SHELL

JOB 1

Comment ajouter des options à une commande ?

Sous cette forme la : ls [OPTIONS] [FICHIERS]
Exemple : ls -al

Quelles sont les deux syntaxes principales d'écriture des options pour une commande ?

Syntaxe courte (ou à une lettre) : ls -a
Syntaxe longue (ou à mots-clés) : ls --all

Le manuel de la commande ls

```
ubuntu@ubuntu:~$ man ls
```

```
LS(1)                      User Commands                      LS(1)

NAME
       ls - list directory contents

SYNOPSIS
       ls [OPTION]... [FILE]...

DESCRIPTION
       List  information  about  the FILEs (the current directory by default).
       Sort entries alphabetically if none of -cftuvSUX nor --sort  is  speci-
       fied.

       Mandatory  arguments  to  long  options are mandatory for short options
       too.

       -a, --all
              do not ignore entries starting with .

       -A, --almost-all
              do not list implied . and ..

       --author
              with -l, print the author of each file

       -b, --escape
              print C-style escapes for nongraphic characters

       --block-size=SIZE
Manual page ls(1) line 1 (press h for help or q to quit)
```
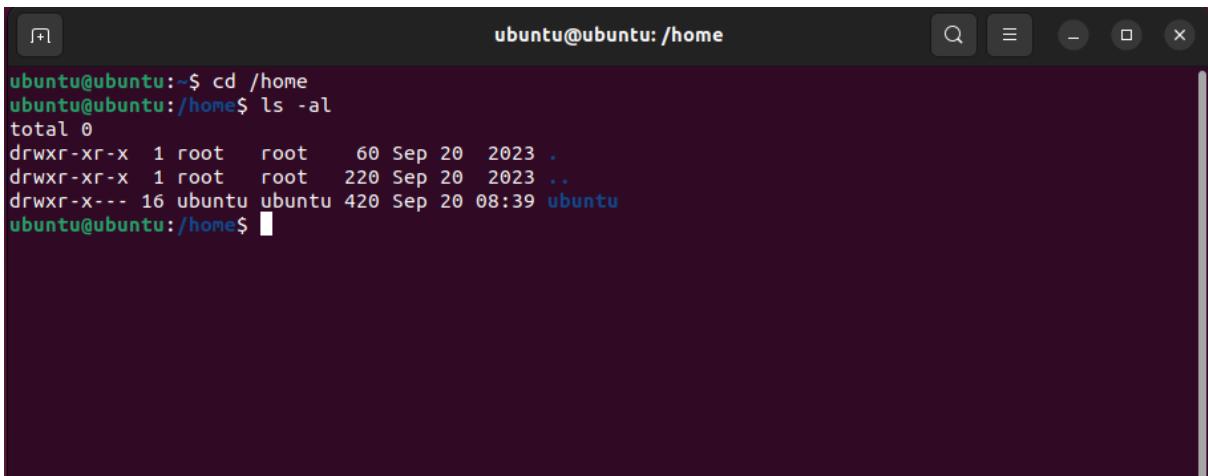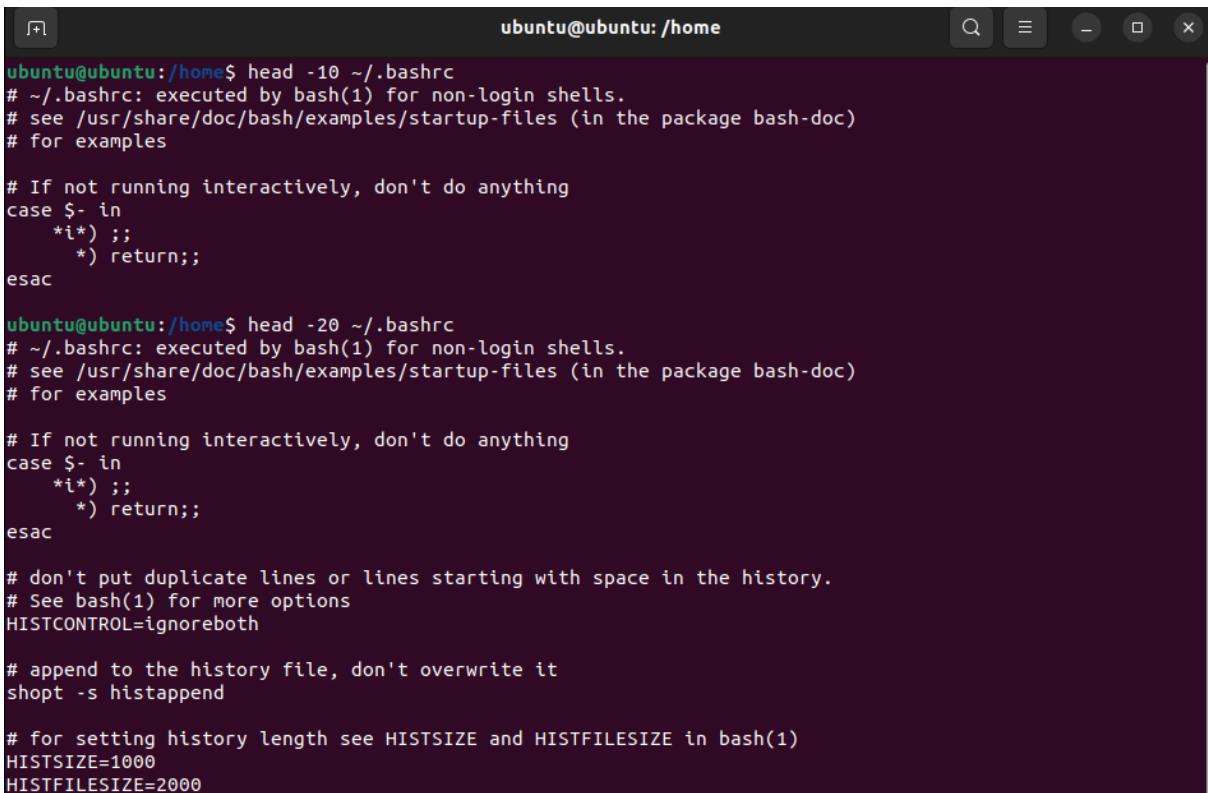
Affichage des fichiers cachés du home d'utilisateur avec les droit

```
┌─┐                          ubuntu@ubuntu: /home            Q  ≡  –  □  ✕
ubuntu@ubuntu:~$ cd /home
ubuntu@ubuntu:/home$ ls -al
total 0
drwxr-xr-x  1 root    root     60 Sep 20  2023 .
drwxr-xr-x  1 root    root    220 Sep 20  2023 ..
drwxr-x--- 16 ubuntu ubuntu  420 Sep 20 08:39 ubuntu
ubuntu@ubuntu:/home$ █
```

