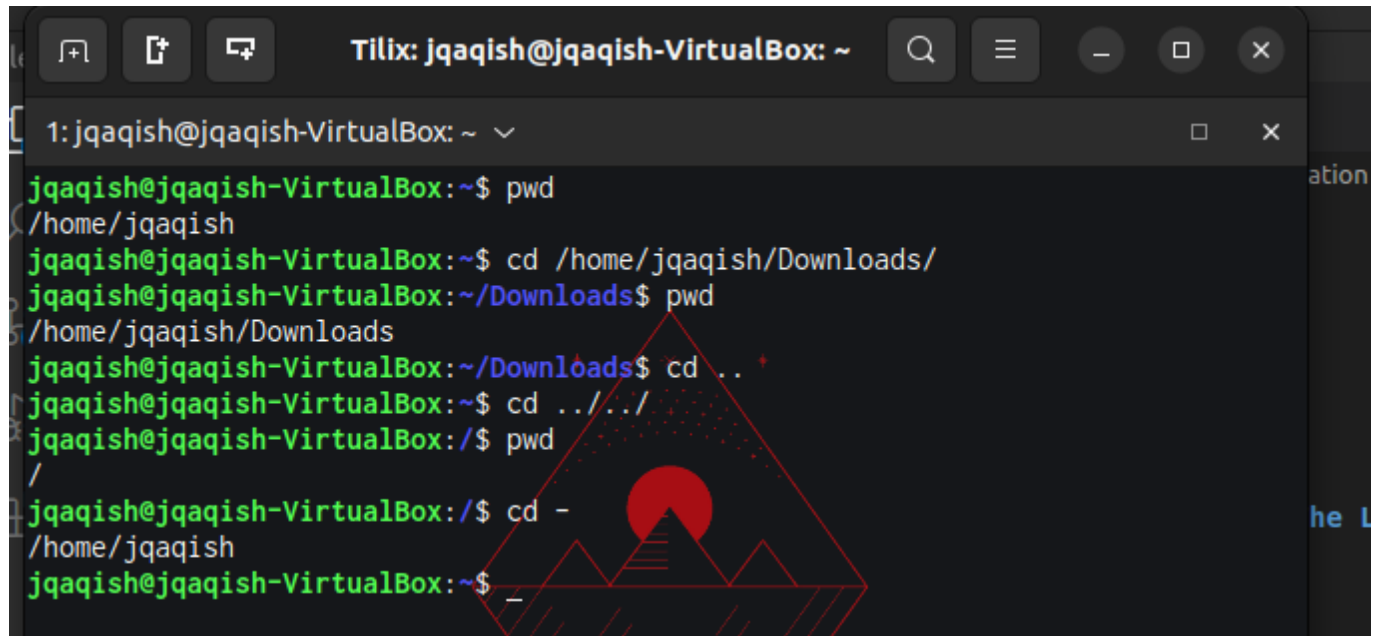


# Weekly Report 4

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Practice from the presentation The Linux File system:

Practice 1:

A screenshot of a terminal window titled "Tilix: jqaqish@jqaqish-VirtualBox: ~". The terminal shows a series of commands and their outputs for navigating the file system. The commands and outputs are: 

```
jqaqish@jqaqish-VirtualBox:~$ pwd
/home/jqaqish
jqaqish@jqaqish-VirtualBox:~$ cd /home/jqaqish/Downloads/
jqaqish@jqaqish-VirtualBox:~/Downloads$ pwd
/home/jqaqish/Downloads
jqaqish@jqaqish-VirtualBox:~/Downloads$ cd ..
jqaqish@jqaqish-VirtualBox:~$ cd ../../
jqaqish@jqaqish-VirtualBox:/$ pwd
/
jqaqish@jqaqish-VirtualBox:/$ cd -
/home/jqaqish
jqaqish@jqaqish-VirtualBox:~$
```

 A faint red geometric logo is visible in the background of the terminal window.

