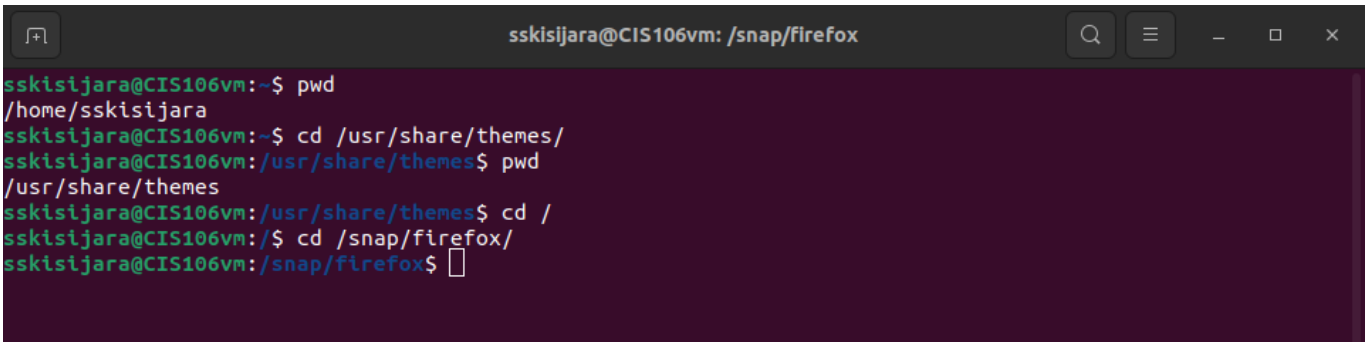
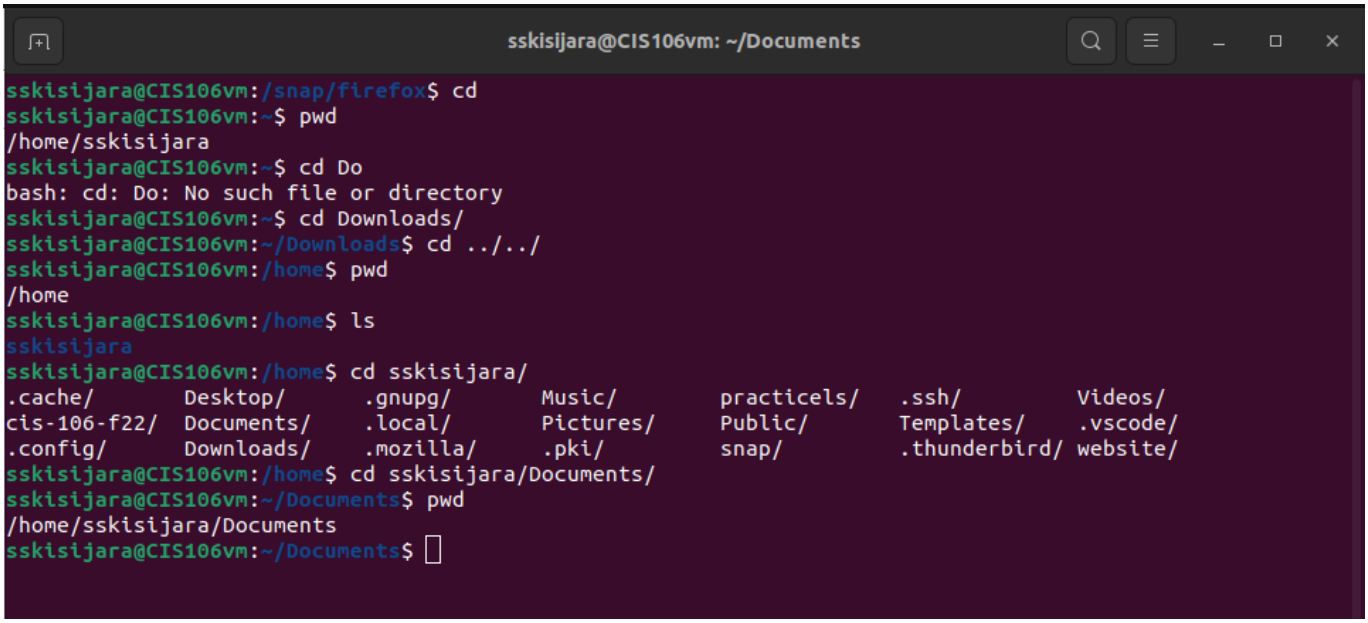
Lab 4 Submission

Question 1

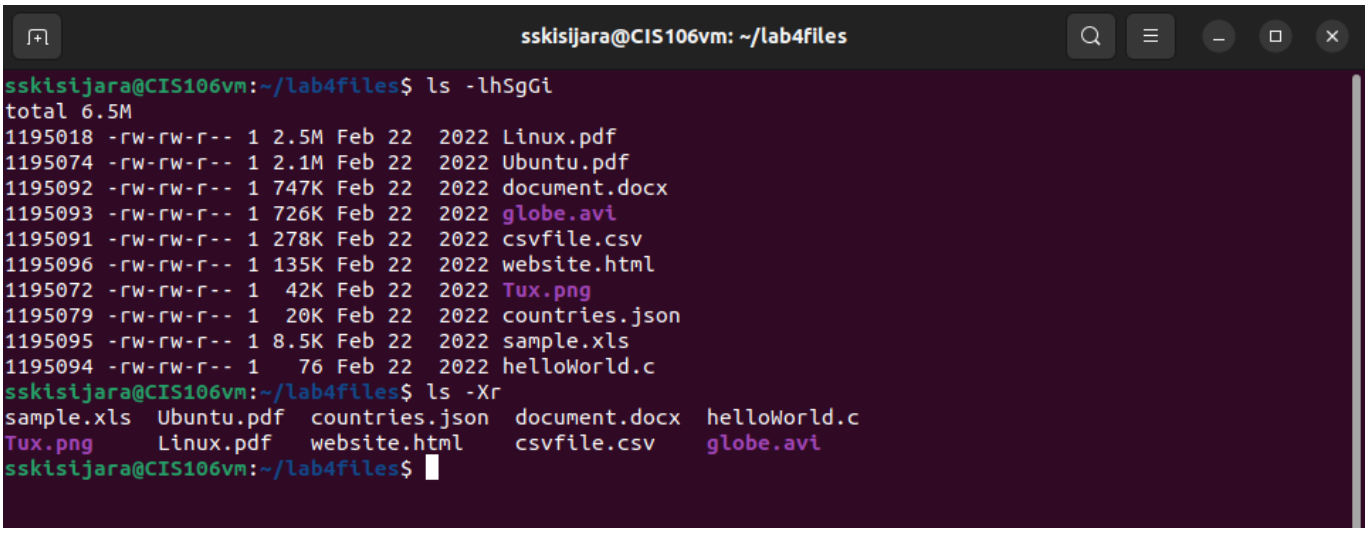




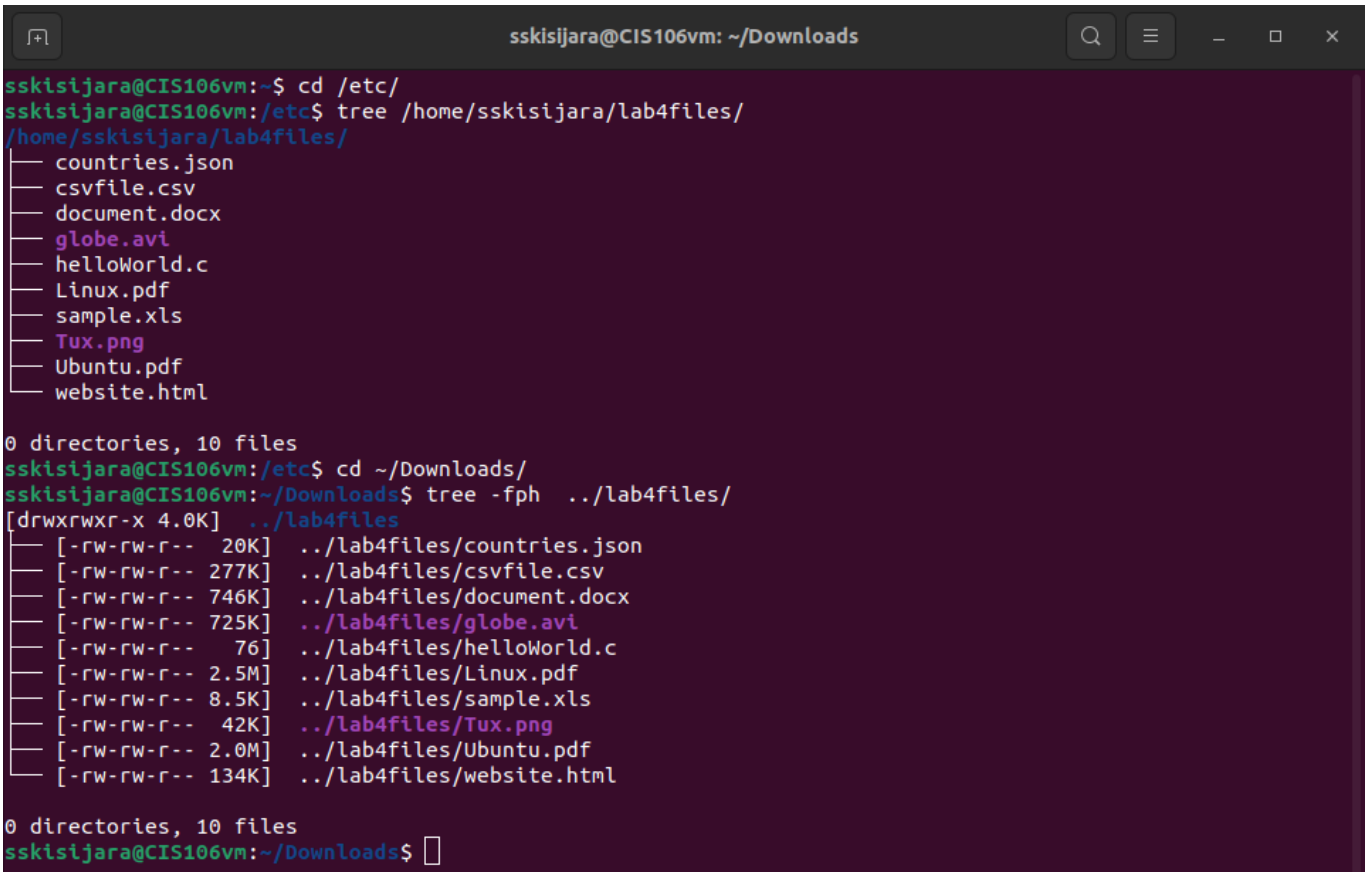
Question 2

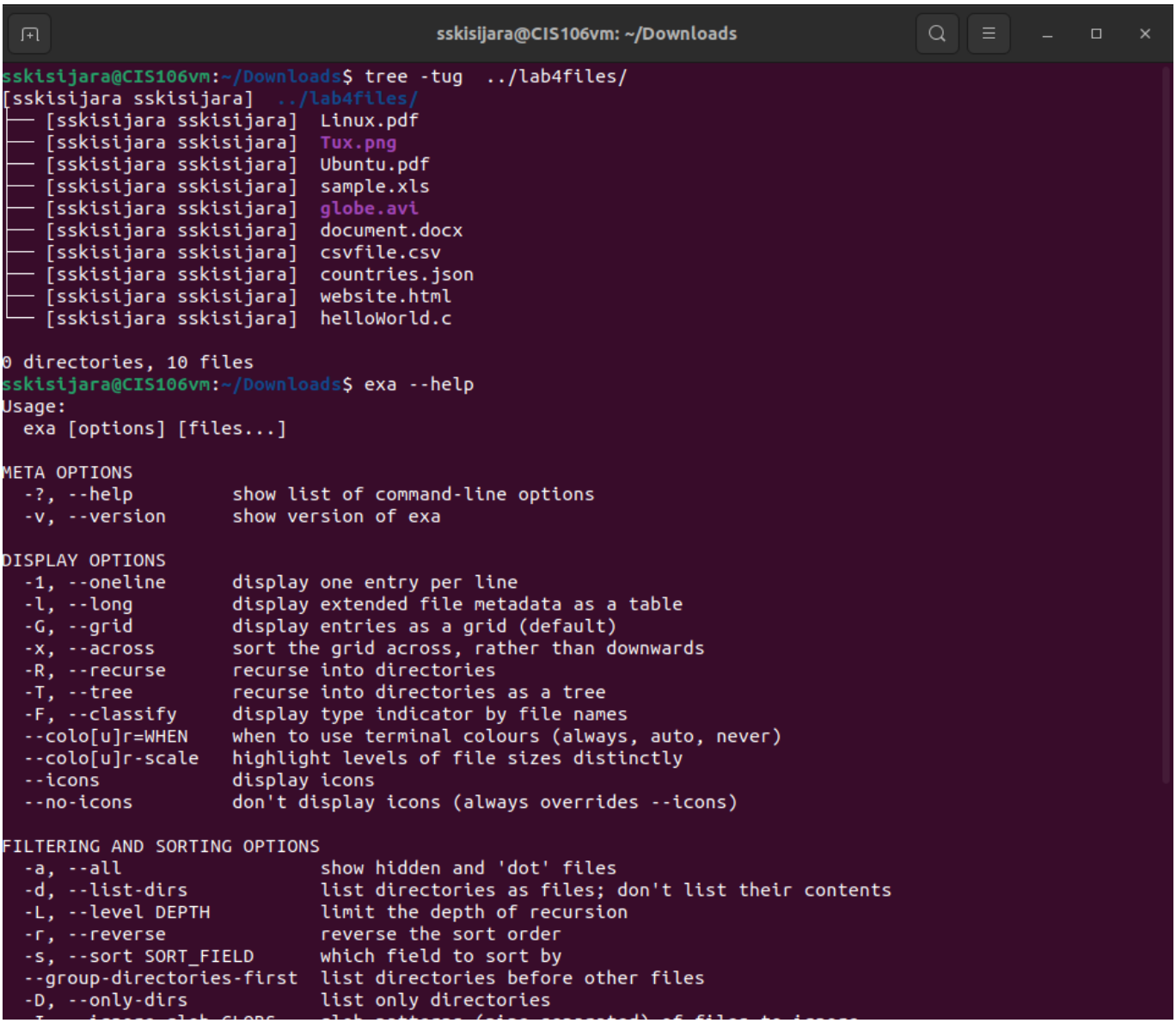
```
sskisijara@CIS106vm:~/Documents$ pwd
/home/sskisijara/Documents
sskisijara@CIS106vm:~/Documents$ cd /usr/share/
sskisijara@CIS106vm:/usr/share$ ls /home/sskisijara/lab4files/
countries.json  document.docx  helloWorld.c  sample.xls  Ubuntu.pdf
csvfile.csv     globe.avi      Linux.pdf     Tux.png     website.html
sskisijara@CIS106vm:/usr/share$ cd /home/sskisijara/lab4files/
sskisijara@CIS106vm:~/lab4files$ ls -l
total 6588
-rw-rw-r-- 1 sskisijara sskisijara   20471 Feb 22  2022 countries.json
-rw-rw-r-- 1 sskisijara sskisijara  284042 Feb 22  2022 csvfile.csv
-rw-rw-r-- 1 sskisijara sskisijara  764176 Feb 22  2022 document.docx
-rw-rw-r-- 1 sskisijara sskisijara  742478 Feb 22  2022 globe.avi
-rw-rw-r-- 1 sskisijara sskisijara      76 Feb 22  2022 helloWorld.c
