
name: Clevis Mota course: Linux Fundamentals semester: Spring 23

lab 4 Submission

Question 1.1

```
cimota@cimota:~$ pwd
/home/cimota
cimota@cimota:~$ cd /usr/share/themes/
cimota@cimota:/usr/share/themes$ pwd
/usr/share/themes
cimota@cimota:/usr/share/themes$ cd /
cimota@cimota:/$ cd /snap/firefox/
cimota@cimota:/snap/firefox$
```

Question 1.2

```
cimota@cimota:/snap/firefox$ cd
cimota@cimota:~$ cd Downloads/
cimota@cimota:~/Downloads$ cd ../../
cimota@cimota:/home$ pwd
/home
cimota@cimota:/home$
```

Question 2


```

cimota@cimota:/home$ pwd
/home
cimota@cimota:/home$ cd /usr/share/
cimota@cimota:/usr/share$ ls /home/cimota/lab4files/
countries.json  document.docx  helloWorld.c  sample.xls  Ubuntu.pdf
csvfile.csv     globe.avi      Linux.pdf     Tux.png     website.html
cimota@cimota:/usr/share$ cd ~/lab4files/
cimota@cimota:~/lab4files$ ls -l
total 6580
-rw-rw-r-- 1 cimota cimota 20471 Feb 22 2022 countries.json
-rw-rw-r-- 1 cimota cimota 284042 Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 cimota cimota 764176 Feb 22 2022 document.docx
-rw-rw-r-- 1 cimota cimota 742478 Feb 22 2022 globe.avi
-rw-rw-r-- 1 cimota cimota 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 cimota cimota 2600138 Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 cimota cimota 8704 Feb 22 2022 sample.xls
-rw-rw-r-- 1 cimota cimota 42777 Feb 22 2022 Tux.png
-rw-rw-r-- 1 cimota cimota 2114053 Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 cimota cimota 137453 Feb 22 2022 website.html
cimota@cimota:~/lab4files$ ls -lh
total 6.5M
-rw-rw-r-- 1 cimota cimota 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 cimota cimota 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 cimota cimota 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 cimota cimota 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 cimota cimota 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 cimota cimota 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 cimota cimota 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 cimota cimota 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 cimota cimota 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 cimota cimota 135K Feb 22 2022 website.html
cimota@cimota:~/lab4files$ ls -lhs
total 6.5M
-rw-rw-r-- 1 cimota cimota 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 cimota cimota 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 cimota cimota 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 cimota cimota 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 cimota cimota 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 cimota cimota 135K Feb 22 2022 website.html
-rw-rw-r-- 1 cimota cimota 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 cimota cimota 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 cimota cimota 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 cimota cimota 76 Feb 22 2022 helloWorld.c
cimota@cimota:~/lab4files$ ls -lhSgG
total 6.5M
-rw-rw-r-- 1 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 135K Feb 22 2022 website.html
-rw-rw-r-- 1 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 76 Feb 22 2022 helloWorld.c
cimota@cimota:~/lab4files$ ls -lhSgGi
total 6.5M

```

```
56631984 -rw-rw-r-- 1 2.5M Feb 22 2022 Linux.pdf
56632012 -rw-rw-r-- 1 2.1M Feb 22 2022 Ubuntu.pdf
56633762 -rw-rw-r-- 1 747K Feb 22 2022 document.docx
56633764 -rw-rw-r-- 1 726K Feb 22 2022 globe.avi
56632014 -rw-rw-r-- 1 278K Feb 22 2022 csvfile.csv
56636738 -rw-rw-r-- 1 135K Feb 22 2022 website.html
56632011 -rw-rw-r-- 1 42K Feb 22 2022 Tux.png
56632013 -rw-rw-r-- 1 20K Feb 22 2022 countries.json
56636710 -rw-rw-r-- 1 8.5K Feb 22 2022 sample.xls
56636688 -rw-rw-r-- 1 76 Feb 22 2022 helloWorld.c
cimota@cimota:~/lab4files$ ls -Xr
sample.xls  Ubuntu.pdf  countries.json  document.docx  helloWorld.c
Tux.png     Linux.pdf   website.html   csvfile.csv    globe.avi
cimota@cimota:~/lab4files$
```

