Week Report 4

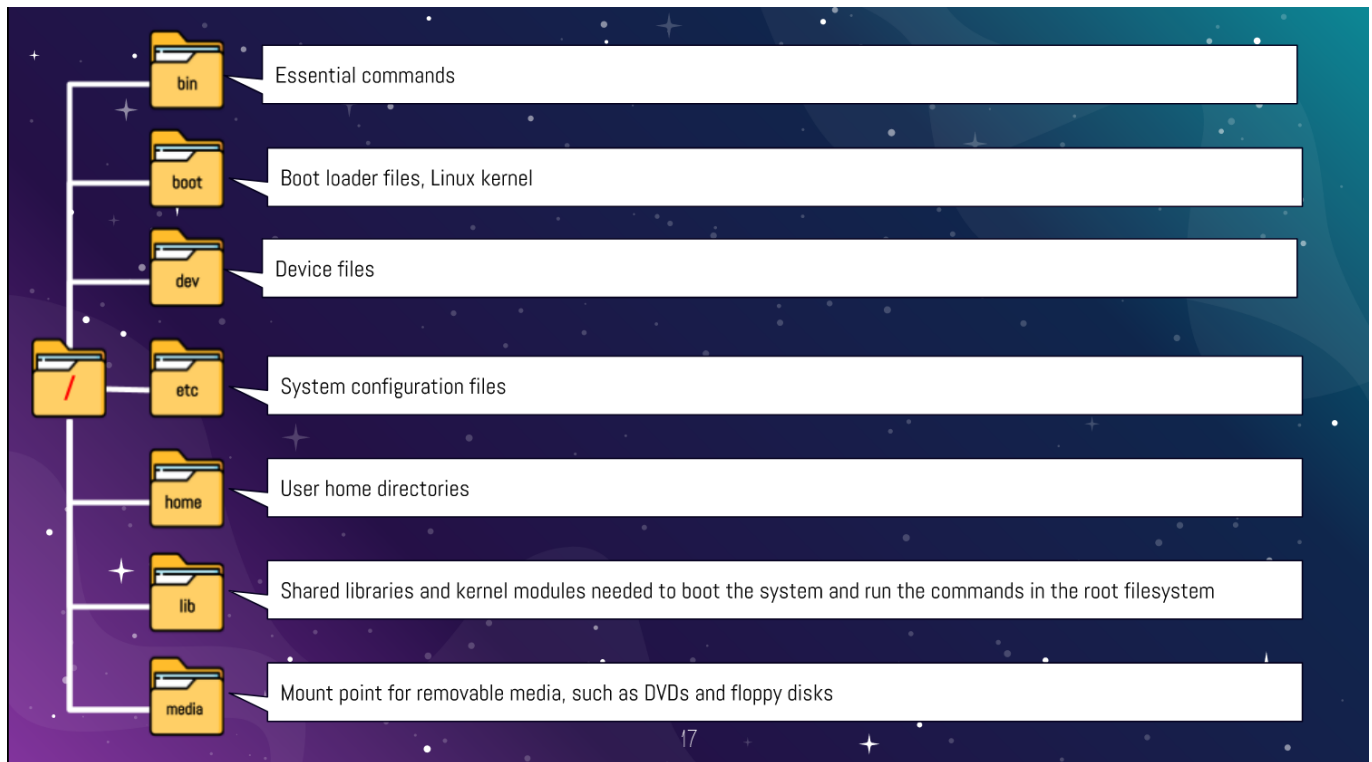## Practice from the