

Lab 4 The linux FS

Question 1

```
1/1 + ... rren@cis106: /snap/firefox
1: sjkincherlo-warren@cis106: /snap/firefox
sjkincherlo-warren@cis106:~$ pwd
/home/sjkincherlo-warren
sjkincherlo-warren@cis106:~$ cd
sjkincherlo-warren@cis106:~$ ls
cis106  Documents  gitcommands.txt  Pictures  snap  Videos
Desktop Downloads  Music           Public   Templates
sjkincherlo-warren@cis106:~$ cd /usr/share/themes
sjkincherlo-warren@cis106:/usr/share/themes$ pwd
/usr/share/themes
sjkincherlo-warren@cis106:/usr/share/themes$ cd /
sjkincherlo-warren@cis106:/$ cd /snap/firefox/
sjkincherlo-warren@cis106:/snap/firefox$
```

```
1/1 + ... rren@cis106: ~/Documents
1: sjkincherlo-warren@cis106: ~/Documents
sjkincherlo-warren@cis106:/snap/firefox$ cd
sjkincherlo-warren@cis106:~$ cd /Downloads
bash: cd: /Downloads: No such file or directory
sjkincherlo-warren@cis106:~$ cd Downloads/
sjkincherlo-warren@cis106:~/Downloads$ cd
sjkincherlo-warren@cis106:~$ cd
sjkincherlo-warren@cis106:~$ cd ../../
sjkincherlo-warren@cis106:/$ pwd
/
sjkincherlo-warren@cis106:/$ cd Documents/
bash: cd: Documents/: No such file or directory
sjkincherlo-warren@cis106:/$ cd home/
sjkincherlo-warren@cis106:/home$ pwd
/home
sjkincherlo-warren@cis106:/home$ cd Documents/
bash: cd: Documents/: No such file or directory
sjkincherlo-warren@cis106:/home$ cd sjkincherlo-warren/Documents
sjkincherlo-warren@cis106:~/Documents$
```

Question 2

```

1: sjkincherlo-warren@cis106: ~/lab4files
sjkincherlo-warren@cis106:~$ cd /usr/share/
sjkincherlo-warren@cis106:/usr/share$ ls /home/sjkincherlo-warren/labfiles/
ls: cannot access '/home/sjkincherlo-warren/labfiles/': No such file or directory
sjkincherlo-warren@cis106:/usr/share$ ls /home/sjkincherlo-warren/lab4files/
countries.json  document.docx  helloWorld.c  sample.xls  Ubuntu.pdf
csvfile.csv     globe.avi      Linux.pdf     Tux.png     website.html
sjkincherlo-warren@cis106:/usr/share$ cd ~/lab4files/
sjkincherlo-warren@cis106:~/lab4files$ ls -l
total 6580
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 20471 Feb 22 2022 countries.json
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 284042 Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 764176 Feb 22 2022 document.docx
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 742478 Feb 22 2022 globe.avi
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 2600138 Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 8704 Feb 22 2022 sample.xls
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 42777 Feb 22 2022 Tux.png
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 2114053 Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 137453 Feb 22 2022 website.html
sjkincherlo-warren@cis106:~/lab4files$ ls -lh
countries.json  document.docx  helloWorld.c  sample.xls  Ubuntu.pdf
csvfile.csv     globe.avi      Linux.pdf     Tux.png     website.html
sjkincherlo-warren@cis106:~/lab4files$ ls -lh
total 6.5M
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 135K Feb 22 2022 website.html
sjkincherlo-warren@cis106:~/lab4files$ ls -lhS
total 6.5M
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 135K Feb 22 2022 website.html
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 sjkincherlo-warren sjkincherlo-warren 76 Feb 22 2022 helloWorld.c
sjkincherlo-warren@cis106:~/lab4files$ ls -lhSg
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
sjkincherlo-warren@cis106:~/lab4files$ ls -lhSgI
total 6.5M
835335 -rw-rw-r-- 1 2.5M Feb 22 2022 Linux.pdf
835339 -rw-rw-r-- 1 2.1M Feb 22 2022 Ubuntu.pdf
835344 -rw-rw-r-- 1 747K Feb 22 2022 document.docx
835708 -rw-rw-r-- 1 726K Feb 22 2022 globe.avi
835341 -rw-rw-r-- 1 278K Feb 22 2022 csvfile.csv
836149 -rw-rw-r-- 1 135K Feb 22 2022 website.html
835237 -rw-rw-r-- 1 42K Feb 22 2022 Tux.png
835337 -rw-rw-r-- 1 42K Feb 22 2022 Tux.png
835340 -rw-rw-r-- 1 20K Feb 22 2022 countries.json
836136 -rw-rw-r-- 1 8.5K Feb 22 2022 sample.xls
835803 -rw-rw-r-- 1 76 Feb 22 2022 helloWorld.c
sjkincherlo-warren@cis106:~/lab4files$ ls -Xr
sample.xls  Ubuntu.pdf  countries.json  document.docx  helloWorld.c
Tux.png     Linux.pdf   website.html    csvfile.csv    globe.avi
sjkincherlo-warren@cis106:~/lab4files$