-rw-rw-r-- 1 sskisijara sskisijara 2600138 Feb 22  2022 Linux.pdf
-rw-rw-r-- 1 sskisijara sskisijara    8704 Feb 22  2022 sample.xls
-rw-rw-r-- 1 sskisijara sskisijara   42777 Feb 22  2022 Tux.png
-rw-rw-r-- 1 sskisijara sskisijara 2114053 Feb 22  2022 Ubuntu.pdf
-rw-rw-r-- 1 sskisijara sskisijara  137453 Feb 22  2022 website.html
sskisijara@CIS106vm:~/lab4files$ ls -lh
total 6.5M
-rw-rw-r-- 1 sskisijara sskisijara  20K Feb 22  2022 countries.json
-rw-rw-r-- 1 sskisijara sskisijara 278K Feb 22  2022 csvfile.csv
-rw-rw-r-- 1 sskisijara sskisijara 747K Feb 22  2022 document.docx
-rw-rw-r-- 1 sskisijara sskisijara 726K Feb 22  2022 globe.avi
-rw-rw-r-- 1 sskisijara sskisijara   76 Feb 22  2022 helloWorld.c
-rw-rw-r-- 1 sskisijara sskisijara 2.5M Feb 22  2022 Linux.pdf
-rw-rw-r-- 1 sskisijara sskisijara 8.5K Feb 22  2022 sample.xls
-rw-rw-r-- 1 sskisijara sskisijara  42K Feb 22  2022 Tux.png
-rw-rw-r-- 1 sskisijara sskisijara 2.1M Feb 22  2022 Ubuntu.pdf
-rw-rw-r-- 1 sskisijara sskisijara 135K Feb 22  2022 website.html
