
17 ? 00:00:00 watchdog/2
18 ? 00:00:00 migration/2
19 ? 00:00:00 ksoftirq/2
21 ? 00:00:00 kworker/2:0H
22 ? 00:00:00 watchdog/3
23 ? 00:00:00 migration/3
24 ? 00:00:00 ksoftirq/3
26 ? 00:00:00 kworker/3:0H
27 ? 00:00:00 watchdog/4
28 ? 00:00:00 migration/4
29 ? 00:00:00 ksoftirq/4
31 ? 00:00:00 kworker/4:0H
32 ? 00:00:00 watchdog/5
33 ? 00:00:00 migration/5
34 ? 00:00:00 ksoftirq/5
36 ? 00:00:00 kworker/5:0H
37 ? 00:00:00 watchdog/6
38 ? 00:00:00 migration/6
39 ? 00:00:00 ksoftirq/6
40 ? 00:00:00 kworker/6:0H
41 ? 00:00:00 kworker/6:0H
42 ? 00:00:00 watchdog/7
43 ? 00:00:00 migration/7
44 ? 00:00:00 ksoftirq/7
46 ? 00:00:00 kworker/7:0H
48 ? 00:00:00 kdevtmpfs

sarahmohamed : bash
```

18. Use the pgrep command to list your processes only

```
Applications  Places  sarahmohamed : bash - Konsole  en  Wed 23:50  [Home]  sarahmohamed : bash - Konsole

File Edit View Bookmarks Settings Help
[sarahmohamed@localhost ~]$ pgrep -lu sarahmohamed
2851 gnome-keyring-d
2857 gnome-session-b
2866 dbus-launch
2867 dbus-daemon
2895 lnsettings-daem
2899 gvfsd
2984 gvfsd-fuse
2987 ssh-agent
3018 at-spi-bus-laun
3023 dbus-daemon
3026 at-spi2-registr
3055 gnome-shell
3067 pulseaudio
3094 ibus-daemon
3098 ibus-dconf
3100 ibus-x11
3102 ibus-portal
3115 xdg-permission-
3119 gnome-shell-cal
3125 evolution-sourc
3142 mission-control
3148 goa-daemon
3150 gvfs-udisks2-vo
3155 gvfs-gphoto2-vo
3160 gvfs-mtp-volume
3165 gvfs-goa-volume
3187 goa-identity-se
3217 gvfs-afc-volume
3225 gsd-account
3227 gsd-power
3228 gsd-print-notif
3230 gsd-rfkill
3232 gsd-screensaver
3237 gsd-sharing
3238 gsd-sound
3241 gsd-xsettings
3243 gsd-wacom
3244 gsd-smartcard
3258 gsd-ally-settin
3261 gsd-clipboard

sarahmohamed : bash
```

19. Kill your processes only.