presentation the Linux filesystem:
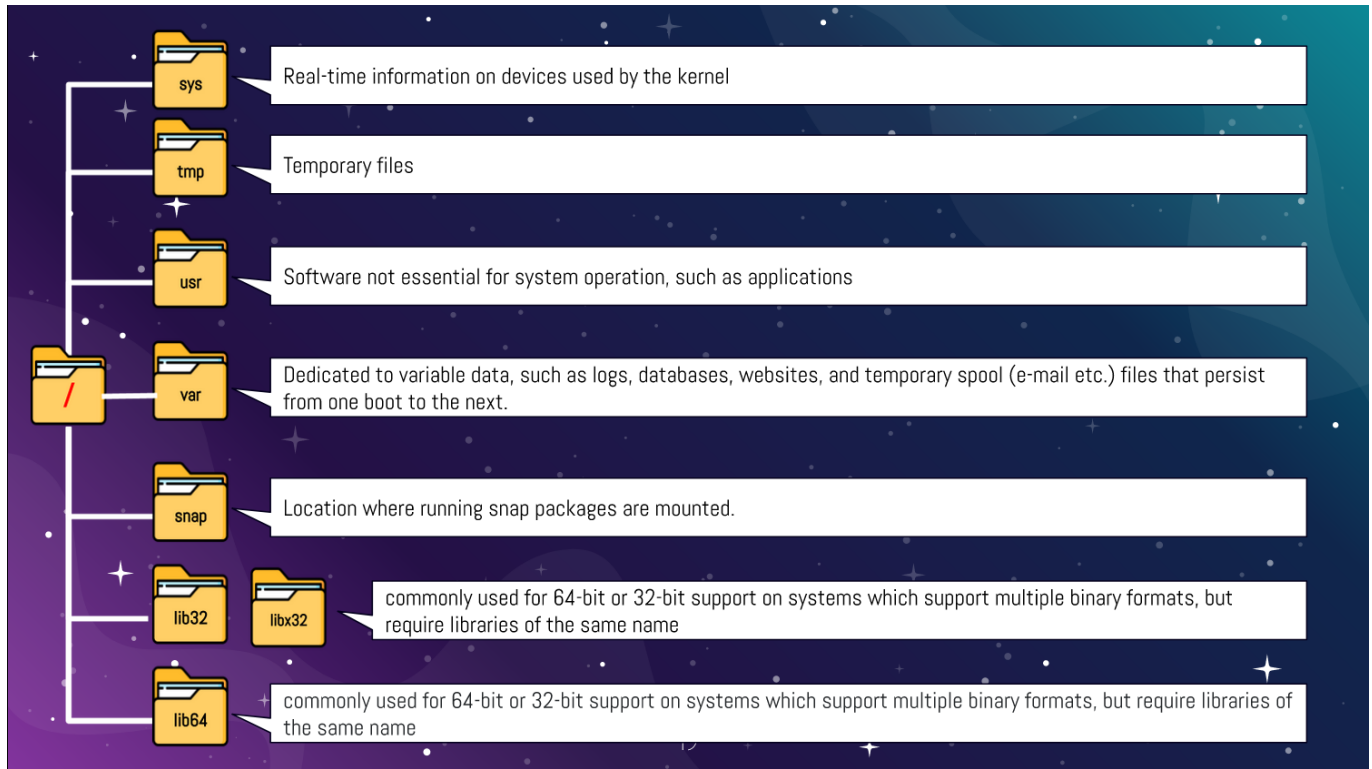
Practice 1

