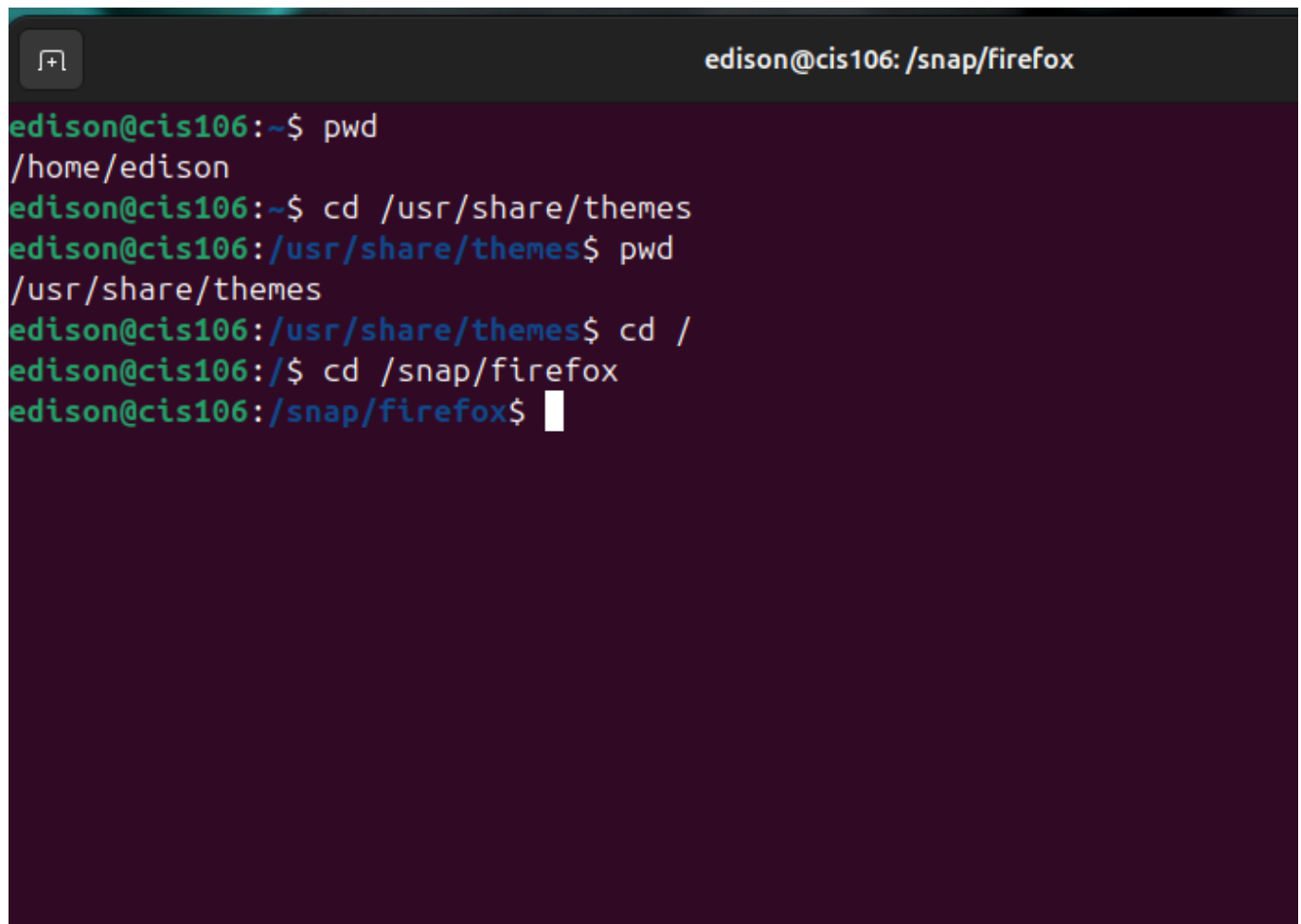
