NAME: YOUSEF ALSAYED IBRAHIM KHAMIS

1)

```
osboxes@osboxes:~$ sed -n '/lp/p' /etc/passwd
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
osboxes@osboxes:~$ ▮
```

2)by deleting third line

```
osboxes@osboxes:~$ sed '3d' /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
```

3)

Deleting last line

```
osboxes@osboxes:~$ sed '$d' /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
```

4)

```
osboxes@osboxes:~$ sed '/ip/id' /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
```
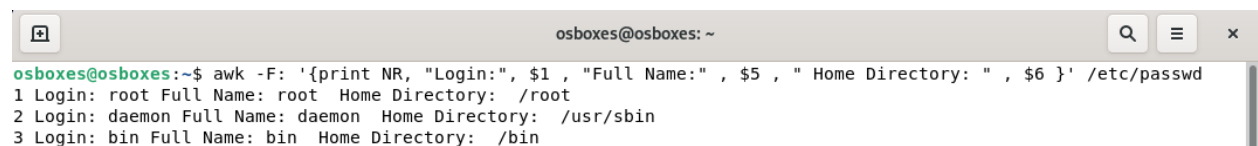
5)

```
sboxes@osboxes:~$ sed 's/\blp\b/mylp/g' /etc/passwd
oot:x:0:0:root:/root:/bin/bash
aemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
in:x:2:2:bin:/bin:/usr/sbin/nologin
ys:x:3:3:sys:/dev:/usr/sbin/nologin
ync:x:4:65534:sync:/bin:/bin/sync
```

Awk

1)

```
osboxes@osboxes:~$ awk -F: '{print $5}' /etc/passwd
root
daemon
bin
sys
sync
games
man
```
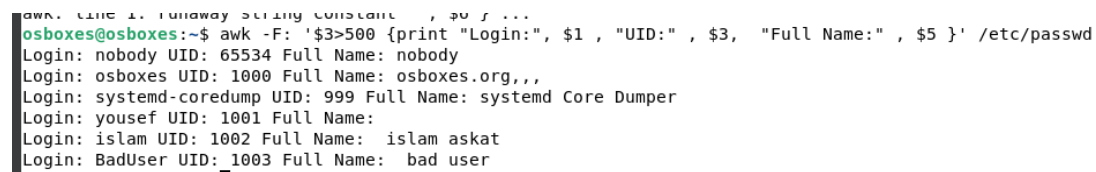
2)

```
osboxes@osboxes: ~                                    🔍  ≡   ✕
osboxes@osboxes:~$ awk -F: '{print NR, "Login:", $1 , "Full Name:" , $5 , " Home Directory: " , $6 }' /etc/passwd
1 Login: root Full Name: root  Home Directory:  /root
2 Login: daemon Full Name: daemon  Home Directory:  /usr/sbin
3 Login: bin Full Name: bin  Home Directory:  /bin
```

3)

```
awk: line 1: runaway string constant   , $0 } ...
osboxes@osboxes:~$ awk -F: '$3>500 {print "Login:", $1 , "UID:" , $3,  "Full Name:" , $5 }' /etc/passwd
Login: nobody UID: 65534 Full Name: nobody
Login: osboxes UID: 1000 Full Name: osboxes.org,,,
Login: systemd-coredump UID: 999 Full Name: systemd Core Dumper
Login: yousef UID: 1001 Full Name:
Login: islam UID: 1002 Full Name:  islam askat
Login: BadUser UID: 1003 Full Name:  bad user
```

4)

```
osboxes@osboxes:~$ awk -F: '$3=500 {print "Login:", $1 , "UID:" , $3,  "Full Name:" , $5 }' /etc/passwd
Login: root UID: 500 Full Name: root
Login: daemon UID: 500 Full Name: daemon
Login: bin UID: 500 Full Name: bin
Login: sys UID: 500 Full Name: sys
```

5)

```
osboxes@osboxes:~$ awk 'NR>=5 && NR<=15' /etc/passwd
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
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
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
osboxes@osboxes:~$
```

6)

```
osboxes@osboxes:~$ awk 'BEGIN{FS=OFS=":"} {sub(/lp/,"mylp", $0)} 1' /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
```

7)

```
osboxes@osboxes:~$ awk -F '{if($3>max) { max=$3; line=$0 }} END {print line} ' /etc/passwd
```

8)

```
osboxes@osboxes:~$ awk -F '{sum +=$3} END {print "SUM OF ACCOUNT IDs :", sum } ' /etc/passwd
```