Lab 4 Submission

Question 1

Question 2

```
djnunez43983@CIS106VM:~$ cd Downloads/
djnunez43983@CIS106VM:~/Downloads$ cd ../../
djnunez43983@CIS106VM:/home$ pwd
/home
djnunez43983@CIS106VM:/home$ ls
djnunez43983
djnunez43983@CIS106VM:/home$ cd djnunez43983
djnunez43983@CIS106VM:~$ cd djnunez43983/
bash: cd: djnunez43983/: No such file or directory
djnunez43983@CIS106VM:~$ pwd
/home/djnunez43983
djnunez43983@CIS106VM:~$ cd
djnunez43983@CIS106VM:~$ pwd
/home/djnunez43983
djnunez43983@CIS106VM:~$ cd ../
djnunez43983@CIS106VM:/home$ cd djnunez43983/
djnunez43983@CIS106VM:~$ ls
cis106     Documents  gitcommands.txt     Music     Public   Templates
Desktop    Downloads  installPrograms.sh  Pictures  snap     Videos
djnunez43983@CIS106VM:~$ cd djnunez43983/Documents/
bash: cd: djnunez43983/Documents/: No such file or directory
djnunez43983@CIS106VM:~$ cd ../
djnunez43983@CIS106VM:/home$ cd djnunez43983/Documents/
djnunez43983@CIS106VM:~/Documents$ pwd
/home/djnunez43983/Documents
djnunez43983@CIS106VM:~/Documents$ cd /usr/share/
djnunez43983@CIS106VM:/usr/share$ ls /home/djnunez43983/lab4files/
countries.json  document.docx  helloWorld.c  sample.xls  Ubuntu.pdf
csvfile.csv     globe.avi      Linux.pdf     Tux.png     website.html
djnunez43983@CIS106VM:/usr/share$ cd /home/djnunez43983/lab4files/
djnunez43983@CIS106VM:~/lab4files$ ls -l
total 6580
-rw-rw-r-- 1 djnunez43983 djnunez43983   20471 Feb 22  2022 countries.json
-rw-rw-r-- 1 djnunez43983 djnunez43983  284042 Feb 22  2022 csvfile.csv
-rw-rw-r-- 1 djnunez43983 djnunez43983  764176 Feb 22  2022 document.docx
-rw-rw-r-- 1 djnunez43983 djnunez43983  742478 Feb 22  2022 globe.avi
-rw-rw-r-- 1 djnunez43983 djnunez43983      76 Feb 22  2022 helloWorld.c
-rw-rw-r-- 1 djnunez43983 djnunez43983 2600138 Feb 22  2022 Linux.pdf
-rw-rw-r-- 1 djnunez43983 djnunez43983    8704 Feb 22  2022 sample.xls
-rw-rw-r-- 1 djnunez43983 djnunez43983   42777 Feb 22  2022 Tux.png
-rw-rw-r-- 1 djnunez43983 djnunez43983 2114053 Feb 22  2022 Ubuntu.pdf
-rw-rw-r-- 1 djnunez43983 djnunez43983  137453 Feb 22  2022 website.html
djnunez43983@CIS106VM:~/lab4files$ ▮              Show Applications
```

```
djnunez43983@CIS106VM:~/lab4files$ ls -lh
total 6.5M
-rw-rw-r-- 1 djnunez43983 djnunez43983  20K Feb 22  2022 countries.json
-rw-rw-r-- 1 djnunez43983 djnunez43983 278K Feb 22  2022 csvfile.csv
