Week Report 4

Practice from the presentation The Linux File System

Practice 1

Practice 2

```
jdeguzman@cis106:~$ wget https://cis106.com/assets/practicels.tar.xz
--2023-03-17 19:32:25--  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 0.04s

2023-03-17 19:32:25 (50.4 MB/s) - ‘practicels.tar.xz’ saved [2229212/2229212]

jdeguzman@cis106:~$ tar Jxf practicels.tar.xz
jdeguzman@cis106:~$ cd practicels/
jdeguzman@cis106:~/practicels$ ls
book.txt       history-debian.pdf  movie.mp4   song.mp3      tux-penguin.gif
countries.xml  homework.docx       people.csv  tux-nobg.png
jdeguzman@cis106:~/practicels$ ls -a
.          countries.xml       movie.mp4   tux-nobg.png
..         history-debian.pdf  people.csv  tux-penguin.gif
book.txt   homework.docx       song.mp3
jdeguzman@cis106:~/practicels$ ls -l
total 2932
-rw-rw-r-- 1 jdeguzman jdeguzman    1043 Feb 27  2022 book.txt
-rw-rw-r-- 1 jdeguzman jdeguzman   23972 Feb 27  2022 countries.xml
-rw-rw-r-- 1 jdeguzman jdeguzman  163057 Feb 27  2022 history-debian.pdf
-rw-rw-r-- 1 jdeguzman jdeguzman  111303 Feb 22  2022 homework.docx
-rw-rw-r-- 1 jdeguzman jdeguzman 1570024 Feb 27  2022 movie.mp4
-rw-rw-r-- 1 jdeguzman jdeguzman  284042 Feb 27  2022 people.csv
-rw-rw-r-- 1 jdeguzman jdeguzman  764176 Feb 27  2022 song.mp3
-rw-rw-r-- 1 jdeguzman jdeguzman   21314 Feb 27  2022 tux-nobg.png
-rw-rw-r-- 1 jdeguzman jdeguzman   44299 Jan 31  2020 tux-penguin.gif
```