Practice 2:

```

Applications  Places

1:jqaqish@jqaqish-VirtualBox: ~/practicels  v

jqaqish@jqaqish-VirtualBox:~$ wget https://cis106.com/assets/practicels.tar.xz
--2023-03-14 12:00:48-- https://cis106.com/assets/practicels.tar.xz
Resolving cis106.com (cis106.com)... 185.199.108.153
Connecting to cis106.com (cis106.com)|185.199.108.153|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 2229212 (2.1M) [application/x-xz]
Saving to: 'practicels.tar.xz'

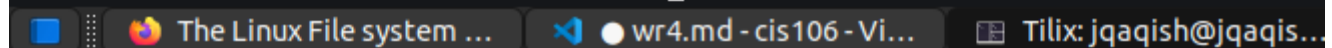
practicels.tar.xz  100%[=====] 2.12M  --.-KB/s   in 0.09s

2023-03-14 12:00:49 (23.1 MB/s) - 'practicels.tar.xz' saved [2229212/2229212]

jqaqish@jqaqish-VirtualBox:~$ tar Jxf practicels.tar.xz
jqaqish@jqaqish-VirtualBox:~$ cd practicels/
jqaqish@jqaqish-VirtualBox:~/practicels$ ls
book.txt      history-debian.pdf  movie.mp4      song.mp3      tux-penguin.gif
countries.xml  homework.docx       people.csv     tux-nobg.png
jqaqish@jqaqish-VirtualBox:~/practicels$ ls -a
.              countries.xml      movie.mp4      tux-nobg.png
..             history-debian.pdf people.csv     tux-penguin.gif
book.txt       homework.docx      song.mp3
jqaqish@jqaqish-VirtualBox:~/practicels$ ls -l
total 2932
-rw-rw-r-- 1 jqaqish jqaqish  1043 Feb 27  2022 book.txt
-rw-rw-r-- 1 jqaqish jqaqish 23972 Feb 27  2022 countries.xml
-rw-rw-r-- 1 jqaqish jqaqish 163057 Feb 27  2022 history-debian.pdf
-rw-rw-r-- 1 jqaqish jqaqish 111303 Feb 22  2022 homework.docx
-rw-rw-r-- 1 jqaqish jqaqish 1570024 Feb 27  2022 movie.mp4
-rw-rw-r-- 1 jqaqish jqaqish 284042 Feb 27  2022 people.csv
-rw-rw-r-- 1 jqaqish jqaqish 764176 Feb 27  2022 song.mp3
-rw-rw-r-- 1 jqaqish jqaqish 21314 Feb 27  2022 tux-nobg.png
-rw-rw-r-- 1 jqaqish jqaqish 44299 Jan 31  2020 tux-penguin.gif
jqaqish@jqaqish-VirtualBox:~/practicels$ ls -lh
total 2.9M
-rw-rw-r-- 1 jqaqish jqaqish 1.1K Feb 27  2022 book.txt
-rw-rw-r-- 1 jqaqish jqaqish 24K Feb 27  2022 countries.xml
-rw-rw-r-- 1 jqaqish jqaqish 160K Feb 27  2022 history-debian.pdf
-rw-rw-r-- 1 jqaqish jqaqish 109K Feb 22  2022 homework.docx
-rw-rw-r-- 1 jqaqish jqaqish 1.5M Feb 27  2022 movie.mp4
-rw-rw-r-- 1 jqaqish jqaqish 278K Feb 27  2022 people.csv
-rw-rw-r-- 1 jqaqish jqaqish 747K Feb 27  2022 song.mp3
-rw-rw-r-- 1 jqaqish jqaqish 21K Feb 27  2022 tux-nobg.png
-rw-rw-r-- 1 jqaqish jqaqish 44K Jan 31  2020 tux-penguin.gif
jqaqish@jqaqish-VirtualBox:~/practicels$ ls -lht
total 2.9M
-rw-rw-r-- 1 jqaqish jqaqish 24K Feb 27  2022 countries.xml
-rw-rw-r-- 1 jqaqish jqaqish 278K Feb 27  2022 people.csv
-rw-rw-r-- 1 jqaqish jqaqish 747K Feb 27  2022 song.mp3
-rw-rw-r-- 1 jqaqish jqaqish 1.5M Feb 27  2022 movie.mp4
-rw-rw-r-- 1 jqaqish jqaqish 160K Feb 27  2022 history-debian.pdf
-rw-rw-r-- 1 jqaqish jqaqish 21K Feb 27  2022 tux-nobg.png
-rw-rw-r-- 1 jqaqish jqaqish 1.1K Feb 27  2022 book.txt
-rw-rw-r-- 1 jqaqish jqaqish 109K Feb 22  2022 homework.docx
-rw-rw-r-- 1 jqaqish jqaqish 44K Jan 31  2020 tux-penguin.gif
jqaqish@jqaqish-VirtualBox:~/practicels$ ls -lhtgS
total 2.9M

