

RHSA LAB 4

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

```
nathan@nathan-G3-3500:~$  
nathan@nathan-G3-3500:~$ echo "$(ls /usr/bin)" > /tmp/commands.list  
nathan@nathan-G3-3500:~$ cat /tmp/commands.list  
[  
aa-enabled  
aa-exec  
aa-features-abi  
aconect  
acpi_listen  
add-apt-repository  
addpart  
airscan-discover  
alsabat  
alsaloop  
alsamixer  
alsatplg  
alsaucm  
amidi  
amixer  
apg  
apgbfm  
aplay  
aplaymidi  
apport-bug  
apport-cli  
apport-collect  
apport-unpack  
appres  
appstreamcli  
apropos  
apt  
apt-add-repository  
apt-cache  
apt-cdrom  
apt-config  
aptdcon  
apt-extracttemplates  
apt-ftparchive  
apt-get  
apt-key  
apt-mark  
apt-sortpkgs
```

- ## 2. Count the number of user commands

```
nathan@nathan-G3-3500:~$ ls /usr/bin/ | wc -l
1357
nathan@nathan-G3-3500:~$
```

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

```
nathan@nathan-G3-3500:~$ grep ^g /etc/passwd
games:x:5:60:games:/usr/games:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
geoclue:x:123:130:./var/lib/geoclue:/usr/sbin/nologin
gnome-initial-setup:x:125:65534:./run/gnome-initial-setup:/bin/false
gdm:x:127:133:Gnome Display Manager:/var/lib/gdm3:/bin/false
nathan@nathan-G3-3500:~$
```

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

```
nathan@nathan-G3-3500:~$ cut -f1,5 -d: /etc/passwd | grep ^g
games:games
gnats:Gnats Bug-Reporting System (admin)
geoclue:
gnome-initial-setup:
gdm:Gnome Display Manager
nathan@nathan-G3-3500:~$
```

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

```
nathan@nathan-G3-3500:~$ cut -f1,5 -d: /etc/passwd | grep ^g > userNames.txt
nathan@nathan-G3-3500:~$ cat userNames.txt
games:games
gnats:Gnats Bug-Reporting System (admin)
geoclue:
gnome-initial-setup:
gdm:Gnome Display Manager
nathan@nathan-G3-3500:~$
```

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.

```
nathan@nathan-G3-3500:~$ find / -name .bash_profile > filename1 2> filename2 &
[1] 11003
nathan@nathan-G3-3500:~$
```

```
nathan@nathan-G3-3500:~$ ls -r / | sort > filename1 2> filename2 &
[1] 11859
nathan@nathan-G3-3500:~$
```

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

```
nathan@nathan-G3-3500:~$ users | wc -l
1
nathan@nathan-G3-3500:~$
```

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

```
nathan@nathan-G3-3500:~$ head /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
nathan@nathan-G3-3500:~$
```

9. What happens if you execute:

`cat filename1 | cat filename2`

“Display the data in the file which comes after the pipe”

```
nathan@nathan-G3-3500:~$ echo "ay klam 1" > filename1
nathan@nathan-G3-3500:~$ echo "ay klam 2" > filename2
nathan@nathan-G3-3500:~$ cat filename1 | cat filename2
ay klam 2
nathan@nathan-G3-3500:~$ cat filename2 | cat filename1
ay klam 1
nathan@nathan-G3-3500:~$
```

`ls | rm`→“it cant execute command want rm operand that comes after the pipe”

```
nathan@nathan-G3-3500:~$ ls | rm
rm: missing operand
Try 'rm --help' for more information.
nathan@nathan-G3-3500:~$
```

`ls /etc/passwd | wc -l`→“the output is one because the command `wc -l` counts the lines and the output of command `ls /etc/passwd` is one”

```
nathan@nathan-G3-3500:~$ ls /etc/passwd | wc -l
1
nathan@nathan-G3-3500:~$
```

10. Issue the command `sleep 100`.

```
nathan@nathan-G3-3500:~$ sleep 100

```

11. Stop the last command.

```
nathan@nathan-G3-3500:~$ sleep 100
^C
nathan@nathan-G3-3500:~$
```

12. Resume the last command in the background

```
nathan@nathan-G3-3500:~$ sleep 100 &
[1] 9685
nathan@nathan-G3-3500:~$
```

13. Issue the `jobs` command and see its output.

```
nathan@nathan-G3-3500:~$ jobs
[1]+  Running                  sleep 100 &
nathan@nathan-G3-3500:~$
```

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

```
nathan@nathan-G3-3500:~$ fg 1
sleep 100
```

```
nathan@nathan-G3-3500:~$ sleep 300 &
[1] 9912
nathan@nathan-G3-3500:~$
```