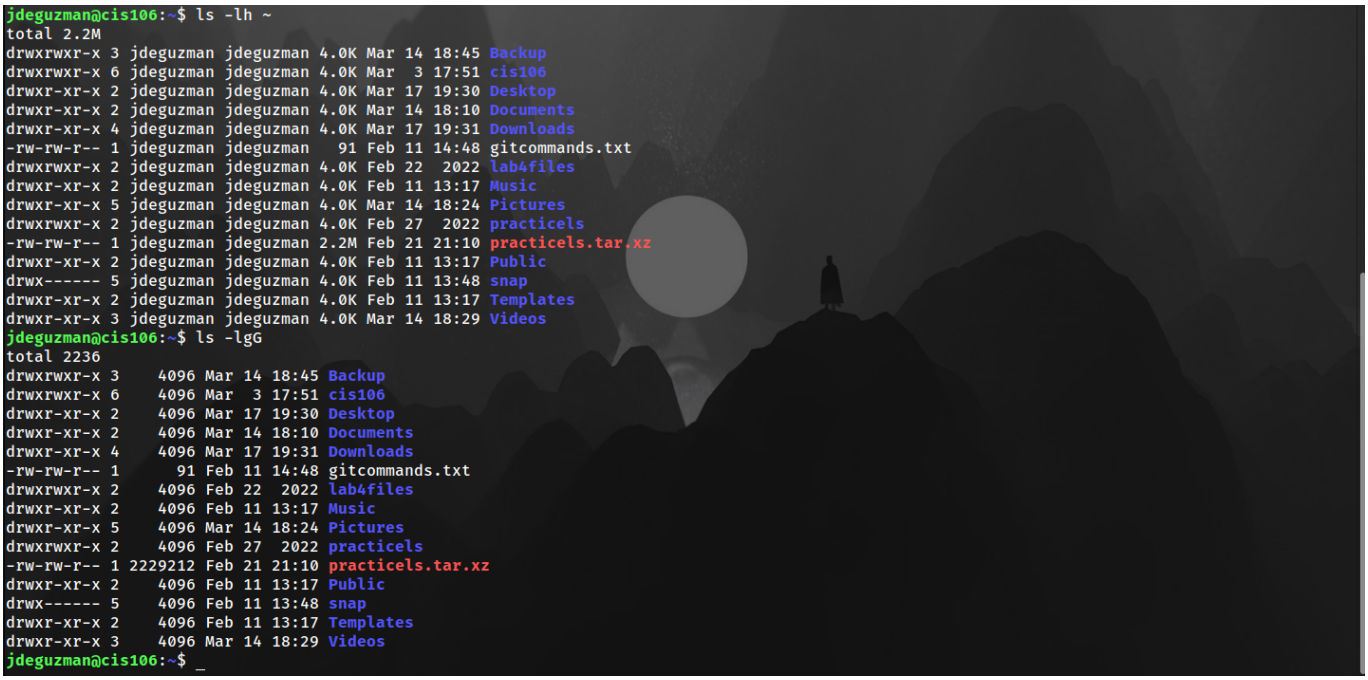
```
jdeguzman@cis106:~/practicels$ ls -lh
total 2.9M
-rw-rw-r-- 1 jdeguzman jdeguzman 1.1K Feb 27  2022 book.txt
-rw-rw-r-- 1 jdeguzman jdeguzman  24K Feb 27  2022 countries.xml
-rw-rw-r-- 1 jdeguzman jdeguzman 160K Feb 27  2022 history-debian.pdf
-rw-rw-r-- 1 jdeguzman jdeguzman 109K Feb 22  2022 homework.docx
-rw-rw-r-- 1 jdeguzman jdeguzman 1.5M Feb 27  2022 movie.mp4
-rw-rw-r-- 1 jdeguzman jdeguzman 278K Feb 27  2022 people.csv
-rw-rw-r-- 1 jdeguzman jdeguzman 747K Feb 27  2022 song.mp3
-rw-rw-r-- 1 jdeguzman jdeguzman  21K Feb 27  2022 tux-nobg.png
-rw-rw-r-- 1 jdeguzman jdeguzman  44K Jan 31  2020 tux-penguin.gif
jdeguzman@cis106:~/practicels$ ls -lht
total 2.9M
-rw-rw-r-- 1 jdeguzman jdeguzman  24K Feb 27  2022 countries.xml
-rw-rw-r-- 1 jdeguzman jdeguzman 278K Feb 27  2022 people.csv
-rw-rw-r-- 1 jdeguzman jdeguzman 747K Feb 27  2022 song.mp3
-rw-rw-r-- 1 jdeguzman jdeguzman 1.5M Feb 27  2022 movie.mp4
-rw-rw-r-- 1 jdeguzman jdeguzman 160K Feb 27  2022 history-debian.pdf
-rw-rw-r-- 1 jdeguzman jdeguzman  21K Feb 27  2022 tux-nobg.png
-rw-rw-r-- 1 jdeguzman jdeguzman 1.1K Feb 27  2022 book.txt
-rw-rw-r-- 1 jdeguzman jdeguzman 109K Feb 22  2022 homework.docx
-rw-rw-r-- 1 jdeguzman jdeguzman  44K Jan 31  2020 tux-penguin.gif
jdeguzman@cis106:~/practicels$ ls -lhgGS
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
```

```
jdeguzman@cis106:~/practicels$ ls -1X
people.csv
homework.docx
tux-penguin.gif
song.mp3
movie.mp4
history-debian.pdf
tux-nobg.png
book.txt
countries.xml
```

