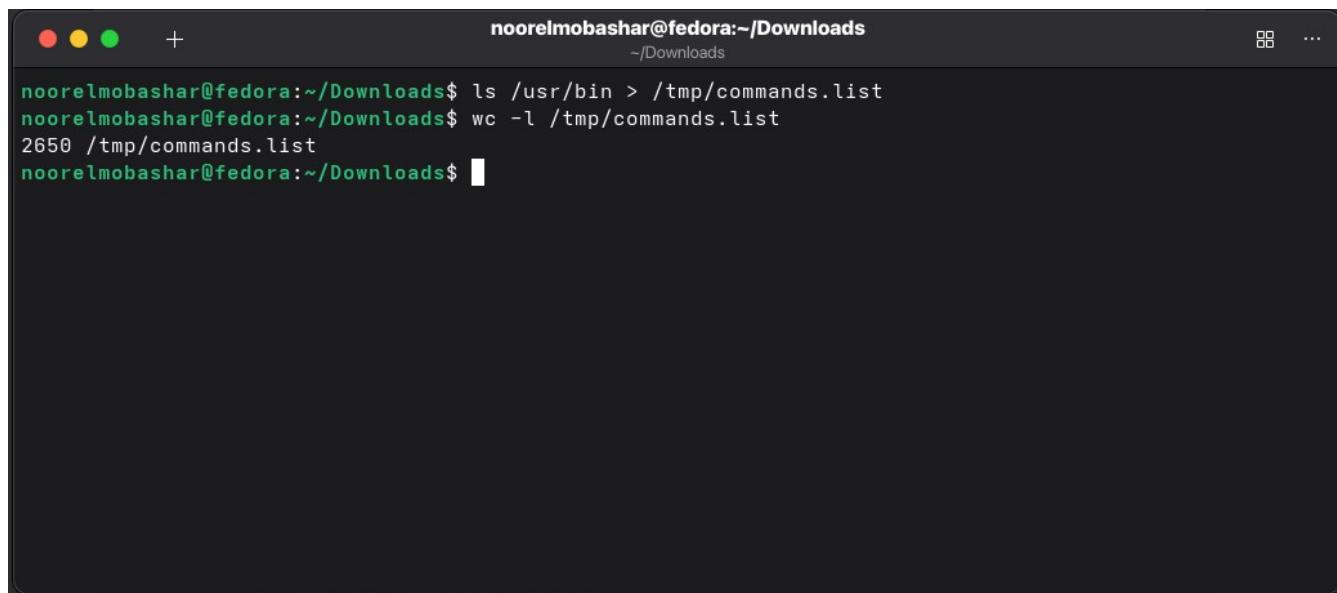


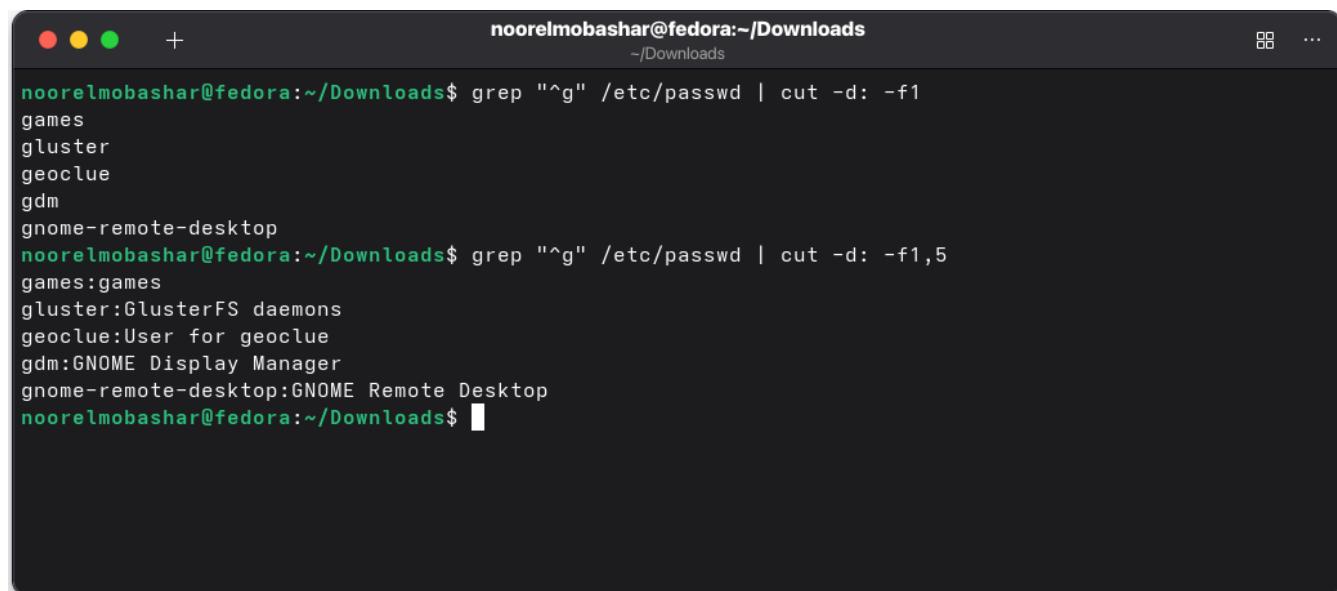
Name: Nooreldeen Ayman Mohammed Elmobashar
Track: Open Source
Branch: ITI Mansoura

