

Week Report 4

Practice from the presentation The Linux File system:

Practice 1

```
justin28250@cis106: ~  
justin28250@cis106:~$ pwd  
home/justin28250  
justin28250@cis106:~$ cd /home/\$USER/Downloads/  
ash: cd: /home/$USER/Downloads/: No such file or directory  
justin28250@cis106:~$ cd /home/$USER/Downloads/  
justin28250@cis106:~/Downloads$ pwd  
home/justin28250/Downloads  
justin28250@cis106:~/Downloads$ cd ..  
justin28250@cis106:~$ cd ../../  
justin28250@cis106:/$$ pwd  
justin28250@cis106:/$$ cd -  
home/justin28250  
justin28250@cis106:~$
```

Practice 2

```
1/1 v + [ ] [ ] Tilix: justin  
1:justin28250@cis106: ~/practicels v  
--2023-10-26 12:23:04-- https://cis106.com/assets/practicels.tar.xz  
Resolving cis106.com (cis106.com)... 185.199.108.153  
Connecting to cis106.com (cis106.com)|185.199.108.153|:443... connected.  
HTTP request sent, awaiting response... 200 OK  
Length: 2229212 (2.1M) [application/x-xz]  
Saving to: 'practicels.tar.xz.1'  
  
practicels.tar.xz.1 100%[=====>] 2.12M 13.7MB/s in 0.2s  
2023-10-26 12:23:04 (13.7 MB/s) - 'practicels.tar.xz.1' saved [2229212/2229212]  
  
justin28250@cis106:~$ tar Jxf practicels.tar.xz  
justin28250@cis106:~$ cd practicels/  
justin28250@cis106:~/practicels$ ls  
book.txt          history-debian.pdf  movie.mp4          song.mp3          tux-penguin.gif  
countries.xml     homework.docx       people.csv         tux-nobg.png  
justin28250@cis106:~/practicels$ ls -a  
.  
..  
countries.xml     history-debian.pdf  movie.mp4          tux-nobg.png  
countries.xml     homework.docx       people.csv         tux-penguin.gif
```

```

book.txt homework.docx song.mp3
justin28250@cis106:~/practicels$ ls -l
total 2932
-rw-rw-r-- 1 justin28250 justin28250 1043 Feb 27 2022 book.txt
-rw-rw-r-- 1 justin28250 justin28250 23972 Feb 27 2022 countries.xml
-rw-rw-r-- 1 justin28250 justin28250 163057 Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 justin28250 justin28250 111303 Feb 22 2022 homework.docx
-rw-rw-r-- 1 justin28250 justin28250 1570024 Feb 27 2022 movie.mp4
-rw-rw-r-- 1 justin28250 justin28250 284042 Feb 27 2022 people.csv
-rw-rw-r-- 1 justin28250 justin28250 764176 Feb 27 2022 song.mp3
-rw-rw-r-- 1 justin28250 justin28250 21314 Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 justin28250 justin28250 44299 Jan 31 2020 tux-penguin.gif
justin28250@cis106:~/practicels$ ls -lh
total 2.9M
-rw-rw-r-- 1 justin28250 justin28250 1.1K Feb 27 2022 book.txt
-rw-rw-r-- 1 justin28250 justin28250 24K Feb 27 2022 countries.xml
-rw-rw-r-- 1 justin28250 justin28250 160K Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 justin28250 justin28250 109K Feb 22 2022 homework.docx
-rw-rw-r-- 1 justin28250 justin28250 1.5M Feb 27 2022 movie.mp4
-rw-rw-r-- 1 justin28250 justin28250 278K Feb 27 2022 people.csv
-rw-rw-r-- 1 justin28250 justin28250 747K Feb 27 2022 song.mp3
-rw-rw-r-- 1 justin28250 justin28250 21K Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 justin28250 justin28250 44K Jan 31 2020 tux-penguin.gif
justin28250@cis106:~/practicels$ ls -lht
total 2.9M
-rw-rw-r-- 1 justin28250 justin28250 24K Feb 27 2022 countries.xml
-rw-rw-r-- 1 justin28250 justin28250 278K Feb 27 2022 people.csv
-rw-rw-r-- 1 justin28250 justin28250 747K Feb 27 2022 song.mp3
-rw-rw-r-- 1 justin28250 justin28250 1.5M Feb 27 2022 movie.mp4
-rw-rw-r-- 1 justin28250 justin28250 160K Feb 27 2022 history-debian.pdf
-rw-rw-r-- 1 justin28250 justin28250 21K Feb 27 2022 tux-nobg.png
-rw-rw-r-- 1 justin28250 justin28250 1.1K Feb 27 2022 book.txt
-rw-rw-r-- 1 justin28250 justin28250 109K Feb 22 2022 homework.docx
-rw-rw-r-- 1 justin28250 justin28250 44K Jan 31 2020 tux-penguin.gif
justin28250@cis106:~/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
justin28250@cis106:~/practicels$ ls -mr
tux-penguin.gif, tux-nobg.png, song.mp3, people.csv, movie.mp4, homework.docx,
history-debian.pdf, countries.xml, book.txt
justin28250@cis106:~/practicels$ ls -lX
people.csv
homework.docx
tux-penguin.gif
song.mp3
movie.mp4
history-debian.pdf
tux-nobg.png
book.txt
countries.xml
justin28250@cis106:~/practicels$ _

