


Week Report 4

Practice from the presentation the linux file system

Pratice 1

A terminal window screenshot from a Linux virtual machine. The prompt is 'ssgunthrope@cis106vm:~\$'. The user enters 'pwd', and the output is '/home/ssgunthrope'. Then, the user enters 'cd /home/ssgunthrope/Downloads/', and the prompt changes to 'ssgunthrope@cis106vm:~/Downloads\$'. The user enters 'pwd', and the output is '/home/ssgunthrope/Downloads'. Then, the user enters 'cd ..', and the prompt changes to 'ssgunthrope@cis106vm:~\$'. The user enters 'cd ../../', and the prompt changes to 'ssgunthrope@cis106vm:/\$'. Finally, the user enters 'cd -', and the prompt changes to 'ssgunthrope@cis106vm:/\$'.

```
ssgunthrope@cis106vm:~$ pwd
/home/ssgunthrope
ssgunthrope@cis106vm:~$ cd /home/ssgunthrope/Downloads/
ssgunthrope@cis106vm:~/Downloads$ pwd
/home/ssgunthrope/Downloads
ssgunthrope@cis106vm:~/Downloads$ cd ..
ssgunthrope@cis106vm:~$ cd ../../
ssgunthrope@cis106vm:/$ cd
ssgunthrope@cis106vm:~$ cd -
/
ssgunthrope@cis106vm:/$
```

Practice 2

```

ssgunthrope@cis106vm:~/Desktop/practicels$ ls
book.txt      history-debian.pdf  movie.mp4      song.mp3      tux-penguin.gif
countries.xml  homework.docx       people.csv     tux-nobg.png
ssgunthrope@cis106vm:~/Desktop/practicels$ ls -a
.              book.txt      history-debian.pdf  movie.mp4      song.mp3      tux-penguin.gif
..             countries.xml  homework.docx       people.csv     tux-nobg.png
ssgunthrope@cis106vm:~/Desktop/practicels$ ls -l
total 2932
-rw-rw-r-- 1 ssgunthrope ssgunthrope 1043 Feb 27 2022 book.txt
-rw-rw-r-- 1 ssgunthrope ssgunthrope 23972 Feb 27 2022 countries.xml
-rw-rw-r-- 1 ssgunthrope ssgunthrope 163057 Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 ssgunthrope ssgunthrope 111303 Feb 22 2022 homework.docx
-rw-rw-r-- 1 ssgunthrope ssgunthrope 1570024 Feb 27 2022 movie.mp4
-rw-rw-r-- 1 ssgunthrope ssgunthrope 284042 Feb 27 2022 people.csv
-rw-rw-r-- 1 ssgunthrope ssgunthrope 764176 Feb 27 2022 song.mp3
-rw-rw-r-- 1 ssgunthrope ssgunthrope 21314 Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 ssgunthrope ssgunthrope 44299 Jan 31 2020 tux-penguin.gif
ssgunthrope@cis106vm:~/Desktop/practicels$ ls -lh
total 2.9M
-rw-rw-r-- 1 ssgunthrope ssgunthrope 1.1K Feb 27 2022 book.txt
-rw-rw-r-- 1 ssgunthrope ssgunthrope 24K Feb 27 2022 countries.xml
-rw-rw-r-- 1 ssgunthrope ssgunthrope 160K Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 ssgunthrope ssgunthrope 109K Feb 22 2022 homework.docx
-rw-rw-r-- 1 ssgunthrope ssgunthrope 1.5M Feb 27 2022 movie.mp4
-rw-rw-r-- 1 ssgunthrope ssgunthrope 278K Feb 27 2022 people.csv
-rw-rw-r-- 1 ssgunthrope ssgunthrope 747K Feb 27 2022 song.mp3
-rw-rw-r-- 1 ssgunthrope ssgunthrope 21K Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 ssgunthrope ssgunthrope 44K Jan 31 2020 tux-penguin.gif
ssgunthrope@cis106vm:~/Desktop/practicels$ ls -lht
total 2.9M
-rw-rw-r-- 1 ssgunthrope ssgunthrope 24K Feb 27 2022 countries.xml
-rw-rw-r-- 1 ssgunthrope ssgunthrope 278K Feb 27 2022 people.csv
-rw-rw-r-- 1 ssgunthrope ssgunthrope 747K Feb 27 2022 song.mp3
-rw-rw-r-- 1 ssgunthrope ssgunthrope 1.5M Feb 27 2022 movie.mp4
-rw-rw-r-- 1 ssgunthrope ssgunthrope 160K Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 ssgunthrope ssgunthrope 21K Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 ssgunthrope ssgunthrope 1.1K Feb 27 2022 book.txt
-rw-rw-r-- 1 ssgunthrope ssgunthrope 109K Feb 22 2022 homework.docx
-rw-rw-r-- 1 ssgunthrope ssgunthrope 44K Jan 31 2020 tux-penguin.gif
ssgunthrope@cis106vm:~/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 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
sgunthrope@cis106vm:~/Desktop/practicels$ ls -nr
total 2932
rw-rw-r-- 1 1000 1000 44299 Jan 31 2020 tux-penguin.gif
rw-rw-r-- 1 1000 1000 21314 Feb 27 2022 tux-nobg.png
rw-rw-r-- 1 1000 1000 764176 Feb 27 2022 song.mp3
rw-rw-r-- 1 1000 1000 284042 Feb 27 2022 people.csv
rw-rw-r-- 1 1000 1000 1570024 Feb 27 2022 movie.mp4
rw-rw-r-- 1 1000 1000 111303 Feb 22 2022 homework.docx
rw-rw-r-- 1 1000 1000 163057 Feb 27 2022 history-debian.pdf
rw-rw-r-- 1 1000 1000 23972 Feb 27 2022 countries.xml
rw-rw-r-- 1 1000 1000 1043 Feb 27 2022 book.txt
sgunthrope@cis106vm:~/Desktop/practicels$ _
```

