

Week Report 4

Practice from the presentation: The Linux File System

Practice 1

```
jdpaz@cis106vm ~$ pwd
/home/jdpaz
jdpaz@cis106vm ~$ cd /home/jdpaz/Downloads
jdpaz@cis106vm Downloads$ pwd
/home/jdpaz/Downloads
jdpaz@cis106vm Downloads$ cd ..
jdpaz@cis106vm ~$ cd ../../
jdpaz@cis106vm /$ pwd
/
jdpaz@cis106vm /$ cd -
/home/jdpaz
jdpaz@cis106vm ~$ █
```

Practice 2

```
jdpaz@cis106vm Desktop$ wget https://cis106.com/assets/practicels.tar.xz
--2023-03-28 00:35:36-- 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  9.73MB/s   in 0.2s

2023-03-28 00:35:37 (9.73 MB/s) - 'practicels.tar.xz' saved [2229212/2229212]

jdpaz@cis106vm Desktop$ tar Jxf practicels.tar.xz
jdpaz@cis106vm Desktop$ cd practicels/
jdpaz@cis106vm practicels$ ls
book.txt      history-debian.pdf  movie.mp4      song.mp3      tux-penguin.gif
countries.xml  homework.docx      people.csv     tux-nobg.png
jdpaz@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
jdpaz@cis106vm practicels$ ls -l
total 2932
-rw-rw-r-- 1 jdpaz jdpaz  1043 Feb 27  2022 book.txt
-rw-rw-r-- 1 jdpaz jdpaz 23972 Feb 27  2022 countries.xml
-rw-rw-r-- 1 jdpaz jdpaz 163057 Feb 27  2022 history-debian.pdf
-rw-rw-r-- 1 jdpaz jdpaz 111303 Feb 22  2022 homework.docx
-rw-rw-r-- 1 jdpaz jdpaz 1570024 Feb 27  2022 movie.mp4
-rw-rw-r-- 1 jdpaz jdpaz 284042 Feb 27  2022 people.csv
-rw-rw-r-- 1 jdpaz jdpaz 764176 Feb 27  2022 song.mp3
-rw-rw-r-- 1 jdpaz jdpaz 21314 Feb 27  2022 tux-nobg.png
-rw-rw-r-- 1 jdpaz jdpaz 44299 Jan 31  2020 tux-penguin.gif
jdpaz@cis106vm practicels$ ls -lh
total 2.9M
-rw-rw-r-- 1 jdpaz jdpaz 1.1K Feb 27  2022 book.txt
-rw-rw-r-- 1 jdpaz jdpaz 24K Feb 27  2022 countries.xml
-rw-rw-r-- 1 jdpaz jdpaz 160K Feb 27  2022 history-debian.pdf
-rw-rw-r-- 1 jdpaz jdpaz 109K Feb 22  2022 homework.docx
-rw-rw-r-- 1 jdpaz jdpaz 1.5M Feb 27  2022 movie.mp4
-rw-rw-r-- 1 jdpaz jdpaz 278K Feb 27  2022 people.csv
-rw-rw-r-- 1 jdpaz jdpaz 747K Feb 27  2022 song.mp3
-rw-rw-r-- 1 jdpaz jdpaz 21K Feb 27  2022 tux-nobg.png
-rw-rw-r-- 1 jdpaz jdpaz 44K Jan 31  2020 tux-penguin.gif
jdpaz@cis106vm practicels$ ls -lht
total 2.9M
-rw-rw-r-- 1 jdpaz jdpaz 24K Feb 27  2022 countries.xml
-rw-rw-r-- 1 jdpaz jdpaz 278K Feb 27  2022 people.csv
-rw-rw-r-- 1 jdpaz jdpaz 747K Feb 27  2022 song.mp3
-rw-rw-r-- 1 jdpaz jdpaz 1.5M Feb 27  2022 movie.mp4
-rw-rw-r-- 1 jdpaz jdpaz 160K Feb 27  2022 history-debian.pdf
-rw-rw-r-- 1 jdpaz jdpaz 21K Feb 27  2022 tux-nobg.png
-rw-rw-r-- 1 jdpaz jdpaz 1.1K Feb 27  2022 book.txt
-rw-rw-r-- 1 jdpaz jdpaz 109K Feb 22  2022 homework.docx
-rw-rw-r-- 1 jdpaz jdpaz 44K Jan 31  2020 tux-penguin.gif
jdpaz@cis106vm practicels$ ls -lhGS
ls: cannot access '-': No such file or directory
ls: cannot access 'lhGS': No such file or directory
jdpaz@cis106vm practicels$ ls -lhGS
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 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
jdpaz@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
jdpaz@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
jdpaz@cis106vm practicels$
```

