

55. Issue the command sleep 100.

```
fady@fady-virtual-machine:~$ sleep 100
```

56. Stop the last command.

```
fady@fady-virtual-machine:~$ sleep 100
^Z
[1]+  Stopped                  sleep 100
fady@fady-virtual-machine:~$
```

57. Resume the last command in the background

```
fady@fady-virtual-machine:~$ bg
[1]+ sleep 100 &
fady@fady-virtual-machine:~$
```

58. Issue the jobs command and see its output.

```
fady@fady-virtual-machine:~$ jobs
[1]+  Running                  sleep 100 &
fady@fady-virtual-machine:~$
```

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

```
fady@fady-virtual-machine:~$ fg
sleep 100
```

60. Kill the sleep command.

```
fady@fady-virtual-machine:~$ kill %1
[1]+  Stopped                  sleep 100
fady@fady-virtual-machine:~$
```

61. Display your processes only (process started by your username)

```
fady@fady-virtual-machine:~$ ps -u $USER
  PID TTY          TIME CMD
 1484 ?           00:00:00 systemd
 1485 ?           00:00:00 (sd-pam)
 1494 ?           00:00:00 pipewire
 1495 ?           00:00:00 pipewire
 1496 ?           00:00:00 wireplumber
 1498 ?           00:00:00 pipewire-pulse
 1499 ?           00:00:00 gnome-keyring-d
 1500 ?           00:00:00 dbus-daemon
 1529 ?           00:00:00 xfce4-session
 1743 ?           00:00:00 gvfsd
 1749 ?           00:00:00 gvfsd-fuse
 1751 ?           00:00:00 at-spi-bus-laun
 1765 ?           00:00:00 dbus-daemon
 1767 ?           00:00:00 xfconfd
 1774 ?           00:00:00 at-spi2-registr
 1781 ?           00:00:00 ssh-agent
 1790 ?           00:00:00 gpg-agent
 1793 ?           00:00:01 xfwm4
 1801 ?           00:00:00 xfsettingsd
 1805 ?           00:00:00 xfce4-panel
 1810 ?           00:00:00 Thunar
 1816 ?           00:00:02 xfdesktop
 1817 ?           00:00:00 panel-1-whisker
 1824 ?           00:00:00 panel-8-systray
 1825 ?           00:00:00 panel-9-notific
 1826 ?           00:00:00 panel-10-xapp-s
 1827 ?           00:00:00 panel-11-power-
 1828 ?           00:00:00 panel-12-pulsea
 1852 ?           00:00:00 applet.py
 1858 ?           00:00:00 nm-applet
 1860 ?           00:00:00 xfce4-notifyd
 1868 ?           00:00:03 mintreport-tray
 1873 ?           00:00:00 xfce4-power-man
 1876 ?           00:00:00 polkit-gnome-au
 1904 ?           00:00:01 vmtoolsd
 1906 ?           00:00:00 light-locker
 1917 ?           00:00:00 xiccd
```

62. Use the pgrep command to list your processes only

```
fady@fady-virtual-machine:~$ pgrep -u $USER
1484
1485
1494
1495
1496
1498
1499
```

63. List the user commands (in /bin) and redirect the output to /tmp/commands.list

```
fady@fady-virtual-machine:~$ ls /bin > /tmp/commands.list
fady@fady-virtual-machine:~$
```

64. (based on previous Question) Count the number of user commands

```
fady@fady-virtual-machine:~$ wc -l /tmp/commands.list
1841 /tmp/commands.list
fady@fady-virtual-machine:~$
```

## 65. Start firefox application



## 66. Send Signal kill to firefox

```
fady@fady-virtual-machine:~$ pgrep firefox
3185
fady@fady-virtual-machine:~$ kill 3185
fady@fady-virtual-machine:~$
```

## 67. Get the logins name and full names (comment) of logins starts with "gu".

```
fady@fady-virtual-machine:~$ grep '^gu' /etc/passwd | cut -d: -f1,5
fady@fady-virtual-machine:~$
```

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

```
fady@fady-virtual-machine:~$ who | wc -l
1
fady@fady-virtual-machine:~$
```

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

```
ady@fady-virtual-machine:~$ sed -n '7,10p' /etc/passwd
an:x:6:12:man:/var/cache/man:/usr/sbin/nologin
p:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
ail:x:8:8:mail:/var/mail:/usr/sbin/nologin
ews:x:9:9:news:/var/spool/news:/usr/sbin/nologin
ady@fady-virtual-machine:~$
```

## 72. Kill your processes only (be care: save lab before command execution).

```
fady@fady-virtual-machine:~$ pkill -u $USER
```

## 73. Sort /etc/passwd based on the full names of users and save output to external file.

```
fady@fady-virtual-machine:~$ sort -t: -k5 /etc/passwd > /tmp/sorted_passwd  
fady@fady-virtual-machine:~$ ls /tmp/sorted_passwd  
/tmp/sorted_passwd
```