1. List the user commands and redirect the output to /tmp/commands.list
2. Count the number of user commands



```
noorelmobashar@fedora:~/Downloads$ ls /usr/bin > /tmp/commands.list
noorelmobashar@fedora:~/Downloads$ wc -l /tmp/commands.list
2650 /tmp/commands.list
noorelmobashar@fedora:~/Downloads$
```

3. Get all the users names whose first character in their login is ‘g’.
4. Get the logins name and full names (comment) of logins starts with “g”.



```
noorelmobashar@fedora:~/Downloads$ grep '^g' /etc/passwd | cut -d: -f1
games
gluster
geoclue
gdm
gnome-remote-desktop
noorelmobashar@fedora:~/Downloads$ grep '^g' /etc/passwd | cut -d: -f1,5
games:games
gluster:GlusterFS daemons
geoclue:User for geoclue
gdm:GNOME Display Manager
gnome-remote-desktop:GNOME Remote Desktop
noorelmobashar@fedora:~/Downloads$
```

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

```
noorelmobashar@fedora:~/Downloads$ grep "^g" /etc/passwd | cut -d: -f1,5 | sort -t: -k2 > sorted_g_users.txt
noorelmobashar@fedora:~/Downloads$ cat sorted_g_users.txt
games:games
gluster:GlusterFS daemons
gdm:GNOME Display Manager
gnome-remote-desktop:GNOME Remote Desktop
geoclue:User for geoclue
noorelmobashar@fedora:~/Downloads$
```