JOB 2

afficher les 10 premières lignes du fichier ".bashrc"
afficher les 20 premières lignes du fichier ".bashrc"

```
┌─┐                          ubuntu@ubuntu: /home            Q  ≡  –  □  ✕
ubuntu@ubuntu:/home$ head -10 ~/.bashrc
# ~/.bashrc: executed by bash(1) for non-login shells.
# see /usr/share/doc/bash/examples/startup-files (in the package bash-doc)
# for examples

# If not running interactively, don't do anything
case $- in
    *i*) ;;
      *) return;;
esac

ubuntu@ubuntu:/home$ head -20 ~/.bashrc
# ~/.bashrc: executed by bash(1) for non-login shells.
# see /usr/share/doc/bash/examples/startup-files (in the package bash-doc)
# for examples

# If not running interactively, don't do anything
case $- in
    *i*) ;;
      *) return;;
esac

# don't put duplicate lines or lines starting with space in the history.
# See bash(1) for more options
HISTCONTROL=ignoreboth

# append to the history file, don't overwrite it
shopt -s histappend

# for setting history length see HISTSIZE and HISTFILESIZE in bash(1)
HISTSIZE=1000
HISTFILESIZE=2000
```
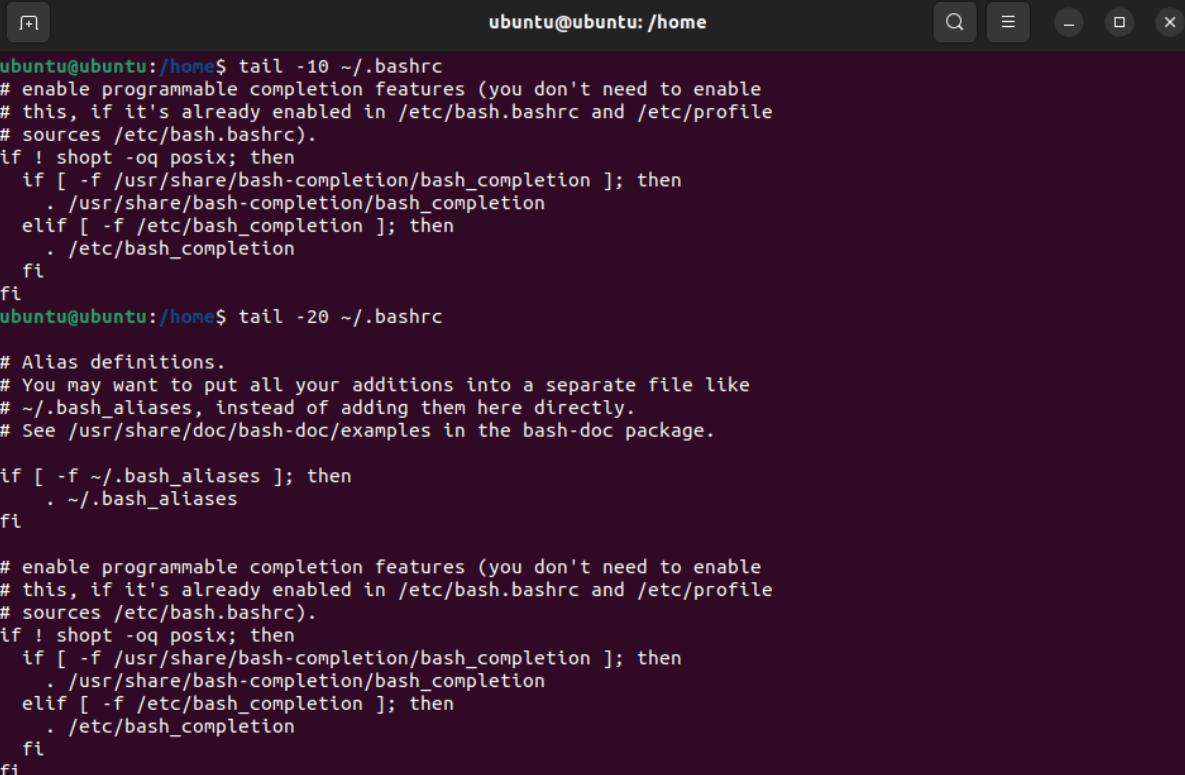
"head" est la commande utilisée pour afficher les premières lignes.
"-n " spécifie les lignes à afficher.
"~/.bashrc" est le chemin d'accès complet au fichier ".bashrc" dans /home

