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## Week Report 4

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Practice from the presentations The Linux File system:

### Practice 1

```
whomsi@whomsi-virtual-machine:~$ pwd
/home/whomsi
whomsi@whomsi-virtual-machine:~$ cd Downloads
whomsi@whomsi-virtual-machine:~/Downloads$ pwd
/home/whomsi/Downloads
whomsi@whomsi-virtual-machine:~/Downloads$ echo using relative path
using relative path
whomsi@whomsi-virtual-machine:~/Downloads$ cd ..
whomsi@whomsi-virtual-machine:~$ pwd
/home/whomsi
whomsi@whomsi-virtual-machine:~$ cd ../../
whomsi@whomsi-virtual-machine:/$ pwd
/
whomsi@whomsi-virtual-machine:/$ cd
whomsi@whomsi-virtual-machine:~$ cd .
whomsi@whomsi-virtual-machine:~$ pwd
/home/whomsi
whomsi@whomsi-virtual-machine:~$
```

### Practice 2

```

whomsi@whomsi-virtual-machine:~$ tar Jxf practicels.tar.xz
tar (child): practicels.tar.xz: Cannot open: No such file or directory
tar (child): Error is not recoverable: exiting now
tar: Child returned status 2
tar: Error is not recoverable: exiting now
whomsi@whomsi-virtual-machine:~$ tar Jxf practicels.tar.xz
whomsi@whomsi-virtual-machine:~$ cd practicels/
whomsi@whomsi-virtual-machine:~/practicels$ ls
book.txt          history-debian.pdf  movie.mp4          song.mp3          tux-penguin.gif
countries.xml     homework.docx      people.csv         tux-nobg.png
whomsi@whomsi-virtual-machine:~/practicels$ -a
-a: command not found
whomsi@whomsi-virtual-machine:~/practicels$ ls -a
.          countries.xml      movie.mp4          tux-nobg.png
..         history-debian.pdf  people.csv         tux-penguin.gif
book.txt   homework.docx      song.mp3
whomsi@whomsi-virtual-machine:~/practicels$ ls -l
total 2932
-rw-rw-r-- 1 whomsi whomsi    1043 Feb 27  2022 book.txt
-rw-rw-r-- 1 whomsi whomsi   23972 Feb 27  2022 countries.xml
-rw-rw-r-- 1 whomsi whomsi  163057 Feb 27  2022 history-debian.pdf
-rw-rw-r-- 1 whomsi whomsi  111303 Feb 22  2022 homework.docx
-rw-rw-r-- 1 whomsi whomsi 1570024 Feb 27  2022 movie.mp4
-rw-rw-r-- 1 whomsi whomsi   284042 Feb 27  2022 people.csv
-rw-rw-r-- 1 whomsi whomsi   764176 Feb 27  2022 song.mp3
-rw-rw-r-- 1 whomsi whomsi   21314 Feb 27  2022 tux-nobg.png
-rw-rw-r-- 1 whomsi whomsi   44299 Jan 31  2020 tux-penguin.gif

```

```

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

```

```
-rw-rw-r-- 1 21K Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 1.1K Feb 27 2022 book.txt

whomsi@whomsi-virtual-machine:~/practicels$ ls -mr
tux-penguin.gif, tux-nobg.png, song.mp3, people.csv, movie.mp4, homework.docx,
history-debian.pdf, countries.xml, book.txt
whomsi@whomsi-virtual-machine:~/practicels$ ls -lX
people.csv
homework.docx
tux-penguin.gif
song.mp3
movie.mp4
history-debian.pdf
tux-nobg.png
book.txt
countries.xml
whomsi@whomsi-virtual-machine:~/practicels$
```

### Practice 3

```

whomsi@whomsi-virtual-machine:~$ pwd
/home/whomsi
whomsi@whomsi-virtual-machine:~$ cd
whomsi@whomsi-virtual-machine:~$ cd /
whomsi@whomsi-virtual-machine:/$ cd usr/share/themes
whomsi@whomsi-virtual-machine:/usr/share/themes$ cd ../../
whomsi@whomsi-virtual-machine:/usr$ ls-a ~
ls-a: command not found
whomsi@whomsi-virtual-machine:/usr$ ls -a ~
.          Documents  Pictures      .ssh
..         .dotnet      .pki          .sudo_as_admin_successful
.bash_history Downloads    practicels    Templates
.bash_logout .gitconfig  practicels.tar.xz Videos
.bashrc      .gnupg      .profile      .vscode
.cache       lab4files   Public
.config      .local     .python_history
Desktop      Music      snap
whomsi@whomsi-virtual-machine:/usr$ cd; ls -tx ~/desktop/cis106
ls: cannot access '/home/whomsi/desktop/cis106': No such file or directory