6. Write two commands: first: to search for all files on the system that named .bash_profile. Second: sorts the output of ls command on / recursively, Saving their output and error in 2 different files and sending them to the background.

```
noorelmobashar@fedora:~/Downloads$ find / -name ".bash_profile" 2>/dev/null
/home/noorelmobashar/.bash_profile
/etc/skel/.bash_profile
/usr/share/rootfiles/.bash_profile
noorelmobashar@fedora:~/Downloads$ ls -R / | sort > output_files.txt 2> error_log.txt &
```

```
noorelmobashar@fedora:~/Downloads
~/Downloads

ice-KwrQsO': Permission denied
ls: cannot open directory '/var/tmp/systemd-private-8b8347e939d64cb4a8723b394ca5176c-pcsd.service-U2W
xiw': Permission denied
ls: cannot open directory '/var/tmp/systemd-private-8b8347e939d64cb4a8723b394ca5176c-polkit.service-Yr
FsK5': Permission denied
ls: cannot open directory '/var/tmp/systemd-private-8b8347e939d64cb4a8723b394ca5176c-rtkit-daemon.serv
ice-y6Jy3g': Permission denied
ls: cannot open directory '/var/tmp/systemd-private-8b8347e939d64cb4a8723b394ca5176c-switcheroo-contro
l.service-YghvvZ': Permission denied
ls: cannot open directory '/var/tmp/systemd-private-8b8347e939d64cb4a8723b394ca5176c-systemd-logind.se
rvice-HQZDNR': Permission denied
ls: cannot open directory '/var/tmp/systemd-private-8b8347e939d64cb4a8723b394ca5176c-systemd-resolved.
service-LxNHqZ': Permission denied
ls: cannot open directory '/var/tmp/systemd-private-8b8347e939d64cb4a8723b394ca5176c-upower.service-gV
lyvK': Permission denied

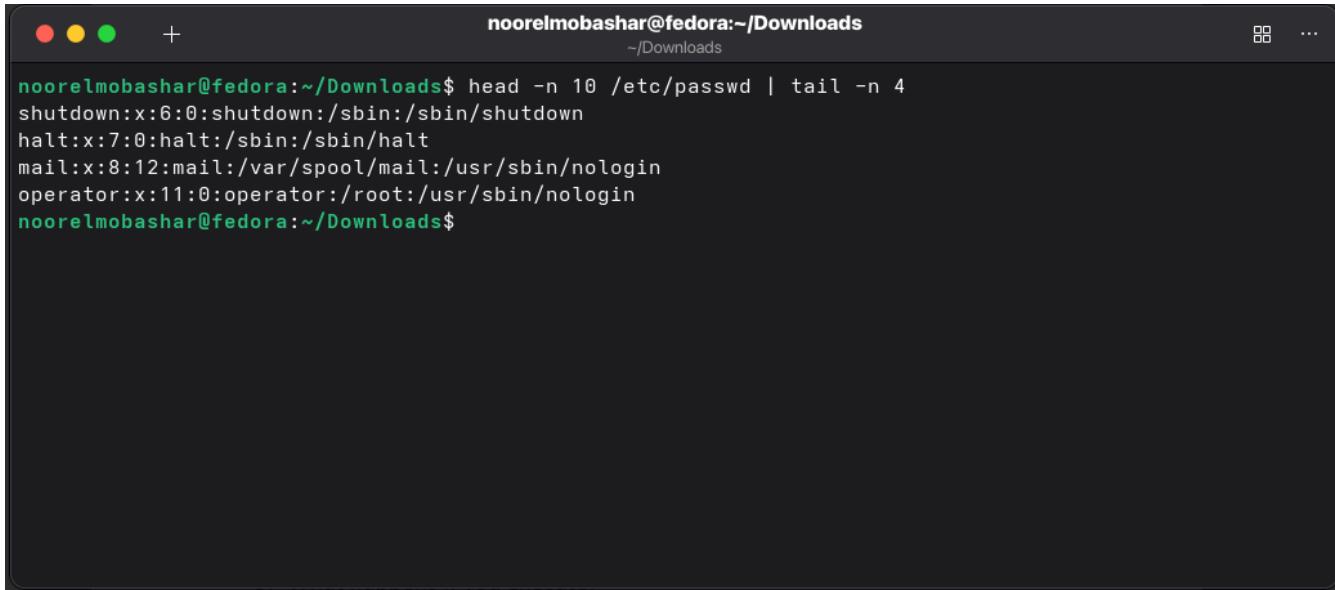
[1]+ Done ls --color=auto -R / | sort > output_files.txt 2> error_log.txt
noorelmobashar@fedora:~/Downloads$
```

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

```
noorelmobashar@fedora:~/Downloads
~/Downloads

noorelmobashar@fedora:~/Downloads$ who | wc -l
2
noorelmobashar@fedora:~/Downloads$
```

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



```
noorelmobashar@fedora:~/Downloads$ head -n 10 /etc/passwd | tail -n 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:/usr/sbin/nologin
operator:x:11:0:operator:/root:/usr/sbin/nologin
noorelmobashar@fedora:~/Downloads$
```