```

```

justin28250@cis106:~$ pwd
/home/justin28250
justin28250@cis106:~$ cd
justin28250@cis106:~$ cd /
justin28250@cis106:/$ cd usr/share/themes
justin28250@cis106:/usr/share/themes$ cd ../../
justin28250@cis106:/usr$ ls -A ~
.bash_history      pp_pizza.txt
.bash_logout       practicels
.bashrc            practicels.tar.xz
.cache            practicels.tar.xz.1
cis106             .profile
.cis106.png        Public
.config            snap
Desktop            .ssh
Documents          .sudo_as_admin_successful
.dotnet            Templates
Downloads          .vboxclient-clipboard-tty2-control.pid
.fonts             .vboxclient-clipboard-tty2-service.pid
gitcommands.txt    .vboxclient-draganddrop-tty2-control.pid
.gitconfig         .vboxclient-draganddrop-tty2-service.pid
.gnupg            .vboxclient-hostversion-tty2-control.pid
.lessshst         .vboxclient-seamless-tty2-control.pid
.local            .vboxclient-seamless-tty2-service.pid
Music             .vboxclient-vmvga-session-tty2-control.pid
Pictures          .vboxclient-vmvga-session-tty2-service.pid
pizza.txt         Videos
.pki              .vscode
justin28250@cis106:/usr$ cd; ls -tX your-github-repository/
ls: cannot access 'your-github-repository/': No such file or directory
justin28250@cis106:~$ ls -rR ~/your-github-repository/
ls: cannot access '/home/justin28250/your-github-repository/': No such file or directory
justin28250@cis106:~$ ls -lh ~
total 4.4M
drwxrwxr-x 6 justin28250 justin28250 4.0K Oct 12 22:12 cis106
drwxr-xr-x 2 justin28250 justin28250 4.0K Oct 12 18:35 Desktop
drwxr-xr-x 2 justin28250 justin28250 4.0K Oct 25 17:55 Documents
drwxr-xr-x 4 justin28250 justin28250 4.0K Oct 26 11:55 Downloads
-rw-rw-r-- 1 justin28250 justin28250  90 Oct  2 20:10 gitcommands.txt
drwxr-xr-x 2 justin28250 justin28250 4.0K Oct  2 18:33 Music
drwxr-xr-x 2 justin28250 justin28250 4.0K Oct 26 12:31 Pictures
-rw-rw-r-- 1 justin28250 justin28250   0 Oct 25 18:08 pizza.txt
-rw-rw-r-- 1 justin28250 justin28250   0 Oct 25 18:09 pp_pizza.txt
drwxrwxr-x 2 justin28250 justin28250 4.0K Feb 27 2022 practicels
-rw-rw-r-- 1 justin28250 justin28250 2.2M Oct 14 11:22 practicels.tar.xz
-rw-rw-r-- 1 justin28250 justin28250 2.2M Oct 14 11:22 practicels.tar.xz.1
drwxr-xr-x 2 justin28250 justin28250 4.0K Oct  2 18:33 Public
drwx----- 5 justin28250 justin28250 4.0K Oct  2 19:01 snap
drwxr-xr-x 2 justin28250 justin28250 4.0K Oct  2 18:33 Templates
drwxr-xr-x 2 justin28250 justin28250 4.0K Oct  2 18:33 Videos
justin28250@cis106:~$ ls -lgh -full-time ~
ls: cannot access '-full-time': No such file or directory
/home/justin28250:
total 4.4M
drwxrwxr-x 6 justin28250 4.0K Oct 12 22:12 cis106
drwxr-xr-x 2 justin28250 4.0K Oct 12 18:35 Desktop
drwxr-xr-x 2 justin28250 4.0K Oct 25 17:55 Documents
drwxr-xr-x 4 justin28250 4.0K Oct 26 11:55 Downloads
-rw-rw-r-- 1 justin28250  90 Oct  2 20:10 gitcommands.txt
drwxr-xr-x 2 justin28250 4.0K Oct  2 18:33 Music
drwxr-xr-x 2 justin28250 4.0K Oct 26 12:31 Pictures
-rw-rw-r-- 1 justin28250   0 Oct 25 18:08 pizza.txt
-rw-rw-r-- 1 justin28250   0 Oct 25 18:09 pp_pizza.txt
drwxrwxr-x 2 justin28250 4.0K Feb 27 2022 practicels
-rw-rw-r-- 1 justin28250 2.2M Oct 14 11:22 practicels.tar.xz
-rw-rw-r-- 1 justin28250 2.2M Oct 14 11:22 practicels.tar.xz.1
drwxr-xr-x 2 justin28250 4.0K Oct  2 18:33 Public
drwx----- 5 justin28250 4.0K Oct  2 19:01 snap
drwxr-xr-x 2 justin28250 4.0K Oct  2 18:33 Templates

```

```
drwxr-xr-x 2 justin28250 4.0K Oct  2 18:33 Videos
justin28250@cis106:~$
```

The Linux File system directories and their purpose:



All the commands for navigating the filesystem

Command	What it does	Syntax	Example
pwd	prints current directory	pwd	pwd
cd	description here	syntax here	example here

Command	What it does	Syntax	Example
ls	description here	syntax here	example here

Basic terminology

- **File system:** The way files are stored and organized
- **Current directory:** The directory where you are at the moment
- **parent directory:** you can move forward to a subdirectory or backwards to the previous directory
- **the difference between your home directory and the home directory:** When you open the file manager, your current working directory is your home directory. While every user in the system has a home directory.
- **pathname:** indicates the location of the file in the filesystem
- **relative path:** the location of a file starting at the root of the file system
- **absolute path:** the location of a file starting from the current working directory or a directory that is located inside the current working directory