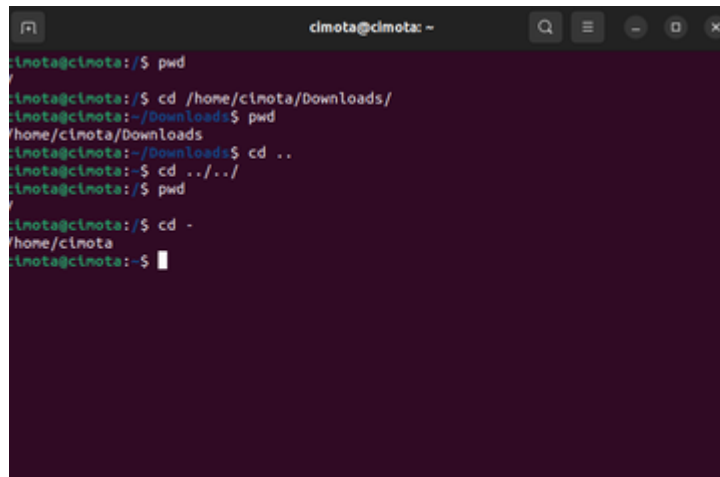


# Week Report 4

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## Practice from the presentation The Linux File system:

### Practice 1



```
cinota@cinota: ~  
cinota@cinota:/$ pwd  
cinota@cinota:/$ cd /home/cinota/Downloads/  
cinota@cinota:~/Downloads$ pwd  
/home/cinota/Downloads  
cinota@cinota:~/Downloads$ cd ..  
cinota@cinota:/$ cd ../../  
cinota@cinota:/$ pwd  
cinota@cinota:/$ cd -  
/home/cinota  
cinota@cinota:~$
```