9. What happens if you execute:

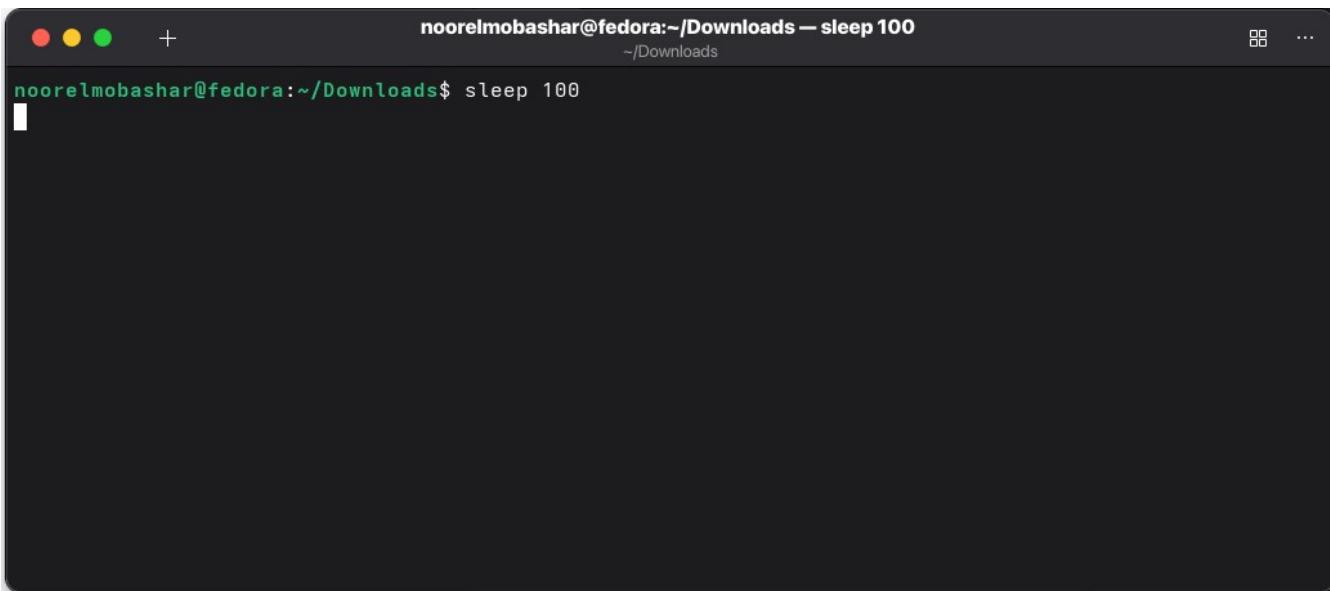
```
cat filename1 | cat filename2
ls | rm
ls /etc/passwd | wc -l
```

For the first command it will show only filename2 information, because it will ignore the first command output.

For the second command it will result in an error, as the files will be listed, but the rm needs more argument which is the file to be deleted.

For the third command it will list the file /etc/passwd then wc -l will count it.

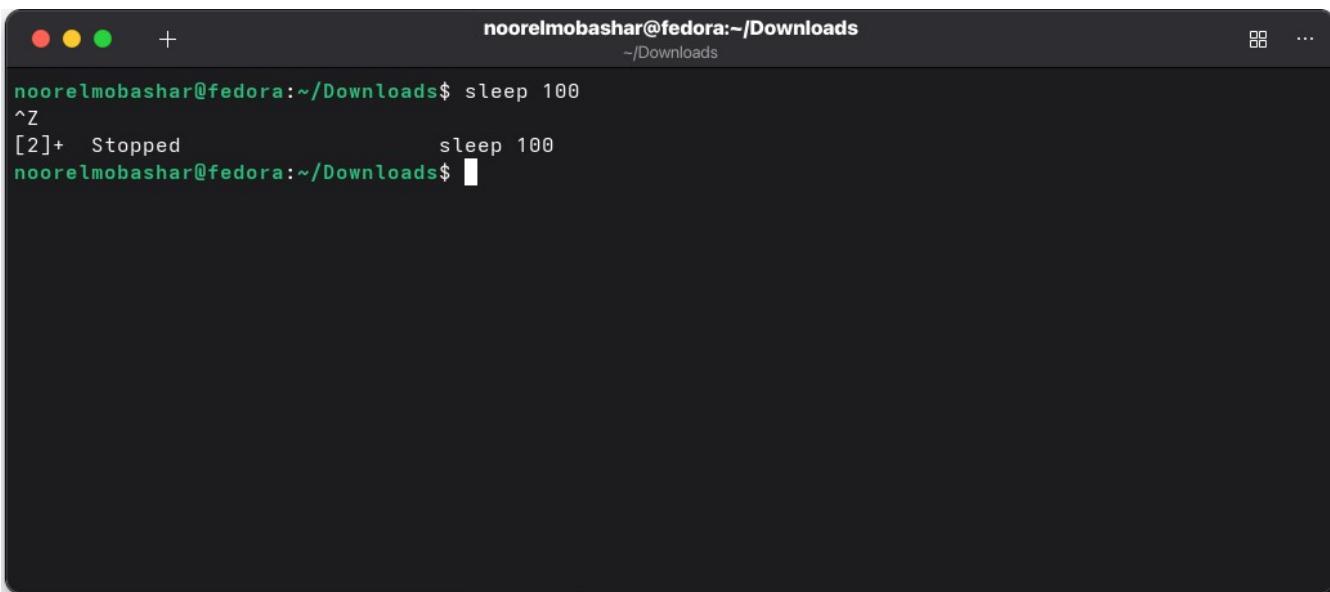
10.Issue the command sleep 100.