sskisijara@CIS106vm:~/lab4files$
```

```
sskisijara@CIS106vm: ~/lab4files
sskisijara@CIS106vm:~/lab4files$ ls -lh
total 6.5M
-rw-rw-r-- 1 sskisijara sskisijara  20K Feb 22  2022 countries.json
-rw-rw-r-- 1 sskisijara sskisijara 278K Feb 22  2022 csvfile.csv
-rw-rw-r-- 1 sskisijara sskisijara 747K Feb 22  2022 document.docx
-rw-rw-r-- 1 sskisijara sskisijara 726K Feb 22  2022 globe.avi
-rw-rw-r-- 1 sskisijara sskisijara   76 Feb 22  2022 helloWorld.c
-rw-rw-r-- 1 sskisijara sskisijara 2.5M Feb 22  2022 Linux.pdf
-rw-rw-r-- 1 sskisijara sskisijara 8.5K Feb 22  2022 sample.xls
-rw-rw-r-- 1 sskisijara sskisijara  42K Feb 22  2022 Tux.png
-rw-rw-r-- 1 sskisijara sskisijara 2.1M Feb 22  2022 Ubuntu.pdf
-rw-rw-r-- 1 sskisijara sskisijara 135K Feb 22  2022 website.html
sskisijara@CIS106vm:~/lab4files$ ls -lhS
total 6.5M
-rw-rw-r-- 1 sskisijara sskisijara 2.5M Feb 22  2022 Linux.pdf
-rw-rw-r-- 1 sskisijara sskisijara 2.1M Feb 22  2022 Ubuntu.pdf
-rw-rw-r-- 1 sskisijara sskisijara 747K Feb 22  2022 document.docx