afficher les 10 dernières lignes du fichier ".bashrc"
afficher les 20 dernières lignes du fichier ".bashrc"

```
ubuntu@ubuntu:/home$ tail -10 ~/.bashrc
# enable programmable completion features (you don't need to enable
# this, if it's already enabled in /etc/bash.bashrc and /etc/profile
# sources /etc/bash.bashrc).
if ! shopt -oq posix; then
  if [ -f /usr/share/bash-completion/bash_completion ]; then
    . /usr/share/bash-completion/bash_completion
  elif [ -f /etc/bash_completion ]; then
    . /etc/bash_completion
  fi
fi
ubuntu@ubuntu:/home$ tail -20 ~/.bashrc

# Alias definitions.
# You may want to put all your additions into a separate file like
# ~/.bash_aliases, instead of adding them here directly.
# See /usr/share/doc/bash-doc/examples in the bash-doc package.

if [ -f ~/.bash_aliases ]; then
    . ~/.bash_aliases
fi

# enable programmable completion features (you don't need to enable
# this, if it's already enabled in /etc/bash.bashrc and /etc/profile
# sources /etc/bash.bashrc).
if ! shopt -oq posix; then
  if [ -f /usr/share/bash-completion/bash_completion ]; then
    . /usr/share/bash-completion/bash_completion
  elif [ -f /etc/bash_completion ]; then
    . /etc/bash_completion
  fi
fi
```
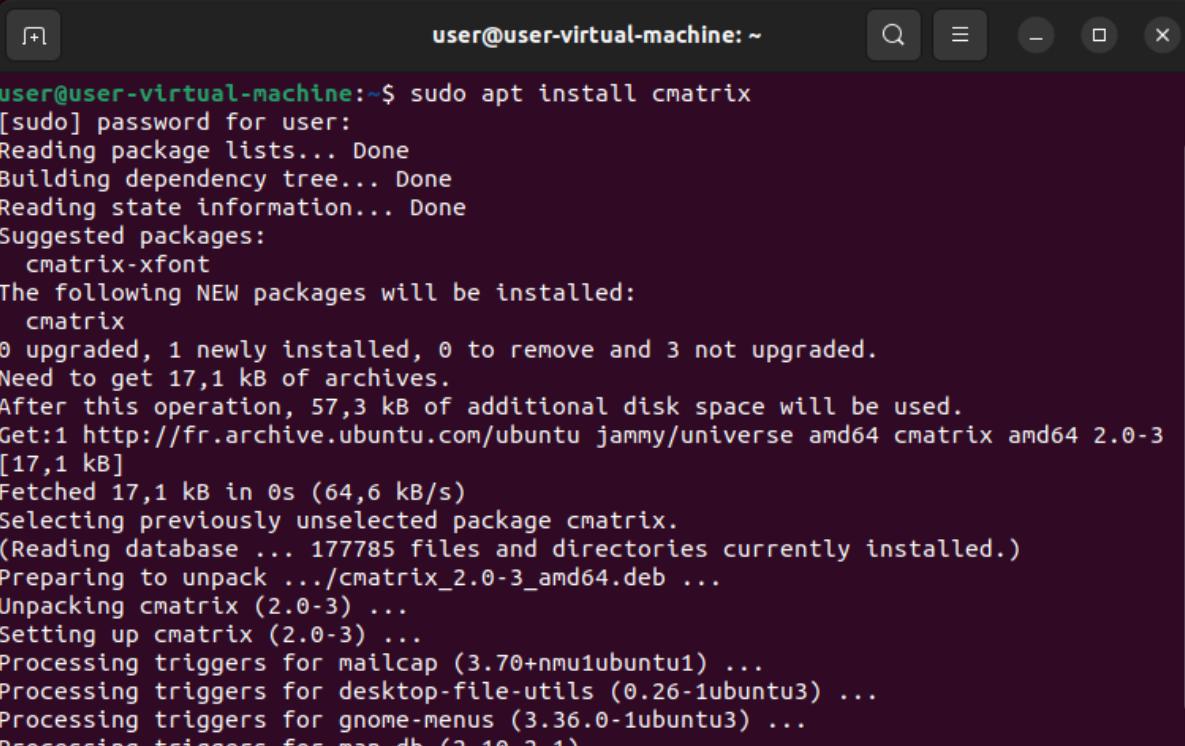
Remplacer head par tail
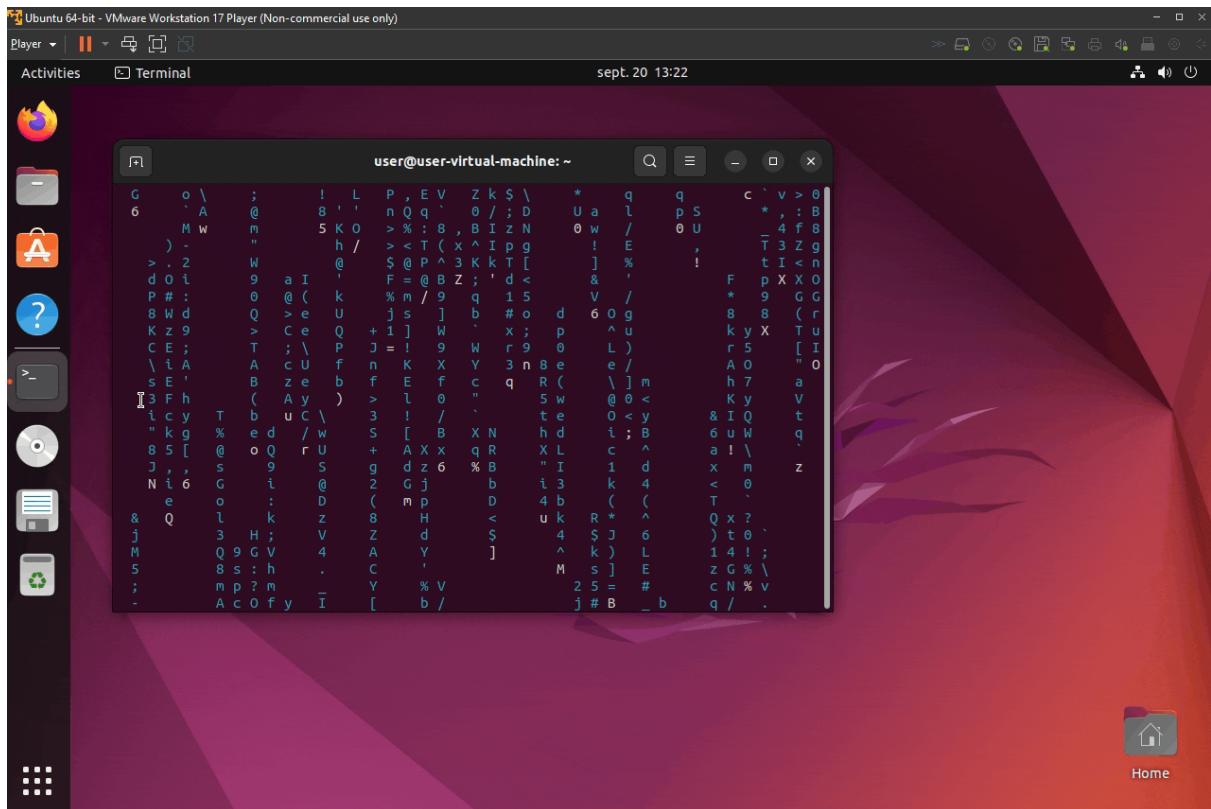
JOB 3