noorelmobashar@fedora:~/Downloads — sleep 100
~/Downloads

```
noorelmobashar@fedora:~/Downloads$ sleep 100
```

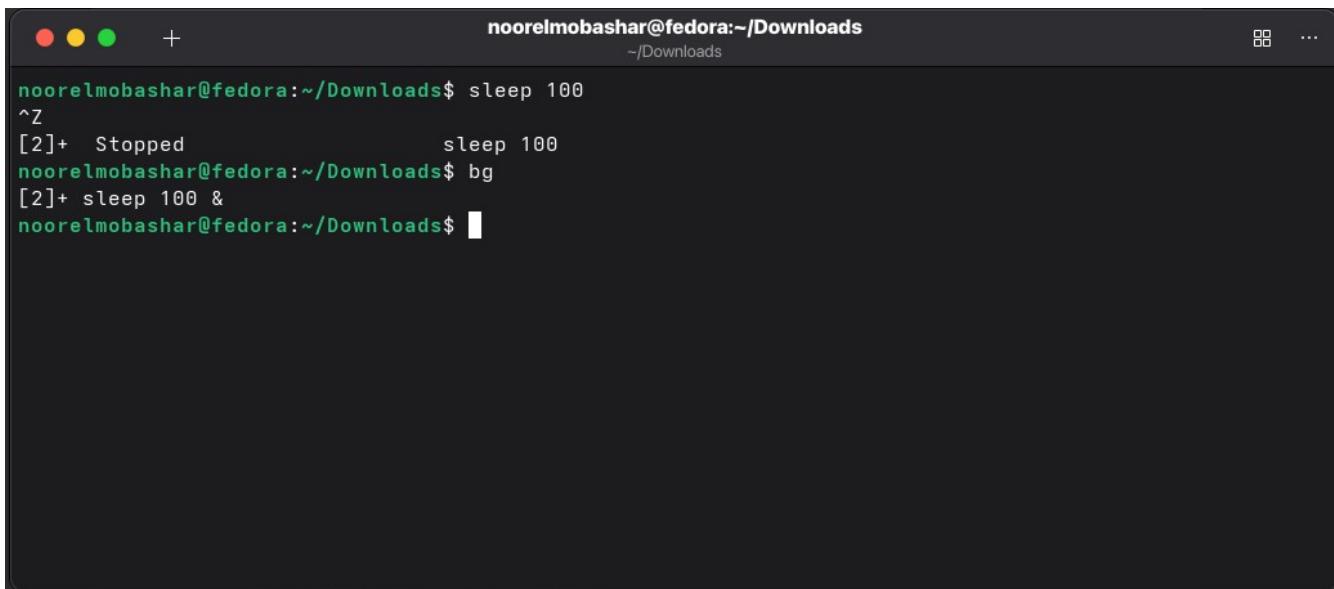
11.Stop the last command.



noorelmobashar@fedora:~/Downloads — sleep 100
~/Downloads

```
noorelmobashar@fedora:~/Downloads$ sleep 100
^Z
[2]+  Stopped                  sleep 100
noorelmobashar@fedora:~/Downloads$
```

