

Lab 4 The Linux Filesystem

Question 1

```
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:~$ pwd
/home/sadie-rose-tischler
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:~$ cd /usr/share/themes/
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/usr/share/themes$ pwd
/usr/share/themes
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/usr/share/themes$ cd /
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/$ /snap/firefox/
bash: /snap/firefox/: Is a directory
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/$ cd /snap/firefox/
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/snap/firefox$ █

sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/snap/firefox$ cd
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:~$ cd Downloads/
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:~/Downloads$ cd ../../
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/home$ pwd
/home
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/home$ cd sadie-rose-ti
schler/Documents/
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:~/Documents$ █
```

Question 2

```

sadie-rose-tischler@sadie-rose-tischler-VirtualBox: /usr/share$ ls -a /home/sadie-rose-tischler/lab4files/
.  ..  countries.json  csvfile.csv  document.docx  globe.avi  helloWorld.c  Linux.pdf  sample.xls  Tux.png  Ubuntu.pdf  website.html
sadie-rose-tischler@sadie-rose-tischler-VirtualBox: /usr/share$ cd ~/lab4files/
sadie-rose-tischler@sadie-rose-tischler-VirtualBox: ~/lab4files$ ls -alh
total 6.5M
drwxrwxr-x  2 sadie-rose-tischler sadie-rose-tischler 4.0K Feb 22 2022 .
drwxr-x--- 25 sadie-rose-tischler sadie-rose-tischler 4.0K Oct 27 21:36 ..
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 20K Feb 22 2022 countries.json
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 278K Feb 22 2022 csvfile.csv
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 747K Feb 22 2022 document.docx
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 726K Feb 22 2022 globe.avi
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 76 Feb 22 2022 helloWorld.c
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 8.5K Feb 22 2022 sample.xls
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 42K Feb 22 2022 Tux.png
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 135K Feb 22 2022 website.html
sadie-rose-tischler@sadie-rose-tischler-VirtualBox: ~/lab4files$ ls -alhS
total 6.5M
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 747K Feb 22 2022 document.docx
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 726K Feb 22 2022 globe.avi
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 278K Feb 22 2022 csvfile.csv
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 135K Feb 22 2022 website.html
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 42K Feb 22 2022 Tux.png
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 20K Feb 22 2022 countries.json
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 8.5K Feb 22 2022 sample.xls
drwxrwxr-x  2 sadie-rose-tischler sadie-rose-tischler 4.0K Feb 22 2022 .
drwxr-x--- 25 sadie-rose-tischler sadie-rose-tischler 4.0K Oct 27 21:36 ..
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 76 Feb 22 2022 helloWorld.c

sadie-rose-tischler@sadie-rose-tischler-VirtualBox: ~/lab4files$ ls -alhSGgi
total 6.5M
1857091 -rw-rw-r--  1 2.5M Feb 22 2022 Linux.pdf
1857093 -rw-rw-r--  1 2.1M Feb 22 2022 Ubuntu.pdf
1857096 -rw-rw-r--  1 747K Feb 22 2022 document.docx
1857097 -rw-rw-r--  1 726K Feb 22 2022 globe.avi
1857095 -rw-rw-r--  1 278K Feb 22 2022 csvfile.csv
1857100 -rw-rw-r--  1 135K Feb 22 2022 website.html
1857092 -rw-rw-r--  1 42K Feb 22 2022 Tux.png
1857094 -rw-rw-r--  1 20K Feb 22 2022 countries.json
1857099 -rw-rw-r--  1 8.5K Feb 22 2022 sample.xls
1851446 drwxrwxr-x  2 4.0K Feb 22 2022 .
1835010 drwxr-x--- 25 4.0K Oct 27 21:36 ..
1857098 -rw-rw-r--  1 76 Feb 22 2022 helloWorld.c
sadie-rose-tischler@sadie-rose-tischler-VirtualBox: ~/lab4files$ ls -aXr
sample.xls  Tux.png  Ubuntu.pdf  Linux.pdf  countries.json  website.html  document.docx  csvfile.csv  helloWorld.c  globe.avi  ..  .
sadie-rose-tischler@sadie-rose-tischler-VirtualBox: ~/lab4files$

