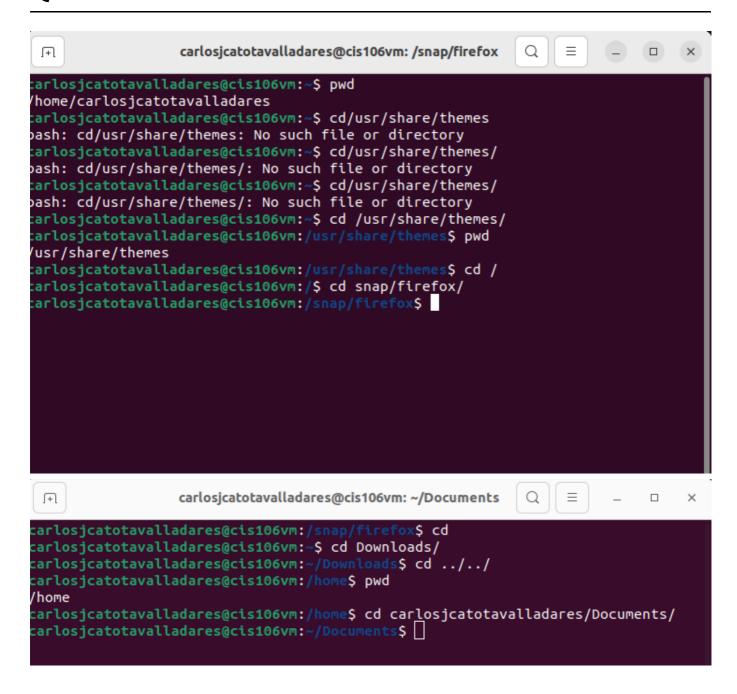# Question 1

Question 2

```
carlosjcatotavalladares@cis106vm:~/Documents$ cd /usr/share/
carlosjcatotavalladares@cis106vm:/usr/share$ ls /home/carlosjcatotavalladares/lab4files/
countries.json   document.docx   helloWorld.c   sample.xls   Ubuntu.pdf
csvfile.csv       globe.avi       Linux.pdf      Tux.png      website.html
carlosjcatotavalladares@cis106vm:/usr/share$ cd ~/lab4files/
carlosjcatotavalladares@cis106vm:~/lab4files$ ls -l
total 6580
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares   20471 Feb 22   2022 countries.json
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares  284042 Feb 22   2022 csvfile.csv
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares  764176 Feb 22   2022 document.docx
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares  742478 Feb 22   2022 globe.avi
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares      76 Feb 22   2022 helloWorld.c
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares 2600138 Feb 22   2022 Linux.pdf
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares    8704 Feb 22   2022 sample.xls
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares   42777 Feb 22   2022 Tux.png
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares 2114053 Feb 22   2022 Ubuntu.pdf
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares  137453 Feb 22   2022 website.html
carlosjcatotavalladares@cis106vm:~/lab4files$ ls -h
countries.json   document.docx   helloWorld.c   sample.xls   Ubuntu.pdf
csvfile.csv       globe.avi       Linux.pdf      Tux.png      website.html
carlosjcatotavalladares@cis106vm:~/lab4files$ ls -lh
total 6.5M
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares  20K Feb 22   2022 countries.json
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares 278K Feb 22   2022 csvfile.csv
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares 747K Feb 22   2022 document.docx
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares 726K Feb 22   2022 globe.avi
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares   76 Feb 22   2022 helloWorld.c
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares 2.5M Feb 22   2022 Linux.pdf
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares 8.5K Feb 22   2022 sample.xls
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares  42K Feb 22   2022 Tux.png
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares 2.1M Feb 22   2022 Ubuntu.pdf
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares 135K Feb 22   2022 website.html
carlosjcatotavalladares@cis106vm:~/lab4files$ ls -lhS
total 6.5M
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares 2.5M Feb 22   2022 Linux.pdf
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares 2.1M Feb 22   2022 Ubuntu.pdf
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares 747K Feb 22   2022 document.docx
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares 726K Feb 22   2022 globe.avi
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares 278K Feb 22   2022 csvfile.csv
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares 135K Feb 22   2022 website.html
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares  42K Feb 22   2022 Tux.png
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares  20K Feb 22   2022 countries.json
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares 8.5K Feb 22   2022 sample.xls
-rw-rw-r-- 1 carlosjcatotavalladares carlosjcatotavalladares   76 Feb 22   2022 helloWorld.c
carlosjcatotavalladares@cis106vm:~/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
carlosjcatotavalladares@cis106vm:~/lab4files$ ls -lhSgGi
total 6.5M
933048 -rw-rw-r-- 1 2.5M Feb 22   2022 Linux.pdf
933073 -rw-rw-r-- 1 2.1M Feb 22   2022 Ubuntu.pdf
933079 -rw-rw-r-- 1 747K Feb 22   2022 document.docx
933083 -rw-rw-r-- 1 726K Feb 22   2022 globe.avi
933077 -rw-rw-r-- 1 278K Feb 22   2022 csvfile.csv
933165 -rw-rw-r-- 1 135K Feb 22   2022 website.html
933049 -rw-rw-r-- 1  42K Feb 22   2022 Tux.png
933075 -rw-rw-r-- 1  20K Feb 22   2022 countries.json
933161 -rw-rw-r-- 1 8.5K Feb 22   2022 sample.xls
933085 -rw-rw-r-- 1   76 Feb 22   2022 helloWorld.c
```

```
carlosjcatotavalladares@cis106vm:~/lab4files$ ls -Xr
sample.xls  Ubuntu.pdf  countries.json  document.docx  helloWorld.c
Tux.png     Linux.pdf   website.html    csvfile.csv    globe.avi
carlosjcatotavalladares@cis106vm:~/lab4files$ ls -Xr1
sample.xls
Tux.png
Ubuntu.pdf
Linux.pdf
countries.json
website.html
document.docx
csvfile.csv
helloWorld.c
globe.avi
carlosjcatotavalladares@cis106vm:~/lab4files$
```