Question 3

```
cimota@cimota:~/Downloads$ exa --help
Usage:
  exa [options] [files...]

META OPTIONS
  -?, --help          show list of command-line options
  -v, --version       show version of exa

DISPLAY OPTIONS
  -1, --oneline       display one entry per line
  -l, --long          display extended file metadata as a table
  -G, --grid          display entries as a grid (default)
  -x, --across        sort the grid across, rather than downwards
  -R, --recurse       recurse into directories
  -T, --tree          recurse into directories as a tree
  -F, --classify      display type indicator by file names
  --colo[u]r=WHEN     when to use terminal colours (always, auto, never)
  --colo[u]r-scale=   highlight levels of file sizes distinctly
```

```

--color[ujr]-scale highlight levels of file sizes distinctly
--icons display icons
--no-icons don't display icons (always overrides --icons)

FILTERING AND SORTING OPTIONS
-a, --all show hidden and 'dot' files
-d, --list-dirs list directories as files; don't list their contents
-L, --level DEPTH limit the depth of recursion
-r, --reverse reverse the sort order
-s, --sort SORT_FIELD which field to sort by
--group-directories-first list directories before other files
-D, --only-dirs list only directories
-I, --ignore-glob GLOBS glob patterns (pipe-separated) of files to ignore
Valid sort fields: name, Name, extension, Extension, size, type,
modified, accessed, created, inode, and none.
date, time, old, and new all refer to modified.

LONG VIEW OPTIONS
-b, --binary list file sizes with binary prefixes
-B, --bytes list file sizes in bytes, without any prefixes
-g, --group list each file's group
-h, --header add a header row to each column
-H, --links list each file's number of hard links
-i, --inode list each file's inode number
-m, --modified use the modified timestamp field
-n, --numeric list numeric user and group IDs
-S, --blocks show number of file system blocks
-t, --time FIELD which timestamp field to list (modified, accessed, created)
-u, --accessed use the accessed timestamp field
-U, --created use the created timestamp field
--changed use the changed timestamp field
--time-style how to format timestamps (default, iso, long-iso, full-iso)
--no-permissions suppress the permissions field

```

```

cimota@cimota:~/Downloads$ exa -lh --header /home/cimota/lab4files
Permissions Size User Date Modified Name
.rw-rw-r-- 20k cimota 22 Feb 2022 countries.json
.rw-rw-r-- 284k cimota 22 Feb 2022 csvfile.csv
.rw-rw-r-- 764k cimota 22 Feb 2022 document.docx
.rw-rw-r-- 742k cimota 22 Feb 2022 globe.avi
.rw-rw-r-- 76 cimota 22 Feb 2022 helloWorld.c
.rw-rw-r-- 2.6M cimota 22 Feb 2022 Linux.pdf
.rw-rw-r-- 8.7k cimota 22 Feb 2022 sample.xls
.rw-rw-r-- 43k cimota 22 Feb 2022 Tux.png
.rw-rw-r-- 2.1M cimota 22 Feb 2022 Ubuntu.pdf
.rw-rw-r-- 137k cimota 22 Feb 2022 website.html
cimota@cimota:~/Downloads$ exa -lh --no-user --header --time-style=long-iso /home/cimota/lab4files
Permissions Size Date Modified Name
.rw-rw-r-- 20k 2022-02-22 14:16 countries.json
.rw-rw-r-- 284k 2022-02-22 14:15 csvfile.csv
.rw-rw-r-- 764k 2022-02-22 14:13 document.docx
.rw-rw-r-- 742k 2022-02-22 14:12 globe.avi
.rw-rw-r-- 76 2022-02-22 14:18 helloWorld.c
.rw-rw-r-- 2.6M 2022-02-22 14:10 Linux.pdf
.rw-rw-r-- 8.7k 2022-02-22 14:12 sample.xls
.rw-rw-r-- 43k 2022-02-22 14:10 Tux.png
.rw-rw-r-- 2.1M 2022-02-22 14:11 Ubuntu.pdf
.rw-rw-r-- 137k 2022-02-22 14:16 website.html
cimota@cimota:~/Downloads$