-rw-rw-r-- 1 sskisijara sskisijara 726K Feb 22  2022 globe.avi
-rw-rw-r-- 1 sskisijara sskisijara 278K Feb 22  2022 csvfile.csv
-rw-rw-r-- 1 sskisijara sskisijara 135K Feb 22  2022 website.html
-rw-rw-r-- 1 sskisijara sskisijara  42K Feb 22  2022 Tux.png
-rw-rw-r-- 1 sskisijara sskisijara  20K Feb 22  2022 countries.json
-rw-rw-r-- 1 sskisijara sskisijara 8.5K Feb 22  2022 sample.xls
-rw-rw-r-- 1 sskisijara sskisijara   76 Feb 22  2022 helloWorld.c
sskisijara@CIS106vm:~/lab4files$
```


sskisijara@CIS106vm: ~/lab4files
sskisijara@CIS106vm:~/lab4files$ ls -lhSgGi
total 6.5M
1195018 -rw-rw-r-- 1 2.5M Feb 22 2022 Linux.pdf
1195074 -rw-rw-r-- 1 2.1M Feb 22 2022 Ubuntu.pdf
1195092 -rw-rw-r-- 1 747K Feb 22 2022 document.docx
1195093 -rw-rw-r-- 1 726K Feb 22 2022 globe.avi
1195091 -rw-rw-r-- 1 278K Feb 22 2022 csvfile.csv
1195096 -rw-rw-r-- 1 135K Feb 22 2022 website.html
1195072 -rw-rw-r-- 1 42K Feb 22 2022 Tux.png
1195079 -rw-rw-r-- 1 20K Feb 22 2022 countries.json