```

```

whomsi@whomsi-virtual-machine:~$ ls -rR -tx ~/Desktop/cis106
/home/whomsi/Desktop/cis106:
Labs  Weekreports  cheatsheets

/home/whomsi/Desktop/cis106/Labs:
Lab1  Lab2  Lab3  Lab4

/home/whomsi/Desktop/cis106/Labs/Lab1:
ubuntu-logo.png      ubuntu-desktop.png  Resume-submission.pdf
Resume-submission.md resume.png           johndoe.jpeg
johndoeinfo.txt      whatisubuntu.txt    what_is_ubuntu_submission.pdf
what_is_ubuntu_submission.md what-is-ubuntu.pdf

/home/whomsi/Desktop/cis106/Labs/Lab2:
question4.jpg question3.jpg question2.jpg question1.jpg question1-2.jpg
Lab2.md      Lab2.pdf

/home/whomsi/Desktop/cis106/Labs/Lab3:
q1.2.odt q1.1.odp q2.2.png q2.1.png Lab3.md Lab3.pdf

/home/whomsi/Desktop/cis106/Labs/Lab4:
q1.1.png q1.2.png q2.1.png q2.2.png q2.3.png q4.1.png q4.2.png q4.3.png
q4.4.png q5.1.png q5.2.png Lab4.pdf Lab4.md

/home/whomsi/Desktop/cis106/Weekreports:
'week report 3' 'week report 4'

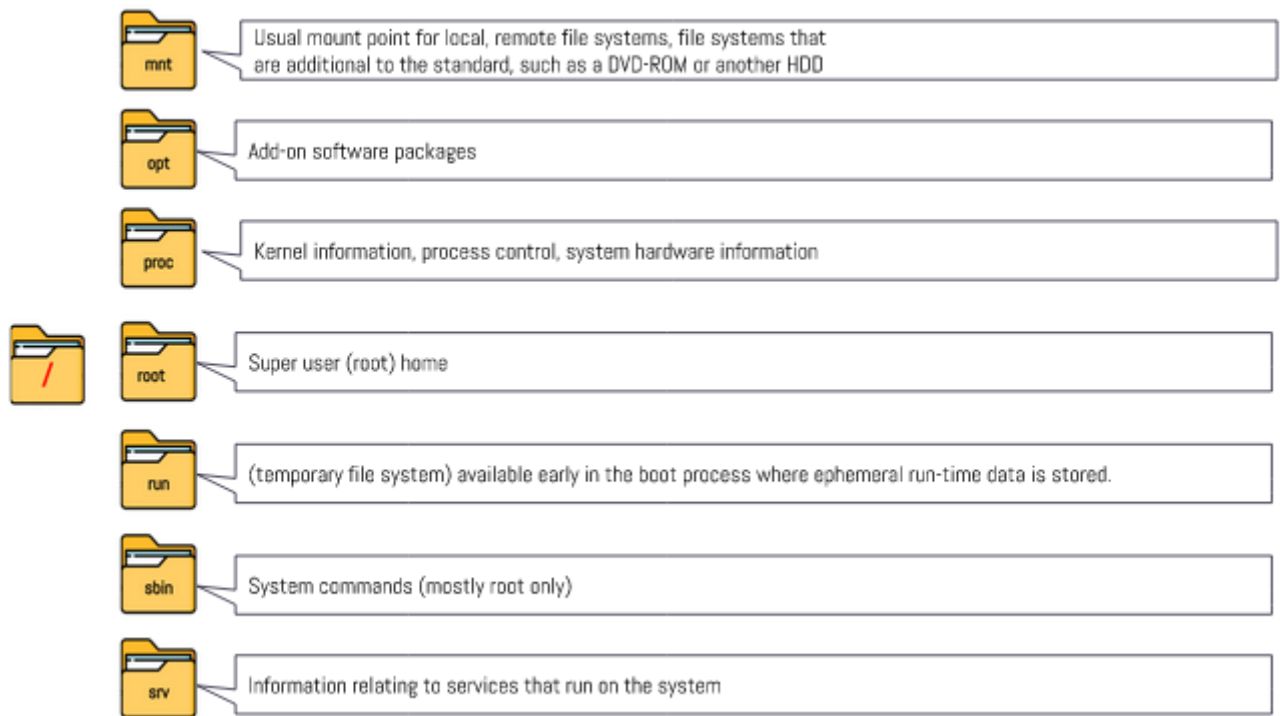
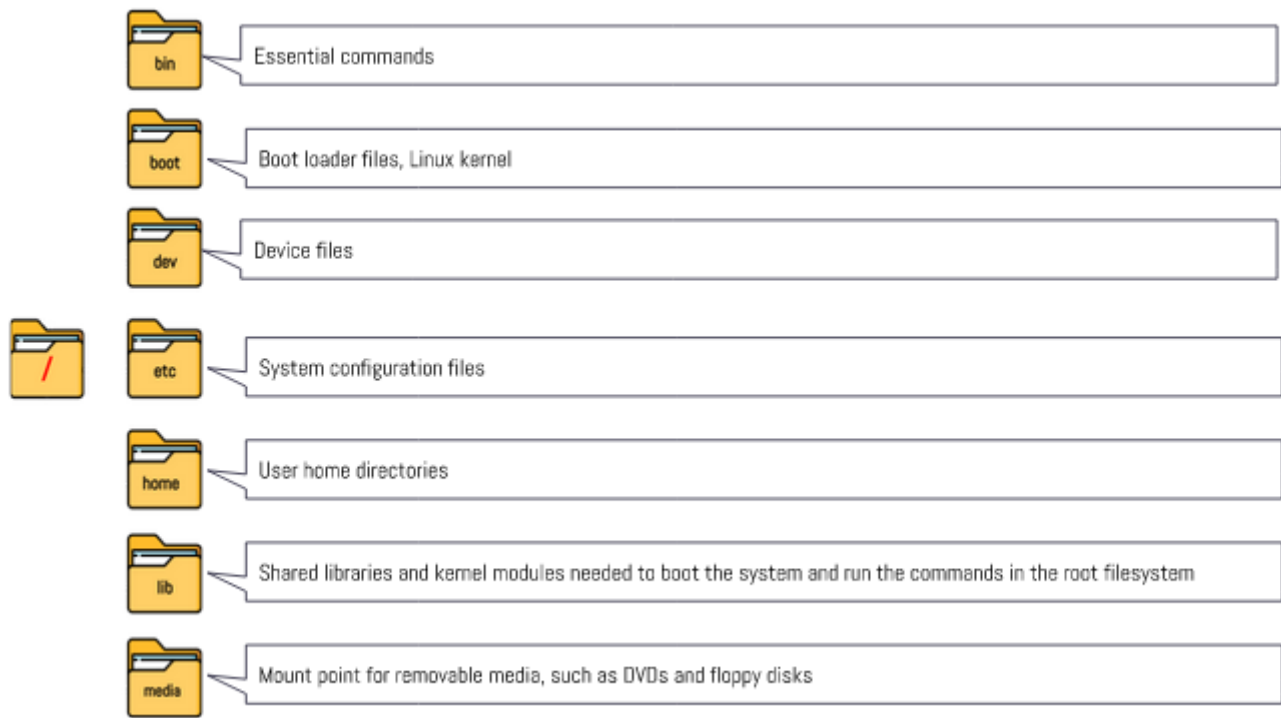
'/home/whomsi/Desktop/cis106/Weekreports/week report 3':
Weekreport3.pdf Weekreport3.md

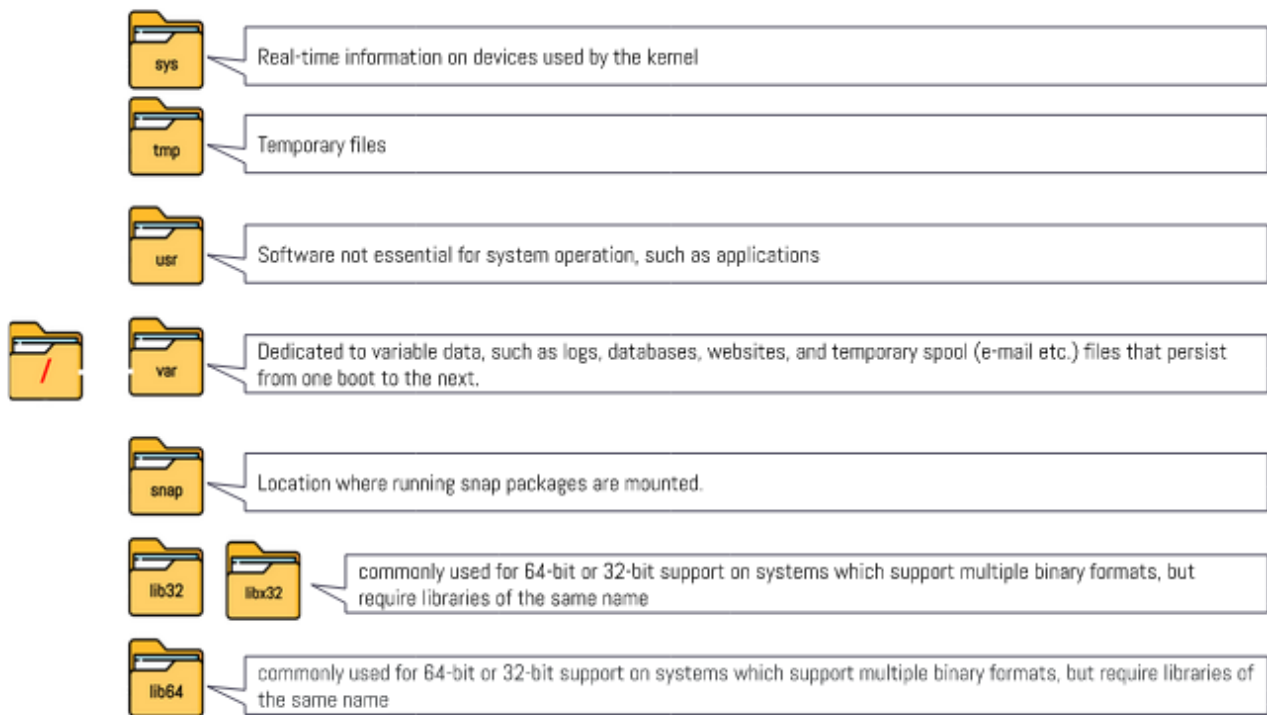
'/home/whomsi/Desktop/cis106/Weekreports/week report 4':
'week report 4.md' practice1.png fs1.png fs2.png fs3.png
practice2.1.png practice2.2.png practice2.3.png