Question 4

```
carlosjcatotavalladares@cis106vm:~$ pwd
/home/carlosjcatotavalladares
carlosjcatotavalladares@cis106vm:~$ cd /usr/share/icons/default/
carlosjcatotavalladares@cis106vm:/usr/share/icons/default$ cd /proc/sys/net/ipv4/
carlosjcatotavalladares@cis106vm:/proc/sys/net/ipv4$ cd -
/usr/share/icons/default
carlosjcatotavalladares@cis106vm:/usr/share/icons/default$ ls /usr/share/backgrounds/
Blue_flower_by_Elena_Stravoravdi.jpg
canvas_by_roytanck.jpg
Cherry_Tree_in_Lakones_by_elenastravoravdi.jpg
contest
DSC2943_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
carlosjcatotavalladares@cis106vm:/usr/share/icons/default$ ls ~/cis106/
Cheatsheets  Labs  weekReports
carlosjcatotavalladares@cis106vm:/usr/share/icons/default$ cd
```

```
carlosjcatotavalladares@cis106vm:~$ ls Downloads/
 code_1.82.2-1694671812_amd64.deb
 lab4files.zip
'Linux Workshop Ubuntu Software installation cheat sheet.png'
 practicels.tar.xz
carlosjcatotavalladares@cis106vm:~$ ls Downloads/ -a
 .
 ..
 code_1.82.2-1694671812_amd64.deb
 lab4files.zip
'Linux Workshop Ubuntu Software installation cheat sheet.png'
 practicels.tar.xz
carlosjcatotavalladares@cis106vm:~$ cd /dev/disk/by-id/
carlosjcatotavalladares@cis106vm:/dev/disk/by-id$ ls -al /home/
total 12
drwxr-xr-x  3 root                  root                  4096 Sep 24 16:13 .
drwxr-xr-x 20 root                  root                  4096 Oct  8 10:32 ..
drwxr-x--- 23 carlosjcatotavalladares carlosjcatotavalladares 4096 Oct 22 20:33 carlosjcatotavalladares
carlosjcatotavalladares@cis106vm:/dev/disk/by-id$ ls -t /usr/share/themes/
Yaru            Yaru-hdpi            Yaru-purple-dark    Default
Yaru-bark       Yaru-magenta         Yaru-red            Emacs
Yaru-bark-dark  Yaru-magenta-dark    Yaru-red-dark       Raleigh
Yaru-blue       Yaru-olive           Yaru-sage           Adwaita
Yaru-blue-dark  Yaru-olive-dark      Yaru-sage-dark      Adwaita-dark
Yaru-dark       Yaru-prussiangreen   Yaru-viridian       HighContrast
Yaru-dark-hdpi  Yaru-prussiangreen-dark  Yaru-viridian-dark
Yaru-dark-xhdpi Yaru-purple          Yaru-xhdpi
```

```
carlosjcatotavalladares@cis106vm:/dev/disk/by-id$ ls -X /usr/share/
accountsservice              libc-bin
aclocal                      libdebuginfod-common
acpi-support                 libdrm
adduser                      libexttextcat
aisleriot                    libgnomekbd
alacarte                     libgweather
alsa                         libgweather-4
alsa-base                    libinput
alsa-card-profile            liblangtag
appdata                      liblouis
app-info                     liblouisutdml
applications                 libmysofa
apport                       libreoffice
apps                         librevenge
apturl                       libthai
aspell                       libwacom
avahi                        lightdm
backgrounds                  lintian
base-files                   linux-sound-base
base-passwd                  locale
bash-completion              locale-langpack
binfmts                      locales
branding                     lto-disabled-list
brltty                       m2300w
bug                          man
build-essential              man-db
ca-certificates              mate-panel
caffeine-indicator           maven-repo
catdoc                       media-player-info
cmake                        menu
code                         mesa-demos
cogl                         metainfo
color                        mfx
colord                       mime
common-licenses              misc
consolefonts                 mobile-broadband-provider-info
console-setup                ModemManager
consoletrans                 mousetweaks
cowsay                       mythes
cups                         nano
dbus-1                       nautilus
dconf                        nautilus-python
debconf                      nautilus-share
```