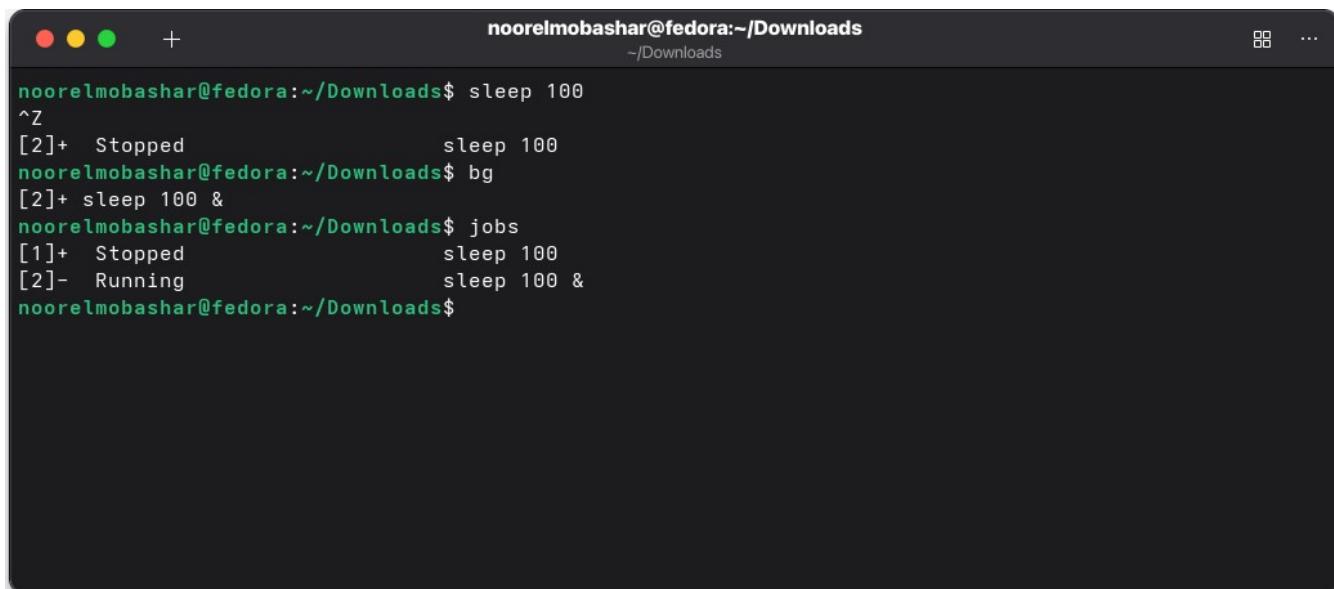
12.Resume the last command in the background



A screenshot of a terminal window titled "noorelmobashar@fedora:~/Downloads". The window shows a command-line session where a user runs "sleep 100" and sends it to the background with "bg". The command "[2]+ sleep 100" is listed as stopped in the background.

```
noorelmobashar@fedora:~/Downloads$ sleep 100
^Z
[2]+  Stopped                  sleep 100
noorelmobashar@fedora:~/Downloads$ bg
[2]+ sleep 100 &
noorelmobashar@fedora:~/Downloads$
```

13.Issue the jobs command and see its output.



A screenshot of a terminal window titled "noorelmobashar@fedora:~/Downloads". The user has run "sleep 100" and sent it to the background. They then run "jobs" to check the status of their background job. The output shows two entries: "[1]+ Stopped" and "[2]- Running".

```
noorelmobashar@fedora:~/Downloads$ sleep 100
^Z
[2]+  Stopped                  sleep 100
noorelmobashar@fedora:~/Downloads$ bg
[2]+ sleep 100 &
noorelmobashar@fedora:~/Downloads$ jobs
[1]+  Stopped                  sleep 100
[2]-  Running                  sleep 100 &
noorelmobashar@fedora:~/Downloads$
```

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

```
noorelmobashar@fedora:~/Downloads$ sleep 100
^Z
[2]+  Stopped                  sleep 100
noorelmobashar@fedora:~/Downloads$ bg
[2]+ sleep 100 &
noorelmobashar@fedora:~/Downloads$ jobs
[1]+  Stopped                  sleep 100
[2]- Running                  sleep 100 &
noorelmobashar@fedora:~/Downloads$ fg
sleep 100
[2] Done                      sleep 100
noorelmobashar@fedora:~/Downloads$ // The command has finished i will not send it back to bg :)
```

15.Kill the sleep command.

```
noorelmobashar@fedora:~/Downloads$ pkill sleep
noorelmobashar@fedora:~/Downloads$
```