```

Question 4

```
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:~$ pwd
/home/sadie-rose-tischler
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:~$ cd /usr/share/icons/default/
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/usr/share/icons/default$ cd /proc/sys/net/ipv4/
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/proc/sys/net/ipv4$ cd ..
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/proc/sys/net$ ls /usr/share/backgrounds/
contest
Copper_Mountain_by_Eduardo_Battaglia.jpg
Flow_by_Emanuele_Santoro.png
Lobster_Wallpaper_Grey.png
LunarCatcher_by_Espio347.png
Lunar-lobster-side_by_Gixo-dark.png
Lunar-lobster-side_by_Gixo-light.png
Multiverse_by_Emanuele_Santoro.png
Startrail_by_Hajime_Mizuno.jpg
ubuntu-default-greyscale-wallpaper.png
Warm_Filament_by_Eduardo_Battaglia.jpg
warty-final-ubuntu.png
winter-is-leaving_by_Gixo-dark.png
winter-is-leaving_by_Gixo-light.png
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/proc/sys/net$ ls ~/cis106/
cheatSheets labs weekReports
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/proc/sys/net$ cd ~
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:~$ cd /home/

sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/home$ ls sadie-rose-tischler/Downloads/
'0_d_o5EThsCJ0B4Ln8.jpg'
1280px-Wistar_rat.jpg
code_1.82.2-1694671812_amd64.deb
dogphotos.jpg
FiraCode.zip
FiraMono.zip
InconsolataGo.zip
Inconsolata.zip
Iosevka.zip
JetBrainsMono.zip
lab4files.zip
Lekton.zip
'Linux Workshop Ubuntu Software installation cheat sheet.png'
Monofur.zip
Mononoki.zip
Nackratte_01.jpg
practicels
Rat_diabetic.jpg
SpaceMono.zip
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/home$ cd /dev/disk/by-id/
```

```
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/dev/disk/by-ld$ ls -al /home/sadie-rose-tischler/
total 2348
drwxr-x--- 25 sadie-rose-tischler sadie-rose-tischler 4096 Oct 27 21:36 .
drwxr-xr-x  3 root                root           4096 Sep 28 19:33 ..
drwxrwxr-x  2 sadie-rose-tischler sadie-rose-tischler 4096 Oct 19 18:26 assets
-rw-----  1 sadie-rose-tischler sadie-rose-tischler 4213 Oct 27 21:52 .bash_history
-rw-r--r--  1 sadie-rose-tischler sadie-rose-tischler  220 Jan  7 2023 .bash_logout
-rw-r--r--  1 sadie-rose-tischler sadie-rose-tischler 3771 Jan  7 2023 .bashrc
drwx----- 17 sadie-rose-tischler sadie-rose-tischler 4096 Sep 28 20:35 .cache
drwxrwxr-x  6 sadie-rose-tischler sadie-rose-tischler 4096 Oct 12 19:42 cis106
drwx----- 19 sadie-rose-tischler sadie-rose-tischler 4096 Oct 27 21:52 .config
drwxr-xr-x  2 sadie-rose-tischler sadie-rose-tischler 4096 Oct 12 13:56 Desktop
drwxr-xr-x  2 sadie-rose-tischler sadie-rose-tischler 4096 Oct 26 22:03 Documents
drwxrwxr-x  2 sadie-rose-tischler sadie-rose-tischler 4096 Oct 19 18:09 dogphotos
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler  0 Oct 26 22:07 dogphotos.jpg
drwxrwxr-x  3 sadie-rose-tischler sadie-rose-tischler 4096 Sep 28 20:01 .dotnet
drwxr-xr-x  3 sadie-rose-tischler sadie-rose-tischler 4096 Oct 27 21:36 Downloads
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 102 Sep 28 20:29 gitcommands.txt
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler  68 Sep 28 20:12 .gitconfig
drwx----- 2 sadie-rose-tischler sadie-rose-tischler 4096 Oct 12 15:19 .gnupg
drwxrwxr-x  2 sadie-rose-tischler sadie-rose-tischler 4096 Feb 22 2022 lab4files
-rw-----  1 sadie-rose-tischler sadie-rose-tischler  20 Oct 12 16:45 .lessshst
drwx----- 4 sadie-rose-tischler sadie-rose-tischler 4096 Sep 28 19:34 .local
drwxr-xr-x  2 sadie-rose-tischler sadie-rose-tischler 4096 Sep 28 19:34 Music
drwxr-xr-x  4 sadie-rose-tischler sadie-rose-tischler 4096 Oct 26 22:08 Pictures
drwx----- 3 sadie-rose-tischler sadie-rose-tischler 4096 Sep 28 20:00 .pki
drwxrwxr-x  2 sadie-rose-tischler sadie-rose-tischler 4096 Feb 27 2022 practicels
-rw-rw-r--  1 sadie-rose-tischler sadie-rose-tischler 2229212 Oct 14 11:22 practicels.tar.xz
-rw-r--r--  1 sadie-rose-tischler sadie-rose-tischler  807 Jan  7 2023 .profile
drwxr-xr-x  2 sadie-rose-tischler sadie-rose-tischler 4096 Sep 28 19:34 Public
drwx----- 5 sadie-rose-tischler sadie-rose-tischler 4096 Sep 28 19:59 snap
drwx----- 2 sadie-rose-tischler sadie-rose-tischler 4096 Sep 28 20:16 .ssh
-rw-r--r--  1 sadie-rose-tischler sadie-rose-tischler  0 Sep 28 19:45 .sudo_as_admin_successful
drwxr-xr-x  2 sadie-rose-tischler sadie-rose-tischler 4096 Sep 28 19:34 Templates
-rw-r----- 1 sadie-rose-tischler sadie-rose-tischler  6 Oct 27 19:41 .vboxclient-clipboard-tty2-control.pid
-rw-r----- 1 sadie-rose-tischler sadie-rose-tischler  5 Oct 27 19:41 .vboxclient-clipboard-tty2-service.pid
-rw-r----- 1 sadie-rose-tischler sadie-rose-tischler  6 Oct 27 19:41 .vboxclient-draganddrop-tty2-control.pid
```