Practice 3

```

jdpaz@cis106vm ~$ pwd
/home/jdpaz
jdpaz@cis106vm ~$ cd /
jdpaz@cis106vm ~$ cd /usr/share/themes
jdpaz@cis106vm themes$ cd ../../
jdpaz@cis106vm ~$ ls -A ~
Backup      .bashrc      cis106      Desktop      .dotnet      .fonts      .lessht      Pictures      Public      .sudo_as_admin_successful  .vboxclient-draganddrop.pid  Videos
.bash_history .bashrc.bak .cis106.png .dillo      Downloads    .gitconfig  .local      .pklt       snap        .vboxclient-seamless.pid  .vboxclient-vmsvga-session-tty2.pid .viminfo
.bash_logout  .config      Documents    .fltk       .gnupg       .Music      .profile     .ssh        .vboxclient-clipboard.pid  .vboxclient-x11-unix-wm-session-tty2.pid .vscode
jdpaz@cis106vm ~$ ls -tx ~/cis106/
cheatSheets labs weekReports
jdpaz@cis106vm ~$ ls -R ~/cis106/
/home/jdpaz/cis106/:
weekReports labs cheatSheets

/home/jdpaz/cis106/weekReports:
wr4-practice2.2.png wr4-practice1.png wr4.md wr3.pdf wr3.md fs1.3.png fs1.2.png fs1.1.png

/home/jdpaz/cis106/labs:
lab3 lab2 lab1

/home/jdpaz/cis106/labs/lab3:
Wiki text.pdf samplepresentation.odp rhythmbox.png q2.png q1.1.png lab3.pdf lab3.md geary.png epiphany-browser.png dragonplayer.png blockattack.png

/home/jdpaz/cis106/labs/lab2:
question4.png question3.png question2.png question1.2.png question1.1.png lab2.pdf lab2.md

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

/home/jdpaz/cis106/cheatSheets:
'Linux Workshop Ubuntu Software installation cheat sheet.png'
jdpaz@cis106vm ~$ ls -lh ~
total 44K
drwxrwxr-x 3 jdpaz jdpaz 4.0K Mar 14 18:45 Backup
drwxrwxr-x 6 jdpaz jdpaz 4.0K Mar 9 00:10 cis106
drwxr-xr-x 3 jdpaz jdpaz 4.0K Mar 28 00:35 Desktop
drwxr-xr-x 4 jdpaz jdpaz 4.0K Mar 14 18:55 Documents
drwxr-xr-x 7 jdpaz jdpaz 4.0K Mar 14 18:57 Downloads
drwxr-xr-x 2 jdpaz jdpaz 4.0K Feb 7 02:15 Music
drwxr-xr-x 4 jdpaz jdpaz 4.0K Mar 28 00:50 Pictures
drwxr-xr-x 2 jdpaz jdpaz 4.0K Feb 7 02:15 Public
drwx----- 5 jdpaz jdpaz 4.0K Feb 7 23:49 snap
drwxr-xr-x 2 jdpaz jdpaz 4.0K Feb 7 02:15 Templates
drwxr-xr-x 4 jdpaz jdpaz 4.0K Mar 7 18:54 Videos