1195095 -rw-rw-r-- 1 8.5K Feb 22 2022 sample.xls
1195094 -rw-rw-r-- 1 76 Feb 22 2022 helloWorld.c
sskisijara@CIS106vm:~/lab4files$ ls -Xr
sample.xls Ubuntu.pdf countries.json document.docx helloWorld.c
Tux.png Linux.pdf website.html csvfile.csv globe.avi
sskisijara@CIS106vm:~/lab4files$

Question 3

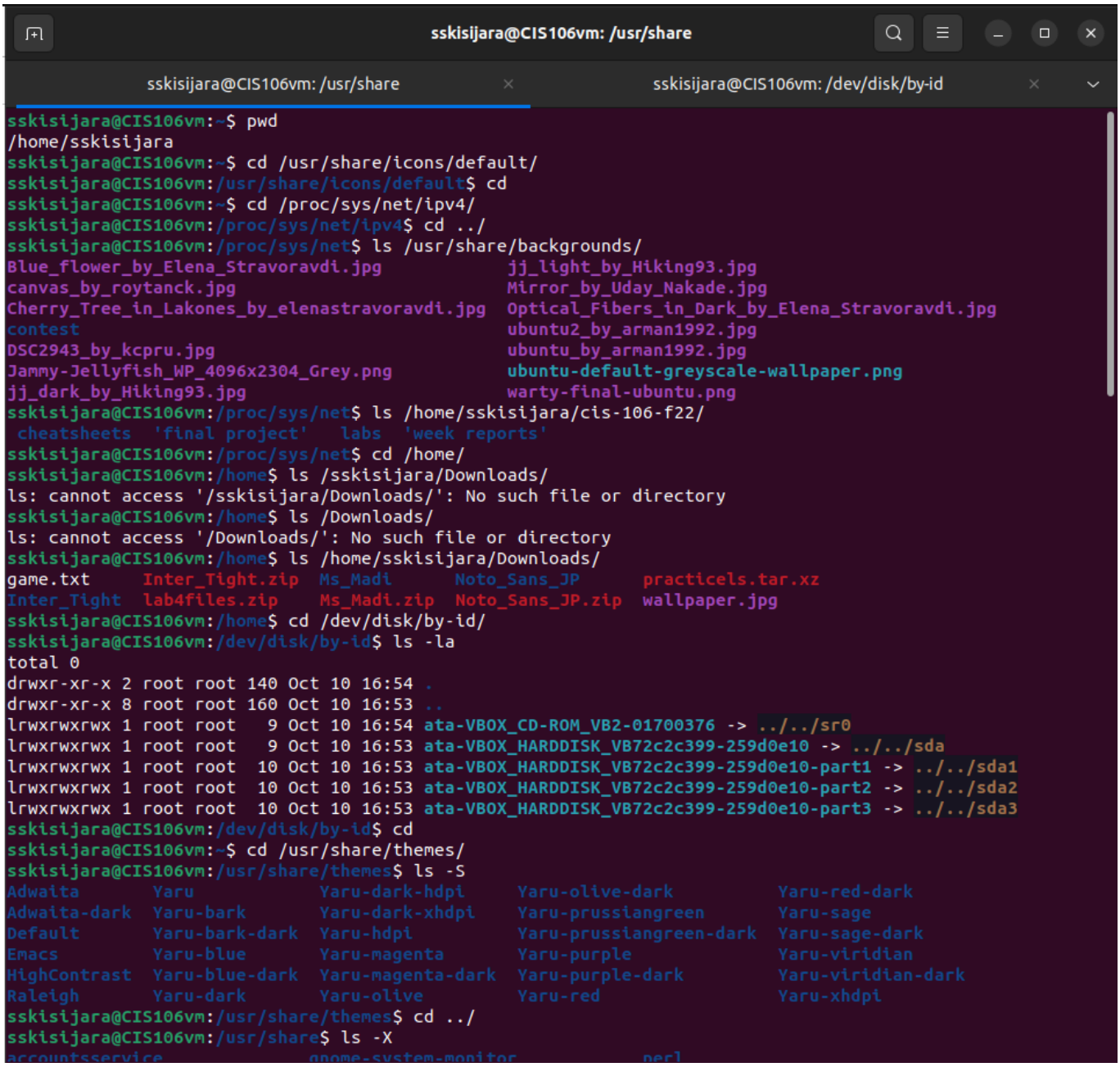

sskisijara@CIS106vm: ~/Downloads
sskisijara@CIS106vm:~$ cd /etc/
sskisijara@CIS106vm:/etc$ tree /home/sskisijara/lab4files/
/home/sskisijara/lab4files/
├── countries.json
├── csvfile.csv
├── document.docx
├── globe.avi
├── helloWorld.c
├── Linux.pdf
├── sample.xls
├── Tux.png
├── Ubuntu.pdf
└── website.html
0 directories, 10 files
sskisijara@CIS106vm:/etc$ cd ~/Downloads/
sskisijara@CIS106vm:~/Downloads$ tree -fph ../lab4files/
[drwxrwxr-x 4.0K] ../lab4files
├── [-rw-rw-r-- 20K] ../lab4files/countries.json
├── [-rw-rw-r-- 277K] ../lab4files/csvfile.csv
├── [-rw-rw-r-- 746K] ../lab4files/document.docx
├── [-rw-rw-r-- 725K] ../lab4files/globe.avi
├── [-rw-rw-r-- 76] ../lab4files/helloWorld.c