```

```
-rw-rw-r-- 1 1.5M Feb 27 2022 movie.mp4
-rw-rw-r-- 1 747K Feb 27 2022 song.mp3
-rw-rw-r-- 1 278K Feb 27 2022 people.csv
-rw-rw-r-- 1 160K Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 109K Feb 22 2022 homework.docx
-rw-rw-r-- 1 44K Jan 31 2020 tux-penguin.gif
-rw-rw-r-- 1 24K Feb 27 2022 countries.xml
-rw-rw-r-- 1 21K Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 1.1K Feb 27 2022 book.txt
jqaqish@jqaqish-VirtualBox:~/practicels$ ls -mr
tux-penguin.gif, tux-nobg.png, song.mp3, people.csv, movie.mp4, homework.docx,
history-debian.pdf, countries.xml, book.txt
jqaqish@jqaqish-VirtualBox:~/practicels$ ls -lX
people.csv
homework.docx
tux-penguin.gif
song.mp3
movie.mp4
history-debian.pdf
tux-nobg.png
book.txt
countries.xml
jqaqish@jqaqish-VirtualBox:~/practicels$ _
```

The image shows a terminal window with a dark background. The terminal output displays the results of two 'ls' commands. The first command, 'ls -mr', lists files in reverse chronological order. The second command, 'ls -lX', lists files with long format and extended attributes. The window title bar at the bottom shows three open windows: 'The Linux File system ...', 'wr4.md - cis106 - Vi...', and 'Tilix: jqaqish@jqaqis...'.