### Practice 2

```

cinota@cinota:~$ pwd
/home/cinota
cinota@cinota:~$ cd /home/cinota/Desktop/practicels
cinota@cinota:~/Desktop/practicels$ ls
book.txt      history-debian.pdf  movie.mp4  song.mp3      tux-penguin.gif
countries.xml  homework.docx       people.csv  tux-nobg.png
cinota@cinota:~/Desktop/practicels$ ls -a
.               countries.xml      movie.mp4      tux-nobg.png
..              history-debian.pdf people.csv      tux-penguin.gif
book.txt        homework.docx      song.mp3
cinota@cinota:~/Desktop/practicels$ ls -l
total 2932
-rw-rw-r-- 1 cinota cinota 1043 Feb 27 2022 book.txt
-rw-rw-r-- 1 cinota cinota 23972 Feb 27 2022 countries.xml
-rw-rw-r-- 1 cinota cinota 163057 Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 cinota cinota 111303 Feb 22 2022 homework.docx
-rw-rw-r-- 1 cinota cinota 1570024 Feb 27 2022 movie.mp4
-rw-rw-r-- 1 cinota cinota 284042 Feb 27 2022 people.csv
-rw-rw-r-- 1 cinota cinota 764176 Feb 27 2022 song.mp3
-rw-rw-r-- 1 cinota cinota 21314 Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 cinota cinota 44299 Jan 31 2020 tux-penguin.gif
cinota@cinota:~/Desktop/practicels$ ls -lh
total 2.9M
-rw-rw-r-- 1 cinota cinota 1.1K Feb 27 2022 book.txt
-rw-rw-r-- 1 cinota cinota 24K Feb 27 2022 countries.xml
-rw-rw-r-- 1 cinota cinota 160K Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 cinota cinota 109K Feb 22 2022 homework.docx
-rw-rw-r-- 1 cinota cinota 1.5M Feb 27 2022 movie.mp4
-rw-rw-r-- 1 cinota cinota 278K Feb 27 2022 people.csv
-rw-rw-r-- 1 cinota cinota 747K Feb 27 2022 song.mp3
-rw-rw-r-- 1 cinota cinota 21K Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 cinota cinota 44K Jan 31 2020 tux-penguin.gif
cinota@cinota:~/Desktop/practicels$ ls -lht
total 2.9M
-rw-rw-r-- 1 cinota cinota 24K Feb 27 2022 countries.xml
-rw-rw-r-- 1 cinota cinota 278K Feb 27 2022 people.csv
-rw-rw-r-- 1 cinota cinota 747K Feb 27 2022 song.mp3
-rw-rw-r-- 1 cinota cinota 1.5M Feb 27 2022 movie.mp4
-rw-rw-r-- 1 cinota cinota 160K Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 cinota cinota 21K Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 cinota cinota 1.1K Feb 27 2022 book.txt
-rw-rw-r-- 1 cinota cinota 109K Feb 22 2022 homework.docx
-rw-rw-r-- 1 cinota cinota 44K Jan 31 2020 tux-penguin.gif
cinota@cinota:~/Desktop/practicels$ ls -lhs --group-directories-first
total 2.9M
4.0K -rw-rw-r-- 1 cinota cinota 1.1K Feb 27 2022 book.txt
24K -rw-rw-r-- 1 cinota cinota 24K Feb 27 2022 countries.xml
160K -rw-rw-r-- 1 cinota cinota 160K Feb 27 2022 history-debian.pdf
112K -rw-rw-r-- 1 cinota cinota 109K Feb 22 2022 homework.docx
1.5M -rw-rw-r-- 1 cinota cinota 1.5M Feb 27 2022 movie.mp4
278K -rw-rw-r-- 1 cinota cinota 278K Feb 27 2022 people.csv
747K -rw-rw-r-- 1 cinota cinota 747K Feb 27 2022 song.mp3
21K -rw-rw-r-- 1 cinota cinota 21K Feb 27 2022 tux-nobg.png
44K -rw-rw-r-- 1 cinota cinota 44K Jan 31 2020 tux-penguin.gif
cinota@cinota:~/Desktop/practicels$ ls -lr
tux-penguin.gif, tux-nobg.png, song.mp3, people.csv, movie.mp4, homework.docx,
history-debian.pdf, countries.xml, book.txt
cinota@cinota:~/Desktop/practicels$ ls -lx
book.txt countries.xml history-debian.pdf homework.docx movie.mp4
people.csv song.mp3 tux-nobg.png tux-penguin.gif
cinota@cinota:~/Desktop/practicels$

