LAB4

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

```
mariam@mariam-Latitude-E6430:~$ ls /bin > /tmp/commands.list
mariam@mariam-Latitude-E6430:~$
```

2. Count the number of user commands

```
mariam@mariam-Latitude-E6430:~$ wc -l /tmp/commands.list
1502 /tmp/commands.list
mariam@mariam-Latitude-E6430:~$
```

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

```
mariam@mariam-Latitude-E6430:~$ grep ^g /etc/passwd
games:x:5:60:games:/usr/games:/usr/sbin/nologin
geoclue:x:122:129::/var/lib/geoclue:/usr/sbin/nologin
gdm:x:125:133:Gnome Display Manager:/var/lib/gdm3:/bin/false
gnome-initial-setup:x:127:65534::/run/gnome-initial-setup/:/bin/false
```

4. Get the logins name and full names (comment) of logins starts with “g”. 5.

```
mariam@mariam-Latitude-E6430:~$ cut -d: -f1,5| grep ^g /etc/passwd
games:x:5:60:games:/usr/games:/usr/sbin/nologin
geoclue:x:122:129::/var/lib/geoclue:/usr/sbin/nologin
gdm:x:125:133:Gnome Display Manager:/var/lib/gdm3:/bin/false
gnome-initial-setup:x:127:65534::/run/gnome-initial-setup/:/bin/false
```

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

```
mariam@mariam-Latitude-E6430:~$ grep ^g /etc/passwd | cut -d: -f1,5 |sort -t: -k2 > sortfile
mariam@mariam-Latitude-E6430:~$ ls
Desktop    file1      greeting.sh  mycd.sh   mydir     Public  snap          Templates
Documents  file1.txt  hell         mycp.sh   passwd    s1.sh   sortfile      Videos
Downloads  file2.txt  Music        mycv.txt  Pictures  s2.sh   sortfile.txt
mariam@mariam-Latitude-E6430:~$ cat sortfile
geoclue:
gnome-initial-setup:
games:games
gdm:Gnome Display Manager
```

6. Write two commands:

first: to search for all files on the system that named .bash_profile.

```
mariam@mariam-Latitude-E6430:~$ find -name bash_profile
mariam@mariam-Latitude-E6430:~$
```

Second: sorts the output of ls command on / recursively, Saving their output and error in 2 different files and sending them to the background.

```
mariam@mariam-Latitude-E6430:~$ sudo ls -R / >  recursive.txt 2> error
mariam@mariam-Latitude-E6430:~$ sort recursive.txt
```

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

```
mariam@mariam-Latitude-E6430:~$ users |wc -w
1
```

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

```
mariam@mariam-Latitude-E6430:~$ head -10 /etc/passwd |tail -4
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
```

9. What happens if you execute:

- cat filename1 | cat filename2

```
mariam@mariam-Latitude-E6430:~$ cat file2.txt | cat file1
test
mariam@mariam-Latitude-E6430:~$ cat file1
test
mariam@mariam-Latitude-E6430:~$
```

- ls | rm

```
mariam@mariam-Latitude-E6430:~$ ls | rm
rm: missing operand
Try 'rm --help' for more information.
mariam@mariam-Latitude-E6430:~$
```

- ls /etc/passwd | wc –l

```
mariam@mariam-Latitude-E6430:~$ ls /etc/passwd |wc -l
1
mariam@mariam-Latitude-E6430:~$
```

10.Issue the command sleep 100.

It will delay ecxcution for 100 second

11.Stop the last command.

Control +c

12.Resume the last command in the background

```
mariam@mariam-Latitude-E6430:~$ sleep 100&
[1] 22164
```

13.Issue the jobs command and see its output.

```
mariam@mariam-Latitude-E6430:~$ jobs
[1]+  Running                 sleep 100 &
```

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

```
mariam zayed:sleep 100
^Z
[1]+  Stopped                 sleep 100
mariam zayed:bg %1
[1]+ sleep 100 &
mariam zayed:fg %1
sleep 100
^Z
[1]+  Stopped                 sleep 100
mariam zayed:
```

15.Kill the sleep command.

```
mariam@mariam-Latitude-E6430:~$ kill 22931
mariam@mariam-Latitude-E6430:~$
[1]+  Terminated              sleep 100
mariam@mariam-Latitude-E6430:~$
```

16.Display your processes only

```
mariam@mariam-Latitude-E6430:~$ ps
    PID TTY          TIME CMD
  21845 pts/0    00:00:00 bash
  22284 pts/0    00:00:00 ps
[1]+  Done                    sleep 100
```

17.Display all processes except yours

```
mariam@mariam-Latitude-E6430:~$ ps -u mariam -N
    PID TTY          TIME CMD
      1 ?        00:00:02 systemd
      2 ?        00:00:00 kthreadd
      3 ?        00:00:00 rcu_gp
      4 ?        00:00:00 rcu_par_gp
      5 ?        00:00:00 netns
      7 ?        00:00:00 kworker/0:0H-events_highpri
      9 ?        00:00:00 kworker/0:1H-events_highpri
     10 ?        00:00:00 mm_percpu_wq
     11 ?        00:00:00 rcu_tasks_kthread
     12 ?        00:00:00 rcu_tasks_rude_kthread
```

18.Use the pgrep command to list your processes only

```
mariam@mariam-Latitude-E6430:~$ pgrep -u mariam
1980
1981
1987
1991
1994
1998
2006
2021
2039
2045
2061
```

19.Kill your processes only.

Pkill -U 1000