

1) Find all the usernames that logged in from "economica" on a Sunday:

```
>> grep 'economica' last.fake | grep 'Sun' | awk '{print $1}' | sort | uniq
```

Output: boir1417

giie1411

piir1546

vlir1593

2) Find all the users that logged into the system after 11PM

```
>> awk '$7 ~ /23:/{print $1}' last.fake | sort | uniq
```

Output: piir1546

srir1568

tnir1590

vlir1593

3) Display the full names of the users having a username that starts with "m" and with a user ID divisible by 7.

```
>> grep '^m' passwd.fake | awk -F: '$3%7==0{print $5}'
```

Output: Malinescu Amalia-Greta

Martinescu Bogdan

Malinescu Bianca-Liliana

Malinescu Diana-Flavia

Malinescu Elena-Ioana

Martinescu Laurentiu

4) Display all the distinct TTYs used by user root.

```
>> awk '$1 ~ /root/{print $6}' ps.fake | sort | uniq SAU grep "root" ps.fake | awk '{print $6}' | sort | uniq
```

Output: ?

pts/2

tty1

tty2

tty3

tty4

tty5

tty6

5) Find the full names of all the users whose username ends in 88

```
>> grep "88:" fake | awk -F: '{print $5}'
```

Output: Lobodescu Amalia-Monica

Leopardescu Dan

6) Find all users whose user ID has three digits and starts with 23

```
>> grep ':23[0-9]:' fake | awk -F: '{print $5}'
```

Output: Malinescu Elena-Greta

Malinescu Elena-Ioana

Malinescu Elena-Liliana

Malinescu Elena-Monica

7) Find all usernames starting with "t" that logged on "pts/9"

```
>> grep '^t' last.fake | awk '$2 ~ /pts/9/{print $1}' SAU grep "^t" last.fake | grep "pts/9" | awk '{print $1}' | sort | uniq
```

Output: toir1583

tmir1388

toie1637

8) Find all the distinct usernames starting with "r" that are currently running programs, and display them duplicating every vowel

```
>> grep '^r' ps.fake | awk '{print $1}' | sort | uniq | sed -e 's/a/aa/' -e 's/e/ee/' -e 's/i/ii/' -e 's/o/oo/' -e 's/u/uu/'
```

Output: raarees

rooot

rpc

rpcuuseer

rtkiit

9) Display all the distinct lines left in passwd.fake after deleting all letter and digits and spaces.

```
>> sed -E 's/[ a-zA-Z0-9]//g' passwd.fake | awk '{print $0}' | sort | uniq
```

Output: :::-:////: //

:::-:////: //

10) Display all the distinct lines left in /etc/passwd after deleting all characters except "r".

```
>> sed -E 's/[^\r]//g' passwd.fake | awk '{print $0}' | sort | uniq
```

Output: r

rr

rrr

rrrr

11) Calculate the average of the PIDs of the processes currently running in the system.

```
>> awk 'BEGIN{s=0} {s+=$2} END{print s/NR}' ps.fake
```

Output: 8373.95