```

## Practice 3

```

cinota@cinota:~$ pwd
/home/cinota
cinota@cinota:~$ cd
cinota@cinota:~$ cd /
cinota@cinota:/$ cd usr/share/themes
cinota@cinota:~$ cd /usr/share/themes
cinota@cinota:~$ cd ../..
cinota@cinota:~$ ls -A -
. .bash_history .gitcommands.txt .snap
. .bash_logout .gitconfig .ssh
. .bashrc .gitHub.png .sudo_as_admin_successful
. .cache .gnupg .swp
. CIS106 .key .Templates
. .cis106.png .key1 .token
. .CIS106 - C++ .key1_1 .vboxclient-clipboard.pid
. 'commands for terminal' .key1.pub .vboxclient-draganddrop.pid
. .config .lessht .vboxclient-seamless.pid
. .config .local .vboxclient-vmsvga-session-tty2.pid
Desktop .Music .Videos
Documents .Pictures .vminfo
. .dotnet .pkg .vscode
Downloads .profile .wine
. .fonts .Public

cinota@cinota:~$ cd; ls -tx CIS106
cheatSheets 'final project' Labs weekReports
cinota@cinota:~$ ls -rR ~/CIS106/
/home/cinota/CIS106:
weekReports Labs 'final project' cheatSheets

/home/cinota/CIS106/weekReports:
wr4-p2.png wr4-p2.1.1.png wr4.nd wr3.nd fs.2.png
wr4-p2.1.png wr4-p1.png wr3.pdf fs.3.png fs.1.png

/home/cinota/CIS106/Labs:
Lab3 Lab2 Lab1

/home/cinota/CIS106/Labs/Lab3:
q2.1.png 'LibreOffice Writer.pdf' lab3.pdf
q1.1.png 'LibreOffice Impress.odp' lab3.nd

/home/cinota/CIS106/Labs/Lab2:
'question 4.png' 'question 2.png' 'question 1.1.png' lab2.nd
'question 3.png' 'question 1.2.png' lab2.pdf

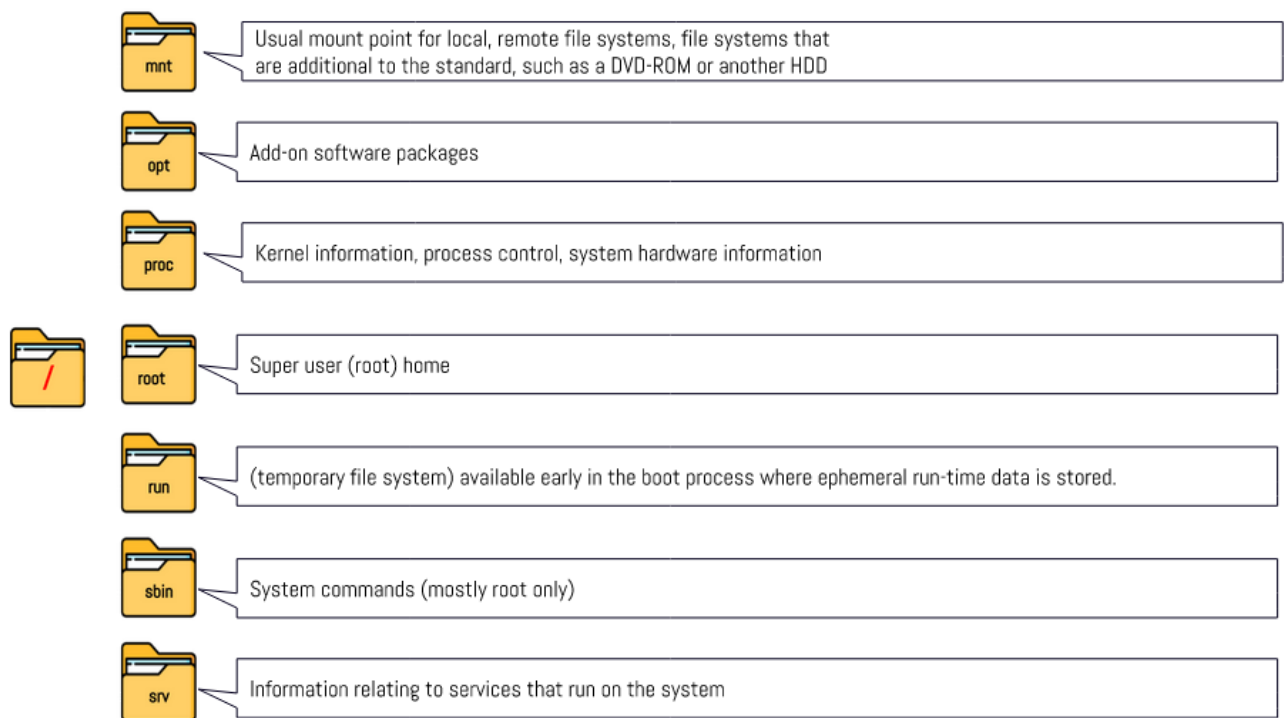
