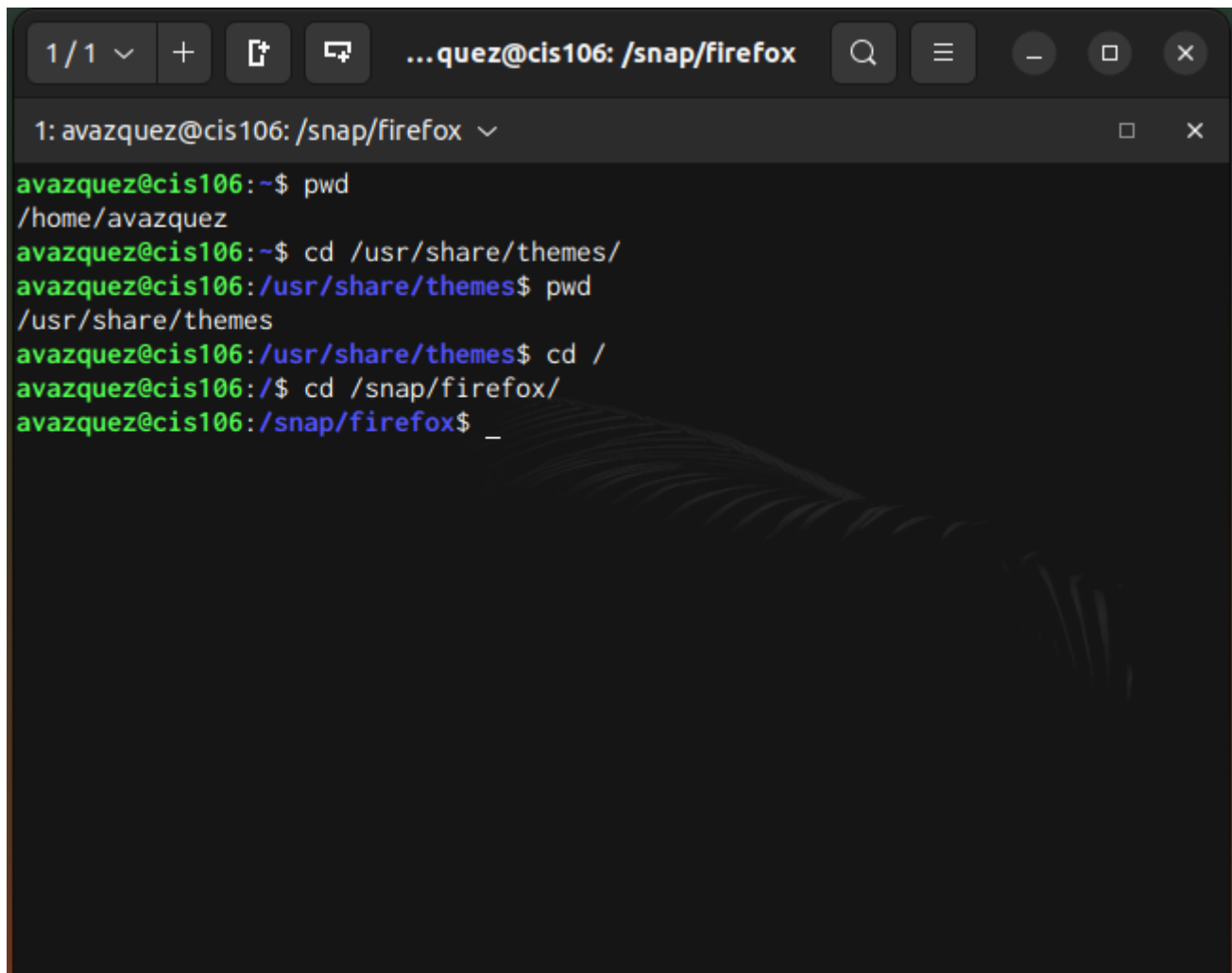


# Lab 4 The Linux FS

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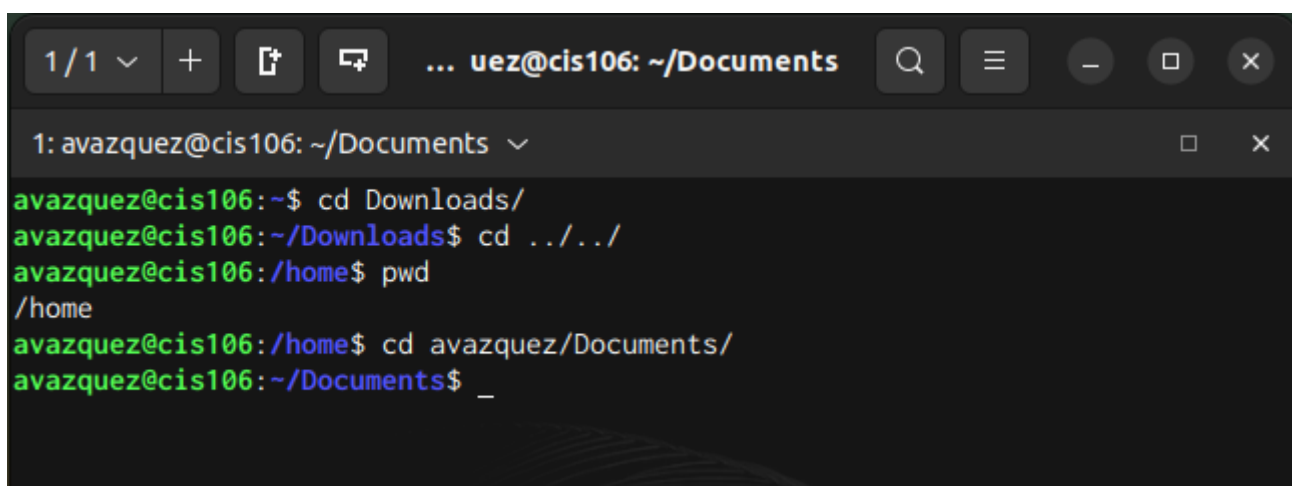
## Question 1



```
1 / 1  +  ...quez@cis106: /snap/firefox  🔍  ≡  -  □  ×

1: avazquez@cis106: /snap/firefox  ▾  □  ×

avazquez@cis106:~$ pwd
/home/avazquez
avazquez@cis106:~$ cd /usr/share/themes/
avazquez@cis106:/usr/share/themes$ pwd
/usr/share/themes
avazquez@cis106:/usr/share/themes$ cd /
avazquez@cis106:/$ cd /snap/firefox/
avazquez@cis106:/snap/firefox$ _
```



```
1 / 1  +  ... uez@cis106: ~/Documents  🔍  ≡  -  □  ×

1: avazquez@cis106: ~/Documents  ▾  □  ×

avazquez@cis106:~$ cd Downloads/
avazquez@cis106:~/Downloads$ cd ../../
avazquez@cis106:/home$ pwd
/home
avazquez@cis106:/home$ cd avazquez/Documents/
avazquez@cis106:~/Documents$ _
```

## Question 2

```
1: avazquez@cis106: ~/lab4files ▾

avazquez@cis106:~/Documents$ cd /usr/share/
avazquez@cis106:/usr/share$ ls /home/avazquez/lab4files/
countries.json  document.docx  helloWorld.c  sample.xls  Ubuntu.pdf
csvfile.csv     globe.avi      Linux.pdf     Tux.png     website.html
avazquez@cis106:/usr/share$ cd ~/lab4files/
avazquez@cis106:~/lab4files$ ls -l
total 6580
-rw-rw-r-- 1 avazquez avazquez 20471 Feb 22 2022 countries.json
-rw-rw-r-- 1 avazquez avazquez 284042 Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 avazquez avazquez 764176 Feb 22 2022 document.docx
-rw-rw-r-- 1 avazquez avazquez 742478 Feb 22 2022 globe.avi
-rw-rw-r-- 1 avazquez avazquez 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 avazquez avazquez 2600138 Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 avazquez avazquez 8704 Feb 22 2022 sample.xls
-rw-rw-r-- 1 avazquez avazquez 42777 Feb 22 2022 Tux.png
-rw-rw-r-- 1 avazquez avazquez 2114053 Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 avazquez avazquez 137453 Feb 22 2022 website.html
avazquez@cis106:~/lab4files$ ls -lh
total 6.5M