```

Question 4


```

cimota@cimota:~$ pwd
/home/cimota
cimota@cimota:~$ cd /usr
cimota@cimota:/usr$ cd /proc/sys/net/ipv4
cimota@cimota:/proc/sys/net/ipv4$ cd
cimota@cimota:~$ cd /usr/share/backgrounds
cimota@cimota:/usr/share/backgrounds$ ls
Blue_flower_by_Elena_Stravoravdi.jpg
canvas_by_roytanck.jpg
cherry_Tree_in_Lakones_by_elenastravoravdi.jpg
contest
OSC2943_by_kcpru.jpg
Jammy-Jellyfish_WP_4096x2304_Grey.png
jj_dark_by_Hiking93.jpg
jj_light_by_Hiking93.jpg
Mirror_by_Uday_Nakade.jpg
Optical_Fibers_in_Dark_by_Elena_Stravoravdi.jpg
ubuntu2_by_arman1992.jpg
ubuntu_by_arman1992.jpg
ubuntu-default-greyscale-wallpaper.png
warty-final-ubuntu.png
cimota@cimota:/usr/share/backgrounds$ cd ~/CIS106
cimota@cimota:~/CIS106$ ls
cheatSheets 'final project' Labs weekReports
cimota@cimota:~/CIS106$ cd /dev/disk/by-id
cimota@cimota:/dev/disk/by-id$ ls -a
.
..
ata-VBOX_CD-ROM_VB2-01700376
ata-VBOX_HARDDISK_VB1bb61ed0-01ea33a4-part1
ata-VBOX_HARDDISK_VB1bb61ed0-01ea33a4-part2
ata-VBOX_HARDDISK_VB1bb61ed0-01ea33a4-part3
cimota@cimota:/dev/disk/by-id$ cd /usr/share/themes
cimota@cimota:/usr/share/themes$ ls -lt
total 120
drwxr-xr-x 7 root root 4096 Aug 9 2022 Yaru
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-bark
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-bark-dark
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-blue
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-blue-dark
drwxr-xr-x 7 root root 4096 Aug 9 2022 Yaru-dark
drwxr-xr-x 3 root root 4096 Aug 9 2022 Yaru-dark-hdpi
drwxr-xr-x 3 root root 4096 Aug 9 2022 Yaru-dark-xhdpi
drwxr-xr-x 3 root root 4096 Aug 9 2022 Yaru-hdpi
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-magenta
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-magenta-dark
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-olive
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-olive-dark
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-prusiangreen
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-prusiangreen-dark
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-purple
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-purple-dark
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-red
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-red-dark
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-sage
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-sage-dark
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-viridian
drwxr-xr-x 5 root root 4096 Aug 9 2022 Yaru-viridian-dark
drwxr-xr-x 3 root root 4096 Aug 9 2022 Yaru-xhdpi
drwxr-xr-x 4 root root 4096 Aug 9 2022 Default
drwxr-xr-x 4 root root 4096 Aug 9 2022 Emacs
drwxr-xr-x 3 root root 4096 Aug 9 2022 Raleigh
drwxr-xr-x 4 root root 4096 Aug 9 2022 Adwaita
drwxr-xr-x 4 root root 4096 Aug 9 2022 Adwaita-dark
drwxr-xr-x 4 root root 4096 Aug 9 2022 HighContrast