├── [-rw-rw-r-- 2.5M] ../lab4files/Linux.pdf
├── [-rw-rw-r-- 8.5K] ../lab4files/sample.xls
├── [-rw-rw-r-- 42K] ../lab4files/Tux.png
├── [-rw-rw-r-- 2.0M] ../lab4files/Ubuntu.pdf
└── [-rw-rw-r-- 134K] ../lab4files/website.html
0 directories, 10 files
sskisijara@CIS106vm:~/Downloads$

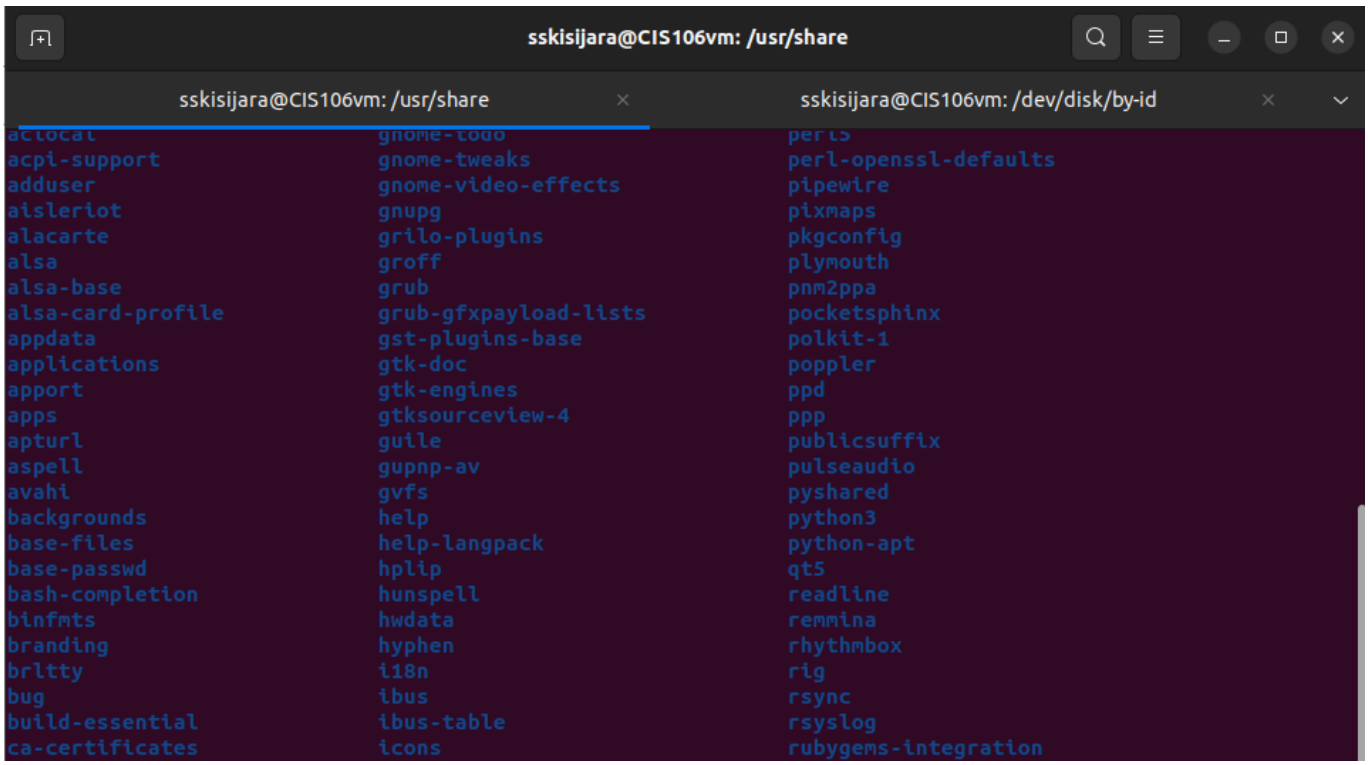

sskisijara@CIS106vm: ~/Downloads
sskisijara@CIS106vm:~/Downloads$ tree -tug ../lab4files/
[sskisijara sskisijara] ../lab4files/
├── [sskisijara sskisijara] Linux.pdf
├── [sskisijara sskisijara] Tux.png
├── [sskisijara sskisijara] Ubuntu.pdf
├── [sskisijara sskisijara] sample.xls
├── [sskisijara sskisijara] globe.avi
├── [sskisijara sskisijara] document.docx
├── [sskisijara sskisijara] csvfile.csv
├── [sskisijara sskisijara] countries.json
├── [sskisijara sskisijara] website.html
└── [sskisijara sskisijara] helloWorld.c
0 directories, 10 files
sskisijara@CIS106vm:~/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
--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.