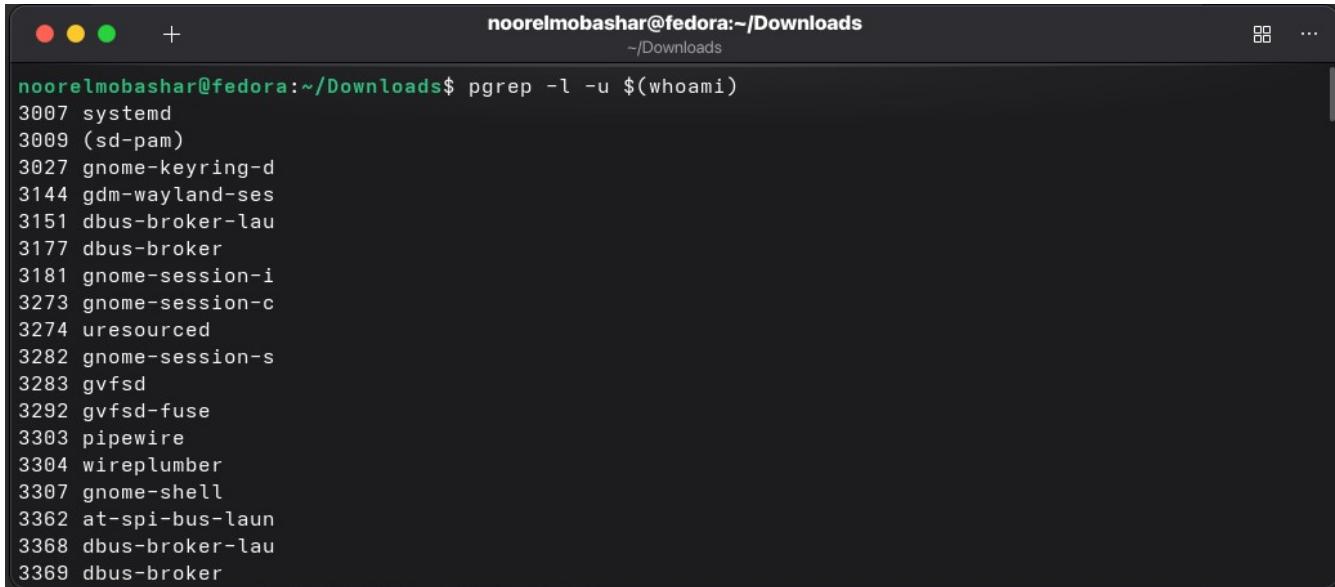
16.Display your processes only

```
noorelmobashar@fedora:~/Downloads$ ps -u $(whoami)
 PID TTY      TIME CMD
 3007 ?        00:00:01 systemd
 3009 ?        00:00:00 (sd-pam)
 3027 ?        00:00:00 gnome-keyring-d
 3144 tty2     00:00:00 gdm-wayland-ses
 3151 ?        00:00:00 dbus-broker-lau
 3177 ?        00:00:01 dbus-broker
 3181 tty2     00:00:00 gnome-session-i
 3273 ?        00:00:00 gnome-session-c
 3274 ?        00:00:00 uresourced
 3282 ?        00:00:00 gnome-session-s
 3283 ?        00:00:00 gvfsd
 3292 ?        00:00:00 gvfsd-fuse
 3303 ?        00:00:23 pipewire
 3304 ?        00:00:01 wireplumber
 3307 ?        00:02:37 gnome-shell
 3362 ?        00:00:00 at-spi-bus-laun
 3368 ?        00:00:00 dbus-broker-lau
```

17. Display all processes except yours

```
noorelmobashar@fedora:~/Downloads$ ps -ef | grep -v $(whoami)
UID      PID  PPID  C STIME TTY      TIME CMD
root      1      0  0 12:50 ?        00:00:02 /usr/lib/systemd/systemd --switched-root --system
--deserialize=59 rhgb
root      2      0  0 12:50 ?        00:00:00 [kthreadd]
root      3      2  0 12:50 ?        00:00:00 [pool_workqueue_release]
root      4      2  0 12:50 ?        00:00:00 [kworker/R-rcu_gp]
root      5      2  0 12:50 ?        00:00:00 [kworker/R-sync_wq]
root      6      2  0 12:50 ?        00:00:00 [kworker/R-kvfree_rcu_reclaim]
root      7      2  0 12:50 ?        00:00:00 [kworker/R-slub_flushwq]
root      8      2  0 12:50 ?        00:00:00 [kworker/R-netns]
root     10      2  0 12:50 ?        00:00:00 [kworker/0:0H-events_highpri]
root     11      2  0 12:50 ?        00:00:00 [kworker/0:1-events]
root     13      2  0 12:50 ?        00:00:00 [kworker/R-mm_percpu_wa]
root     14      2  0 12:50 ?        00:00:01 [kworker/u64:1-btrfs-compressed-write]
root     15      2  0 12:50 ?        00:00:00 [ksoftirqd/0]
root     16      2  0 12:50 ?        00:00:00 [rcu_preempt]
root     17      2  0 12:50 ?        00:00:00 [rcu_exp_par_gp_kthread_worker/0]
root     18      2  0 12:50 ?        00:00:00 [rcu_exp_gp_kthread_worker]
```