sadie-rose-tischler@sadie-rose-tischler-VirtualBox: /dev/disk/by-id\$ ls -t /usr/share/themes/	Yaru	Yaru-blue	Yaru-dark-hdpt	Yaru-nagenta	Yaru-olive-dark	Yaru-purple	Yaru-red-dark	Yaru-iridian	Default	Adwaita
Yaru-bark	Yaru-blue-dark	Yaru-dark-xhdpt	Yaru-nagenta-dark	Yaru-prussiangreen	Yaru-purple-dark	Yaru-sage	Yaru-iridian-dark	Enacs	Adwaita-dark	
Yaru-bark-dark	Yaru-dark	Yaru-hdpt	Yaru-olive	Yaru-prussiangreen-dark	Yaru-red	Yaru-sage-dark	Yaru-xhdpt	Raleigh	HighContrast	
sadie-rose-tischler@sadie-rose-tischler-VirtualBox: /dev/disk/by-id\$ ls -X /usr/share/	accountsservice	distro-info	gnome-control-center	iso-codes	ModemManager	readline				unattended-upgrades
aclocal	djvu	gnome-initial-setup	java	notd		remmina				unity
alsisliot	dns	gnome-logs	javascrpt	mousestweaks		rhythmbox				update-manager
ilacarte	dnsmasq-base	gnome-mahjongg	kde4	myspell		rig				update-notifier
alsa	doc	gnome-panel	keyrings	mythes		rsync				upstart
alsa-base	doc-base	gnome-remote-desktop	language-selector	nano		rsyslog				usb-creator
alsa-card-profile	dpkg	gnome-session	language-support	nautilus		rubygems-integration				usb_modeswitch
appdata	emac	gnome-settings-daemon	language-tools	nautilus-python		rygel				util-linux
applications	emacsen-common	gnome-shell	libcaca	nemo		samba				vala
support	enchant-2	gnome-system-monitor	libc-bin	netpbm		seahorse				vim
eop	evince	gnome-text-editor	libchewing	netplan		secureboot				vlc
ispell	evolution-data-server	gnome-tweaks	libdebuginfod-common	networks		sensible-utils				vulkan
audacious	ffmpeg	gnome-video-effects	libdrm	numpy3		session-migration				w3m
avahi	figlet	gnupg	libgettextcat	openal		sgml				wayland-sessions
backgrounds	file	grilo-plugins	libgcrpt20	openc		sgml-base				wireplumber
base-files	file-roller	groff	libgnomekbd	open-vn-tools		sgml-data				X11
base-passwd	fish	grub	libgweather-4	openvpn		snapp				xapps-common
bash-completion	flameshot	grub-gfxpayload-lists	libinput	orca		snmp				xdg-desktop-portal
binfmts	flatpak	gst-plugins-base	liblangtag	os-prober		software-properties				xdg-terminals
branding	fontconfig	gtk-doc	liblouis	p11-kit		solid				xnl
brlty	fontcng	gtk-engines	liblouisdtdml	package-data-downloads		sounds				xnl-core
bug	fontcng	gtksourceview-4	libmysofa	PackageKit		source-highlight				xsessions
build-essential	fontcng	gtksourceview-5	libreoffice	pan		speech-dispatcher				yelp
ca-certificates	fontcng	guile	librevenge	pam-configs		ssl-cert				yelp-xsl
caffeine-indicator	fontcng	gupnp-av	libthai	perl		sssd				zenity
catdoc	fontcng	gvfs	libwacom	perl5		staff-group-for-usr-local				zoneinfo
cmake	fontcng	help	lightdm	perl-openssl-defaults		swatcatlog				zoneinfo-icu
code	fontcng	help-langpack	lntian	pipewire		system-config-printer				zsh
cogl	fontcng	hplip	linux-sound-base	pixnaps		systemd				gir-1.0
color	fontcng	hunspell	locale	pkgconfig		systemtap				glib-2.0
colord	fontcng	hwdata	locale-langpack	plymouth		tabset				gnome-bluetooth-3.0

Question 5

```
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:~$ cd /  
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/$ cd home/  
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/home$ cd sadie-rose-tischler/  
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:~$ cd Downloads/  
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:~/Downloads$ pwd  
/home/sadie-rose-tischler/Downloads  
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:~/Downloads$
```

```
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:~/Downloads$ cd /usr/share/themes/Adwaita  
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:/usr/share/themes/Adwaita$ cd  
/home/sadie-rose-tischler/Documents/  
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:~/Documents$ pwd  
/home/sadie-rose-tischler/Documents  
sadie-rose-tischler@sadie-rose-tischler-VirtualBox:~/Documents$
```