Installation du paquet "cmatrix"

```
user@user-virtual-machine:~$ sudo apt install cmatrix
[sudo] password for user:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Suggested packages:
  cmatrix-xfont
The following NEW packages will be installed:
  cmatrix
0 upgraded, 1 newly installed, 0 to remove and 3 not upgraded.
Need to get 17,1 kB of archives.
After this operation, 57,3 kB of additional disk space will be used.
Get:1 http://fr.archive.ubuntu.com/ubuntu jammy/universe amd64 cmatrix amd64 2.0-3 [17,1 kB]
Fetched 17,1 kB in 0s (64,6 kB/s)
Selecting previously unselected package cmatrix.
(Reading database ... 177785 files and directories currently installed.)
Preparing to unpack .../cmatrix_2.0-3_amd64.deb ...
Unpacking cmatrix (2.0-3) ...
Setting up cmatrix (2.0-3) ...
Processing triggers for mailcap (3.70+nmu1ubuntu1) ...
Processing triggers for desktop-file-utils (0.26-1ubuntu3) ...
Processing triggers for gnome-menus (3.36.0-1ubuntu3) ...
Processing triggers for man-db (2.10.2-1) ...
```

lancement du paquet cmatrix

Mise à jour du gestionnaire de paquets


```
user@user-virtual-machine:~$ sudo apt update
Get:1 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Hit:2 http://fr.archive.ubuntu.com/ubuntu jammy InRelease
Get:3 http://fr.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:4 http://fr.archive.ubuntu.com/ubuntu jammy-backports InRelease [109 kB]
Get:5 http://fr.archive.ubuntu.com/ubuntu jammy-updates/main amd64 DEP-11 Metadata
[101 kB]
Get:6 http://fr.archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [
15,6 kB]
Get:7 http://fr.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 DEP-11 Metad
ata [289 kB]
Get:8 http://fr.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metada
ta [21,8 kB]
Get:9 http://fr.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 DEP-11 Met
adata [940 B]
Get:10 http://fr.archive.ubuntu.com/ubuntu jammy-backports/main amd64 DEP-11 Metada
ta [4 932 B]
Get:11 http://fr.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 DEP-11 Me
tadata [17,8 kB]
Fetched 788 kB in 3s (259 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
3 packages can be upgraded. Run 'apt list --upgradable' to see them.
user@user-virtual-machine:~$
```

