Week Report 4

Practice from the presentation The Linux File System:

Practice 1

Practice 2

◇ Applications   Places

⊞

```
cltorres-quinteros@cis106vm:~$ wget https://cis106.com/assets/practicels.tar.xz
--2023-10-27 18:26:07--  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 0.07s

2023-10-27 18:26:07 (31.7 MB/s) - 'practicels.tar.xz' saved [2229212/2229212]

cltorres-quinteros@cis106vm:~$ tar Jxf practicels.tar.xz
cltorres-quinteros@cis106vm:~$ cd practicels/
cltorres-quinteros@cis106vm:~/practicels$ ls
book.txt        history-debian.pdf  movie.mp4    song.mp3        tux-penguin.gif
countries.xml   homework.docx       people.csv   tux-nobg.png
cltorres-quinteros@cis106vm:~/practicels$ ls -a
.            countries.xml        movie.mp4    tux-nobg.png
..           history-debian.pdf   people.csv   tux-penguin.gif
book.txt     homework.docx        song.mp3
cltorres-quinteros@cis106vm:~/practicels$ ls -l
total 2932
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros    1043 Feb 27  2022 book.txt
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros   23972 Feb 27  2022 countries.xml
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros  163057 Feb 27  2022 history-debian.p
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros  111303 Feb 22  2022 homework.docx
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros 1570024 Feb 27  2022 movie.mp4
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros  284042 Feb 27  2022 people.csv
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros  764176 Feb 27  2022 song.mp3
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros   21314 Feb 27  2022 tux-nobg.png
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros   44299 Jan 31  2020 tux-penguin.gif
cltorres-quinteros@cis106vm:~/practicels$ ls -lh
total 2.9M
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros 1.1K Feb 27  2022 book.txt
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros  24K Feb 27  2022 countries.xml
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros 160K Feb 27  2022 history-debian.pdf
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros 109K Feb 22  2022 homework.docx
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros 1.5M Feb 27  2022 movie.mp4
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros 278K Feb 27  2022 people.csv
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros 747K Feb 27  2022 song.mp3
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros  21K Feb 27  2022 tux-nobg.png
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros  44K Jan 31  2020 tux-penguin.gif
cltorres-quinteros@cis106vm:~/practicels$ ls -lht
total 2.9M
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros  24K Feb 27  2022 countries.xml
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros 278K Feb 27  2022 people.csv
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros 747K Feb 27  2022 song.mp3
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros 1.5M Feb 27  2022 movie.mp4
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros 160K Feb 27  2022 history-debian.pdf
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros  21K Feb 27  2022 tux-nobg.png
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros 1.1K Feb 27  2022 book.txt
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros 109K Feb 22  2022 homework.docx
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros  44K Jan 31  2020 tux-penguin.gif
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros  44K Jan 31  2020 tux-penguin.gif
cltorres-quinteros@cis106vm:~/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  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
cltorres-quinteros@cis106vm:~/practicels$ ls -mr
tux-penguin.gif, tux-nobg.png, song.mp3, people.csv, movie.mp4, homework.docx,
history-debian.pdf, countries.xml, book.txt
cltorres-quinteros@cis106vm:~/practicels$ ls -1X
people.csv
homework.docx
tux-penguin.gif
song.mp3
movie.mp4
history-debian.pdf
tux-nobg.png
book.txt
countries.xml
cltorres-quinteros@cis106vm:~/practicels$
```