```

Question 4


```

sjkincherlo-warren@cis106: /usr/share

sjkincherlo-warren@cis106:~$ pwd
/home/sjkincherlo-warren
sjkincherlo-warren@cis106:~$ cd usr/share/icons/default/
bash: cd: usr/share/icons/default/: No such file or directory
sjkincherlo-warren@cis106:~$ cd usr/share/backgrounds/themes/fonts/icons/default
bash: cd: usr/share/backgrounds/themes/fonts/icons/default: No such file or directory
sjkincherlo-warren@cis106:~$ cd /usr/share/icons/default/
sjkincherlo-warren@cis106:/usr/share/icons/default$ cd -
/home/sjkincherlo-warren
sjkincherlo-warren@cis106:~$ /proc/sys/net/ipv4/
bash: /proc/sys/net/ipv4/: Is a directory
sjkincherlo-warren@cis106:~$ cd /proc/sys/net/ipv4/
sjkincherlo-warren@cis106:/proc/sys/net/ipv4$ cd -
/home/sjkincherlo-warren
sjkincherlo-warren@cis106:~$ cd /usr/share/backgrounds/
sjkincherlo-warren@cis106:/usr/share/backgrounds$ ls
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
sjkincherlo-warren@cis106:/usr/share/backgrounds$ cd -
/home/sjkincherlo-warren
sjkincherlo-warren@cis106:~$
sjkincherlo-warren@cis106:~$ /home/sjkincherlo-warren/cis106/
bash: /home/sjkincherlo-warren/cis106/: Is a directory
sjkincherlo-warren@cis106:~$ cd /home/sjkincherlo-warren/cis106/
sjkincherlo-warren@cis106:~/cis106$ ls
labs
sjkincherlo-warren@cis106:~/cis106$ cd -
/home/sjkincherlo-warren
sjkincherlo-warren@cis106:~$ /home/sjkincherlo-warren/Downloads/
bash: /home/sjkincherlo-warren/Downloads/: Is a directory
sjkincherlo-warren@cis106:~$ cd /home/sjkincherlo-warren/Downloads/
sjkincherlo-warren@cis106:~/Downloads$ ls
code_1.82.2-1694671812_amd64.deb  lab4files.zip
sjkincherlo-warren@cis106:~/Downloads$ cd -
/home/sjkincherlo-warren
sjkincherlo-warren@cis106:~$ cd /dev/disk/by-id/
sjkincherlo-warren@cis106:/dev/disk/by-id$ ls -a
.
..
ata-VBOX_HARDDISK_VBf08e5faa-d394b888-part1
ata-VBOX_HARDDISK_VBf08e5faa-d394b888-part2
ata-VBOX_CD-ROM_VB2-01700376          ata-VBOX_HARDDISK_VBf08e5faa-d394b888-part3
ata-VBOX_HARDDISK_VBf08e5faa-d394b888
sjkincherlo-warren@cis106:/dev/disk/by-id$ cd -
/home/sjkincherlo-warren
sjkincherlo-warren@cis106:~$ cd /usr/share/themes/
sjkincherlo-warren@cis106:/usr/share/themes$ ls -c
Adwaita      Raleigh      Yaru-blue-dark  Yaru-magenta      Yaru-prussiangreen-dark  Yaru-sage
Adwaita-dark  Yaru         Yaru-dark       Yaru-magenta-dark  Yaru-purple              Yaru-sage-dark
Default      Yaru-bark    Yaru-dark-hdpi  Yaru-olive         Yaru-purple-dark         Yaru-viridian
Emacs        Yaru-bark-dark  Yaru-dark-xhdpi Yaru-olive-dark    Yaru-red                 Yaru-viridian-dark

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sjkincherlo-warren@cis106: /usr/share

HighContrast Yaru-blue Yaru-hdpi Yaru-prussiangreen Yaru-red-dark Yaru-xhdpi
sjkincherlo-warren@cis106:/usr/share/themes$ cd -
/home/sjkincherlo-warren
sjkincherlo-warren@cis106:~$ cd usr/share/
bash: cd: usr/share/: No such file or directory
sjkincherlo-warren@cis106:~$ cd /usr/share/
sjkincherlo-warren@cis106:/usr/share$ ls -X
accountsservice  GConf          libdrm          rsyslog
aclocal          gdb            libexttextcat  rubygems-integration
acpi-support     gdm            libgnomekbd     rygel
adduser          geany          libgweather     samba
aisleriot        geary          libgweather-4   seahorse
alacarte         gedit          libinput         secureboot
alsa             GeoIP          liblangtag       sensible-utils
alsa-base        gettext        liblouis         session-migration
alsa-card-profile ghostscript     liblouisutdm1   sgml
appdata          git-core       libmysofa        sgml-base
app-info         gitweb         libreoffice      sgml-data
applications     glade          libvenge         snmp
appport          glvnd          libthai          software-properties
apps             gnome          libwacom         solid
apturl           gnome-applets  lightdm          sounds
aspell           gnome-background-properties lintian          source-highlight
avahi            gnome-bluetooth linux-sound-base speech-dispatcher
backgrounds      gnome-control-center locale            ssl-cert
base-files       gnome-initial-setup locales            system-config-printer
base-passwd      gnome-logs     locales          systemd
bash-completion  gnome-mahjongg lto-disabled-list systemtap
binfmts          gnome-panel    lxmusic          tabset
branding          gnome-remote-desktop m2300w           tccltk
britty           gnome-session  man              terminfo
bug              gnome-settings-daemon man-db            tex-common
build-essential  gnome-shell    mate-panel       texlive
ca-certificates  gnome-software maven-repo       texmf
cups              gnome-system-monitor mdx-glance-info  tk

