

LINUX: Exercises about files manipulation

Part 1

Create a file called "awards" in your home directory, containing

JESSE#EISENBERG#THE SOCIAL NETWORK#ACTOR

COLIN#FIRTH#THE KING'S SPEECH#ACTOR

HALLE#BERRY#FRANKIE AND ALICE#ACTRESS

NATALIE#PORTMAN#BLACK SWAN#ACTRESS

DARREN#FINCHER#THE SOCIAL NETWORK#DIRECTOR

ANNETTE#BENING#THE KIDS ARE ALRIGHT#ACTRESS

1. Add a new line, containing CHRISTOPHER#NOLAN#INCEPTION#DIRECTOR, at the end of the file. You should complete this exercise using commands instead of file editors.



```
> cat > awards
JESSE#EISENBERG#THE SOCIAL NETWORK#ACTOR
COLIN#FIRTH#THE KING'S SPEECH#ACTOR
HALLE#BERRY#FRANKIE AND ALICE#ACTRESS
NATALIE#PORTMAN#BLACK SWAN#ACTRESS
DARREN#FINCHER#THE SOCIAL NETWORK#DIRECTOR
ANNETTE#BENING#THE KIDS ARE ALRIGHT#ACTRESS

> cat awards
JESSE#EISENBERG#THE SOCIAL NETWORK#ACTOR
COLIN#FIRTH#THE KING'S SPEECH#ACTOR
HALLE#BERRY#FRANKIE AND ALICE#ACTRESS
NATALIE#PORTMAN#BLACK SWAN#ACTRESS
DARREN#FINCHER#THE SOCIAL NETWORK#DIRECTOR
ANNETTE#BENING#THE KIDS ARE ALRIGHT#ACTRESS

> cat >> awards
CHRISTOPHER#NOLAN#INCEPTION#DIRECTOR

> cat awards
JESSE#EISENBERG#THE SOCIAL NETWORK#ACTOR
COLIN#FIRTH#THE KING'S SPEECH#ACTOR
HALLE#BERRY#FRANKIE AND ALICE#ACTRESS
NATALIE#PORTMAN#BLACK SWAN#ACTRESS
DARREN#FINCHER#THE SOCIAL NETWORK#DIRECTOR
ANNETTE#BENING#THE KIDS ARE ALRIGHT#ACTRESS
CHRISTOPHER#NOLAN#INCEPTION#DIRECTOR
```

2. Create a file called "actors" in which you only include ACTORS.

```
> grep "ACTOR$" awards > actors

> cat actors
JESSE#EISENBERG#THE SOCIAL NETWORK#ACTOR
COLIN#FIRTH#THE KING'S SPEECH#ACTOR
```

3. Display the files which begin with a in your home directory.

```
> ls -d a*
actors  awards
```

4. Create a file called "directors" in which you only include DIRECTORS.

```
> grep "DIRECTOR$" awards > directors

> cat directors
DARREN#FINCHER#THE SOCIAL NETWORK#DIRECTOR
CHRISTOPHER#NOLAN#INCEPTION#DIRECTOR
```

5. Display the lines of "awards" containing actresses. Show the line number.

```
> grep "ACTRESS$" -n awards
3:HALLE#BERRY#FRANKIE AND ALICE#ACTRESS
4:NATALIE#PORTMAN#BLACK SWAN#ACTRESS
6:ANNETTE#BENING#THE KIDS ARE ALRIGHT#ACTRESS
```

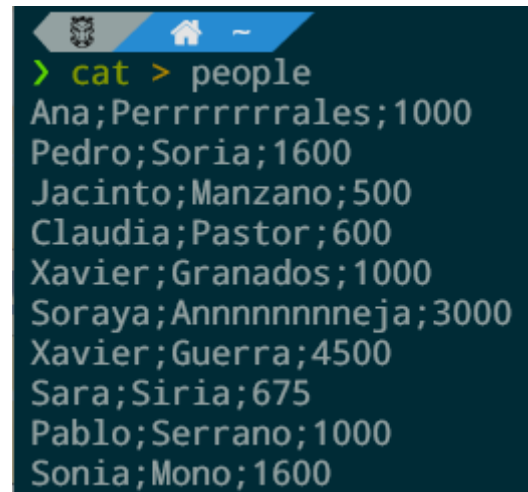
6. Display the lines in "awards" which are not directors. Show the line number.

```
> grep -vin "#DIRECTOR$" awards
1:JESSE#EISENBERG#THE SOCIAL NETWORK#ACTOR
2:COLIN#FIRTH#THE KING'S SPEECH#ACTOR
3:HALLE#BERRY#FRANKIE AND ALICE#ACTRESS
4:NATALIE#PORTMAN#BLACK SWAN#ACTRESS
6:ANNETTE#BENING#THE KIDS ARE ALRIGHT#ACTRESS
```