-rw-rw-r-- 1 avazquez avazquez 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 avazquez avazquez 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 avazquez avazquez 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 avazquez avazquez 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 avazquez avazquez 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 avazquez avazquez 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 avazquez avazquez 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 avazquez avazquez 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 avazquez avazquez 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 avazquez avazquez 135K Feb 22 2022 website.html
avazquez@cis106:~/lab4files$ _
```

```
Applications Places
1/1 + [ ] [ ]
1: avazquez@cis106: ~/lab4files
avazquez@cis106:~/lab4files$ ls -lhS
total 6.5M
-rw-rw-r-- 1 avazquez avazquez 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 avazquez avazquez 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 avazquez avazquez 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 avazquez avazquez 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 avazquez avazquez 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 avazquez avazquez 135K Feb 22 2022 website.html
-rw-rw-r-- 1 avazquez avazquez 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 avazquez avazquez 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 avazquez avazquez 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 avazquez avazquez 76 Feb 22 2022 helloWorld.c
avazquez@cis106:~/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
avazquez@cis106:~/lab4files$ ls -lhSgGi
total 6.5M
1323218 -rw-rw-r-- 1 2.5M Feb 22 2022 Linux.pdf
1323296 -rw-rw-r-- 1 2.1M Feb 22 2022 Ubuntu.pdf
1323299 -rw-rw-r-- 1 747K Feb 22 2022 document.docx
1323300 -rw-rw-r-- 1 726K Feb 22 2022 globe.avi
1323298 -rw-rw-r-- 1 278K Feb 22 2022 csvfile.csv
1323303 -rw-rw-r-- 1 135K Feb 22 2022 website.html
1323295 -rw-rw-r-- 1 42K Feb 22 2022 Tux.png
1323297 -rw-rw-r-- 1 20K Feb 22 2022 countries.json
1323302 -rw-rw-r-- 1 8.5K Feb 22 2022 sample.xls
1323301 -rw-rw-r-- 1 76 Feb 22 2022 helloWorld.c
avazquez@cis106:~/lab4files$ _
```

```
avazquez@cis106:~/lab4files$ ls -Xr
sample.xls  Ubuntu.pdf  countries.json  document.docx  helloWorld.c
Tux.png    Linux.pdf   website.html   csvfile.csv    globe.avi
avazquez@cis106:~/lab4files$ _
```

