

# Lab 4 The linux FS

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## Question 1

```
tmsamkough@CIS106VM: /snap/firefox
tmsamkough@CIS106VM:~/Desktop/practicels$ pwd
/home/tmsamkough/Desktop/practicels
tmsamkough@CIS106VM:~/Desktop/practicels$ cd /usr/share/themes
tmsamkough@CIS106VM:/usr/share/themes$ pwd
/usr/share/themes
tmsamkough@CIS106VM:/usr/share/themes$ cd /
tmsamkough@CIS106VM:/$ cd /snap/firefox/
tmsamkough@CIS106VM:/snap/firefox$
```

```
tmsamkough@CIS106VM: ~/Documents
tmsamkough@CIS106VM:~/Downloads$ cd
tmsamkough@CIS106VM:~$ cd Downloads/
tmsamkough@CIS106VM:~/Downloads$ cd ../../
tmsamkough@CIS106VM:/home$ pwd
/home
tmsamkough@CIS106VM:/home$ cd tmsamkough/Documents/
tmsamkough@CIS106VM:~/Documents$
```



## Question 2

```
tmsamkough@CIS106VM: ~/lab4files
tmsamkough@CIS106VM:/$ cd /usr/share/
tmsamkough@CIS106VM:/usr/share$ ls /home/tmsamkough/lab4files/
countries.json  document.docx  helloWorld.c  sample.xls  Ubuntu.pdf
csvfile.csv    globe.avi      Linux.pdf     Tux.png     website.html
tmsamkough@CIS106VM:/usr/share$ cd ~/lab4files/
tmsamkough@CIS106VM:~/lab4files$ ls -l
total 6580
-rw-rw-r-- 1 tmsamkough tmsamkough 20471 Feb 22 2022 countries.json
-rw-rw-r-- 1 tmsamkough tmsamkough 284042 Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 tmsamkough tmsamkough 764176 Feb 22 2022 document.docx
-rw-rw-r-- 1 tmsamkough tmsamkough 742478 Feb 22 2022 globe.avi
-rw-rw-r-- 1 tmsamkough tmsamkough 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 tmsamkough tmsamkough 2600138 Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 tmsamkough tmsamkough 8704 Feb 22 2022 sample.xls
-rw-rw-r-- 1 tmsamkough tmsamkough 42777 Feb 22 2022 Tux.png
-rw-rw-r-- 1 tmsamkough tmsamkough 2114053 Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 tmsamkough tmsamkough 137453 Feb 22 2022 website.html
tmsamkough@CIS106VM:~/lab4files$ ls -lh
total 6.5M
-rw-rw-r-- 1 tmsamkough tmsamkough 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 tmsamkough tmsamkough 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 tmsamkough tmsamkough 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 tmsamkough tmsamkough 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 tmsamkough tmsamkough 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 tmsamkough tmsamkough 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 tmsamkough tmsamkough 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 tmsamkough tmsamkough 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 tmsamkough tmsamkough 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 tmsamkough tmsamkough 135K Feb 22 2022 website.html
tmsamkough@CIS106VM:~/lab4files$ ls -lhs
total 6.5M
-rw-rw-r-- 1 tmsamkough tmsamkough 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 tmsamkough tmsamkough 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 tmsamkough tmsamkough 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 tmsamkough tmsamkough 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 tmsamkough tmsamkough 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 tmsamkough tmsamkough 135K Feb 22 2022 website.html
-rw-rw-r-- 1 tmsamkough tmsamkough 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 tmsamkough tmsamkough 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 tmsamkough tmsamkough 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 tmsamkough tmsamkough 76 Feb 22 2022 helloWorld.c
tmsamkough@CIS106VM:~/lab4files$
```

```
tmsamkough@CIS106VM: ~/lab4files
tmsamkough@CIS106VM:~/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
tmsamkough@CIS106VM:~/lab4files$ ls -Xr
```

```
sample.xls  Ubuntu.pdf  countries.json  document.docx  helloWorld.c
Tux.png     Linux.pdf   website.html   csvfile.csv    globe.avi
tmsamkough@CIS106VM:~/lab4files$ ls -l
total 6580
-rw-rw-r-- 1 tmsamkough tmsamkough 8704 Feb 22 2022 sample.xls
-rw-rw-r-- 1 tmsamkough tmsamkough 42777 Feb 22 2022 Tux.png
-rw-rw-r-- 1 tmsamkough tmsamkough 2114053 Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 tmsamkough tmsamkough 2600138 Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 tmsamkough tmsamkough 20471 Feb 22 2022 countries.json
-rw-rw-r-- 1 tmsamkough tmsamkough 137453 Feb 22 2022 website.html
-rw-rw-r-- 1 tmsamkough tmsamkough 764176 Feb 22 2022 document.docx
-rw-rw-r-- 1 tmsamkough tmsamkough 284042 Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 tmsamkough tmsamkough 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 tmsamkough tmsamkough 742478 Feb 22 2022 globe.avi
tmsamkough@CIS106VM:~/lab4files$
```