Part 2

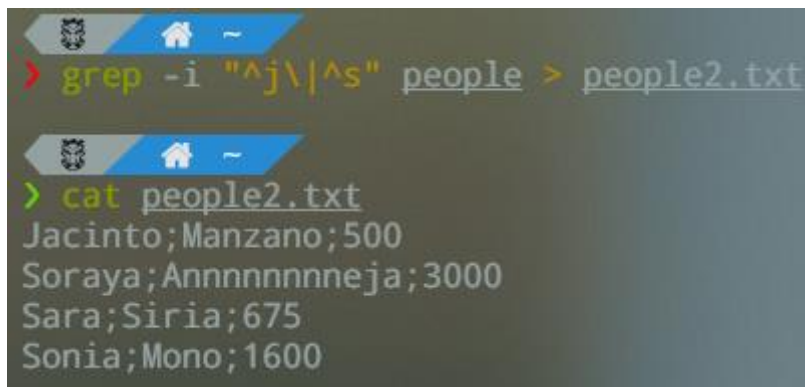
Create the file called "people.txt"

```
Ana;Perrrrrrrales;1000
Pedro;Soria;1600
Jacinto;Manzano;500
Claudia;Pastor;600
Xavier;Granados;1000
Soraya;Annnnnnnneja;3000
Xavier;Guerra;4500
Sara;Siria;675
Pablo;Serrano;1000
Sonia;Mono;1600
```

A terminal window with a dark blue background and light blue icons at the top. It shows the command 'cat > people' followed by the contents of the file 'people.txt' being written to it.

```
> cat > people
Ana;Perrrrrrrales;1000
Pedro;Soria;1600
Jacinto;Manzano;500
Claudia;Pastor;600
Xavier;Granados;1000
Soraya;Annnnnnnneja;3000
Xavier;Guerra;4500
Sara;Siria;675
Pablo;Serrano;1000
Sonia;Mono;1600
```

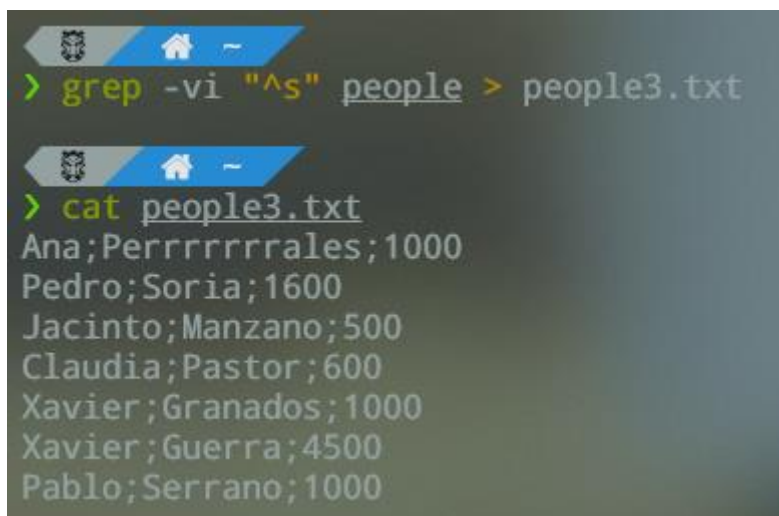
7. Create a file called "people2.txt", containing those people whose name begins with J or S.

A terminal window showing two commands. The first command uses 'grep' to filter lines from 'people' that start with 'J' or 'S' and save them to 'people2.txt'. The second command uses 'cat' to display the contents of 'people2.txt'.

```
> grep -i "^j\|^s" people > people2.txt

> cat people2.txt
Jacinto;Manzano;500
Soraya;Annnnnnnneja;3000
Sara;Siria;675
Sonia;Mono;1600
```