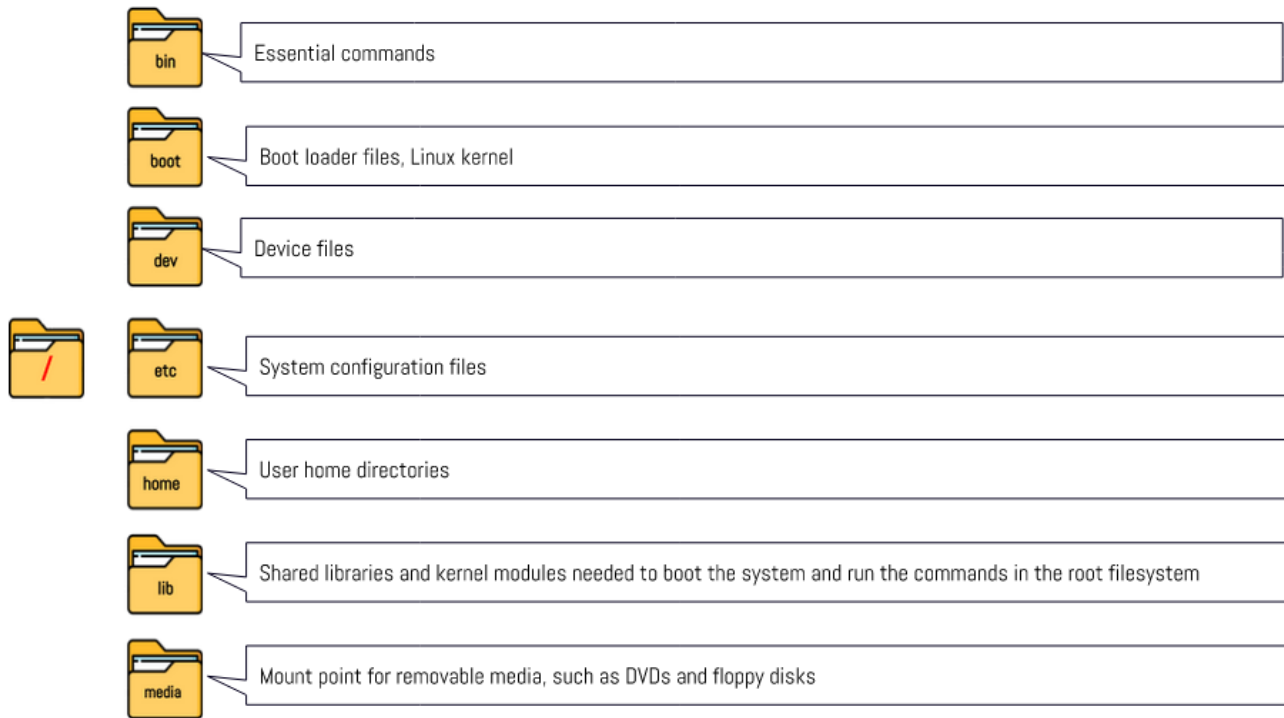
/home/cinota/CIS106/Labs/Lab1:
what_is_ubuntu.txt what-is-ubuntu.pdf resume.pdf
what_is_ubuntu_submission.pdf ubuntu-logo.png resume.nd
what_is_ubuntu_submission.md ubuntu-desktop.png johndoe.jpeg
what_is_ubuntu_submission.html resume.png johndoeinfo.txt

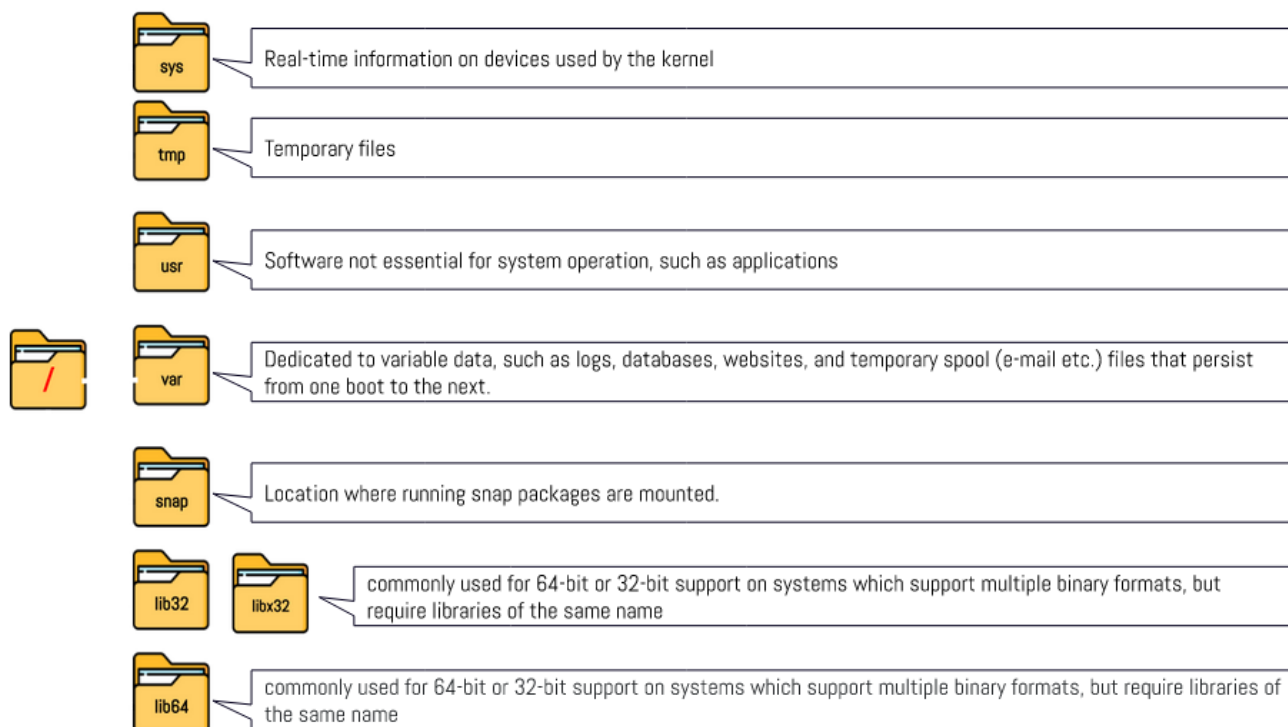
~/home/cinota/CIS106/final project:
vbox_50.jpeg lighttpd.jpg caddy.jpg
ubuntu-server-logo_50.png firewall_50.jpg apache_server.jpg
ssh_50.jpg deliverable_1.pdf
nginx-server-804x270.jpeg deliverable_1.nd

/home/cinota/CIS106/cheatSheets:
'Linux Workshop Ubuntu Software installation cheat sheet.png'
cinota@cinota:~$ ls -lh -
total 72K
drwxrwxr-x 8 cinota cinota 4.0K Feb 23 23:35 CIS106
drwxrwxr-x 4 cinota cinota 4.0K Feb 1 14:35 'CIS106 - C++'
drwxrwxr-x 2 cinota cinota 4.0K Feb 15 21:05 'commands for terminal'
drwxr-xr-x 3 cinota cinota 4.0K Feb 24 00:57 Desktop
drwxr-xr-x 2 cinota cinota 4.0K Feb 1 11:59 Documents
drwxr-xr-x 2 cinota cinota 4.0K Feb 24 00:50 Downloads
-rw-r--r-- 1 cinota cinota 91 Jan 30 22:20 gitcommands.txt
drwxrwxr-x 2 cinota cinota 4.0K Feb 15 17:16 Key
-rw-r--r-- 1 cinota cinota 464 Feb 20 13:33 key1
-rw-rw-r-- 1 cinota cinota 107 Feb 20 13:45 key1_1
-rw-r--r-- 1 cinota cinota 106 Feb 20 13:33 key1.pub
drwxr-xr-x 2 cinota cinota 4.0K Jan 30 20:30 Music
drwxr-xr-x 2 cinota cinota 4.0K Feb 23 22:31 Pictures
drwxr-xr-x 2 cinota cinota 4.0K Jan 30 20:30 Public