## Question 4

```

tmsankough@CIS106VM: /home$ pwd
/home
tmsankough@CIS106VM: /home$ cd /usr/share/icons/default
tmsankough@CIS106VM: /usr/share/icons/default$ cd /proc/sys/net/ipv4
tmsankough@CIS106VM: /proc/sys/net/ipv4$ cd -
/usr/share/icons/default
tmsankough@CIS106VM: /usr/share/icons/default$ ls /share/backgrounds
ls: cannot access '/share/backgrounds': No such file or directory
tmsankough@CIS106VM: /usr/share/icons/default$ ls share/backgrounds
ls: cannot access 'share/backgrounds': No such file or directory
tmsankough@CIS106VM: /usr/share/icons/default$ ls /usr/share/backgrounds
blue_flower_by_Elena_Stravoravdt.jpg
canvas_by_roytanck.jpg
cherry_Tree_in_Lakones_by_elenastravoravdt.jpg
contest
p5C2943_by_Kepru.jpg
hammy-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_Stravoravdt.jpg
ubuntu2_by_arnan1992.jpg
ubuntu_by_arnan1992.jpg
ubuntu-default-greyscale-wallpaper.png
warty-Final-ubuntu.png
tmsankough@CIS106VM: /usr/share/icons/default$ ls /home/tmsankough/cis106/
Libs_WeekReports wr3.md wr3.pdf
tmsankough@CIS106VM: /usr/share/icons/default$ cd /home
tmsankough@CIS106VM: /home$ ls /home/tmsankough/Downloads
code_1.82.2-1694671812_and64.deb  FiraMono.zip  MonoId.zip  RobotoMono.zip
DejaVuSansMono.zip  Meslo.zip  Mononoki.zip  SpaceMono.zip
tmsankough@CIS106VM: /home$ cd /dev/d
disk/  dna_heap/ dri/
tmsankough@CIS106VM: /home$ cd /dev/d
disk/  dna_heap/ dri/
tmsankough@CIS106VM: /home$ cd /dev/disk/by-id
tmsankough@CIS106VM: /dev/disk/by-id$ ls - -a
.  ..  gitcommands.txt  .sudo_as_admin_successful
tmsankough@CIS106VM: /dev/disk/by-id$ ls -la
total 176
drwxr-xr-x 2 root root 4096 Oct 27 14:56 .
drwxr-xr-x 1 root root 4096 Oct 27 14:56 ..
-rw-r--r-- 1 root root  100 Oct 27 14:56 .bash_history
-rw-r--r-- 1 root root  100 Oct 27 14:56 .bash_logout
-rw-r--r-- 1 root root  100 Oct 27 14:56 .bashrc
-rw-r--r-- 1 root root  100 Oct 27 14:56 .cache
-rw-r--r-- 1 root root  100 Oct 27 14:56 .cis106
-rw-r--r-- 1 root root  100 Oct 27 14:56 .config
-rw-r--r-- 1 root root  100 Oct 27 14:56 .desktop
-rw-r--r-- 1 root root  100 Oct 27 14:56 .documents
-rw-r--r-- 1 root root  100 Oct 27 14:56 .dotnet
-rw-r--r-- 1 root root  100 Oct 27 14:56 .downloads
-rw-r--r-- 1 root root  100 Oct 27 14:56 .ssh