15.Kill the sleep command.

```
nathan@nathan-G3-3500:~$ pkill sleep
[1]+  Terminated                  sleep 300
nathan@nathan-G3-3500:~$ jobs
nathan@nathan-G3-3500:~$
```

16.Display your processes only

```
nathan@nathan-G3-3500:~$ ps -u nathan
  PID TTY          TIME CMD
 1730 ?        00:00:00 systemd
 1731 ?        00:00:00 (sd-pam)
 1738 ?        00:00:00 pipewire
 1739 ?        00:00:00 pipewire-media-
 1740 ?        00:00:01 pulseaudio
 1755 ?        00:00:01 dbus-daemon
 1762 ?        00:00:00 gvfsd
 1763 ?        00:00:00 xdg-document-po
 1768 ?        00:00:00 gvfsd-fuse
 1779 ?        00:00:00 xdg-permission-
 1785 ?        00:00:00 gnome-keyring-d
 1808 ?        00:00:03 tracker-miner-f
 1817 ?        00:00:00 gvfs-udisks2-vo
 1822 ?        00:00:00 gvfs-goa-volume
 1826 ?        00:00:00 goa-daemon
```

17.Display all processes except yours

```
nathan@nathan-G3-3500:~$ top -u '!nathan'

top - 14:38:04 up 1:59, 1 user, load average: 0.33, 0.35, 0.34
Tasks: 329 total, 1 running, 326 sleeping, 0 stopped, 2 zombie
%Cpu(s): 1.9 us, 1.0 sy, 0.0 ni, 97.0 id, 0.1 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 15794.2 total, 8481.5 free, 2832.8 used, 4480.0 buff/cache
MiB Swap: 2048.0 total, 2048.0 free, 0.0 used. 11903.1 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM    TIME+  COMMAND
 1028 root        20   0   6776    4632   3324 S   0.3   0.0   0:00.36 apache2
     1 root        20   0 166824   11904   8220 S   0.0   0.1   0:01.49 systemd
     2 root        20   0         0         0      0 S   0.0   0.0   0:00.00 kthreadd
     3 root         0 -20         0         0      0 I   0.0   0.0   0:00.00 rcu_gp
     4 root         0 -20         0         0      0 I   0.0   0.0   0:00.00 rcu_par_gp
     5 root         0 -20         0         0      0 I   0.0   0.0   0:00.00 netns
     7 root         0 -20         0         0      0 I   0.0   0.0   0:00.00 kworker/0:0H-ev+
     9 root         0 -20         0         0      0 I   0.0   0.0   0:00.00 mm_percpu_wq
    10 root        20   0         0         0      0 S   0.0   0.0   0:00.00 rcu_tasks_rude_
    11 root        20   0         0         0      0 S   0.0   0.0   0:00.00 rcu_tasks_trace
    12 root        20   0         0         0      0 S   0.0   0.0   0:00.11 ksoftirqd/0
    13 root        20   0         0         0      0 I   0.0   0.0   0:03.99 rcu_sched
    14 root        rt    0         0         0      0 S   0.0   0.0   0:00.04 migration/0
    15 root       -51   0         0         0      0 S   0.0   0.0   0:00.00 idle_inject/0
    17 root        20   0         0         0      0 S   0.0   0.0   0:00.00 cpuhp/0
    18 root        20   0         0         0      0 S   0.0   0.0   0:00.00 cpuhp/1
    19 root       -51   0         0         0      0 S   0.0   0.0   0:00.00 idle_inject/1
    20 root        rt    0         0         0      0 S   0.0   0.0   0:00.12 migration/1
    21 root        20   0         0         0      0 S   0.0   0.0   0:00.08 ksoftirqd/1
```

18. Use the pgrep command to list your processes only

```
nathan@nathan-G3-3500:~$ pgrep -l -u nathan
1730 systemd
1731 (sd-pam)
1738 pipewire
1739 pipewire-media-
1740 pulseaudio
1755 dbus-daemon
1762 gvfsd
1763 xdg-document-po
1768 gvfsd-fuse
1779 xdg-permission-
1785 gnome-keyring-d
1808 tracker-miner-f
1817 gvfs-udisks2-vo
1822 gvfs-goa-volume
1826 goa-daemon
1837 goa-identity-se
1843 gvfs-gphoto2-vo
1848 gvfs-afc-volume
1853 gvfs-mtp-volume
1896 gdm-x-session
1898 Xorg
1992 gnome-session-b
2140 at-spi-bus-laun
2146 dbus-daemon
2161 gnome-session-c
2173 gnome-session-b
2196 gnome-shell
```

19. Kill your processes only.

“killall -u nathan” → terminate all processes and shut down the system