

Directory	Data Stored in Directory
bin	Essential Commands
dev	Device files
etc	System configuration files
home	User home directories
media	Mount point for removable media, such as DVDs and floppy disks
opt	Add-on software packages
proc	Kernel information, process control, system hardware information
srv	Information relating to services that run on the system
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.

Command	What it does	Syntax	Example
cd	Changes the current working directory	cd + destination	cd ~/Downloads/
pwd	Shows the user the current working directory	pwd	pwd
ls	displays all the files inside a given directory, when no given directory is specified, ls displays the files in the current working directory	ls + option + directory to list	ls -a ~/Downloads

- Files System: The way files are stored and organized to simplify access to data.
- Current Working Directory: The directory where you are at the moment.
- Parent Directory: The directory above another directory.
- "Your Home Directory" refers to the users home directory. (/home/Jaheim)
- "The Home Directory" refers to the home directory in the root. (/home)
- Pathname: Indicates the location of the file in the filesystem
- Relative path: The partial pathname starting from a directory inside your present working directory.
- Absolute path: The full pathname starting from the root.
- Commands for navigating the filesystem:
 - pwd
 - cd
 - ls

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jaheim@cis106-VirtualBox: /
jaheim@cis106-VirtualBox:~$ pwd
/home/jaheim
jaheim@cis106-VirtualBox:~$ cd Downloads/
jaheim@cis106-VirtualBox:~/Downloads$ pwd
/home/jaheim/Downloads
jaheim@cis106-VirtualBox:~/Downloads$ cd ..
jaheim@cis106-VirtualBox:~$ pwd
/home/jaheim
jaheim@cis106-VirtualBox:~$ cd ../../
jaheim@cis106-VirtualBox:/$ pwd
/
jaheim@cis106-VirtualBox:/$ cd
jaheim@cis106-VirtualBox:~$ cd -
/
jaheim@cis106-VirtualBox:/$ pwd
/
jaheim@cis106-VirtualBox:/$
```

```
Activities Terminal Oct 22 18:07
jaheim@cis106-VirtualBox: ~/Desktop/practicels
jaheim@cis106-VirtualBox:~/Desktop/practicels$ ls -lt
total 2932
-rw-rw-r-- 1 jaheim jaheim 23972 Feb 27 2022 countries.xml
-rw-rw-r-- 1 jaheim jaheim 284042 Feb 27 2022 people.csv
-rw-rw-r-- 1 jaheim jaheim 764176 Feb 27 2022 song.mp3
-rw-rw-r-- 1 jaheim jaheim 1570024 Feb 27 2022 movie.mp4
-rw-rw-r-- 1 jaheim jaheim 163057 Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 jaheim jaheim 21314 Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 jaheim jaheim 1043 Feb 27 2022 book.txt
-rw-rw-r-- 1 jaheim jaheim 111303 Feb 22 2022 homework.docx
-rw-rw-r-- 1 jaheim jaheim 44299 Jan 31 2020 tux-penguin.gif
jaheim@cis106-VirtualBox:~/Desktop/practicels$ ls -lht
total 2.9M
-rw-rw-r-- 1 jaheim jaheim 24K Feb 27 2022 countries.xml
-rw-rw-r-- 1 jaheim jaheim 278K Feb 27 2022 people.csv
-rw-rw-r-- 1 jaheim jaheim 747K Feb 27 2022 song.mp3
-rw-rw-r-- 1 jaheim jaheim 1.5M Feb 27 2022 movie.mp4
-rw-rw-r-- 1 jaheim jaheim 160K Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 jaheim jaheim 21K Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 jaheim jaheim 1.1K Feb 27 2022 book.txt
-rw-rw-r-- 1 jaheim jaheim 109K Feb 22 2022 homework.docx
-rw-rw-r-- 1 jaheim jaheim 44K Jan 31 2020 tux-penguin.gif
jaheim@cis106-VirtualBox:~/Desktop/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 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
jaheim@cis106-VirtualBox:~/Desktop/practicels$ ls -nr
tux-penguin.gif, tux-nobg.png, song.mp3, people.csv, movie.mp4, homework.docx,
history-debian.pdf, countries.xml, book.txt
jaheim@cis106-VirtualBox:~/Desktop/practicels$ ls -lX
people.csv
homework.docx
tux-penguin.gif
song.mp3
movie.mp4
history-debian.pdf
tux-nobg.png
book.txt
countries.xml
jaheim@cis106-VirtualBox:~/Desktop/practicels$
```