Practice 3

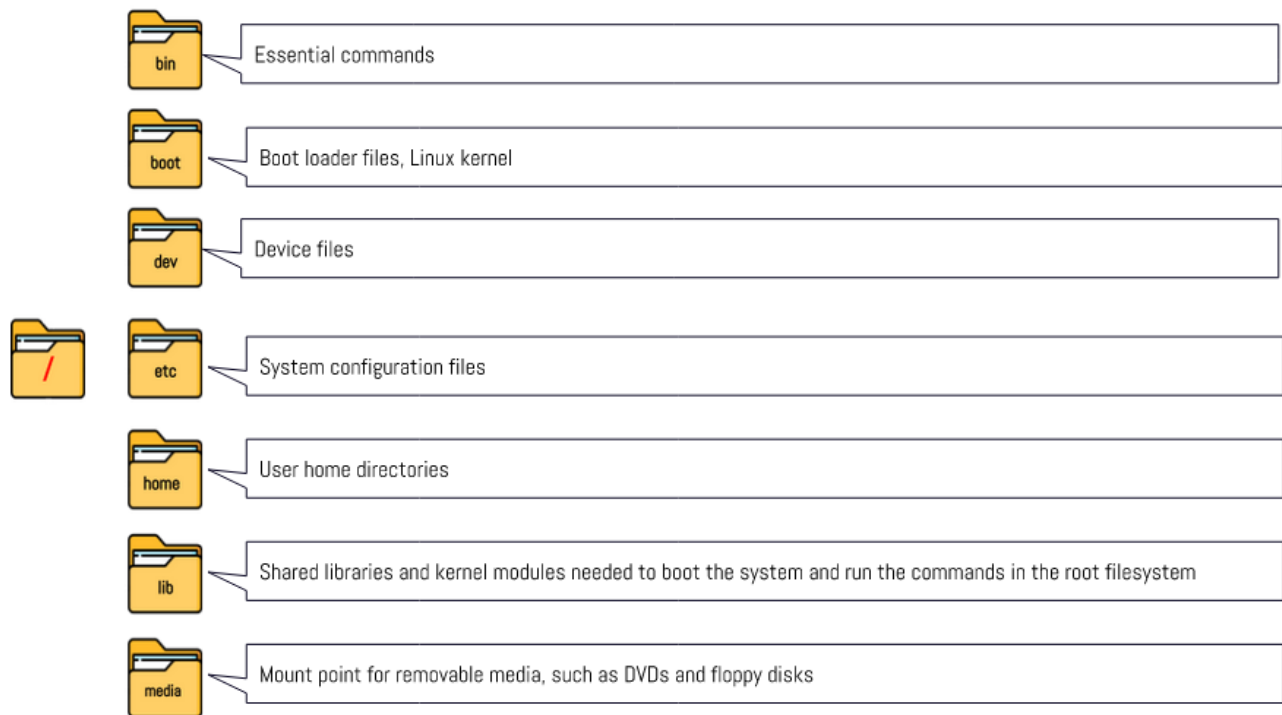
```

ssgunthrope@cis106vm:~$ pwd
/home/ssgunthrope
ssgunthrope@cis106vm:~$ cd
ssgunthrope@cis106vm:~$ cd /
ssgunthrope@cis106vm:/$ cd usr/share/themes/
ssgunthrope@cis106vm:/usr/share/themes$ cd ..
ssgunthrope@cis106vm:/usr/share$ cd ..
ssgunthrope@cis106vm:/usr$ ls /home/
ssgunthrope
ssgunthrope@cis106vm:/usr$ ls /home/ssgunthrope/
bike      Desktop      ipv4          Pictures      Templates
chips     Documents    lab4files     power         Texture_Plants
cis106    Downloads    Music         Public        Videos
controller games        myproject     snap          website
cookie.txt githubcommands.txt no_more_heroes
ssgunthrope@cis106vm:/usr$ ls -ltX /home/ssgunthrope/cis106/
total 12
drwxrwxr-x 2 ssgunthrope ssgunthrope 4096 Oct 12 12:13 cheatsheets
drwxrwxr-x 6 ssgunthrope ssgunthrope 4096 Oct 27 14:31 labs