Practice 3:



```

Applications  Places

1:jqaqish@jqaqish-VirtualBox: ~ ▾

jqaqish@jqaqish-VirtualBox:~$ pwd
/home/jqaqish
jqaqish@jqaqish-VirtualBox:~$ cd /
jqaqish@jqaqish-VirtualBox:/$ cd usr/share/themes
jqaqish@jqaqish-VirtualBox:/usr/share/themes$ cd ../../
jqaqish@jqaqish-VirtualBox:/usr$ ls -A
bin    include  lib32    libexec  local    share
games  lib      lib64    libx32   sbin     src
jqaqish@jqaqish-VirtualBox:/usr$ cd; ls -tX cis106/
'cheatSheets'  labs  'week reports'
jqaqish@jqaqish-VirtualBox:~$ ls -rR /cis106/
ls: cannot access '/cis106/': No such file or directory
jqaqish@jqaqish-VirtualBox:~$ ls -rR cis106/
cis106/:
'week reports'  labs  cheatSheets

'cis106/week reports':
wr4-p2.2.png  wr4-p1.png  wr3.pdf  fs1.3.png  fs1.1.png
wr4-p2.1.png  wr4.md      wr3.md   fs1.2.png

cis106/labs:
lab4  'lab 3'  'lab 2'  lab1

cis106/labs/lab4:
lab4.pdf      lab4.4.9.png  lab4.4.5.png  lab4.4.1.png  lab4.1.png
lab4.md       lab4.4.8.png  lab4.4.4.png  lab4.4.10.png lab4.1.2.png
lab4.5.2.png  lab4.4.7.png  lab4.4.3.png  lab4.2.2.png