drwx----- 9 cinota cinota 4.0K Feb 11 01:33 snap
drwxr-xr-x 2 cinota cinota 4.0K Jan 30 20:30 Templates
drwxrwxr-x 2 cinota cinota 4.0K Feb 11 01:52 token
drwxr-xr-x 2 cinota cinota 4.0K Jan 30 20:30 Videos
cinota@cinota:~$ ls -lgG --full-time -
total 72
drwxrwxr-x 8 4096 2023-02-23 23:35:19.404867802 -0500 CIS106
drwxrwxr-x 4 4096 2023-02-01 14:35:10.659937205 -0500 'CIS106 - C++'
drwxrwxr-x 2 4096 2023-02-15 21:05:21.511786319 -0500 'commands for terminal'
drwxr-xr-x 3 4096 2023-02-24 00:57:31.956229663 -0500 Desktop
drwxr-xr-x 2 4096 2023-02-01 11:59:32.513844233 -0500 Documents
drwxr-xr-x 2 4096 2023-02-24 00:50:53.391124111 -0500 Downloads
-rw-r--r-- 1 91 2023-01-30 22:20:16.053483564 -0500 gitcommands.txt
drwxrwxr-x 2 4096 2023-02-15 17:16:08.775146966 -0500 Key
-rw-r--r-- 1 464 2023-02-20 13:33:02.509665069 -0500 key1
-rw-rw-r-- 1 107 2023-02-20 13:45:37.939191175 -0500 key1_1
-rw-r--r-- 1 106 2023-02-20 13:33:02.509665069 -0500 key1.pub
drwxr-xr-x 2 4096 2023-01-30 20:30:17.066335020 -0500 Music
drwxr-xr-x 2 4096 2023-02-23 22:31:27.335697346 -0500 Pictures
drwxr-xr-x 2 4096 2023-01-30 20:30:17.066335020 -0500 Public
drwx----- 9 4096 2023-02-11 01:33:15.819930492 -0500 snap
drwxr-xr-x 2 4096 2023-01-30 20:30:17.066335020 -0500 Templates
drwxrwxr-x 2 4096 2023-02-11 01:52:44.131794799 -0500 token
drwxr-xr-x 2 4096 2023-01-30 20:30:17.066335020 -0500 Videos
cinota@cinota:~$