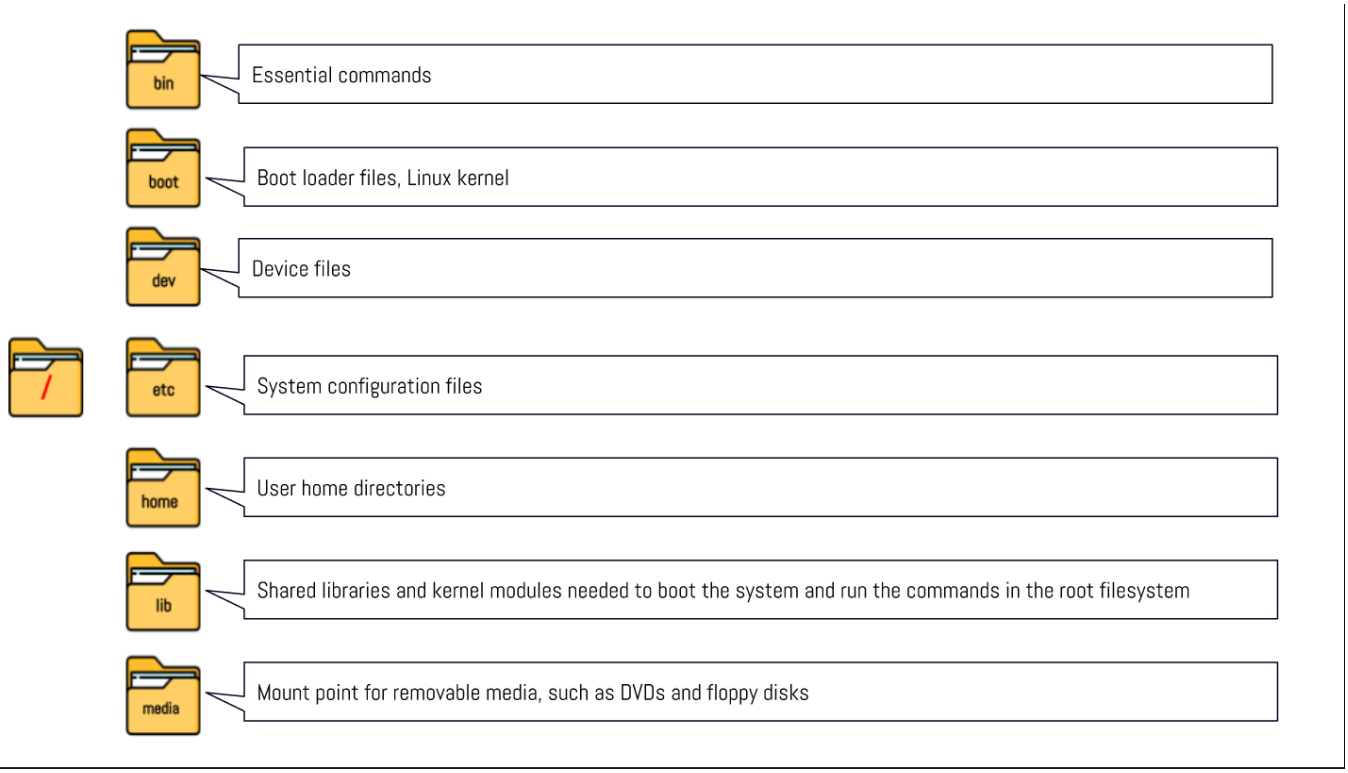
Practice 3

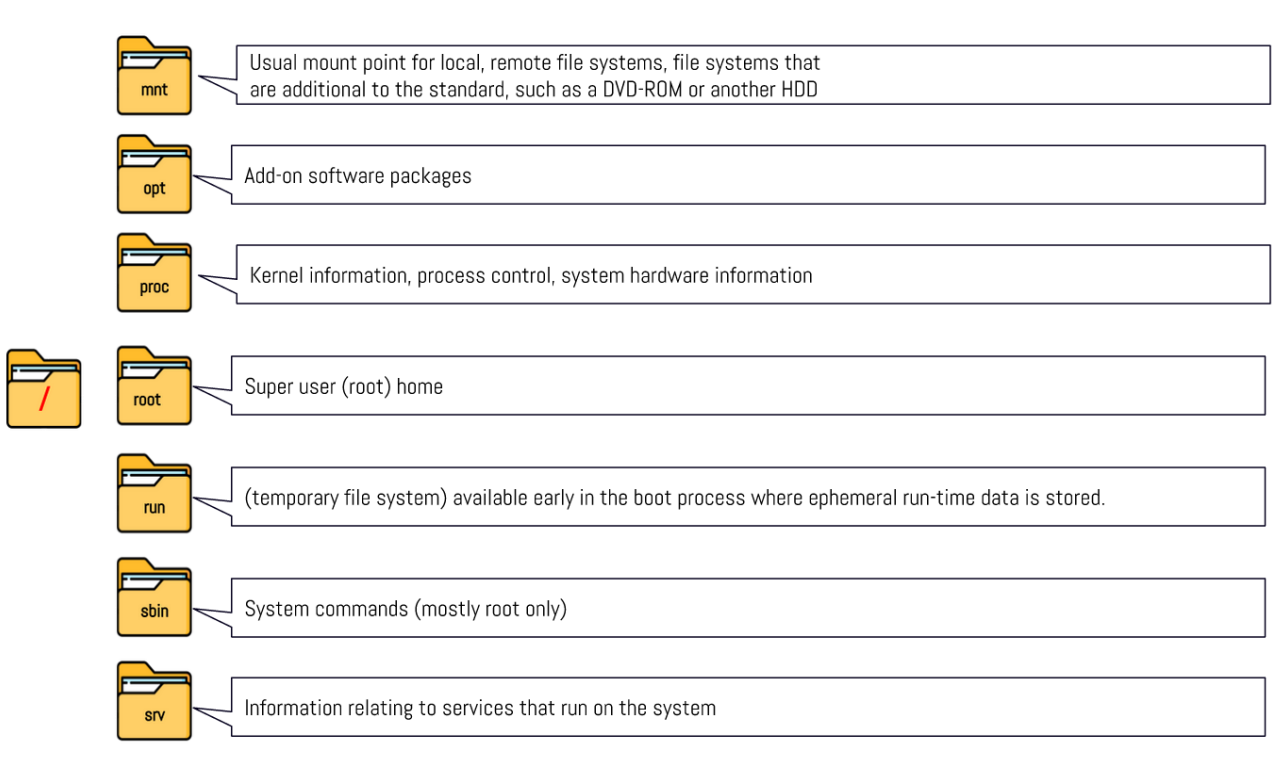
```
jdeguzman@cis106:~$ pwd
/home/jdeguzman
jdeguzman@cis106:~$ cd
jdeguzman@cis106:~$ cd /
jdeguzman@cis106:/$ cd usr/share/themes/
jdeguzman@cis106:/usr/share/themes$ cd ../../
jdeguzman@cis106:/usr$ ls -A
bin    include  lib32  libexec  local  share
games  lib      lib64  libx32   sbin   src
jdeguzman@cis106:/usr$ cd; ls -tX /home/jdeguzman/cis106/
cheatSheets  labs  weekReports
```