-rw-rw-r-- 1 djnunez43983 djnunez43983 747K Feb 22  2022 document.docx
-rw-rw-r-- 1 djnunez43983 djnunez43983 726K Feb 22  2022 globe.avi
-rw-rw-r-- 1 djnunez43983 djnunez43983   76 Feb 22  2022 helloWorld.c
-rw-rw-r-- 1 djnunez43983 djnunez43983 2.5M Feb 22  2022 Linux.pdf
-rw-rw-r-- 1 djnunez43983 djnunez43983 8.5K Feb 22  2022 sample.xls
-rw-rw-r-- 1 djnunez43983 djnunez43983  42K Feb 22  2022 Tux.png
-rw-rw-r-- 1 djnunez43983 djnunez43983 2.1M Feb 22  2022 Ubuntu.pdf
-rw-rw-r-- 1 djnunez43983 djnunez43983 135K Feb 22  2022 website.html
djnunez43983@CIS106VM:~/lab4files$ ls -lhS
total 6.5M
-rw-rw-r-- 1 djnunez43983 djnunez43983 2.5M Feb 22  2022 Linux.pdf
-rw-rw-r-- 1 djnunez43983 djnunez43983 2.1M Feb 22  2022 Ubuntu.pdf
-rw-rw-r-- 1 djnunez43983 djnunez43983 747K Feb 22  2022 document.docx
-rw-rw-r-- 1 djnunez43983 djnunez43983 726K Feb 22  2022 globe.avi
```

```
-rw-rw-r-- 1 djnunez43983 djnunez43983 726K Feb 22  2022 globe.avi
-rw-rw-r-- 1 djnunez43983 djnunez43983 278K Feb 22  2022 csvfile.csv
-rw-rw-r-- 1 djnunez43983 djnunez43983 135K Feb 22  2022 website.html
-rw-rw-r-- 1 djnunez43983 djnunez43983  42K Feb 22  2022 Tux.png
-rw-rw-r-- 1 djnunez43983 djnunez43983  20K Feb 22  2022 countries.json
-rw-rw-r-- 1 djnunez43983 djnunez43983 8.5K Feb 22  2022 sample.xls
-rw-rw-r-- 1 djnunez43983 djnunez43983   76 Feb 22  2022 helloWorld.c
djnunez43983@CIS106VM:~/lab4files$
```

```
-rw-rw-r-- 1 djnunez43983 djnunez43983  20K Feb 22  2022 countries.json
-rw-rw-r-- 1 djnunez43983 djnunez43983 8.5K Feb 22  2022 sample.xls
-rw-rw-r-- 1 djnunez43983 djnunez43983   76 Feb 22  2022 helloWorld.c
djnunez43983@CIS106VM:~/lab4files$ ls -lhSgGi
total 6.5M
1580696 -rw-rw-r-- 1 2.5M Feb 22  2022 Linux.pdf
1580699 -rw-rw-r-- 1 2.1M Feb 22  2022 Ubuntu.pdf
1580701 -rw-rw-r-- 1 747K Feb 22  2022 document.docx
1580702 -rw-rw-r-- 1 726K Feb 22  2022 globe.avi
1580700 -rw-rw-r-- 1 278K Feb 22  2022 csvfile.csv
1580705 -rw-rw-r-- 1 135K Feb 22  2022 website.html
1580698 -rw-rw-r-- 1  42K Feb 22  2022 Tux.png
1580697 -rw-rw-r-- 1  20K Feb 22  2022 countries.json
1580704 -rw-rw-r-- 1 8.5K Feb 22  2022 sample.xls
1580703 -rw-rw-r-- 1   76 Feb 22  2022 helloWorld.c
djnunez43983@CIS106VM:~/lab4files$ ls -Xr
sample.xls  Tux.png  Ubuntu.pdf  Linux.pdf  countries.json  website.html  document.docx  csvfile.csv  helloWorld.c  globe.avi
djnunez43983@CIS106VM:~/lab4files$
```