```

```
/home/whomsi/Desktop/cis106/cheatsheets:
'Git Cheatsheet'
'Linux Workshop Ubuntu Software installation cheat sheet(2).png'
'The LS command Cheat Sheet.png'
'Absolute Path VS Relative Path Cheat sheet.png'
whomsi@whomsi-virtual-machine:~$ ls -lh ~
total 2.2M
drwxr-xr-x 4 whomsi whomsi 4.0K Oct 27 14:24 Desktop
drwxr-xr-x 2 whomsi whomsi 4.0K Sep 20 18:59 Documents
drwxr-xr-x 2 whomsi whomsi 4.0K Oct 27 13:02 Downloads
drwxrwxr-x 2 whomsi whomsi 4.0K Feb 22 2022 lab4files
drwxr-xr-x 2 whomsi whomsi 4.0K Sep 20 18:59 Music
drwxr-xr-x 2 whomsi whomsi 4.0K Oct 27 14:22 Pictures
drwxrwxr-x 2 whomsi whomsi 4.0K Feb 27 2022 practicels
-rw-rw-r-- 1 whomsi whomsi 2.2M Oct 14 11:22 practicels.tar.xz
drwxr-xr-x 2 whomsi whomsi 4.0K Sep 20 18:59 Public
drwx----- 6 whomsi whomsi 4.0K Sep 27 17:51 snap
drwxr-xr-x 2 whomsi whomsi 4.0K Sep 20 18:59 Templates
drwxr-xr-x 2 whomsi whomsi 4.0K Sep 20 18:59 Videos
whomsi@whomsi-virtual-machine:~$ ls -lgG -full-time ~
ls: invalid option -- '-'
Try 'ls --help' for more information.
whomsi@whomsi-virtual-machine:~$ ls -lgG -full-time ~
ls: invalid option -- '-'
Try 'ls --help' for more information.
whomsi@whomsi-virtual-machine:~$ ls lgG -full-time ~
ls: invalid option -- '-'
Try 'ls --help' for more information.
whomsi@whomsi-virtual-machine:~$ ls -lgG full-time ~
ls: cannot access 'full-time': No such file or directory
/home/whomsi:
total 2224
drwxr-xr-x 4      4096 Oct 27 14:24 Desktop
drwxr-xr-x 2      4096 Sep 20 18:59 Documents
```

The Linux File system directories and their purpose:





## All the commands for navigating the filesystem:

Command	Function	Syntax	Example
pwd	prints current directory	pwd	<code>pwd</code>
cd	changes directory	cd file/path	<code>cd home/james/Downloads</code>
ls	lists files in directory	ls -option file/path	<code>ls -l home/james/downloads</code>

## Basic terminology

- **File system** - The way Files are organized
- **Current directory** - The directory you are in
- **parent directory** - The previous directory to your current one
- **the difference between YOUR HOME directory and THE HOME directory** - The users directory is the "your directory" and "the home" directory is the devices directory not in reference to the user
- **pathname** - A way to tell your computer where a file or folder is.
- **relative path** - Describes where a file is in relation to where you currently are.
- **absolute path** - Tells exactly where a file is starting from the main or root folder.