Practice 3

```
cltorres-quinteros@cis106vm:~$ pwd
/home/cltorres-quinteros
cltorres-quinteros@cis106vm:~$ cd
cltorres-quinteros@cis106vm:~$ cd /
cltorres-quinteros@cis106vm:/$ cd usr/share/themes
cltorres-quinteros@cis106vm:/usr/share/themes$ cd ../../
cltorres-quinteros@cis106vm:/usr$ ls -A ~
 .bash_history        Pictures
 .bash_logout         .pki
 .bashrc              plants
 blue.txt             'plant"s EC'
 .cache               "plant's PR"
 cis106               practicels
 .cis106.png          practicels.tar.xz
 .config              .profile
 Desktop              Public
 .dillo               snap
 directory            .ssh
 Documents            .sudo_as_admin_successful
 .dotnet              sunflower.mp3
 Downloads            Templates
 file1                .vboxclient-clipboard-tty2-control.pid
 file2                .vboxclient-clipboard-tty2-service.pid
 file3                .vboxclient-draganddrop-tty2-control.pid
 .fltk                .vboxclient-draganddrop-tty2-service.pid
 .fonts               .vboxclient-hostversion-tty2-control.pid
 gitcommands.txt      .vboxclient-seamless-tty2-control.pid
 .gitconfig           .vboxclient-seamless-tty2-service.pid
 .gnupg               .vboxclient-vmsvga-session-tty2-control.pid
 jeoPizza             .vboxclient-vmsvga-session-tty2-service.pid
 .lesshst             Videos
 .local               .vscode
 Music                website
 myproject
cltorres-quinteros@cis106vm:/usr$ cd; ls -tX cis106/
cheatsheets  labs  weekreports
cheatsheets  labs  weekreports
cltorres-quinteros@cis106vm:~$ ls -rR ~/cis106/
/home/cltorres-quinteros/cis106/:
weekreports  labs  cheatsheets

/home/cltorres-quinteros/cis106/weekreports:
 wr4-p2.2.png   wr4-p1.png    wr3.pdf   'Week report2.png'   fs1.2.png
 wr4-p2.1.png   wr4.md        wr3.md    fs1.3.png            fs1.1.png

/home/cltorres-quinteros/cis106/labs:
lab3  lab2  lab1

/home/cltorres-quinteros/cis106/labs/lab3:
q2.1.png  LibreofficewriterRandomTxt.pdf  lab3.pdf
q1.1.png  LibreOfficePresentation.pdf     lab3.md

/home/cltorres-quinteros/cis106/labs/lab2:
Question4.png  Question2.png      Question1.Pt1.png  lab2.md
Question3.png  Question1.Pt2.png  lab2.pdf

/home/cltorres-quinteros/cis106/labs/lab1:
 whatisubuntu.txt                 ubuntu-logo.png        resume.png
 what_is_ubuntu_submission.pdf    ubuntu-desktop.png     johndoe.jpeg
 what_is_ubuntu_submission.md     resume_submission.pdf  johndoeinfo.txt
 what_is_ubuntu_submission.html   resume_submission.md   'johndoe (copy).jpeg'
 what-is-ubuntu.pdf               resume_submission.html
```

```
/home/cltorres-quinteros/cis106/cheatsheets:
'Linux Workshop Ubuntu Software installation cheat sheet.png'
```

```
cltorres-quinteros@cis106vm:~$ ls -lh ~