```

The Linux File system directories and their purpose:





## All the commands for navigating the filesystem

Command	What it does	Syntax	Example
cd	change the current working directory	cd + directory + Documents	<code>cd [directory]</code>
pwd	print the current working directory	pwd + Enter key + Return key	<code>pwd</code>
ls	list the files and directories	ls + /path/to/directory	<code>ls /path/to/directory</code>

## Basic terminology

- **File system** is a method for storing, organizing, and accessing files and directories on a storage device such as a hard drive or solid-state drive. A file system defines how files and directories are named, accessed, and managed on a storage device. It also specifies how the data is stored and retrieved from the storage device.
- **Current directory** is the directory or folder that is currently active or open in the command prompt or terminal window. When you type a command or run a program in the command prompt or terminal window, it will execute within the context of the current directory.
- **parent directory** is the directory that contains the current directory or folder. In a hierarchical file system, directories are arranged in a tree-like structure, with the root directory at the top and subdirectories branching off from it. Each directory can have one or more child directories, as well as a parent directory (except for the root directory, which has no parent directory).
- **the difference between your home directory and the home directory** "Your home directory" refers to the home directory of the currently logged-in user on a computer system. Each user

account on a computer system has its own home directory, which is a default location for storing user-specific files, settings, and configurations. On the other hand, "The home directory" refers to a standard directory on a Unix or Unix-like system that is used as the default location for a user's files and directories. The home directory is usually represented by the tilde character "~", and it is typically located in the root directory of the file system.

- **pathname** is a string of characters that specifies the unique location of a file or directory within a file system. It defines the full path, or the sequence of directories and subdirectories, from the root directory to the specific file or directory.
- **relative path** is a path that describes the location of a file or directory relative to the current working directory, rather than from the root directory. Relative paths are typically constructed using special symbols that represent the current directory (.), the parent directory (..), and the path separator (/ or \, depending on the operating system).
- **absolute path** is a complete path that describes the location of a file or directory within a file system, starting from the root directory.

In an absolute path, every directory in the path is specified, beginning with the root directory, and each directory is separated by the path separator (/ or \, depending on the operating system). This ensures that the path is unique and unambiguous, regardless of the current working directory.