```

```

caffeine-indicator  gnome-system-monitor  media-player-info     themes
catdoc              gnome-todo             menu                   thumbnailers
cmake               gnome-tweaks           mesa-demos            tilix
code                gnome-video-effects   metainfo              totem
cogl                gnupg                  mfx                    tracker3
color               grilo-plugins          nime                   tracker3-miners
colord              groff                  misc                   transmission
common-licenses     grub                   mobile-broadband-provider-info  ubuntu
consolefonts        grub-gfxpayload-lists  ModemManager          ubuntu-drivers-common
console-setup        gst-plugins-base       mousetweaks           ubuntu-release-upgrader
consoletrans        gtk-doc                mythes                 ubuntu-wayland
cowsay              gtk-engines            nano                   ucf
cups                 gtksourceview-4        nautilus               ufw
dbus-1              guile                  nautilus-python        unattended-upgrades
dconf                gupnp-av               nautilus-share         unity
debconf             gvfs                   nemo                   update-manager
debhelper           help                   netpbm                 update-notifier
debianutils         help-langpack          netplan                upstart
defaults            hplip                  numpy3                 usb-creator
desktop-directories hunspell               open-vm-tools          usb_modeswitch

```

```

sjkincherlo-warren@cis106: /usr/share

caffeine-indicator  gnome-system-monitor  media-player-info     themes
catdoc              gnome-todo             menu                   thumbnailers
cmake               gnome-tweaks           mesa-demos            tilix
code                gnome-video-effects   metainfo              totem
cogl                gnupg                  mfx                    tracker3
color               grilo-plugins          nime                   tracker3-miners
colord              groff                  misc                   transmission
common-licenses     grub                   mobile-broadband-provider-info  ubuntu
consolefonts        grub-gfxpayload-lists  ModemManager          ubuntu-drivers-common
console-setup        gst-plugins-base       mousetweaks           ubuntu-release-upgrader
consoletrans        gtk-doc                mythes                 ubuntu-wayland
cowsay              gtk-engines            nano                   ucf
cups                 gtksourceview-4        nautilus               ufw
dbus-1              guile                  nautilus-python        unattended-upgrades
dconf                gupnp-av               nautilus-share         unity
debconf             gvfs                   nemo                   update-manager
debhelper           help                   netpbm                 update-notifier
debianutils         help-langpack          netplan                upstart
defaults            hplip                  numpy3                 usb-creator
desktop-directories hunspell               open-vm-tools          usb_modeswitch
dict                hwdata                 openvpn               vala
dictionaries-common hyphen                 orca                  vim
distro-info          i18n                   os-prober             vlc
djvu                 ibus                    p11-kit               vulkan
dns                  ibus-table              package-data-downloads w3m