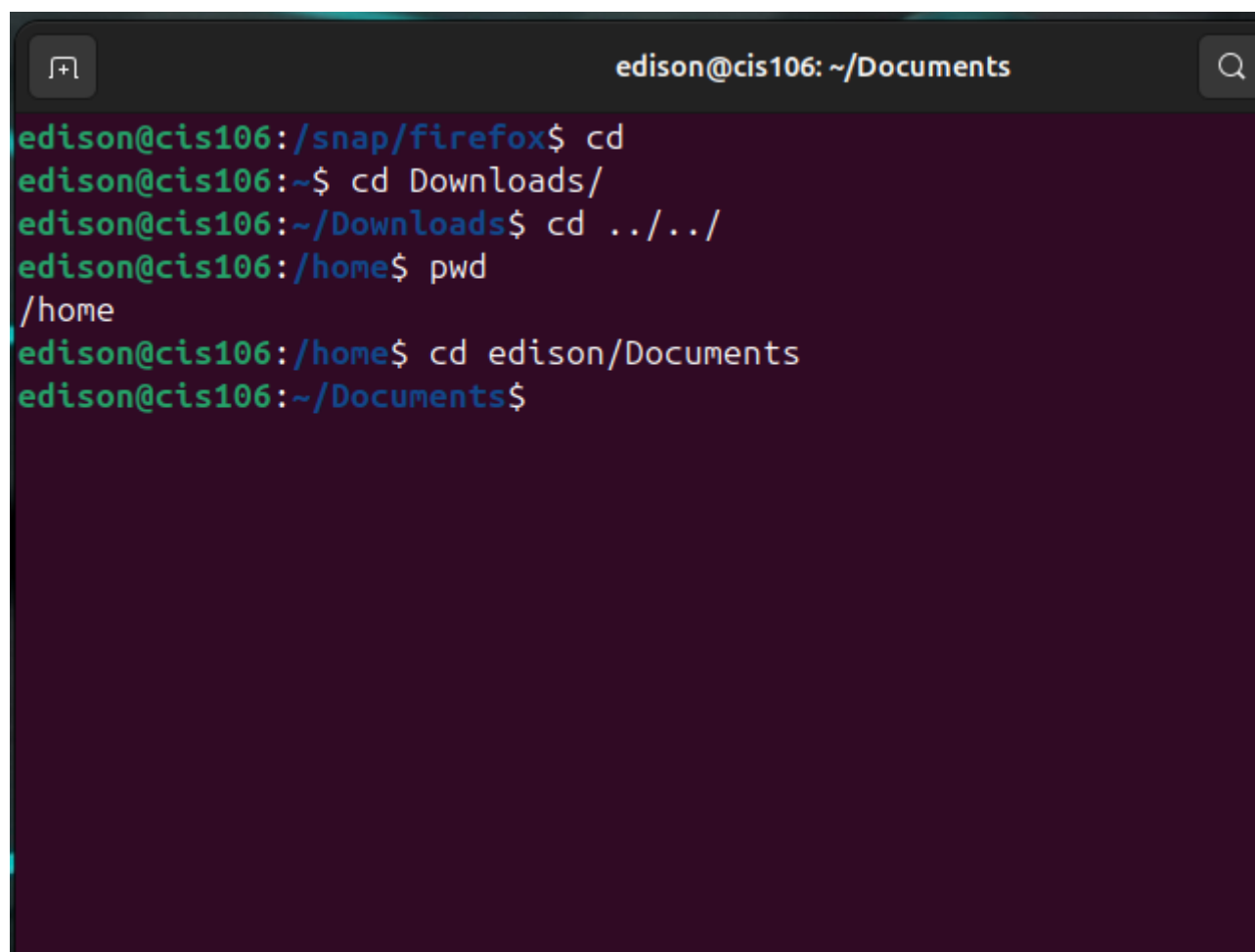