8. Create a file called "people3.txt", containing those people whose names do not begin with S.

A terminal window showing two commands. The first command uses 'grep' with the '-vi' option to filter lines from 'people' that do not start with 'S' and save them to 'people3.txt'. The second command uses 'cat' to display the contents of 'people3.txt'.

```
> grep -vi "^s" people > people3.txt

> cat people3.txt
Ana;Perrrrrrrales;1000
Pedro;Soria;1600
Jacinto;Manzano;500
Claudia;Pastor;600
Xavier;Granados;1000
Xavier;Guerra;4500
Pablo;Serrano;1000
```

9. Display people whose name begin with S and redirect to file to "people_s.txt"

```
> grep -i "^S" people && grep -i "^S" people | cat > people_s.txt
Soraya;Annnnnnnneja;3000
Sara;Siria;675
Sonia;Mono;1600
```

10. Display the number of people whose name begins with A (case insensitive).

```
> grep -i "^A" people
Ana;Perrrrrrrales;1000
```

11. Display how many people earn 1000 and concatenate the result in people2.txt

```
> grep "1000" people && grep "1000" people | cat >> people2.txt
Ana;Perrrrrrrales;1000
Xavier;Granados;1000
Pablo;Serrano;1000
```

Part 3

12. Create a file called list, including the contents from the current directory

```
> dir > list
```

list: Bloc de notas			
Archivo	Edición	Formato	Ver Ayuda
actors	exercises	people	people_s.txt
awards	list	people2.txt	systems
directors	mygit_Miguel_Rodriguez.sh	people3.txt	

13. Open the file to check if the content is right using cat, more and less and observe the differences

```
> cat list
actors
awards
directors
exercises
list
mygit_Miguel_Rodriguez.sh
people
people2.txt
people3.txt
people_s.txt
systems

less list
actors
awards
directors
exercises
list
mygit_Miguel_Rodriguez.sh
people
people2.txt
people3.txt
people_s.txt
systems
list (END)

> more list
actors
awards
directors
exercises
list
mygit_Miguel_Rodriguez.sh
people
people2.txt
people3.txt
people_s.txt
systems
```

14. Print the contents of the current directory in reverse alphabetical order.

```
> ls -ra
systems          directors        .wget-hsts      .oh-my-zsh      .bash_logout
people_s.txt     awards          .vscode-server  .motd_shown     .bash_history
people3.txt      actors          .tooling        .local          .
people2.txt      .zshrc.pre-oh-my-zsh .sudo_as_admin_successful .landscape      .
people           .zshrc         .sts4           .gitconfig
mygit_Miguel_Rodriguez.sh .zsh_history    .shell.pre-oh-my-zsh .config
list            .zcompdump-DESKTOP-OUP6HIH-5.8 .profile        .cache
exercises        .zcompdump     .p10k.zsh      .bashrc
```

15. Create a file called inform, containing the long format list of the files and directories in your home directory.

```
> ls -l $HOME > inform

> cat inform
total 44
-rw-r--r-- 1 migueljrm95 migueljrm95 79 Jan 23 12:31 actors
-rw-r--r-- 1 migueljrm95 migueljrm95 276 Jan 23 12:28 awards
-rw-r--r-- 1 migueljrm95 migueljrm95 80 Jan 23 12:33 directors
drwxr-xr-x 6 migueljrm95 migueljrm95 4096 Jan 19 09:55 exercises
-rw-r--r-- 1 migueljrm95 migueljrm95 0 Jan 23 13:32 inform
-rw-r--r-- 1 migueljrm95 migueljrm95 117 Jan 23 13:22 list
-rwxr-xr-x 1 migueljrm95 migueljrm95 1336 Dec 18 20:45 mygit_Miguel_Rodriguez.sh
-rw-r--r-- 1 migueljrm95 migueljrm95 194 Jan 23 12:43 people
-rw-r--r-- 1 migueljrm95 migueljrm95 139 Jan 23 13:09 people2.txt
-rw-r--r-- 1 migueljrm95 migueljrm95 138 Jan 23 12:50 people3.txt
-rw-r--r-- 1 migueljrm95 migueljrm95 56 Jan 23 13:02 people_s.txt
drwxr-xr-x 3 migueljrm95 migueljrm95 4096 Jan 17 12:42 systems
```

16. Find the word FILE in each file of your home directory, ignoring case and showing the line number (create files containing this word if you want any match).

```
> grep -iwn pablo *
grep: exercises: Is a directory
people:9:Pablo;Serrano;1000
people2.txt:7:Pablo;Serrano;1000
people3.txt:7:Pablo;Serrano;1000
grep: systems: Is a directory

> grep -iwn file *
```