dnsmasq-base         icons                   PackageKit            wayland-sessions
doc                  ImageMagick-6           pam                    X11
doc-base             im-config               pam-configs           xapps-common
dpkg                 indicator-application    perl                  xdg-desktop-portal
emacs                indicator-power          perl5                  xfaces
emacsen-common        indicators               perl-openssl-defaults xml
enchant-2            info                    pipewire              xml-core
eog                  initramfs-tools         pixmaps               xms2
epiphany-browser     installed-tests         pkgconfig             xsessions
evince               tpp-usb                 plymouth              yelp
evolution-data-server iptables                pnm2ppa               yelp-xsl
figlet               iso-codes                pocketsphinx          zenity
file                 java                     polkit-1               zoneinfo
file-roller          javascript               poppler                zoneinfo-icu
fish                 kconf_update            ppd                     zsh
flameshot            kde4                     ppp                     gir-1.0
flatpak              keyrings                 publicsuffix           glib-2.0
fontconfig            kf5                      pulseaudio             gnome-bluetooth-3.0
fonts                 knotifications5          pyshared               goa-1.0
fonts-droid-fallback kservices5               python3                gstreamer-1.0
fonts-sil-abyssinica kservicetypes5           python-apt             gtk-4.0
fonts-sil-padauk      language-selector        qllogging-categories5  gtksourceview-2.0
foo2qpd1              language-support         qt5                    gtksourceview-3.0
foo2zjs               language-tools           readline               gupnp-dlna-2.0
fwupd                 libaudio2                remmina                 org.gnome.Characters
gamemode              libcaca                  rhythmbox              drirc.d
games                 libc-bin                 rig
gcc                   libdebuginfod-common    rsync

```

Question 5


```
1/1  +  [ ]  [ ]  Tilix: sjkincherlo-warren@cis106: ~/Downloads

1: sjkincherlo-warren@cis106: ~/Downloads  v

sjkincherlo-warren@cis106:~/Downloads$ cd../../../../
bash: cd../../../../: No such file or directory
sjkincherlo-warren@cis106:~/Downloads$ cd ../../..
sjkincherlo-warren@cis106:/home$ cd -
/home/sjkincherlo-warren/Downloads
sjkincherlo-warren@cis106:~/Downloads$ cd ..
sjkincherlo-warren@cis106:~$ cd ..
sjkincherlo-warren@cis106:/home$ cd ..
sjkincherlo-warren@cis106:/$ cd /home/
sjkincherlo-warren@cis106:/home$ cd /home/sjkincherlo-warren/
sjkincherlo-warren@cis106:~$ cd /home/sjkincherlo-warren/Downloads
sjkincherlo-warren@cis106:~/Downloads$ pwd
/home/sjkincherlo-warren/Downloads
sjkincherlo-warren@cis106:~/Downloads$
```

```
1/1  +  [ ]  [ ]  Tilix: sjkincherlo-warren@cis106: /usr/share/themes/Adwaita

1: sjkincherlo-warren@cis106: /usr/share/themes/Adwaita  v

sjkincherlo-warren@cis106:~/Downloads$ cd ..
sjkincherlo-warren@cis106:~$ cd /usr/share/
sjkincherlo-warren@cis106:/usr/share$ cd /themes/Adwaita
bash: cd: /themes/Adwaita: No such file or directory
sjkincherlo-warren@cis106:/usr/share$ cd /usr/share/themes/Adwaita
sjkincherlo-warren@cis106:/usr/share/themes/Adwaita$ pwd
/usr/share/themes/Adwaita
sjkincherlo-warren@cis106:/usr/share/themes/Adwaita$
```