## Question 4

```

1: avazquez@cis106: /dev/disk/by-id
avazquez@cis106:/usr$ pwd
/usr
avazquez@cis106:/usr$ cd /usr/
avazquez@cis106:/usr$ cd /proc/sys/net/ipv4/
avazquez@cis106:/proc/sys/net/ipv4$ cd ../
avazquez@cis106:/proc/sys/net$ ls /usr/share/backgrounds/
Blue_flower_by_Elena_Stravoravdi.jpg      jj_light_by_Hiking93.jpg
canvas_by_roytanck.jpg                    Mirror_by_Uday_Nakade.jpg
Cherry_Tree_in_Lakones_by_elenastravoravdi.jpg Optical_Fibers_in_Dark_by_Elena_Stravoravdi.jpg
contest                                   ubuntu2_by_arman1992.jpg
DSC2943_by_kcpru.jpg                     ubuntu_by_arman1992.jpg
Jammy-Jellyfish_WP_4096x2304_Grey.png      ubuntu-default-greyscale-wallpaper.png
jj_dark_by_Hiking93.jpg                   warty-final-ubuntu.png
avazquez@cis106:/proc/sys/net$ ls /home/avazquez/cis106/
cheatSheets gitcommands.txt labs WeekReports
avazquez@cis106:/proc/sys/net$ ls /home/avazquez/Downloads/
games lab4files.zip movies spotify
avazquez@cis106:/proc/sys/net$ cd /dev/disk/by-id/
avazquez@cis106:/dev/disk/by-id$ ls -a /home/avazquez/
.                .cis106.png      .fltk            .local           .practicels.tar.xz      .vboxclient-clipboard.pid
..               .config          .fonts           log              .profile               .vboxclient-draganddrop.pid
Backup           Desktop          games            .mozilla         Public                 .vboxclient-seamless.pid
.bash_history    .dillo           .gitconfig       Music            snap                   .vboxclient-vmxvga-session-tty2.pid
.bash_logout     Documents        .gnupg           newfile          .ssh                   Videos
.bashrc          .dotnet          GNUstep          Pictures         .sudo_as_admin_successful .vscode
.cache           Downloads        lab4files        .pki             Templates
cis106           file1            .lessht         practicels       .thunderbird