lab4.5.1.png  lab4.4.6.png  lab4.4.2.png  lab4.2.1.png

'cis106/labs/lab 3':
wr3.md          'Wikipedia Doc 1.odt'  q1.1.png          lab3.pdf
'Wikipedia Doc 1.pdf'  q2.1.png              'Presentation 1.odp'  lab3.md


'cis106/labs/lab 2':
'Question 4.png'  'Question 2.png'  'Question 1.2.png'  'lab 2.md'
'Question 3.png'  'Question 1.png'  'lab 2.pdf'

cis106/labs/lab1:
whatisubuntu.txt          what-is-ubuntu.pdf  johndoeresume.pdf
what_is_ubuntu_submission.pdf  ubuntu-logo.png     johndoeresume.md
what_is_ubuntu_submission.md   ubuntu-desktop.png  johndoe.jpeg
what_is_ubuntu_submission.html  resume.png          johndoeinfo.txt

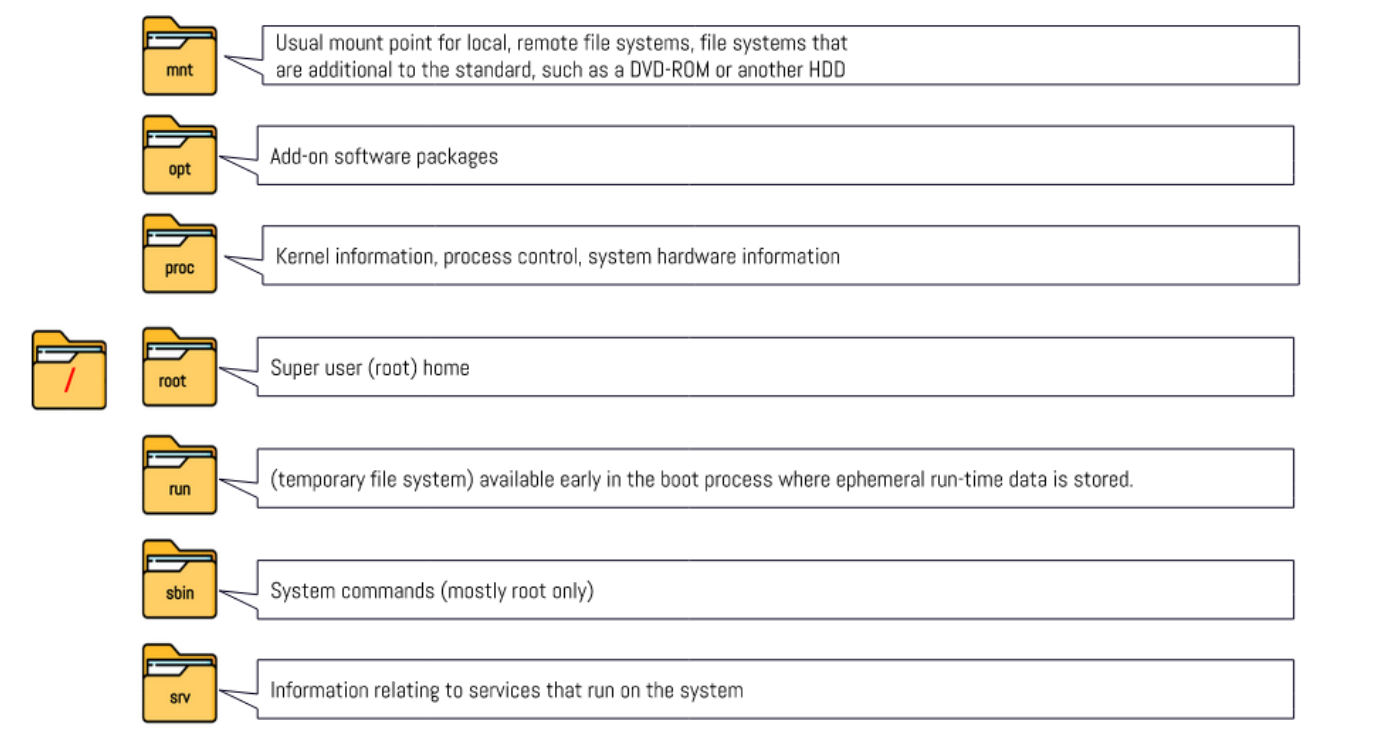
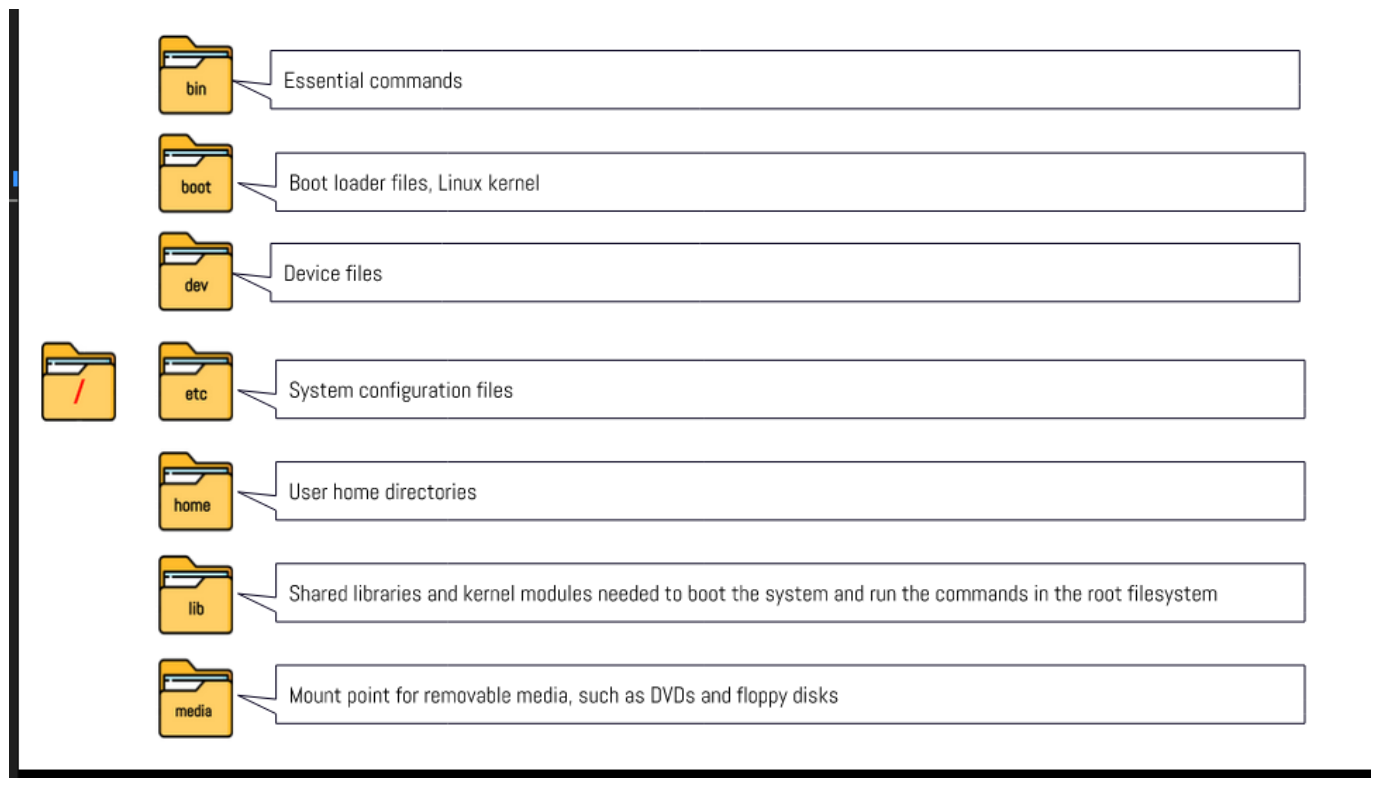
cis106/cheatSheets:
'Linux Workshop Ubuntu Software installation cheat sheet.png'
jqaqish@jqaqish-VirtualBox:~$ ls -lh
total 2.2M
drwxrwxr-x 6 jqaqish jqaqish 4.0K Mar  5 13:15 cis106
drwxr-xr-x 2 jqaqish jqaqish 4.0K Mar  5 09:30 Desktop
drwxr-xr-x 2 jqaqish jqaqish 4.0K Feb 13 13:24 Documents
drwxr-xr-x 3 jqaqish jqaqish 4.0K Mar 14 11:56 Downloads