Practice 2

Practice 3

```
jsamaan@cis106:/$ pwd
/
jsamaan@cis106:/$ cd
jsamaan@cis106:~$ cd /
jsamaan@cis106:/$ cd usr/share/themes/
jsamaan@cis106:/usr/share/themes$ cd ../../
jsamaan@cis106:/usr$ ls -A ~
.bash_history
.bash_logout
.bashrc
.cache
cis106
.cis106.png
.config
Desktop
Documents
.dotnet
Downloads
.fonts
gitcommands.txt
.gitconfig
.gnupg
lab4files
.lesshst
.lgames
.local
.mozilla
Music
Pictures
.pki
practicels
practicels.tar.xz
.profile
Public
snap
.ssh
.sudo_as_admin_successful
Templates
.thunderbird
'url?q=https:%2F%2Fcis106.com%2Fassets%2Fpracticels.tar.xz'
'url?q=https:%2F%2Fcis106.com%2Fassets%2Fpracticels.tar.xz.1'
'url?q=https:%2F%2Fcis106.com%2Fassets%2Fpracticels.tar.xz.2'
.vboxclient-clipboard-tty2-control.pid
.vboxclient-clipboard-tty2-service.pid
.vboxclient-draganddrop-tty2-control.pid
.vboxclient-draganddrop-tty2-service.pid
.vboxclient-hostversion-tty2-control.pid
.vboxclient-seamless-tty2-control.pid
.vboxclient-seamless-tty2-service.pid
```

```
jsamaan@cis106:~$ ls -lh ~
total 2.3M
drwxrwxr-x 6 jsamaan jsamaan 4.0K Oct 11 23:25  cis106
drwxr-xr-x 3 jsamaan jsamaan 4.0K Oct 25 21:48  Desktop
drwxr-xr-x 2 jsamaan jsamaan 4.0K Oct 11 20:21  Documents
drwxr-xr-x 2 jsamaan jsamaan 4.0K Oct 25 21:47  Downloads
-rw-rw-r-- 1 jsamaan jsamaan   91 Oct  2 16:28  gitcommands.txt
drwxrwxr-x 2 jsamaan jsamaan 4.0K Feb 22  2022  lab4files
drwxr-xr-x 2 jsamaan jsamaan 4.0K Oct  2 14:10  Music
drwxr-xr-x 2 jsamaan jsamaan 4.0K Oct 11 18:58  Pictures
drwxrwxr-x 2 jsamaan jsamaan 4.0K Feb 27  2022  practicels
-rw-rw-r-- 1 jsamaan jsamaan 2.2M Oct 14 11:22  practicels.tar.xz
drwxr-xr-x 2 jsamaan jsamaan 4.0K Oct  2 14:10  Public
drwx------ 5 jsamaan jsamaan 4.0K Oct  2 15:06  snap
drwxr-xr-x 2 jsamaan jsamaan 4.0K Oct  2 14:10  Templates
-rw-rw-r-- 1 jsamaan jsamaan 1.5K Oct 25 21:39 'url?q=https:%2F%2Fcis106.com%2Fassets%2Fpracticels.tar.xz'
-rw-rw-r-- 1 jsamaan jsamaan 1.5K Oct 25 21:42 'url?q=https:%2F%2Fcis106.com%2Fassets%2Fpracticels.tar.xz.1'
-rw-rw-r-- 1 jsamaan jsamaan 1.5K Oct 25 21:43 'url?q=https:%2F%2Fcis106.com%2Fassets%2Fpracticels.tar.xz.2'
drwxr-xr-x 2 jsamaan jsamaan 4.0K Oct  2 14:10  Videos
-rw-rw-r-- 1 jsamaan jsamaan  693 Oct 25 21:39  wget-log
-rw-rw-r-- 1 jsamaan jsamaan  697 Oct 25 21:42  wget-log.1
-rw-rw-r-- 1 jsamaan jsamaan  697 Oct 25 21:43  wget-log.2
-rw-rw-r-- 1 jsamaan jsamaan  565 Oct 25 21:46  wget-log.3
jsamaan@cis106:~$ ls -lgG -full-time ~
ls: invalid option -- '-'
Try 'ls --help' for more information.
jsamaan@cis106:~$ ls -1gG -full-time ~
ls: invalid option -- '-'
Try 'ls --help' for more information.
jsamaan@cis106:~$ ls -lgG -full-time ~
```

The Linux filesystem 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

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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

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All the commands for navigating the filesystem:

Command	What it does	Syntax	Example
pwd	prints current directory	pwd	'pwd'
cd	current directory	cd	'cd'
ls	list files	ls	'ls'

Basic Terminology:

- **File system:** The way in which files are named and where they are put for storage and retrieval.
- **Current directory:** Where all the commands are being executed.
- **parent directory:** A directory that contains more folders (subdirectories).
- **the difference between your home directory and the home directory:** The base of the file tree versus your home directory is within the home directory.
- **pathname:** The location of a file or other items in a hierarchy.
- **relative path:** Link that points to a file location on the page where the link is located.
- **absolute path:** Starts from the root and describes every step you must take through the file system.