```



```
cimota@cimota:/usr/share/themes$ cd /usr/share
cimota@cimota:/usr/share$ ls -X
accountsservice      language-support
aclocal               language-tools
acpi-support          libcaca
adduser               libcb-bin
aisleriot              libdebuginfod-common
alacarte              libdrm
alsa                  libexttextcat
alsa-base             libgnomekbd
alsa-card-profile     libgweather
apache2               libgweather-4
appdata               libinput
app-info              liblangtag
applications          liblouis
appport               liblouisutdml
apps                  libmysofa
apturl                libreoffice
aspell                libvenge
avahi                 libthai
backgrounds           libwacom
base-files            lightdm
base-passwd           lintian
bash-completion       linux-sound-base
binfmts               locale
branding              locale-langpack
brlty                 locales
bug                   lto-disabled-list
build-essential       m2300w
ca-certificates       man
caffeine-indicator    man-db
catdoc                maven-repo
ccsm                  media-player-info
chrome-gnome-shell    menu
cmake                 metainfo
code                  mfx
```

```
codeblocks
cogl
color
colord
common-licenses
compiz
consolefonts
console-setup
consoletrans
cowsay
cups
dbus-1
dconf
debconf
debhelper
debianutils
defaults
desktop-directories
dict
dictionaries-common
distro-info
djvu
dns
dnsmasq-base
doc
doc-base
dpkg
emacs
emacsens-common
enchant-2
eog
epiphany-browser
evince
evolution-data-server
figlet
file
file-roller
fish
flameshot
flatpak
fontconfig
fonts
fonts-droid-fallback
fonts-sil-abyssinica
fonts-sil-padauk
foo2qpd1
foo2zjs
fwupd
gamemode
games
mime
misc
mobile-broadband-provider-info
ModemManager
mousetweaks
mythes
nano
nautilus
nautilus-python
nautilus-share
netpbm
netplan
numpy3
openal
open-vm-tools
openvpn
orca
os-prober
p11-kit
package-data-downloads
PackageKit
pam
pam-configs
perl
perl5
perl-openssl-defaults
pipewire
pixmap
pkgconfig
plymouth
pnm2ppa
pocketsphinx
polkit-1
poppler
ppd
ppp
publicsuffix
pulseaudio
pyshared
python3
python-apt
qlogging-categories5
qt5
readline
remmina
rhythmbox
rig
rsync
rsyslog
rubygems-integration
```

```
gnome-shell
gnome-software
gnome-system-monitor
gnome-todo
gnome-tweaks
gnome-video-effects
gnupg
grilo-plugins
groff
grub
grub-gfxpayload-lists
gst-plugins-base
gtk-doc
gtk-engines
gtksourceview-4
guile
gupnp-av
gvfs
help
help-langpack
hplip
hunspell
hyphen
i18n
ibus
ibus-table
icons
ImageMagick-6
im-config
indicator-application
indicator-power
indicators
info
initramfs-tools
installed-tests
ipp-usb
iptables
iso-codes
java
javascript
kconf_update
kde4
keyrings
kf5
knotifications5
kservices5
kservicetypes5
language-selector
cimota@cimota:/usr/share$
```

```
totem
tracker3
tracker3-miners
transmission
ubuntu
ubuntu-drivers-common
ubuntu-release-upgrader
ubuntu-wayland
ucf
ufw
ulauncher
unattended-upgrades
unity
update-manager
update-notifier
upstart
usb-creator
usb_modeswitch
vala
vim
vlc
vulkan
w3m
wayland-sessions
wine
X11
xdg-desktop-portal
xml
xml-core
xsessions
yelp
yelp-xsl
zenity
zoneinfo
zoneinfo-icu
zsh
gir-1.0
glib-2.0
gnome-bluetooth-3.0
goa-1.0
gststreamer-1.0
gtk-4.0
gtksourceview-2.0
gtksourceview-3.0
gupnp-dlna-2.0
org.gnome.Characters
drirc.d
config.kcfg
```

Question 5

```
cimota@cimota:/$ cd /
cimota@cimota:/$ ls
bin    dev    lib    libx32  mnt    root  snap    sys    var
boot  etc    lib32  lost+found  opt    run    srv      tmp
cdrom  home   lib64  media    proc   sbin   swapfile  usr
cimota@cimota:/$ cd home
cimota@cimota:/home$ ls
cimota
cimota@cimota:/home$ cd cimota
cimota@cimota:~$ ls
CIS106          Documents      key1           Music          Templates
'CIS165 - C++'  Downloads     key1_1         Pictures       token
'commands for terminal'  gitcommands.txt  key1.pub      Public         Videos
Desktop         Key           lab4files     snap          website
cimota@cimota:~$ cd Downloads
cimota@cimota:~/Downloads$ pwd
/home/cimota/Downloads
cimota@cimota:~/Downloads$
```

```
cimota@cimota:~$ cd /usr/share/themes/Adwaita
cimota@cimota:/usr/share/themes/Adwaita$ cd ../../../../
cimota@cimota:/$ cd home
cimota@cimota:/home$ cd cimota
cimota@cimota:~$ cd Documents
cimota@cimota:~/Documents$ pwd
/home/cimota/Documents
cimota@cimota:~/Documents$ cd /usr/share/themes/Adwaita
cimota@cimota:/usr/share/themes/Adwaita$ cd /home/cimota/Documents
cimota@cimota:~/Documents$ pwd
/home/cimota/Documents
cimota@cimota:~/Documents$
```