```

```
sskisijara@CIS106vm: ~/Downloads
sskisijara@CIS106vm:~/Downloads$ exa ~/lab4files/ -l
.rw-rw-r--  20k sskisijara 22 Feb 14:16 countries.json
.rw-rw-r-- 284k sskisijara 22 Feb 14:15 csvfile.csv
.rw-rw-r-- 764k sskisijara 22 Feb 14:13 document.docx
.rw-rw-r-- 742k sskisijara 22 Feb 14:12 globe.avi
.rw-rw-r--   76 sskisijara 22 Feb 14:18 helloWorld.c
.rw-rw-r-- 2.6M sskisijara 22 Feb 14:10 Linux.pdf
.rw-rw-r-- 8.7k sskisijara 22 Feb 14:12 sample.xls
.rw-rw-r--  43k sskisijara 22 Feb 14:10 Tux.png
.rw-rw-r-- 2.1M sskisijara 22 Feb 14:11 Ubuntu.pdf
.rw-rw-r-- 137k sskisijara 22 Feb 14:16 website.html
sskisijara@CIS106vm:~/Downloads$
sskisijara@CIS106vm:~/Downloads$ exa ~/lab4files/ -lh
Permissions Size User       Date Modified Name
.rw-rw-r--  20k sskisijara 22 Feb 14:16  countries.json
.rw-rw-r-- 284k sskisijara 22 Feb 14:15  csvfile.csv
.rw-rw-r-- 764k sskisijara 22 Feb 14:13  document.docx
.rw-rw-r-- 742k sskisijara 22 Feb 14:12  globe.avi
.rw-rw-r--   76 sskisijara 22 Feb 14:18  helloWorld.c
.rw-rw-r-- 2.6M sskisijara 22 Feb 14:10  Linux.pdf
.rw-rw-r-- 8.7k sskisijara 22 Feb 14:12  sample.xls
.rw-rw-r--  43k sskisijara 22 Feb 14:10  Tux.png
.rw-rw-r-- 2.1M sskisijara 22 Feb 14:11  Ubuntu.pdf
.rw-rw-r-- 137k sskisijara 22 Feb 14:16  website.html
sskisijara@CIS106vm:~/Downloads$ exa ~/lab4files/ -lh --no-user -U
Permissions Size Date Created Name
.rw-rw-r--  20k 14 Oct 16:43 countries.json
.rw-rw-r-- 284k 14 Oct 16:43 csvfile.csv
.rw-rw-r-- 764k 14 Oct 16:43 document.docx
.rw-rw-r-- 742k 14 Oct 16:43 globe.avi
.rw-rw-r--   76 14 Oct 16:43 helloWorld.c
.rw-rw-r-- 2.6M 14 Oct 16:43 Linux.pdf
.rw-rw-r-- 8.7k 14 Oct 16:43 sample.xls
.rw-rw-r--  43k 14 Oct 16:43 Tux.png
.rw-rw-r-- 2.1M 14 Oct 16:43 Ubuntu.pdf
.rw-rw-r-- 137k 14 Oct 16:43 website.html
sskisijara@CIS106vm:~/Downloads$
```

Question 4 Challenge Question


sskisijara@CIS106vm: /usr/share
sskisijara@CIS106vm: /usr/share
sskisijara@CIS106vm: /dev/disk/by-id
sskisijara@CIS106vm:~$ pwd
/home/sskisijara
sskisijara@CIS106vm:~$ cd /usr/share/icons/default/
sskisijara@CIS106vm:/usr/share/icons/default$ cd
sskisijara@CIS106vm:~$ cd /proc/sys/net/ipv4/
sskisijara@CIS106vm:/proc/sys/net/ipv4$ cd ../
sskisijara@CIS106vm:/proc/sys/net$ 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
sskisijara@CIS106vm:/proc/sys/net$ ls /home/sskisijara/cis-106-f22/
cheatsheets 'final project' labs 'week reports'
sskisijara@CIS106vm:/proc/sys/net$ cd /home/
sskisijara@CIS106vm:/home$ ls /sskisijara/Downloads/
ls: cannot access '/sskisijara/Downloads/': No such file or directory
sskisijara@CIS106vm:/home$ ls /Downloads/
ls: cannot access '/Downloads/': No such file or directory
sskisijara@CIS106vm:/home$ ls /home/sskisijara/Downloads/
game.txt Inter_Tight.zip Ms_Madi Noto_Sans_JP practicels.tar.xz
Inter_Tight lab4files.zip Ms_Madi.zip Noto_Sans_JP.zip wallpaper.jpg
sskisijara@CIS106vm:/home$ cd /dev/disk/by-id/
sskisijara@CIS106vm:/dev/disk/by-id$ ls -la
total 0
drwxr-xr-x 2 root root 140 Oct 10 16:54 .
drwxr-xr-x 8 root root 160 Oct 10 16:53 ..