```

```

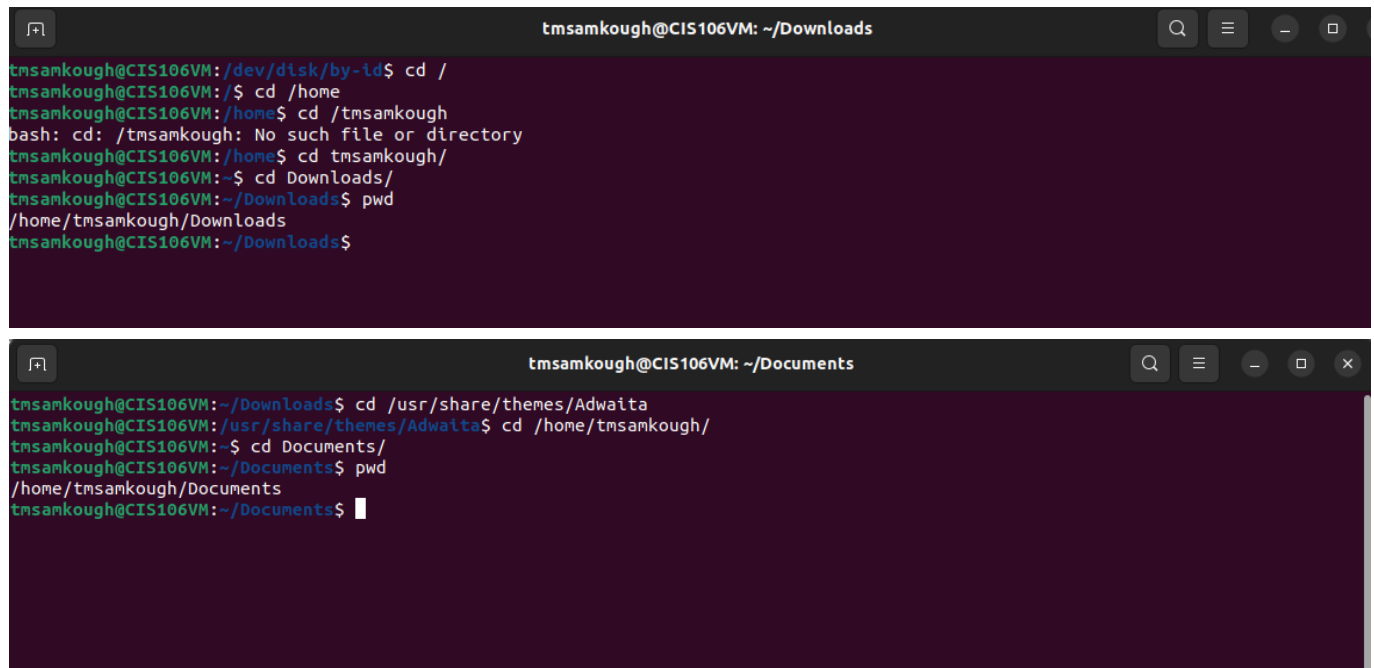
tmsamkough@CIS106VM: /dev/disk/by-id

tmsankough@CIS106VM: /dev/disk/by-id$ ls /usr/share/themes -t
Yaru          Yaru-hdpi          Yaru-purple-dark   Default
Yaru-bark     Yaru-magenta       Yaru-red            Emacs
Yaru-bark-dark Yaru-magenta-dark  Yaru-red-dark      Raleigh
Yaru-blue     Yaru-olive         Yaru-sage           Adwaita
Yaru-blue-dark Yaru-olive-dark    Yaru-sage-dark     Adwaita-dark
Yaru-dark     Yaru-prussiangreen Yaru-viridian       HighContrast
Yaru-dark-hdpi Yaru-prussiangreen-dark Yaru-viridian-dark
Yaru-dark-xhdpi Yaru-purple        Yaru-xhdpi

tmsankough@CIS106VM: /dev/disk/by-id$ ls /usr/share -X
accountsservice  libgweather
aclocal          libgweather-4
acpi-support     libinput
adduser          liblangtag
aisleriot        liblangtag
alacarte         liblouis
alsa             liblouisutdm1
alsa-base        libmysofa
alsa-card-profile libreoffice
appdata          librevenge
app-info         libthai
applications     libwacom
appstream        lightdm
apps             lintian
apturl           linux-sound-base
aspell           locale
avahi            locale-langpack
backgrounds      locales
base-files       lto-disabled-list
base-passwd      m2300w
bash-completion man
binfmts          man-db
blends           mate-panel
branding          maven-repo
brlty            media-player-info
bug              menu
build-essential mesa-demos
ca-certificates metainfo
caffeine-indicator mfx
catdoc           mime
cmake            misc
code             mobile-broadband-provider-info
cogl             ModemManager
color            mousetweaks
colord           mythes
common-licenses nano

```

## Question 5



The image contains two terminal window screenshots. The top window has a title bar 'tmsamkough@CIS106VM: ~/Downloads' and shows a sequence of commands: 'cd /', 'cd /home', 'cd /tmsamkough' (which fails with 'bash: cd: /tmsamkough: No such file or directory'), 'cd tmsamkough/', 'cd Downloads/', and 'pwd' (which outputs '/home/tmsamkough/Downloads'). The bottom window has a title bar 'tmsamkough@CIS106VM: ~/Documents' and shows commands: 'cd /usr/share/themes/Adwaita', 'cd /home/tmsamkough/' (which fails with 'bash: cd: /home/tmsamkough/: No such file or directory'), 'cd Documents/', and 'pwd' (which outputs '/home/tmsamkough/Documents').

```
tmsamkough@CIS106VM: ~/Downloads
tmsamkough@CIS106VM:/dev/disk/by-id$ cd /
tmsamkough@CIS106VM:/$ cd /home
tmsamkough@CIS106VM:/home$ cd /tmsamkough
bash: cd: /tmsamkough: No such file or directory
tmsamkough@CIS106VM:/home$ cd tmsamkough/
tmsamkough@CIS106VM:~$ cd Downloads/
tmsamkough@CIS106VM:~/Downloads$ pwd
/home/tmsamkough/Downloads
tmsamkough@CIS106VM:~/Downloads$

tmsamkough@CIS106VM: ~/Documents
tmsamkough@CIS106VM:~/Downloads$ cd /usr/share/themes/Adwaita
tmsamkough@CIS106VM:/usr/share/themes/Adwaita$ cd /home/tmsamkough/
bash: cd: /home/tmsamkough/: No such file or directory
tmsamkough@CIS106VM:~$ cd Documents/
tmsamkough@CIS106VM:~/Documents$ pwd
/home/tmsamkough/Documents
tmsamkough@CIS106VM:~/Documents$
```