Lab 4

Question 1 (Absolute path and relative path Screenshots)

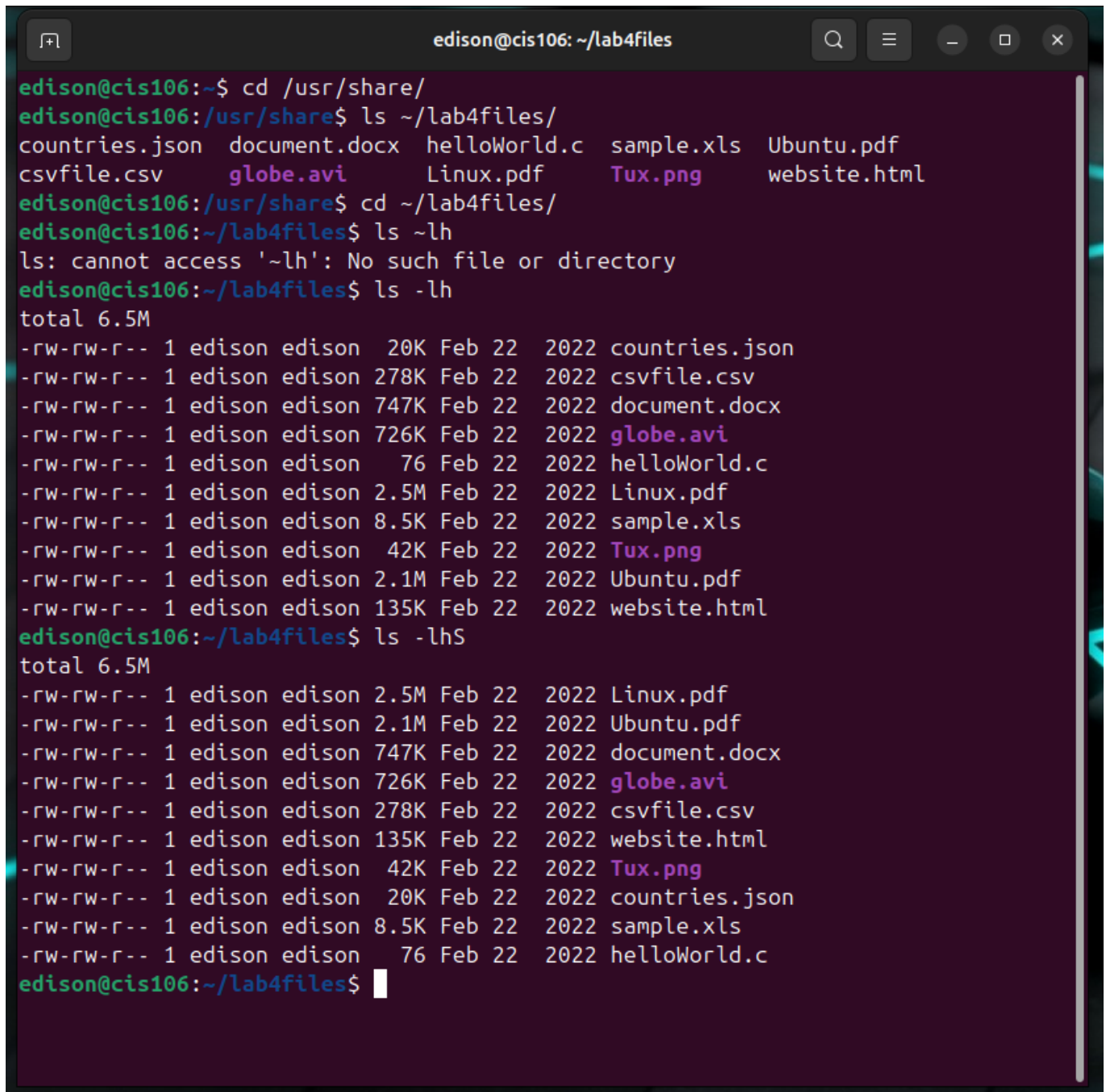
A terminal window with a dark background and light green text. The title bar at the top right reads 'edison@cis106: /snap/firefox'. The terminal shows a sequence of commands and their outputs: 'pwd' returns '/home/edison', 'cd /usr/share/themes' changes the directory, 'pwd' returns '/usr/share/themes', 'cd /' changes to the root directory, and 'cd /snap/firefox' changes to the current directory. The prompt changes from '~' to '/' and then to '/snap/firefox' as the user navigates through the file system.

```
edison@cis106:~$ pwd
/home/edison
edison@cis106:~$ cd /usr/share/themes
edison@cis106:/usr/share/themes$ pwd
/usr/share/themes
edison@cis106:/usr/share/themes$ cd /
edison@cis106:/$ cd /snap/firefox
edison@cis106:/snap/firefox$
```

A terminal window with a dark background and light-colored text. The window title bar shows 'edison@cis106: ~/Documents'. The terminal content shows a series of commands and their outputs: 'cd' from '/snap/firefox', 'cd Downloads/' from '~', 'cd ../../' from '~/Downloads', 'pwd' from '/home' outputting '/home', and 'cd edison/Documents' from '/home' outputting '~/Documents\$'.