Question 3

```
directories, 10 files
djnunez43983@CIS106VM:~/Downloads$ tree -tug ../lab4files/
[djnunez43983 djnunez43983]  ../lab4files/
── [djnunez43983 djnunez43983]  Linux.pdf
── [djnunez43983 djnunez43983]  Tux.png
── [djnunez43983 djnunez43983]  Ubuntu.pdf
── [djnunez43983 djnunez43983]  sample.xls
── [djnunez43983 djnunez43983]  globe.avi
── [djnunez43983 djnunez43983]  document.docx
── [djnunez43983 djnunez43983]  csvfile.csv
── [djnunez43983 djnunez43983]  countries.json
── [djnunez43983 djnunez43983]  website.html
── [djnunez43983 djnunez43983]  helloWorld.c

directories, 10 files
djnunez43983@CIS106VM:~/Downloads$ exa --help
Usage:
  exa [options] [files...]

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

```
djnunez43983@CIS106VM:~/Downloads$ exa /home/djnunez43983/lab4files/ -l
.rw-rw-r--   20k djnunez43983 22 Feb 14:16 countries.json
.rw-rw-r--  284k djnunez43983 22 Feb 14:15 csvfile.csv
.rw-rw-r--  764k djnunez43983 22 Feb 14:13 document.docx
.rw-rw-r--  742k djnunez43983 22 Feb 14:12 globe.avi
.rw-rw-r--   76 djnunez43983 22 Feb 14:18 helloWorld.c
.rw-rw-r--  2.6M djnunez43983 22 Feb 14:10 Linux.pdf
.rw-rw-r--  8.7k djnunez43983 22 Feb 14:12 sample.xls
.rw-rw-r--   43k djnunez43983 22 Feb 14:10 Tux.png
.rw-rw-r--  2.1M djnunez43983 22 Feb 14:11 Ubuntu.pdf
.rw-rw-r--  137k djnunez43983 22 Feb 14:16 website.html
djnunez43983@CIS106VM:~/Downloads$ exa /home/djnunez43983/lab4files/ -lh
Permissions Size User          Date Modified Name
.rw-rw-r--    20k djnunez43983 22 Feb 14:16  countries.json
.rw-rw-r--   284k djnunez43983 22 Feb 14:15  csvfile.csv
.rw-rw-r--   764k djnunez43983 22 Feb 14:13  document.docx
.rw-rw-r--   742k djnunez43983 22 Feb 14:12  globe.avi
.rw-rw-r--    76 djnunez43983 22 Feb 14:18  helloWorld.c
.rw-rw-r--   2.6M djnunez43983 22 Feb 14:10  Linux.pdf
.rw-rw-r--   8.7k djnunez43983 22 Feb 14:12  sample.xls
.rw-rw-r--    43k djnunez43983 22 Feb 14:10  Tux.png
.rw-rw-r--   2.1M djnunez43983 22 Feb 14:11  Ubuntu.pdf
.rw-rw-r--   137k djnunez43983 22 Feb 14:16  website.html
djnunez43983@CIS106VM:~/Downloads$ 
```

```
djnunez43983@CIS106VM:~/Downloads$ exa /home/djnunez43983/lab4files/ -l
.rw-rw-r--   20k djnunez43983 22 Feb 14:16 countries.json
.rw-rw-r--  284k djnunez43983 22 Feb 14:15 csvfile.csv
.rw-rw-r--  764k djnunez43983 22 Feb 14:13 document.docx
.rw-rw-r--  742k djnunez43983 22 Feb 14:12 globe.avi
.rw-rw-r--   76 djnunez43983 22 Feb 14:18 helloWorld.c
.rw-rw-r--  2.6M djnunez43983 22 Feb 14:10 Linux.pdf
.rw-rw-r--  8.7k djnunez43983 22 Feb 14:12 sample.xls
.rw-rw-r--   43k djnunez43983 22 Feb 14:10 Tux.png
.rw-rw-r--  2.1M djnunez43983 22 Feb 14:11 Ubuntu.pdf
.rw-rw-r--  137k djnunez43983 22 Feb 14:16 website.html
djnunez43983@CIS106VM:~/Downloads$ exa /home/djnunez43983/lab4files/ -lh
Permissions Size User          Date Modified Name
.rw-rw-r--   20k djnunez43983 22 Feb 14:16   countries.json
.rw-rw-r--  284k djnunez43983 22 Feb 14:15   csvfile.csv
.rw-rw-r--  764k djnunez43983 22 Feb 14:13   document.docx
.rw-rw-r--  742k djnunez43983 22 Feb 14:12   globe.avi
.rw-rw-r--   76 djnunez43983 22 Feb 14:18    helloWorld.c
.rw-rw-r--  2.6M djnunez43983 22 Feb 14:10   Linux.pdf
.rw-rw-r--  8.7k djnunez43983 22 Feb 14:12   sample.xls
.rw-rw-r--   43k djnunez43983 22 Feb 14:10   Tux.png
.rw-rw-r--  2.1M djnunez43983 22 Feb 14:11   Ubuntu.pdf
.rw-rw-r--  137k djnunez43983 22 Feb 14:16   website.html
djnunez43983@CIS106VM:~/Downloads$ exa /home/djnunez43983/lab4files/ -lh --no-user -U
Permissions Size Date Created Name
.rw-rw-r--   20k 15 Oct 20:25 countries.json
.rw-rw-r--  284k 15 Oct 20:25 csvfile.csv
.rw-rw-r--  764k 15 Oct 20:25 document.docx
.rw-rw-r--  742k 15 Oct 20:25 globe.avi
.rw-rw-r--   76 15 Oct 20:25 helloWorld.c
.rw-rw-r--  2.6M 15 Oct 20:25 Linux.pdf
.rw-rw-r--  8.7k 15 Oct 20:25 sample.xls
.rw-rw-r--   43k 15 Oct 20:25 Tux.png
.rw-rw-r--  2.1M 15 Oct 20:25 Ubuntu.pdf
.rw-rw-r--  137k 15 Oct 20:25 website.html
djnunez43983@CIS106VM:~/Downloads$ 
```

Question 4

```
djnunez43983@CIS106VM:~/Downloads$ pwd
/home/djnunez43983/Downloads
djnunez43983@CIS106VM:~/Downloads$ cd
djnunez43983@CIS106VM:~$ pwd
/home/djnunez43983
djnunez43983@CIS106VM:~$ ls
cis106      Documents    gitcommands.txt        lab4files  Pictures   snap        Videos
Desktop    Downloads    installPrograms.sh   Music        Public      Templates
djnunez43983@CIS106VM:~$ cd /usr/share/icons/default/
djnunez43983@CIS106VM:/usr/share/icons/default$ pwd
/usr/share/icons/default
djnunez43983@CIS106VM:/usr/share/icons/default$ cd
djnunez43983@CIS106VM:~$ cd /proc/sys/ipv4
bash: cd: /proc/sys/ipv4: No such file or directory
djnunez43983@CIS106VM:~$ cd /proc/sys/net/ipv4
```