total 2.3M
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros    0 Oct 26 18:09  blue.txt
drwxrwxr-x 6 cltorres-quinteros cltorres-quinteros 4.0K Oct 12 11:27  cis106
drwxr-xr-x 2 cltorres-quinteros cltorres-quinteros 4.0K Oct 11 20:19  Desktop
drwxrwxr-x 2 cltorres-quinteros cltorres-quinteros 4.0K Oct 19 18:27  directory
drwxr-xr-x 2 cltorres-quinteros cltorres-quinteros 4.0K Oct 26 18:50  Documents
drwxr-xr-x 4 cltorres-quinteros cltorres-quinteros 4.0K Oct 26 18:27  Downloads
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros    0 Oct 26 18:21  file1
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros    0 Oct 26 18:22  file2
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros    0 Oct 26 18:22  file3
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros   91 Sep 29 20:05  gitcommands.txt
drwxrwxr-x 3 cltorres-quinteros cltorres-quinteros 4.0K Oct 19 18:31  jeoPizza
drwxr-xr-x 2 cltorres-quinteros cltorres-quinteros 4.0K Oct 19 18:50  Music
drwxrwxr-x 2 cltorres-quinteros cltorres-quinteros 4.0K Oct 19 18:50  myproject
drwxr-xr-x 2 cltorres-quinteros cltorres-quinteros 4.0K Oct 26 19:06  Pictures
drwxrwxr-x 2 cltorres-quinteros cltorres-quinteros 4.0K Oct 19 17:56  plants
drwxrwxr-x 2 cltorres-quinteros cltorres-quinteros 4.0K Oct 19 18:01  'plant"s EC'
drwxrwxr-x 2 cltorres-quinteros cltorres-quinteros 4.0K Oct 19 18:02  "plant's PR"
drwxrwxr-x 2 cltorres-quinteros cltorres-quinteros 4.0K Feb 27  2022  practicels
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros 2.2M Oct 14 11:22  practicels.tar.xz
drwxr-xr-x 2 cltorres-quinteros cltorres-quinteros 4.0K Sep 29 18:16  Public
drwx------ 5 cltorres-quinteros cltorres-quinteros 4.0K Sep 29 18:55  snap
-rw-rw-r-- 1 cltorres-quinteros cltorres-quinteros    0 Oct 26 18:48  sunflower.mp3
drwxr-xr-x 2 cltorres-quinteros cltorres-quinteros 4.0K Sep 29 18:16  Templates
drwxr-xr-x 2 cltorres-quinteros cltorres-quinteros 4.0K Oct 19 18:47  Videos
drwxrwxr-x 2 cltorres-quinteros cltorres-quinteros 4.0K Oct 19 18:28  website
cltorres-quinteros@cis106vm:~$ ls -lgG --full-time ~
total 2256
-rw-rw-r-- 1       0 2023-10-26 18:09:00.758289984 -0400  blue.txt
drwxrwxr-x 6    4096 2023-10-12 11:27:17.842655596 -0400  cis106
drwxr-xr-x 2    4096 2023-10-11 20:19:20.630027726 -0400  Desktop
drwxrwxr-x 2    4096 2023-10-19 18:27:06.337393617 -0400  directory
drwxr-xr-x 2    4096 2023-10-26 18:50:06.304984230 -0400  Documents
drwxr-xr-x 4    4096 2023-10-26 18:27:47.306774831 -0400  Downloads
-rw-rw-r-- 1       0 2023-10-26 18:21:45.731639721 -0400  file1
-rw-rw-r-- 1       0 2023-10-26 18:22:00.300352249 -0400  file2
-rw-rw-r-- 1       0 2023-10-26 18:22:17.543726874 -0400  file3
-rw-rw-r-- 1      91 2023-09-29 20:05:39.549178102 -0400  gitcommands.txt