Mise à jour des différents logiciels


```
Get:10 http://fr.archive.ubuntu.com/ubuntu jammy-backports/main amd64 DEP-11 Metada
ta [4 932 B]
Get:11 http://fr.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 DEP-11 Me
tadata [17,8 kB]
Fetched 788 kB in 3s (259 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
3 packages can be upgraded. Run 'apt list --upgradable' to see them.
user@user-virtual-machine:~$ sudo apt list --upgradable
Listing... Done
gjs/jammy-updates 1.72.4-0ubuntu0.22.04.1 amd64 [upgradable from: 1.72.2-0ubuntu2]
libgjs0g/jammy-updates 1.72.4-0ubuntu0.22.04.1 amd64 [upgradable from: 1.72.2-0ubun
tu2]
xserver-xorg-video-amdgpu/jammy-updates 22.0.0-1ubuntu0.2 amd64 [upgradable from: 2
2.0.0-1ubuntu0.1]
```
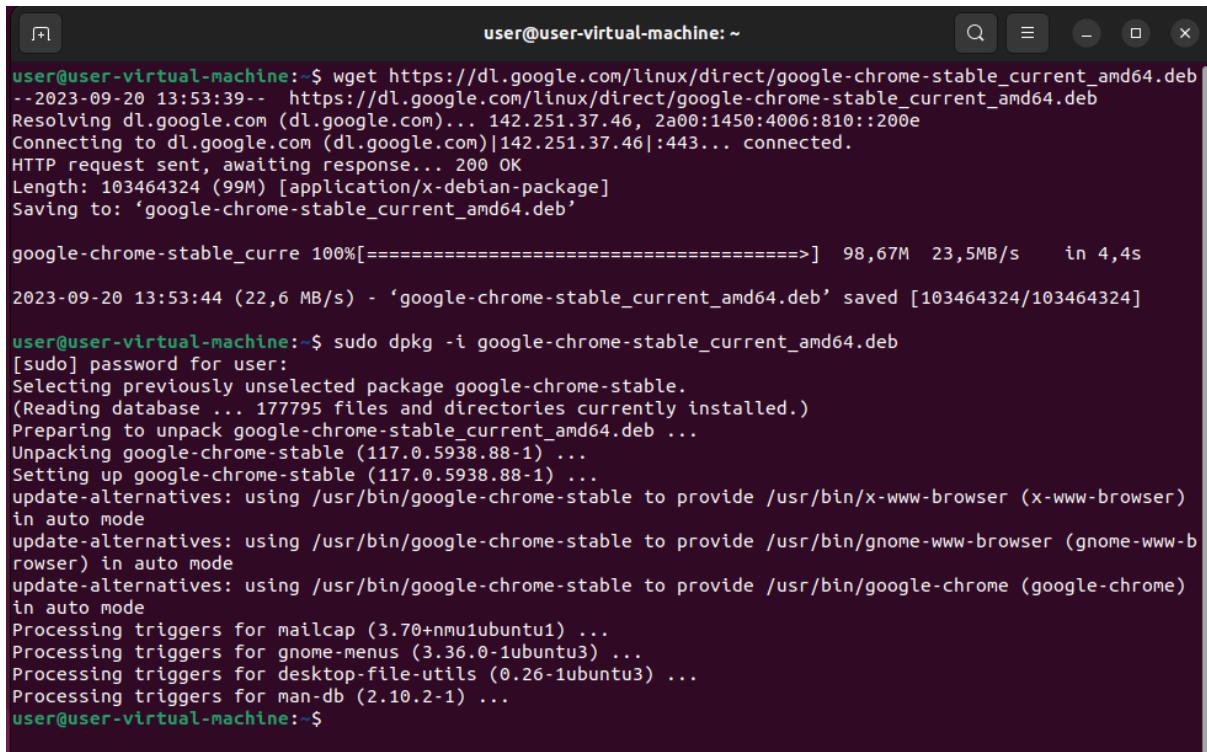
exemple : mise à jour de gjs


```
gjs/jammy-updates 1.72.4-0ubuntu0.22.04.1 amd64 [upgradable from: 1.72.2-0ubuntu2]
libgjs0g/jammy-updates 1.72.4-0ubuntu0.22.04.1 amd64 [upgradable from: 1.72.2-0ubuntu2]
xserver-xorg-video-amdgpu/jammy-updates 22.0.0-1ubuntu0.2 amd64 [upgradable from: 22.0.0-1ubuntu0.1]
user@user-virtual-machine:~$ sudo apt upgrade gjs
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
Get more security updates through Ubuntu Pro with 'esm-apps' enabled:
  libpostproc55 libavcodec58 libavutil56 libswscale5 libswresample3
  libavformat58 libavfilter7
Learn more about Ubuntu Pro at https://ubuntu.com/pro
The following packages have been kept back:
  xserver-xorg-video-amdgpu
The following packages will be upgraded:
  gjs libgjs0g
2 upgraded, 0 newly installed, 0 to remove and 1 not upgraded.
Need to get 509 kB of archives.
After this operation, 9 216 B of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://fr.archive.ubuntu.com/ubuntu jammy-updates/main amd64 gjs amd64 1.72.4-0ubuntu0.22.04.1 [106 k
B]
Get:2 http://fr.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libgjs0g amd64 1.72.4-0ubuntu0.22.04.1 [
403 kB]
Fetched 509 kB in 1s (554 kB/s)
(Reading database ... 177795 files and directories currently installed.)
Preparing to unpack .../gjs_1.72.4-0ubuntu0.22.04.1_amd64.deb ...
Unpacking gjs (1.72.4-0ubuntu0.22.04.1) over (1.72.2-0ubuntu2) ...
Preparing to unpack .../libgjs0g_1.72.4-0ubuntu0.22.04.1_amd64.deb ...
Unpacking libgjs0g:amd64 (1.72.4-0ubuntu0.22.04.1) over (1.72.2-0ubuntu2) ...
Setting up libgjs0g:amd64 (1.72.4-0ubuntu0.22.04.1) ...
Setting up gjs (1.72.4-0ubuntu0.22.04.1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.3) ...
```

sudo apt update

sudo apt upgrade

Téléchargement : Google

```
user@user-virtual-machine:~$ wget https://dl.google.com/linux/direct/google-chrome-stable_current_amd64.deb
--2023-09-20 13:53:39--  https://dl.google.com/linux/direct/google-chrome-stable_current_amd64.deb
Resolving dl.google.com (dl.google.com)... 142.251.37.46, 2a00:1450:4006:810::200e
Connecting to dl.google.com (dl.google.com)|142.251.37.46|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 103464324 (99M) [application/x-debian-package]
Saving to: 'google-chrome-stable_current_amd64.deb'

google-chrome-stable_curre 100%[===================================>]  98,67M  23,5MB/s    in 4,4s

2023-09-20 13:53:44 (22,6 MB/s) - 'google-chrome-stable_current_amd64.deb' saved [103464324/103464324]

user@user-virtual-machine:~$ sudo dpkg -i google-chrome-stable_current_amd64.deb
[sudo] password for user:
Selecting previously unselected package google-chrome-stable.
(Reading database ... 177795 files and directories currently installed.)
Preparing to unpack google-chrome-stable_current_amd64.deb ...
Unpacking google-chrome-stable (117.0.5938.88-1) ...
Setting up google-chrome-stable (117.0.5938.88-1) ...
update-alternatives: using /usr/bin/google-chrome-stable to provide /usr/bin/x-www-browser (x-www-browser)
in auto mode
update-alternatives: using /usr/bin/google-chrome-stable to provide /usr/bin/gnome-www-browser (gnome-www-b
rowser) in auto mode
update-alternatives: using /usr/bin/google-chrome-stable to provide /usr/bin/google-chrome (google-chrome)
in auto mode
Processing triggers for mailcap (3.70+nmu1ubuntu1) ...
Processing triggers for gnome-menus (3.36.0-1ubuntu3) ...
Processing triggers for desktop-file-utils (0.26-1ubuntu3) ...
Processing triggers for man-db (2.10.2-1) ...
user@user-virtual-machine:~$
```

wget https://dl.google.com/linux/direct/google-chrome-stable_current_amd64.deb
sudo dpkg -i google-chrome-stable_current_amd64.deb