lrwxrwxrwx 1 root root 9 Oct 10 16:54 ata-VBOX_CD-ROM_VB2-01700376 -> ../../sr0
lrwxrwxrwx 1 root root 9 Oct 10 16:53 ata-VBOX_HARDDISK_VB72c2c399-259d0e10 -> ../../sda
lrwxrwxrwx 1 root root 10 Oct 10 16:53 ata-VBOX_HARDDISK_VB72c2c399-259d0e10-part1 -> ../../sda1
lrwxrwxrwx 1 root root 10 Oct 10 16:53 ata-VBOX_HARDDISK_VB72c2c399-259d0e10-part2 -> ../../sda2
lrwxrwxrwx 1 root root 10 Oct 10 16:53 ata-VBOX_HARDDISK_VB72c2c399-259d0e10-part3 -> ../../sda3
sskisijara@CIS106vm:/dev/disk/by-id$ cd
sskisijara@CIS106vm:~$ cd /usr/share/themes/
sskisijara@CIS106vm:/usr/share/themes$ ls -S
Adwaita Adwaita-dark Default Emacs HighContrast Raleigh
Yaru Yaru-bark Yaru-bark-dark Yaru-blue Yaru-blue-dark Yaru-dark
Yaru-dark-hdpi Yaru-dark-xhdpi Yaru-hdpi Yaru-magenta Yaru-magenta-dark Yaru-olive
Yaru-olive-dark Yaru-prussiangreen Yaru-prussiangreen-dark Yaru-purple Yaru-purple-dark Yaru-red
Yaru-red-dark Yaru-sage Yaru-sage-dark Yaru-viridian Yaru-viridian-dark Yaru-xhdpi
sskisijara@CIS106vm:/usr/share/themes$ cd ../
sskisijara@CIS106vm:/usr/share$ ls -X
accountsservice gnome-system-monitor perl


sskisijara@CIS106vm: /usr/share
sskisijara@CIS106vm: /usr/share
sskisijara@CIS106vm: /dev/disk/by-id
aclocal gnome-todo perl5
acpi-support gnome-tweaks perl-openssl-defaults
adduser gnome-video-effects pipewire
aisleriot gnupg pixmaps
alacarte grilo-plugins pkgconfig
alsa groff plymouth
alsa-base grub pnm2ppa
alsa-card-profile grub-gfxpayload-lists pocketsphinx
appdata gst-plugins-base polkit-1
applications gtk-doc poppler
apport gtk-engines ppd
apps gtksourceview-4 ppp
apturl guile publicsuffix
aspell gupnp-av pulseaudio
avahi gvfs pyshared
backgrounds help python3
base-files help-langpack python-apt
base-passwd hplip qt5
bash-completion hunspell readline
binfmts hwdata remmina
branding hyphen rhythmbox
brltty i18n rig
bug ibus rsync
build-essential ibus-table rsyslog
ca-certificates icons rubygems-integration

```
caffeine-indicator          ImageMagick-6               rygel
catdoc                      im-config                   samba
cmake                       indicator-application       seahorse
cogl                        indicator-power             secureboot
color                       indicators                  sensible-utils
colord                      info                        session-migration
common-licenses             initramfs-tools             sgml
consolefonts                installed-tests             sgml-base
console-setup               ipp-usb                     sgml-data
consoletrans                iptables                    snmp
cowsay                      iso-codes                   software-properties
cups                        java                        solid
dbus-1                      javascript                  sounds
dconf                       kde4                        source-highlight
debconf                     keyrings                    speech-dispatcher
debhelper                   language-selector           ssl-cert
debianutils                 language-support            system-config-printer
defaults                    language-tools              systemd
desktop-directories         libcaca                     systemtap
dict                        libc-bin                    tabset
dictionaries-common         libdebuginfod-common        tcltk
```

```
sskisijara@CIS106vm: /usr/share
sskisijara@CIS106vm: /usr/share   sskisijara@CIS106vm: /dev/disk/by-id
eog                         libreoffice                 transmission
evince                      librevenge                  ubuntu
evolution-data-server       libthai                     ubuntu-drivers-common
figlet                      libwacom                    ubuntu-release-upgrader
file                        lightdm                     ubuntu-wayland
file-roller                 lintian                     ucf
fish                        linux-sound-base            ufw
flameshot                   locale                      unattended-upgrades
fontconfig                  locale-langpack             unity
fonts                       locales                     update-manager
fonts-droid-fallback        lto-disabled-list           update-notifier
fonts-sil-abyssinica        m2300w                      upstart
fonts-sil-padauk            man                         usb-creator
foo2qpdl                    man-db                      usb_modeswitch
foo2zjs                     mate-panel                  vala
fwupd                       maven-repo                  vim
gamemode                    media-player-info           vlc
games                       menu                        vulkan
gcc                         mesa-demos                  w3m
GConf                       metainfo                    wayland-sessions
gdb                         mfx                         X11
gdm                         mime                        xapps-common
geany                       misc                        xdg-desktop-portal
gedit                       mobile-broadband-provider-info xml
GeoIP                       ModemManager                xml-core
gettext                     mousetweaks                 xsessions
ghostscript                 mythes                      yelp
git-core                    nano                        yelp-xsl
gitweb                      nautilus                    zenity
glade                       nautilus-python             zoneinfo
glvnd                       nautilus-share              zoneinfo-icu
gnome                       nemo                        zsh
gnome-applets               netpbm                      gir-1.0
gnome-background-properties netplan                     glib-2.0
gnome-bluetooth             numpy3                      gnome-bluetooth-3.0
gnome-control-center        open-vm-tools               goa-1.0
gnome-initial-setup         openvpn                     gstreamer-1.0
gnome-logs                  orca                        gtk-4.0
gnome-mahjongg              os-prober                   gtksourceview-2.0
gnome-panel                 p11-kit                     gtksourceview-3.0
gnome-remote-desktop        package-data-downloads      gupnp-dlna-2.0
gnome-session               PackageKit                  org.gnome.Characters
gnome-settings-daemon       pam                         drirc.d
gnome-shell                 pam-configs
sskisijara@CIS106vm:/usr/share$
```