drwxrwxr-x 3    4096 2023-10-19 18:31:37.932442147 -0400  jeoPizza
drwxr-xr-x 2    4096 2023-10-19 18:50:27.332860278 -0400  Music
drwxrwxr-x 2    4096 2023-10-19 18:50:27.332860278 -0400  myproject
drwxr-xr-x 2    4096 2023-10-26 19:06:53.575163130 -0400  Pictures
drwxrwxr-x 2    4096 2023-10-19 17:56:42.056734841 -0400  plants
drwxrwxr-x 2    4096 2023-10-19 18:01:15.649462866 -0400  'plant"s EC'
drwxrwxr-x 2    4096 2023-10-19 18:02:04.437844866 -0400  "plant's PR"
drwxrwxr-x 2    4096 2022-02-27 13:46:18.000000000 -0500  practicels
-rw-rw-r-- 1 2229212 2023-10-14 11:22:44.000000000 -0400  practicels.tar.xz
drwxr-xr-x 2    4096 2023-09-29 18:16:03.707090823 -0400  Public
drwx------ 5    4096 2023-09-29 18:55:14.908912664 -0400  snap
-rw-rw-r-- 1       0 2023-10-26 18:48:37.517402160 -0400  sunflower.mp3
drwxr-xr-x 2    4096 2023-09-29 18:16:03.707090823 -0400  Templates
drwxr-xr-x 2    4096 2023-10-19 18:47:09.954220276 -0400  Videos
drwxrwxr-x 2    4096 2023-10-19 18:28:03.996549613 -0400  website
cltorres-quinteros@cis106vm:~$
```
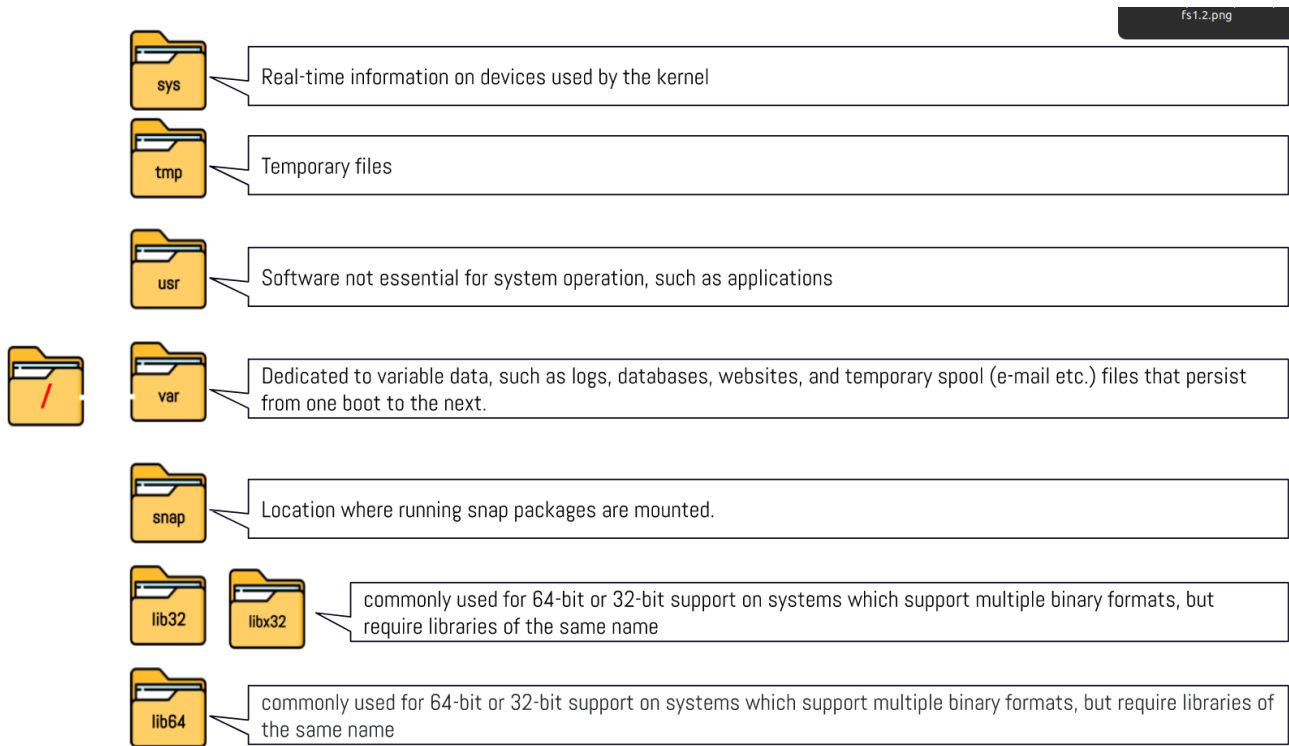
The Linux File system directories and their purpose:

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

fs1.1.png

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

sys	Real-time information on devices used by the kernel
tmp	Temporary files
usr	Software not essential for system operation, such as applications
var	Dedicated to variable data, such as logs, databases, websites, and temporary spool (e-mail etc.) files that persist from one boot to the next.
snap	Location where running snap packages are mounted.
lib32 libx32	commonly used for 64-bit or 32-bit support on systems which support multiple binary formats, but require libraries of the same name
lib64	commonly used for 64-bit or 32-bit support on systems which support multiple binary formats, but require libraries of the same name

All the commands for navigating the filesystem

Command	What it does	Syntax	Example
pwd	prints current directory	pwd	'pwd'
cd	changes current working directory	cd + destination	cd $HOME
ls	lists content of given directory	ls + option + directory to list	'ls -a ~/Pictures

Basic Terminology

- **File system-** the way files are stored and organized.
- **Current directory-** the directory where you are currently at.
- **Parent directory-** a subdirectory or previous directory. Where you are working inside.
- **The difference between your home directory and the home directory-** your home directory is your current working directory. The home directory is the starting folder.
- **Pathname-** indicates the location of a file in the file system.
- **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 a file system.