drwxrwxr-x 2 ssgunthrope ssgunthrope 4096 Oct 27 20:12 weekReports
ssgunthrope@cis106vm:/usr$ ls -lh /home/ssgunthrope/
total 68K
-rw-rw-r-- 1 ssgunthrope ssgunthrope 0 Oct 26 18:18 bike
-rw-rw-r-- 1 ssgunthrope ssgunthrope 0 Oct 26 17:26 chips
drwxrwxr-x 6 ssgunthrope ssgunthrope 4.0K Oct 12 12:13 cis106
-rw-rw-r-- 1 ssgunthrope ssgunthrope 0 Oct 26 18:18 controller
-rw-rw-r-- 1 ssgunthrope ssgunthrope 0 Oct 26 18:10 cookie.txt
drwxr-xr-x 3 ssgunthrope ssgunthrope 4.0K Oct 27 20:22 Desktop
drwxr-xr-x 3 ssgunthrope ssgunthrope 4.0K Oct 26 18:54 Documents
drwxr-xr-x 6 ssgunthrope ssgunthrope 4.0K Oct 27 20:22 Downloads
-rw-rw-r-- 1 ssgunthrope ssgunthrope 0 Oct 26 18:18 games
-rw-rw-r-- 1 ssgunthrope ssgunthrope 108 Sep 28 13:49 githubcommands.txt
drwxrwxr-x 2 ssgunthrope ssgunthrope 4.0K Oct 27 19:09 ipv4
drwxrwxr-x 2 ssgunthrope ssgunthrope 4.0K Feb 22 2022 lab4files