```

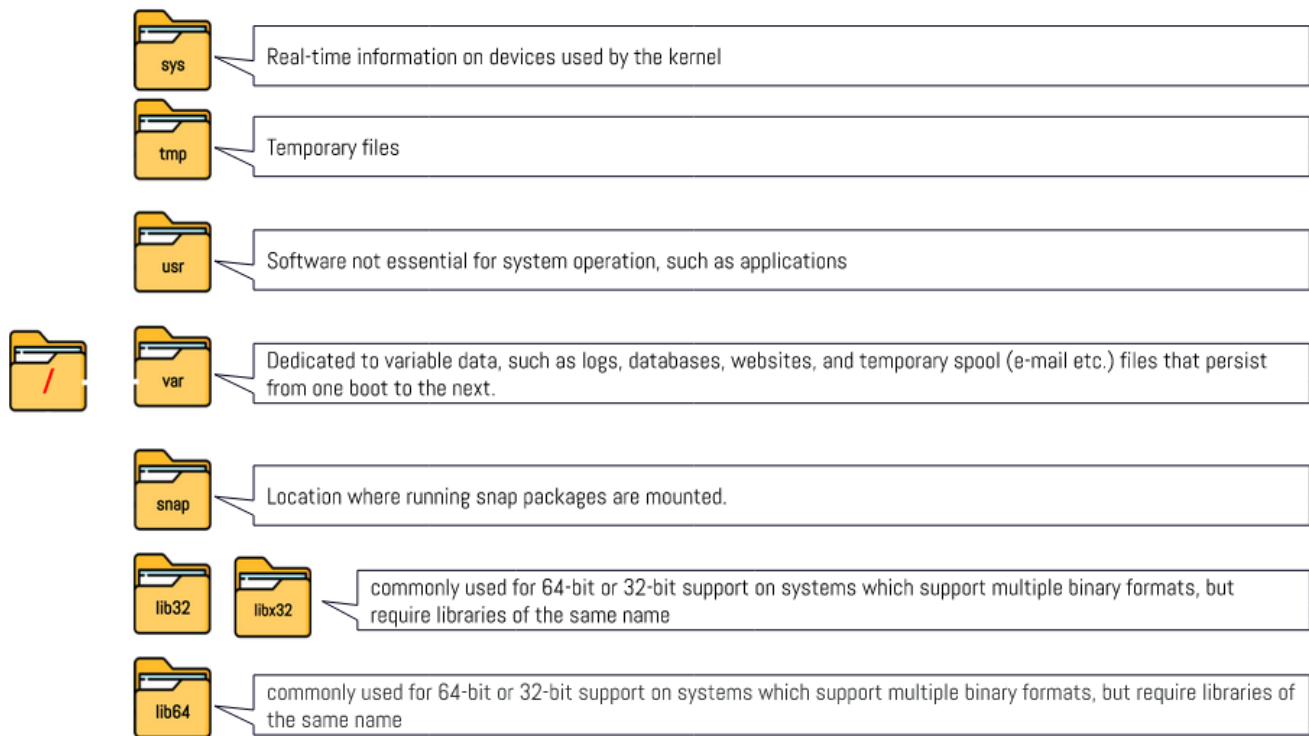
```

/home/jdpaz/cis106/cheatSheets:
'Linux Workshop Ubuntu Software installation cheat sheet.png'
jdpaz@cis106vm ~$ ls -lh ~
total 44K
drwxrwxr-x 3 jdpaz jdpaz 4.0K Mar 14 18:45 Backup
drwxrwxr-x 6 jdpaz jdpaz 4.0K Mar 9 00:10 cis106
drwxr-xr-x 3 jdpaz jdpaz 4.0K Mar 28 00:35 Desktop
drwxr-xr-x 4 jdpaz jdpaz 4.0K Mar 14 18:55 Documents
drwxr-xr-x 7 jdpaz jdpaz 4.0K Mar 14 18:57 Downloads
drwxr-xr-x 2 jdpaz jdpaz 4.0K Feb 7 02:15 Music
drwxr-xr-x 4 jdpaz jdpaz 4.0K Mar 28 00:50 Pictures
drwxr-xr-x 2 jdpaz jdpaz 4.0K Feb 7 02:15 Public
drwx----- 5 jdpaz jdpaz 4.0K Feb 7 23:49 snap
drwxr-xr-x 2 jdpaz jdpaz 4.0K Feb 7 02:15 Templates
drwxr-xr-x 4 jdpaz jdpaz 4.0K Mar 7 18:54 Videos
jdpaz@cis106vm ~$ ls -lgG -full-time ~
ls: invalid option -- '-'
Try 'ls --help' for more information.
jdpaz@cis106vm ~$ ls -lgG -full-time ~
ls: invalid option -- '-'
Try 'ls --help' for more information.
jdpaz@cis106vm ~$ ls -lgG --full-time ~
total 44
drwxrwxr-x 3 4096 2023-03-14 18:45:21.406585005 -0400 Backup
drwxrwxr-x 6 4096 2023-03-09 00:10:06.008312415 -0500 cis106
drwxr-xr-x 3 4096 2023-03-28 00:35:44.568185651 -0400 Desktop
drwxr-xr-x 4 4096 2023-03-14 18:55:18.426952878 -0400 Documents
drwxr-xr-x 7 4096 2023-03-14 18:57:09.570496882 -0400 Downloads
drwxr-xr-x 2 4096 2023-02-07 02:15:01.784000000 -0500 Music
drwxr-xr-x 4 4096 2023-03-28 00:50:03.333041340 -0400 Pictures
drwxr-xr-x 2 4096 2023-02-07 02:15:01.784000000 -0500 Public
drwx----- 5 4096 2023-02-07 23:49:29.508647374 -0500 snap
drwxr-xr-x 2 4096 2023-02-07 02:15:01.784000000 -0500 Templates
drwxr-xr-x 4 4096 2023-03-07 18:54:03.749105454 -0500 Videos
jdpaz@cis106vm ~$

```

The Linux File System Directories and Their Purpose





All the Commands for Navigating the File System

Command	What it does	Syntax	Example
ls	lists files and directories	<code>ls + absolute or relative path to directory</code>	<code>ls \etc</code>
cd	move between directories	<code>cd + absolute or relative path to a directory</code>	<code>cd /etc</code>
pwd	print current working directory	<code>pwd</code>	<code>pwd</code>

Basic Terminology

- **File system:** The way in which files are named and where they are placed logically for storage and retrieval
- **Current directory:** The directory your terminal window or command prompt is working in.
- **parent directory:** The directory that contains your current directory
- **the difference between your home directory and the home directory:** Your home directory refers to your own personal user directory that is a subdirectory in /home. The home directory is the actual /home directory. It is a subdirectory of the root.
- **pathname:** 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