Redémarrer la machine
- reboot
- sudo reboot
- sudo reboot --force
- sudo systemctl reboot
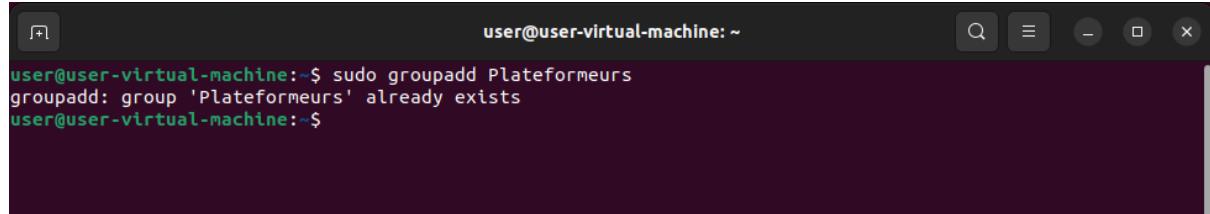
Éteindre la machine
- sudo shutdown -r
- sudo shutdown -r +MINUTES
- sudo shutdown -r +30
- sudo shutdown -r now
- sudo shutdown -c

JOB 4
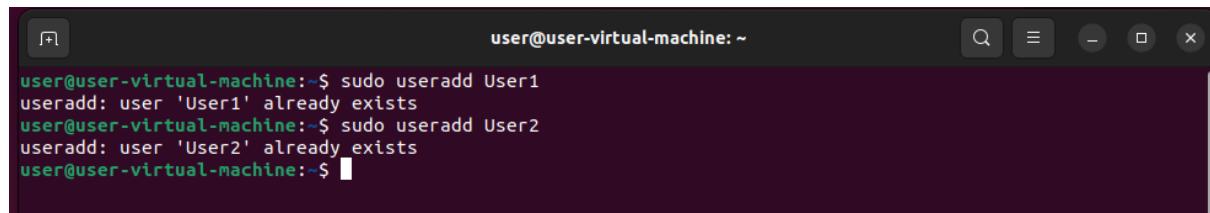
Création du groupe "Plateformeurs"

sudo groupadd Plateformeurs
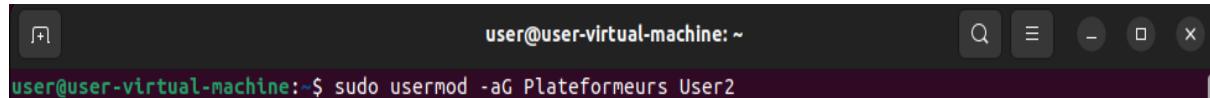
Création utilisateur appelé "User1" et "User2"

sudo useradd "username"
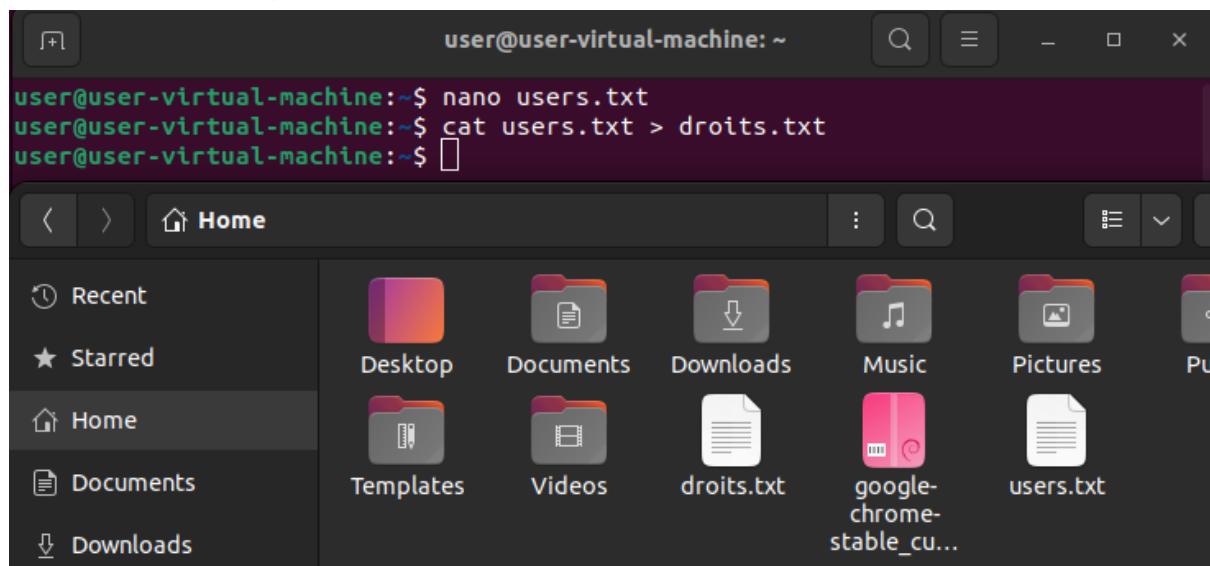
Ajouter "User2" au groupe Plateformeurs

sudo usermod -aG Plateformeurs "User2"

Copier "users.txt" dans un fichier "droits.txt"

nano "name'.txt
cat "name".txt > "name2".txt

Changer le propriétaire du fichier "droits.txt" pour "User1"

sudo chown "username" droits.txt

Changer les droits du fichier "droits.txt" pour que "User2" ai accès seulement en lecture.
Changer les droits du fichier "groupes.txt" pour que les utilisateurs puissent accéder au fichier en lecture uniquement.

sudo chmod "nnn" "name".txt

Changer les droits du fichier pour que le groupe "Plateformeurs" puissent y accéder en lecture/écriture.