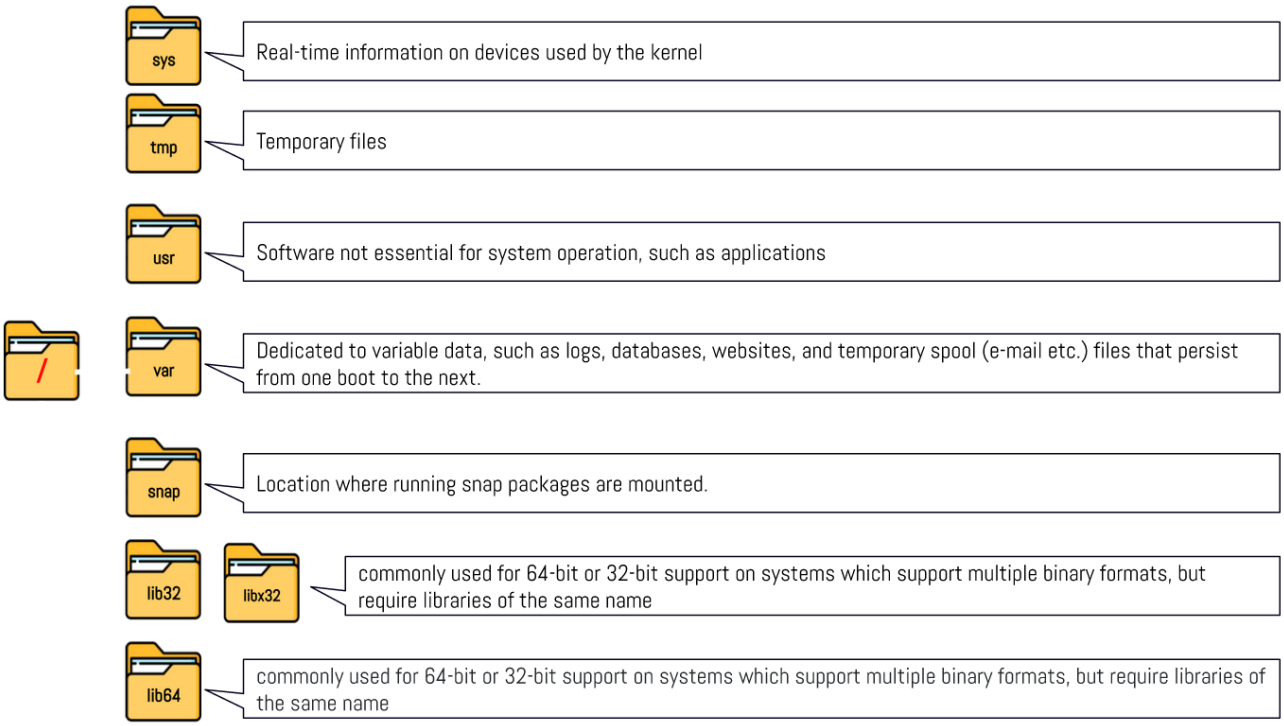
```
jdeguzman@cis106:~$ ls -rR ~/cis106/
/home/jdeguzman/cis106/:
weekReports  labs  cheatSheets

/home/jdeguzman/cis106/weekReports:
wr4-p2.3.png  wr4-p2.1.png  wr4.md   wr3.md     fs1.2.png
wr4-p2.2.png  wr4-p1.png    wr3.pdf  fs1.3.png  fs1.1.png

/home/jdeguzman/cis106/labs:
lab4  lab3  lab2  lab1

/home/jdeguzman/cis106/labs/lab4:
lab4.pdf      lab4.4.7.png  lab4.4.1.png     lab4.2.1.png
lab4.md       lab4.4.6.png  lab4.4.10.3.png  lab4.1.png
lab4.5.2.png  lab4.4.5.png  lab4.4.10.2.png  lab4.1.2.png
lab4.5.1.png  lab4.4.4.png  lab4.4.10.1.png
lab4.4.9.png  lab4.4.3.png  lab4.2.3.png
lab4.4.8.png  lab4.4.2.png  lab4.2.2.png

/home/jdeguzman/cis106/labs/lab3:
q2.1.png  presentation.odp   lab3.pdf
q1.1.png  LibreDocument.pdf  lab3.md

/home/jdeguzman/cis106/labs/lab2:
question4.png  question2.png  lab2.pdf
question3.png  question1.png  lab2.md

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

/home/jdeguzman/cis106/cheatSheets:
'Linux Workshop Ubuntu Software installation cheat sheet.png'
```



The Linux File system directories and their purpose


/
bin
Essential commands
boot
Boot loader files, Linux kernel
dev
Device files
etc
System configuration files
home
User home directories
lib
Shared libraries and kernel modules needed to boot the system and run the commands in the root filesystem
media
Mount point for removable media, such as DVDs and floppy disks


/
mnt
Usual mount point for local, remote file systems, file systems that are additional to the standard, such as a DVD-ROM or another HDD
opt
Add-on software packages
proc
Kernel information, process control, system hardware information
root
Super user (root) home
run
(temporary file system) available early in the boot process where ephemeral run-time data is stored.
sbin
System commands (mostly root only)
srv
Information relating to services that run on the system



All the commands for navigating the filesystem

Command	What it does	Syntax	Example
pwd	prints out the current directory	pwd	`pwd`
cd	changes the current working directory	cd + destination	`cd Downloads`
ls	displays all the files inside a given directory	ls + option + directory	`ls`

Basic terminology

- **File system:** The way files are stored and organized. Linux uses the **hierarchical directory structure**(tree-like pattern of folders).
- **Current directory:** The directory where you are at the moment; also called the present working directory.
- **Parent directory:** A directory above another directory;
- **the difference between your home directory and the home directory:** Your home directory is your current working directory, every user in the system has their own home directory. The home directory is the root directory which the administrator of your system
- **Pathname:** The pathname indicates the location of the file in the filesystem (like an address).
- **Relative path:** The location of a file starting from the current working directory or a directory that is located inside the current working directory.
  - **Example:** `Downloads/song.mp3`
- **Absolute path:** The location of a file starting at the root of the file system.
  - **Example:** `/home/user/Downloads/`