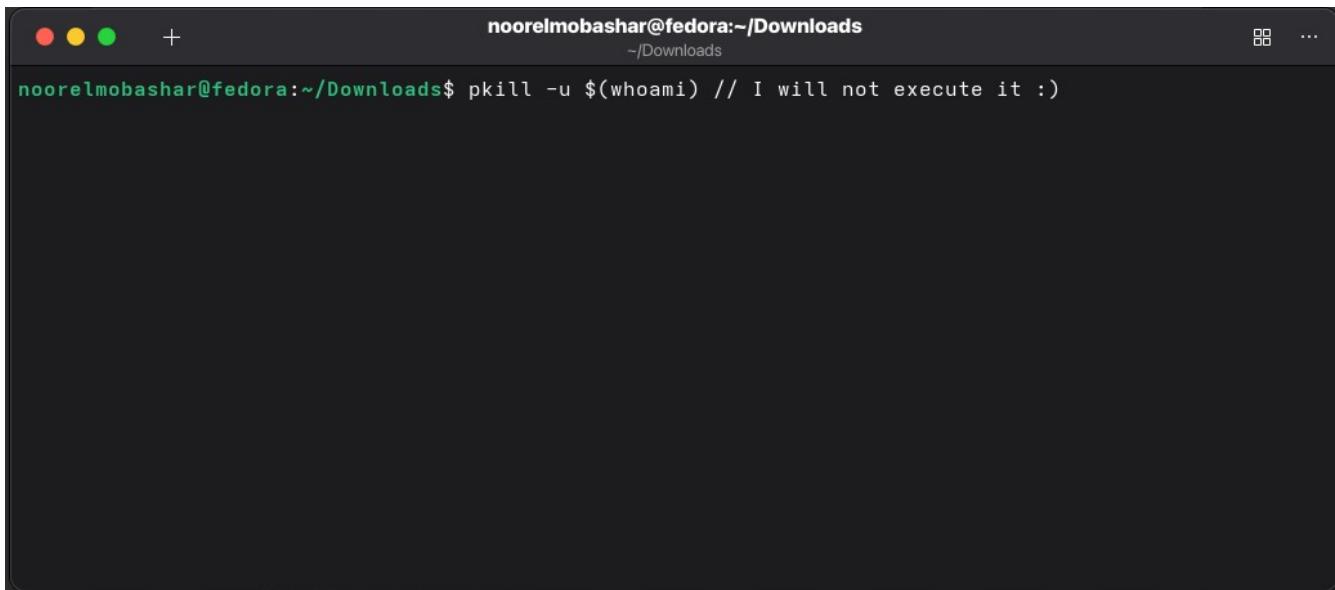
18. Use the pgrep command to list your processes only



A screenshot of a terminal window titled "noorelmobashar@fedora:~/Downloads". The command "pgrep -l -u \$(whoami)" is run, listing numerous processes running under the user's session. The output includes:

```
noorelmobashar@fedora:~/Downloads$ pgrep -l -u $(whoami)
3007 systemd
3009 (sd-pam)
3027 gnome-keyring-d
3144 gdm-wayland-ses
3151 dbus-broker-lau
3177 dbus-broker
3181 gnome-session-i
3273 gnome-session-c
3274 uresourced
3282 gnome-session-s
3283 gvfsd
3292 gvfsd-fuse
3303 pipewire
3304 wireplumber
3307 gnome-shell
3362 at-spi-bus-laun
3368 dbus-broker-lau
3369 dbus-broker
```

19.Kill your processes only.



A screenshot of a terminal window titled "noorelmobashar@fedora:~/Downloads". The command "pkkill -u \$(whoami) // I will not execute it :)" is run, which would normally kill all processes belonging to the user. The output is:

```
noorelmobashar@fedora:~/Downloads$ pkkill -u $(whoami) // I will not execute it :)
```

I guess that the next Lab we will execute sudo rm -rf / :)))