JOB 5


```
GNU nano 6.2                          /home/user/.bashrc

# enable programmable completion features (you don't need to enable
# this, if it's already enabled in /etc/bash.bashrc and /etc/profile
# sources /etc/bash.bashrc).
if ! shopt -oq posix; then
  if [ -f /usr/share/bash-completion/bash_completion ]; then
    . /usr/share/bash-completion/bash_completion
  elif [ -f /etc/bash_completion ]; then
    . /etc/bash_completion
  fi
fi

alias la='ls -al'
alias update='sudo apt-get update'
alias upgrade='sudo apt-get upgrade'
export USER=user

^G Help       ^O Write Out  ^W Where Is   ^K Cut        ^T Execute    ^C Location
^X Exit       ^R Read File  ^\ Replace    ^U Paste      ^J Justify    ^/ Go To Line
```



```
user@user-virtual-machine:~$ echo $USER
user
user@user-virtual-machine:~$
```
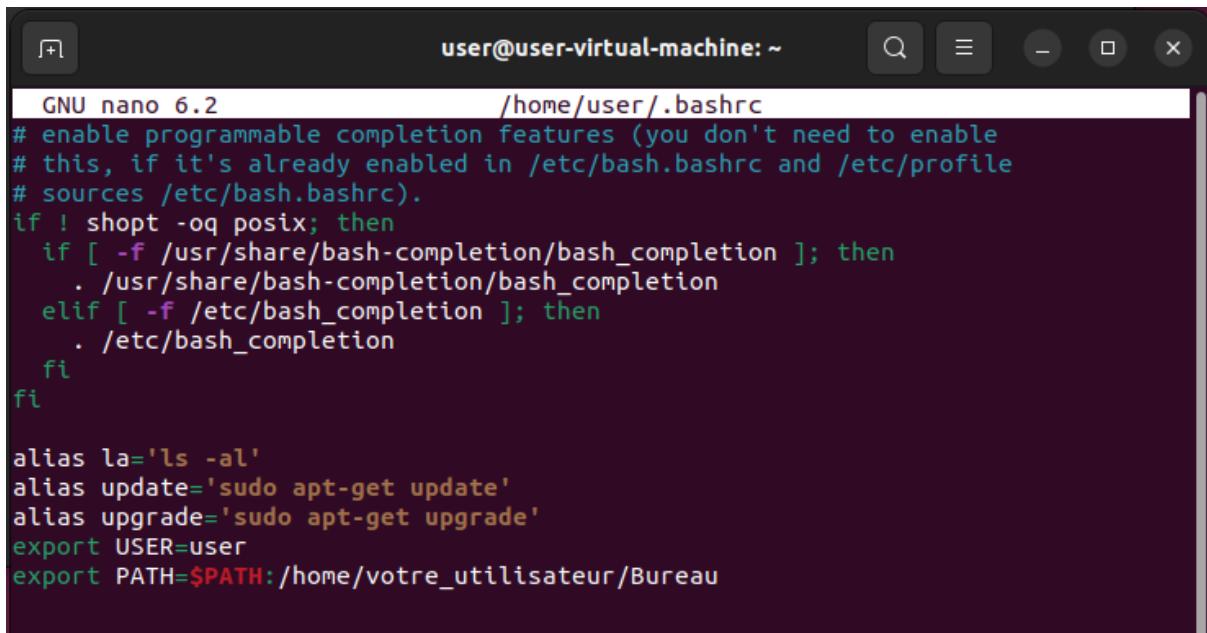
les variables d'environnement


```
user@user-virtual-machine:~$ printenv
SHELL=/bin/bash
SESSION_MANAGER=local/user-virtual-machine:@/tmp/.ICE-unix/1097,unix/user-virtua
l-machine:/tmp/.ICE-unix/1097
QT_ACCESSIBILITY=1
COLORTERM=truecolor
XDG_CONFIG_DIRS=/etc/xdg/xdg-ubuntu:/etc/xdg
SSH_AGENT_LAUNCHER=gnome-keyring
XDG_MENU_PREFIX=gnome-
GNOME_DESKTOP_SESSION_ID=this-is-deprecated
LANGUAGE=en_US:
LC_ADDRESS=fr_FR.UTF-8
GNOME_SHELL_SESSION_MODE=ubuntu
LC_NAME=fr_FR.UTF-8
SSH_AUTH_SOCK=/run/user/1000/keyring/ssh
XMODIFIERS=@im=ibus
DESKTOP_SESSION=ubuntu
LC_MONETARY=fr_FR.UTF-8
GTK_MODULES=gail:atk-bridge
PWD=/home/user
LOGNAME=user
XDG_SESSION_DESKTOP=ubuntu
XDG_SESSION_TYPE=wayland
SYSTEMD_EXEC_PID=1119
```