```

```

avazquez@cis106:/dev/disk/by-id$ ls -X /usr/share/
accountsservice      gcc                libdebuginfod-common  rig
aclocal              GConf             libdrm                rsync
acpi-support         gdb               libexttextcat         rsyslog
adduser              gdm               libgnomekbd           rubygems-integration
aisleriot            geany             libgweather           rygel
alacarte             gedit            libgweather-4         samba
alsa                 GeoIP             libinput              seahorse
alsa-base            gettext           liblangtag            secureboot
alsa-card-profile    ghostscript       liblouis              sensible-utils
appdata              git-core          liblouisutdm1         session-migration
app-info             gitweb            libmysofa             sgml
applications         glade             libreoffice           sgml-base
appport              glvnd             librevenge            sgml-data
apps                 gnome             libthai               snmp
apturl               gnome-applets     libwacom              software-properties
aspell               gnome-background-properties lightdm               solid
avahi                gnome-bluetooth  lintian                sounds
backgrounds          gnome-control-center linux-sound-base      source-highlight
base-files           gnome-initial-setup locale                 speech-dispatcher
base-passwd          gnome-logs        locale-langpack       ssl-cert
bash-completion      gnome-mahjongg    locales               system-config-printer
binfmts              gnome-panel       lto-disabled-list     systemd
branding              gnome-remote-desktop m2300w                systemtap
brltty               gnome-session     man                    tabset
bug                  gnome-settings-daemon man-db                 tcltk
build-essential      gnome-shell       mate-panel            terminfo
ca-certificates      gnome-software    maven-repo            tex-common
caffeine-indicator   gnome-system-monitor media-player-info     texlive
catdoc               gnome-todo         menu                   texmf
cmake                gnome-tweaks      mesa-demos             themes
code                 gnome-video-effects metainfo               thumbnaillers
cogl                 gnupg             mime                   tilix
color                GNUstep           misc                   totem
colord               grilo-plugins     mobile-broadband-provider-info tracker3
common-licenses      groff             ModemManager          tracker3-miners
consolefonts         grub              mousetweaks           transmission
console-setup        grub-gfxpayload-lists mythes                 ubuntu
consoletrans         gst-plugins-base

```

```

1: avazquez@cis106: /dev/disk/by-id  v
consoletrans      gst-plugins-base  mythes            ubuntu-drivers-common
cowsay            gtk-doc           nano              ubuntu-release-upgrader
cups              gtk-engines       nautilus          ubuntu-wayland
dbus-1            gtksourceview-4   nautilus-python   ucf
dconf             guile             nautilus-share    ufw
debconf           gupnp-av          nemo              unattended-upgrades
debhelper         gvfs              netpbm            unity
debianutils       help              netplan           update-manager
defaults          help-langpack     numpy3            update-notifier
desktop-directories
dict              hplip             open-vm-tools     upstart
dictionaries-common
distro-info        hunspell          openvpn           usb-creator
djvu              hwdata            orca              usb_modeswitch
dns               hyphen            os-prober         vala
dnsmasq-base      i18n              p11-kit           vim
dnsmasq-base      ibus              package-data-downloads
doc              ibus-table        PackageKit        vlc
doc-base          icons             pam               vulkan
dpkg              ImageMagick-6     pam              w3m
emacs             im-config         pam-configs       wayland-sessions
emacsen-common    indicator-application
enchant-2         indicator-power   perl              X11
eog               indicators        perl5             xapps-common
epiphany-browser  info             perl-openssl-defaults
evince            initramfs-tools  pipewire          xdg-desktop-portal
evolution-data-server
figlet            ipp-usb           pixmaps           xml
file              iptables          pkgconfig         xml-core
file-roller       iso-codes         plasma            xsessions
fish              java              plymouth          yelp
flameshot         javascript        pnm2ppa           yelp-xsl
flatpak           kconf_update     pocketsphinx      zenity
fontconfig        kde4              polkit-1          zoneinfo
fonts             keyrings          poppler           zoneinfo-icu
fonts-droid-fallback
fonts-sil-abyssinica
fonts-sil-padauk  knotifications5  ppd              zsh
foo2qpd          kservices5       ppp              gir-1.0
foo2zjs          kservicetypes5  publicsuffix     glib-2.0
fwupd            language-selector
gamemode          language-support
games             language-tools   pulseaudio       gnome-bluetooth-3.0
                 libcaca          pyshared         goa-1.0
                 libc-bin        python3          gstreamer-1.0
                 rhythmbox       python-apt       gtk-4.0
                 qt5             qlogging-categories5
                 readline        qt5              gtksourceview-2.0
                 remmina         qt5              gtksourceview-3.0
                 rhythmbox       qt5              gupnp-dlna-2.0
                 qt5             qt5              avifile-0.7
                 qt5             qt5              org.gnome.Characters
                 qt5             qt5              drirc.d

```

## Question 5

```

1: avazquez@cis106: ~/Downloads  v

avazquez@cis106:~$ cd /
avazquez@cis106:/$ cd /home/
avazquez@cis106:/home$ cd /home/avazquez/
avazquez@cis106:~$ cd Downloads/
avazquez@cis106:~/Downloads$ pwd
/home/avazquez/Downloads
avazquez@cis106:~/Downloads$ _

```

```
1: avazquez@cis106: ~/Documents ▾  
avazquez@cis106:~$ cd /usr/share/themes/Adwaita  
avazquez@cis106:/usr/share/themes/Adwaita$ cd ../../..  
avazquez@cis106:/usr/share$ cd /home/avazquez/  
avazquez@cis106:~$ cd Documents/  
avazquez@cis106:~/Documents$ pwd  
/home/avazquez/Documents  
avazquez@cis106:~/Documents$ _
```