```

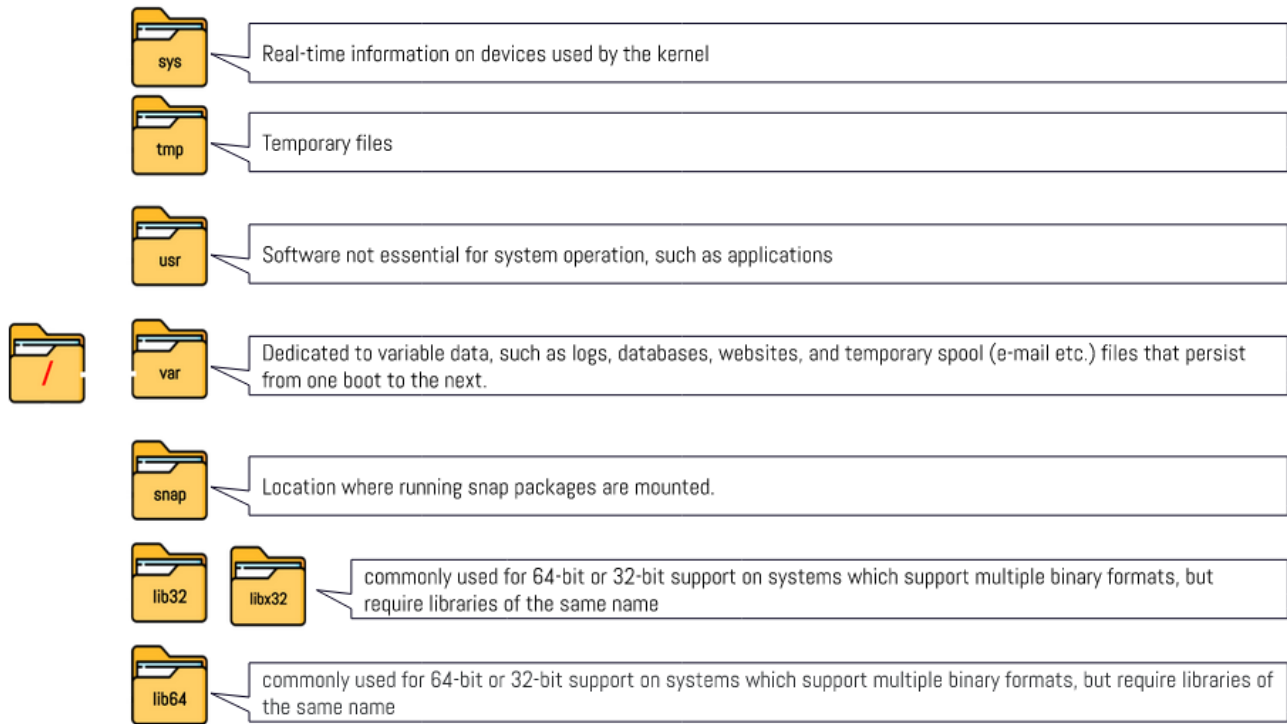
```
-rw-rw-r-- 1 jqaqish jqaqish 91 Feb 14 08:47 gitcommands.txt
drwxrwxr-x 2 jqaqish jqaqish 4.0K Mar 13 10:32 lab4files
drwxr-xr-x 2 jqaqish jqaqish 4.0K Feb 13 13:24 Music
drwxr-xr-x 5 jqaqish jqaqish 4.0K Mar 7 18:44 Pictures
drwxrwxr-x 2 jqaqish jqaqish 4.0K Feb 27 2022 practicels
-rw-rw-r-- 1 jqaqish jqaqish 2.2M Feb 21 21:10 practicels.tar.xz
drwxr-xr-x 2 jqaqish jqaqish 4.0K Feb 13 13:24 Public
drwx----- 5 jqaqish jqaqish 4.0K Feb 14 07:48 snap
drwxr-xr-x 2 jqaqish jqaqish 4.0K Feb 13 13:24 Templates
drwxr-xr-x 3 jqaqish jqaqish 4.0K Mar 7 19:02 Videos
jqaqish@jqaqish-VirtualBox:~$ ls -lgG -full-time
ls: invalid option -- '-'
Try 'ls --help' for more information.
jqaqish@jqaqish-VirtualBox:~$ ls -lgG
total 2232
drwxrwxr-x 6 4096 Mar 5 13:15 cis106
drwxr-xr-x 2 4096 Mar 5 09:30 Desktop
drwxr-xr-x 2 4096 Feb 13 13:24 Documents
drwxr-xr-x 3 4096 Mar 14 11:56 Downloads
-rw-rw-r-- 1 91 Feb 14 08:47 gitcommands.txt
drwxrwxr-x 2 4096 Mar 13 10:32 lab4files
drwxr-xr-x 2 4096 Feb 13 13:24 Music
drwxr-xr-x 5 4096 Mar 7 18:44 Pictures
drwxrwxr-x 2 4096 Feb 27 2022 practicels
-rw-rw-r-- 1 2229212 Feb 21 21:10 practicels.tar.xz
drwxr-xr-x 2 4096 Feb 13 13:24 Public
drwx----- 5 4096 Feb 14 07:48 snap
drwxr-xr-x 2 4096 Feb 13 13:24 Templates
drwxr-xr-x 3 4096 Mar 7 19:02 Videos
jqaqish@jqaqish-VirtualBox:~$ _
```

The screenshot shows a terminal window with two 'ls' commands. The first command 'ls -lgG -full-time' fails with an error. The second command 'ls -lgG' successfully lists the contents of the home directory. The taskbar at the bottom shows three open windows: 'The Linux File system ...', 'wr4.md - cis106 - Vi...', and 'Tilix: jqa'.

The Linux File system directories and their purpose:







## All the commands for navigating the filesystem

Command	What it does	Syntax	Example
pwd	prints current directory	pwd	<code>pwd</code>
cd	changes directory	cd	<code>cd /home/jqagish/</code>
ls	lists files in a directory	ls	<code>ls /share/backgrounds/</code>

## Basic terminology

- **File system:** The way files are stored and organized
- **Current directory:** The directory where you are at in the moment
- **parent directory:** A directory you can move forward to a subdirectory or backwards to the previous directory
- **\*\*the difference between your home directory and the home directory:** YOUR home directory is in your terminal, THE home directory is the default one. \*\*
- **pathname:** Something every file has, it indicates the location of the file in the filesystem.
- **relative path:** the location of a file starting from the current working directory or a directory that is located inside the current working directory.
- **absolute path:** the location of a file starting at the root of the file system