New path : chemin "/home/'votre utilisateur'/Bureau"
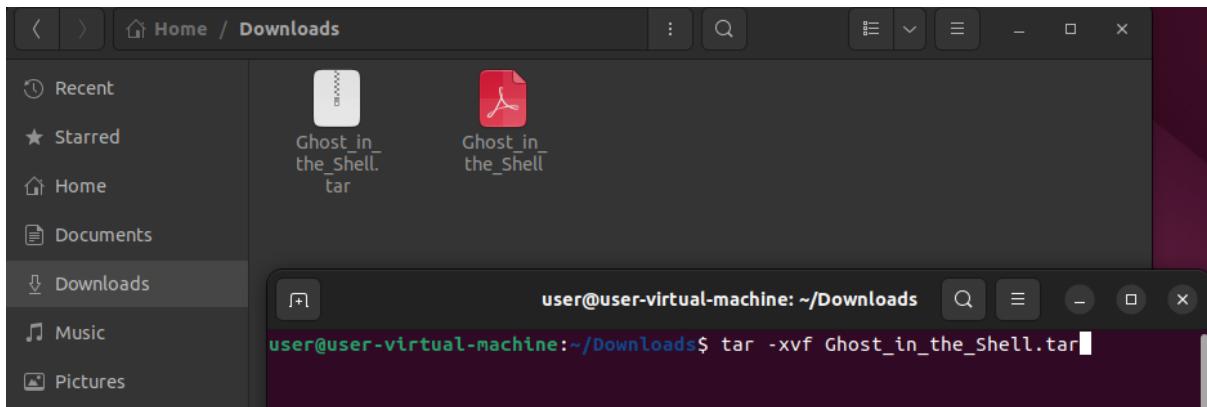

```
  GNU nano 6.2                    /home/user/.bashrc
# enable programmable completion features (you don't need to enable
# this, if it's already enabled in /etc/bash.bashrc and /etc/profile
# sources /etc/bash.bashrc).
if ! shopt -oq posix; then
  if [ -f /usr/share/bash-completion/bash_completion ]; then
    . /usr/share/bash-completion/bash_completion
  elif [ -f /etc/bash_completion ]; then
    . /etc/bash_completion
  fi
fi

alias la='ls -al'
alias update='sudo apt-get update'
alias upgrade='sudo apt-get upgrade'
export USER=user
export PATH=$PATH:/home/votre_utilisateur/Bureau
```

export PATH=$PATH:/home/votre_utilisateur/Bureau
source ~/.bashrc

JOB 6

---

désarchiver Ghost in the Shell avec le terminal

tar -xvf Ghost_in_the_Shell.tar
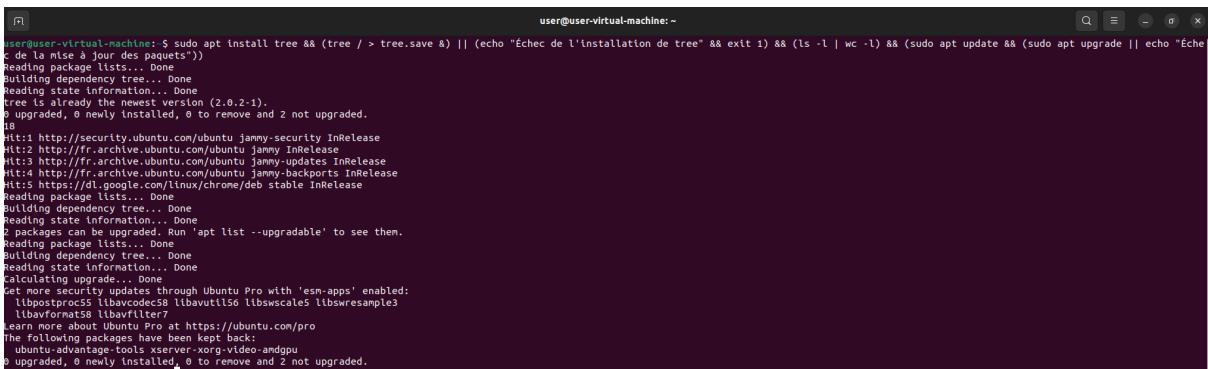
JOB 7


```
user@user-virtual-machine:~$ echo "Je suis votre fichier text file" > une_commande.txt && sudo grep -c "" /etc/apt/sources.list > nb_lines.txt && sudo cat /etc/apt/sources.list > save_sources && sudo find
/ -type f -name ".*" -exec grep -l "alias" {} \; 2>/dev/null
/root/.bashrc
/home/user/.bashrc
/etc/skel/.bashrc
/snap/core22/858/etc/skel/.bashrc
/snap/core22/858/root/.bashrc
/snap/core20/1974/etc/skel/.bashrc
/snap/core20/1974/root/.bashrc
```

echo "Je suis votre fichier text file" > une_commande.txt && sudo grep -c "" /etc/apt/sources.list > nb_lines.txt && sudo cat /etc/apt/sources.list > save_sources && sudo find / -type f -name ".*" -exec grep -l "alias" {} \; 2>/dev/null

To go even further and beyond


```
user@user-virtual-machine:~$ sudo apt install tree && (tree / > tree.save &) || (echo "Échec de l'installation de tree" && exit 1) && (ls -l | wc -l) && (sudo apt update && (sudo apt upgrade || echo "Éche
c de la mise à jour des paquets"))
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
tree is already the newest version (2.0.2-1).
0 upgraded, 0 newly installed, 0 to remove and 2 not upgraded.
18
Hit:1 http://security.ubuntu.com/ubuntu jammy-security InRelease
Hit:2 http://fr.archive.ubuntu.com/ubuntu jammy InRelease
Hit:3 http://fr.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:4 http://fr.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:5 https://dl.google.com/linux/chrome/deb stable InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
2 packages can be upgraded. Run 'apt list --upgradable' to see them.
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
Get more security updates through Ubuntu Pro with 'esm-apps' enabled:
  libpostproc55 libavcodec58 libavutil56 libswscale5 libswresample3
  libavformat58 libavfilter7
Learn more about Ubuntu Pro at https://ubuntu.com/pro
The following packages have been kept back:
  ubuntu-advantage-tools xserver-xorg-video-amdgpu
0 upgraded, 0 newly installed, 0 to remove and 2 not upgraded.
```

sudo apt install tree && (tree / > tree.save &) || (echo "Échec de l'installation de tree" && exit 1) && (ls -l | wc -l) && (sudo apt update && (sudo apt upgrade || echo "Échec de la mise à jour des paquets"))