drwxr-xr-x 2 ssgunthrope ssgunthrope 4.0K Oct 26 18:48 Music
drwxrwxr-x 2 ssgunthrope ssgunthrope 4.0K Oct 19 18:50 myproject
-rw-rw-r-- 1 ssgunthrope ssgunthrope 0 Oct 19 18:25 no_more_heroes.txt
drwxr-xr-x 3 ssgunthrope ssgunthrope 4.0K Oct 27 20:38 Pictures
drwxrwxr-x 2 ssgunthrope ssgunthrope 4.0K Oct 26 17:33 power
drwxr-xr-x 2 ssgunthrope ssgunthrope 4.0K Sep 28 12:59 Public
drwx----- 5 ssgunthrope ssgunthrope 4.0K Sep 28 13:23 snap
-rw-rw-r-- 2 ssgunthrope ssgunthrope 0 Oct 26 18:48 sunflower.mp3
drwxr-xr-x 2 ssgunthrope ssgunthrope 4.0K Sep 28 12:59 Templates
drwxrwxr-x 2 ssgunthrope ssgunthrope 4.0K Oct 26 17:28 Texture_Plants
drwxr-xr-x 2 ssgunthrope ssgunthrope 4.0K Oct 19 18:44 Videos
drwxrwxr-x 4 ssgunthrope ssgunthrope 4.0K Oct 19 18:26 website
ssgunthrope@cis106vm:/usr$

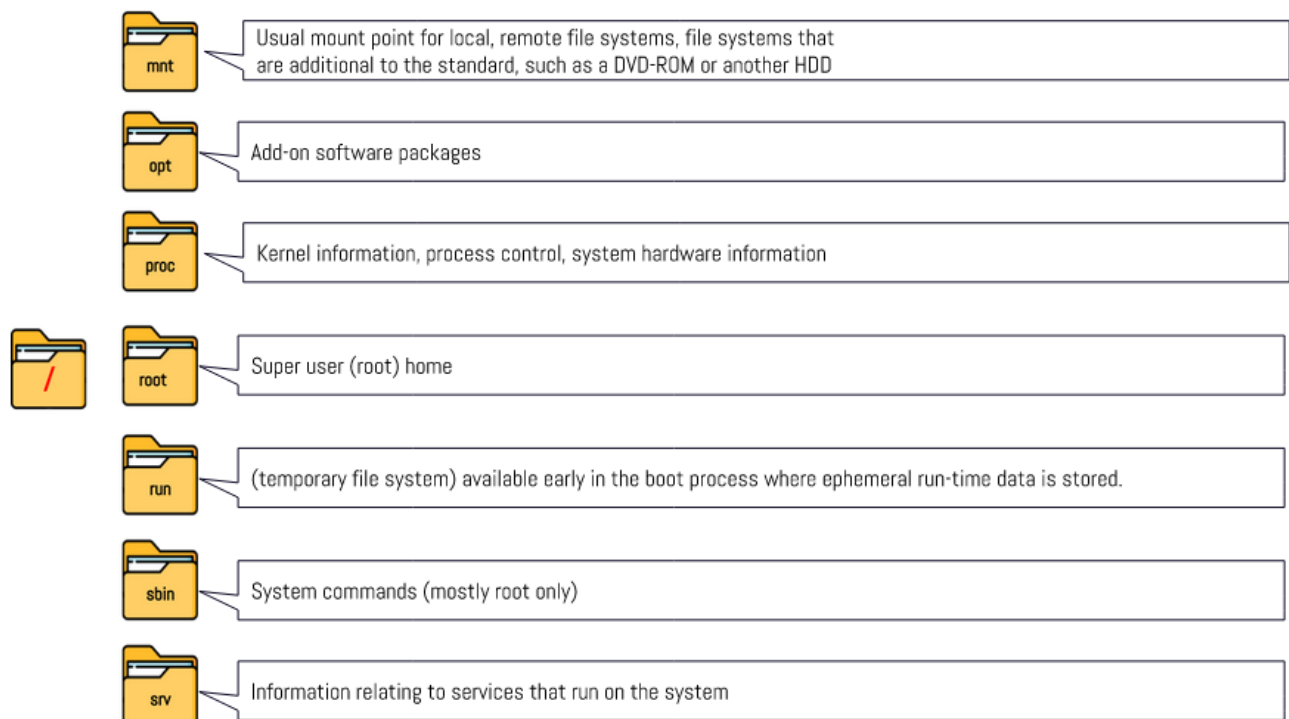
```