```
/nome/djnunez43983
djnunez43983@CIS106VM:~$ cd /usr/share/icons/default/
djnunez43983@CIS106VM:/usr/share/icons/default$ cd /proc/sys/net/ipv4
djnunez43983@CIS106VM:/proc/sys/net/ipv4$ cd -
/usr/share/icons/default
djnunez43983@CIS106VM:/usr/share/icons/default$ 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
```

```
djnunez43983@CIS106VM:/usr/share/icons/default$ ls /home/djnunez43983/cis106/
cheatSheets  finalproject  labs  weekreports
```

```
djnunez43983@CIS106VM:/dev/disk/by-id$ ls -a /home/djnunez43983/
.                Desktop              .local              Templates
..               Documents            Music               .vboxclient-clipboard.pid
.bash_history    Downloads            Pictures            .vboxclient-display-svga-x11.pid
.bash_logout     gitcommands.txt      .pki                .vboxclient-draganddrop.pid
.bashrc          .gitconfig           .profile            .vboxclient-seamless.pid
.cache           .gnupg               Public              Videos
cis106           installPrograms.sh   snap                .vscode
.cis106.png      lab4files            .ssh
.config          .lesshst             .sudo_as_admin_successful
djnunez43983@CIS106VM:/dev/disk/by-id$
```

```
djnunez43983@CIS106VM:/dev/disk/by-id$ ls -t  /usr/share/themes/
Yaru              Yaru-dark         Yaru-magenta-dark      Yaru-purple         Yaru-sage-dark      Emacs
Yaru-bark         Yaru-dark-hdpi    Yaru-olive             Yaru-purple-dark    Yaru-viridian       Raleigh
Yaru-bark-dark    Yaru-dark-xhdpi   Yaru-olive-dark        Yaru-red            Yaru-viridian-dark  Adwaita
Yaru-blue         Yaru-hdpi         Yaru-prussiangreen     Yaru-red-dark       Yaru-xhdpi          Adwaita-dark
Yaru-blue-dark    Yaru-magenta      Yaru-prussiangreen-dark Yaru-sage          Default             HighContrast
djnunez43983@CIS106VM:/dev/disk/by-id$ ls -x /usr/share/
accountsservice        aclocal               acpi-support            adduser
aisleriot              alacarte              alsa                    alsa-base
alsa-card-profile      appdata               app-info                applications
apport                 apps                  apturl                  aspell
avahi                  backgrounds           base-files              base-passwd
bash-completion        binfmts               branding                brltty
bug                    build-essential       ca-certificates         caffeine-indicator
catdoc                 cmake                 cogl                    color
colord                 common-licenses       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                    drirc.d
emacs                  emacsen-common        enchant-2               eog
evince                 evolution-data-server figlet                  file
file-roller            fish                  flameshot               flatpak
fontconfig             fonts                 fonts-droid-fallback    fonts-sil-abyssinica
fonts-sil-padauk       foo2qpdl              foo2zjs                 fwupd
gamemode               games                 gcc                     GConf
gdb                    gdm                   geany                   gedit
GeoIP                  gettext               ghostscript             gir-1.0
git-core               gitweb                glade                   glib-2.0
glvnd                  gnome                 gnome-applets           gnome-background-properties
gnome-bluetooth        gnome-bluetooth-3.0   gnome-control-center    gnome-initial-setup
gnome-logs             gnome-mahjongg        gnome-panel             gnome-remote-desktop
gnome-session          gnome-settings-daemon gnome-shell             gnome-software
gnome-system-monitor   gnome-todo            gnome-tweaks            gnome-video-effects
gnupg                  goa-1.0               grilo-plugins           groff
grub                   grub-gfxpayload-lists gst-plugins-base        gstreamer-1.0
gtk-4.0                gtk-doc               gtk-engines             gtksourceview-2.0
gtksourceview-3.0      gtksourceview-4       guile                   gupnp-av
gupnp-dlna-2.0         gvfs                  help                    help-langpack
hplip                  hunspell              hwdata                  hyphen
i18n                   ibus                  ibus-table              icons
ImageMagick-6          im-config             indicator-application   indicator-power
                                             initramfs-tools         installed-tests
                                             iso-codes               java
                                             keyrings                language-selector
```