```
Activities Terminal Oct 22 18:23
jaheim@cis106-VirtualBox: ~
jaheim@cis106-VirtualBox: /
jaheim@cis106-VirtualBox: ~/Desktop/practicels
jaheim@cis106-VirtualBox: ~
jaheim@cis106-VirtualBox: ~/cis106f22

'cis106f22/Labs/Lab 1':
what-is-ubuntu-submission.pdf what-is-ubuntu-submission.html ubuntu-logo.png
what-is-ubuntu-submission.md what-is-ubuntu.pdf ubuntu-desktop.png

'cis106f22/final project':

'cis106f22/Cheat Sheets':
'Linux Workshop Ubuntu Software Installation cheat sheet.png'
jaheim@cis106-VirtualBox:~$ ls -lh ~
total 56K
drwxrwxr-x 7 jaheim jaheim 4.0K Oct 5 14:46 cis106f22
drwxr-xr-x 3 jaheim jaheim 4.0K Oct 22 17:59 Desktop
drwxr-xr-x 2 jaheim jaheim 4.0K Oct 19 18:24 Documents
drwxr-xr-x 4 jaheim jaheim 4.0K Oct 22 17:39 Downloads
-rw-rw-r-- 1 jaheim jaheim 48 Oct 2 21:22 gitcommands.txt
-rwxrwxr-x 1 jaheim jaheim 349 Oct 2 20:40 installprograms.sh
drwxr-xr-x 2 jaheim jaheim 4.0K Sep 28 16:46 Music
-rw-rw-r-- 2 jaheim jaheim 15 Oct 19 18:23 myfile.txt
drwxr-xr-x 4 jaheim jaheim 4.0K Oct 22 18:07 Pictures
drwxr-xr-x 2 jaheim jaheim 4.0K Sep 28 16:46 Public
drwx----- 6 jaheim jaheim 4.0K Oct 2 20:53 snap
drwxr-xr-x 2 jaheim jaheim 4.0K Sep 28 16:46 Templates
drwxr-xr-x 2 jaheim jaheim 4.0K Sep 28 16:46 Videos
drwxrwxr-x 8 jaheim jaheim 4.0K Oct 12 18:37 website
jaheim@cis106-VirtualBox:~$ ls -lgG -full-time home
ls: invalid option -- '-'
Try 'ls --help' for more information.
jaheim@cis106-VirtualBox:~$ ls -lgG -full-time ~
ls: invalid option -- '-'
Try 'ls --help' for more information.
jaheim@cis106-VirtualBox:~$ ls -lgG --full-time ~
total 56
drwxrwxr-x 7 4096 2022-10-05 14:46:41.990914714 -0400 cis106f22
drwxr-xr-x 3 4096 2022-10-22 17:59:45.493673260 -0400 Desktop
drwxr-xr-x 2 4096 2022-10-19 18:24:27.666346897 -0400 Documents
drwxr-xr-x 4 4096 2022-10-22 17:39:33.912123972 -0400 Downloads
-rw-rw-r-- 1 48 2022-10-02 21:22:43.912082284 -0400 gitcommands.txt
-rwxrwxr-x 1 349 2022-10-02 20:40:24.527132839 -0400 installprograms.sh
drwxr-xr-x 2 4096 2022-09-28 16:46:34.364846920 -0400 Music
-rw-rw-r-- 2 15 2022-10-19 18:23:44.688866738 -0400 myfile.txt
drwxr-xr-x 4 4096 2022-10-22 18:07:54.586121978 -0400 Pictures
drwxr-xr-x 2 4096 2022-09-28 16:46:34.364846920 -0400 Public
drwx----- 6 4096 2022-10-02 20:53:13.287287942 -0400 snap
drwxr-xr-x 2 4096 2022-09-28 16:46:34.364846920 -0400 Templates
drwxr-xr-x 2 4096 2022-09-28 16:46:34.364846920 -0400 Videos
drwxrwxr-x 8 4096 2022-10-12 18:37:42.804724140 -0400 website
jaheim@cis106-VirtualBox:~$
```