The Linux file system directories and their purpose

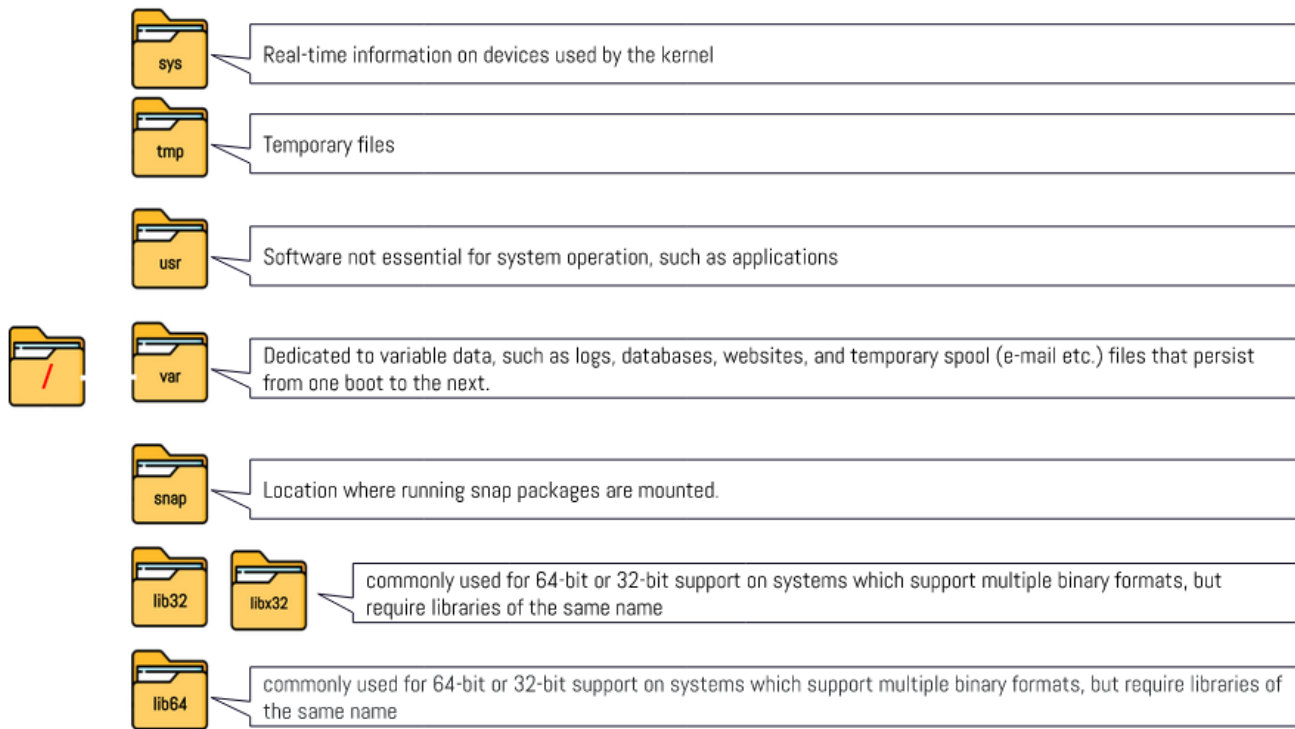
FS 1



FS 2



FS 3



All the commands for navigating the file system

Command	What it does	Syntax	Example
pwd	prints current directory	pwd	pwd
cd	allows you to move your current directory	ls	ls
ls	allows you to look at files inside of directories	cd	cd

Basic Terminology

File System: the way files are stored and organized. **Current Directory:** the directory where you are currently in the file system. **Parent Directory:** the folder above all subfolders. **difference between home directory and your home directory:** your home directory is a directory that you have full permissions in while the home directory access is allow given to admins. **Pathnames:** the location of a file. **RelativePath:** the location starting from the current working directory. **AbsolutePath:** The location of a file starting from the root.