ebianutils
efaults
esktop-directories
ict
ictionaries-common
istro-info
jvu
ns
nsmasq-base
oc
oc-base
pkg
macs
macsen-common
nchant-2
og
piphany-browser
vince
volution-data-server
iglet
ile
ile-roller
ish
lameshot
latpak
ontconfig
onts
onts-droid-fallback
onts-sil-abyssinica
onts-sil-padauk
oo2qpdl
oo2zjs
wupd
amemode
ames
cc
Conf
db
dm
eany
eary
edit
eoIP
ettext

netpbm
netplan
numpy3
openvpn
orca
os-prober
p11-kit
package-data-downloads
PackageKit
pam
pam-configs
perl
perl5
perl-openssl-defaults
pipewire
pixmaps
pkgconfig
plymouth
pnm2ppa
pocketsphinx
polkit-1
poppler
ppd
ppp
publicsuffix
pulseaudio
pyshared
python3
python-apt
python-wheels
qlogging-categories5
qt5
readline
remmina
rhythmbox
rig
rsync
rsyslog
rubygems-integration
rygel
samba
seahorse
secureboot
sensible-utils

```
ghostscript                     session-migration
git-core                        sgml
gitweb                          sgml-base
glade                           sgml-data
glvnd                           snmp
gnome                           software-properties
gnome-applets                   solid
gnome-background-properties     sounds
gnome-bluetooth                 source-highlight
gnome-control-center            speech-dispatcher
gnome-initial-setup             ssl-cert
gnome-logs                      system-config-printer
gnome-mahjongg                  systemd
gnome-panel                     systemtap
gnome-remote-desktop            tabset
gnome-session                   tcltk
gnome-settings-daemon           terminfo
gnome-shell                     tex-common
gnome-software                  texlive
gnome-system-monitor            texmf
gnome-todo                      themes
gnome-tweaks                    thumbnailers
gnome-video-effects             tilix
gnupg                           totem
grilo-plugins                   tracker3
groff                           tracker3-miners
grub                            transmission
grub-gfxpayload-lists           ubuntu
gst-plugins-base                ubuntu-drivers-common
gtk-doc                         ubuntu-release-upgrader
gtk-engines                     ubuntu-wayland
gtksourceview-4                 ucf
guile                           ufw
gupnp-av                        unattended-upgrades
gvfs                            unity
help                            update-manager
help-langpack                   update-notifier
hplip                           upstart
hunspell                        usb-creator
hwdata                          usb_modeswitch
hyphen                          vala
i18n                            vim
ibus                            vlc
ibus-table                      vulkan
icons                           w3m
```

```
icons                          w3m
ImageMagick-6                  wayland-sessions
im-config                      X11
indicator-application         xapps-common
indicator-power               xdg-desktop-portal
indicators                     xml
info                           xml-core
initramfs-tools               xsessions
installed-tests               yelp
ipp-usb                        yelp-xsl
iptables                       zenity
iso-codes                      zoneinfo
java                           zoneinfo-icu
javascript                     zsh
kconf_update                   gir-1.0
kde4                           glib-2.0
keyrings                       gnome-bluetooth-3.0
kf5                            goa-1.0
knotifications5               gstreamer-1.0
kservices5                     gtk-4.0
kservicetypes5                gtksourceview-2.0
language-selector             gtksourceview-3.0
language-support              gupnp-dlna-2.0
language-tools                org.gnome.Characters
libcaca                        drirc.d
```

Question 5

```
carlosjcatotavalladares@cis106vm:~$ cd /../../
carlosjcatotavalladares@cis106vm:/$ cd home/carlosjcatotavalladares/Downloads/
carlosjcatotavalladares@cis106vm:~/Downloads$ pwd
/home/carlosjcatotavalladares/Downloads
carlosjcatotavalladares@cis106vm:~/Downloads$
```

```
carlosjcatotavalladares@cis106vm:~$ cd /usr/share/themes/Adwaita/
carlosjcatotavalladares@cis106vm:/usr/share/themes/Adwaita$ cd ~/Documents/
carlosjcatotavalladares@cis106vm:~/Documents$ pwd
/home/carlosjcatotavalladares/Documents
carlosjcatotavalladares@cis106vm:~/Documents$
```