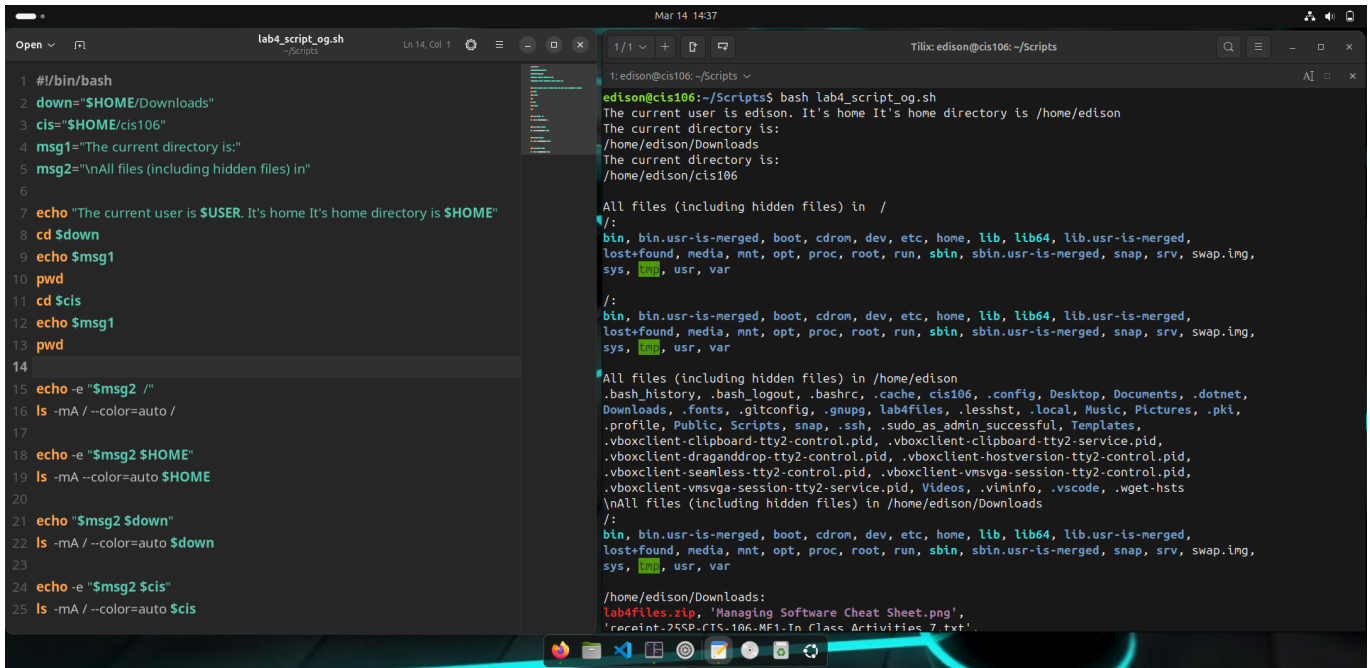
```
edison@cis106:/snap/firefox$ cd
edison@cis106:~$ cd Downloads/
edison@cis106:~/Downloads$ cd ../../
edison@cis106:/home$ pwd
/home
edison@cis106:/home$ cd edison/Documents
edison@cis106:~/Documents$
```

Question 2 (ls Commando Screenshot)



```
edison@cis106: ~/lab4files
edison@cis106:~$ cd /usr/share/
edison@cis106:/usr/share$ ls ~/lab4files/
countries.json  document.docx  helloWorld.c  sample.xls  Ubuntu.pdf
csvfile.csv    globe.avi      Linux.pdf     Tux.png     website.html
edison@cis106:/usr/share$ cd ~/lab4files/
edison@cis106:~/lab4files$ ls ~lh
ls: cannot access '~lh': No such file or directory
edison@cis106:~/lab4files$ ls -lh
total 6.5M
-rw-rw-r-- 1 edison edison 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 edison edison 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 edison edison 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 edison edison 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 edison edison 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 edison edison 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 edison edison 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 edison edison 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 edison edison 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 edison edison 135K Feb 22 2022 website.html
edison@cis106:~/lab4files$ ls -lhs
total 6.5M
-rw-rw-r-- 1 edison edison 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 edison edison 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 edison edison 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 edison edison 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 edison edison 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 edison edison 135K Feb 22 2022 website.html
-rw-rw-r-- 1 edison edison 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 edison edison 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 edison edison 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 edison edison 76 Feb 22 2022 helloWorld.c
edison@cis106:~/lab4files$
```

Question 3 (Shell Scripting Screenshot)



```
1 #!/bin/bash
2 down="$HOME/Downloads"
3 cis="$HOME/cis106"
4 msg1="The current directory is:"
5 msg2="\nAll files (including hidden files) in"
6
7 echo "The current user is $USER. It's home It's home directory is $HOME"
8 cd $down
9 echo $msg1
10 pwd
11 cd $cis
12 echo $msg1
13 pwd
14
15 echo -e "$msg2 /"
16 ls -mA / --color=auto /
17
18 echo -e "$msg2 $HOME"
19 ls -mA --color=auto $HOME
20
21 echo "$msg2 $down"
22 ls -mA / --color=auto $down
23
24 echo -e "$msg2 $cis"
25 ls -mA --color=auto $cis
```

Mar 14 14:37

1:edison@cis106:~/Scripts


```
edison@cis106:~/Scripts$ bash lab4_script_og.sh
The current user is edison. It's home It's home directory is /home/edison
The current directory is:
/home/edison/Downloads
The current directory is:
/home/edison/cis106

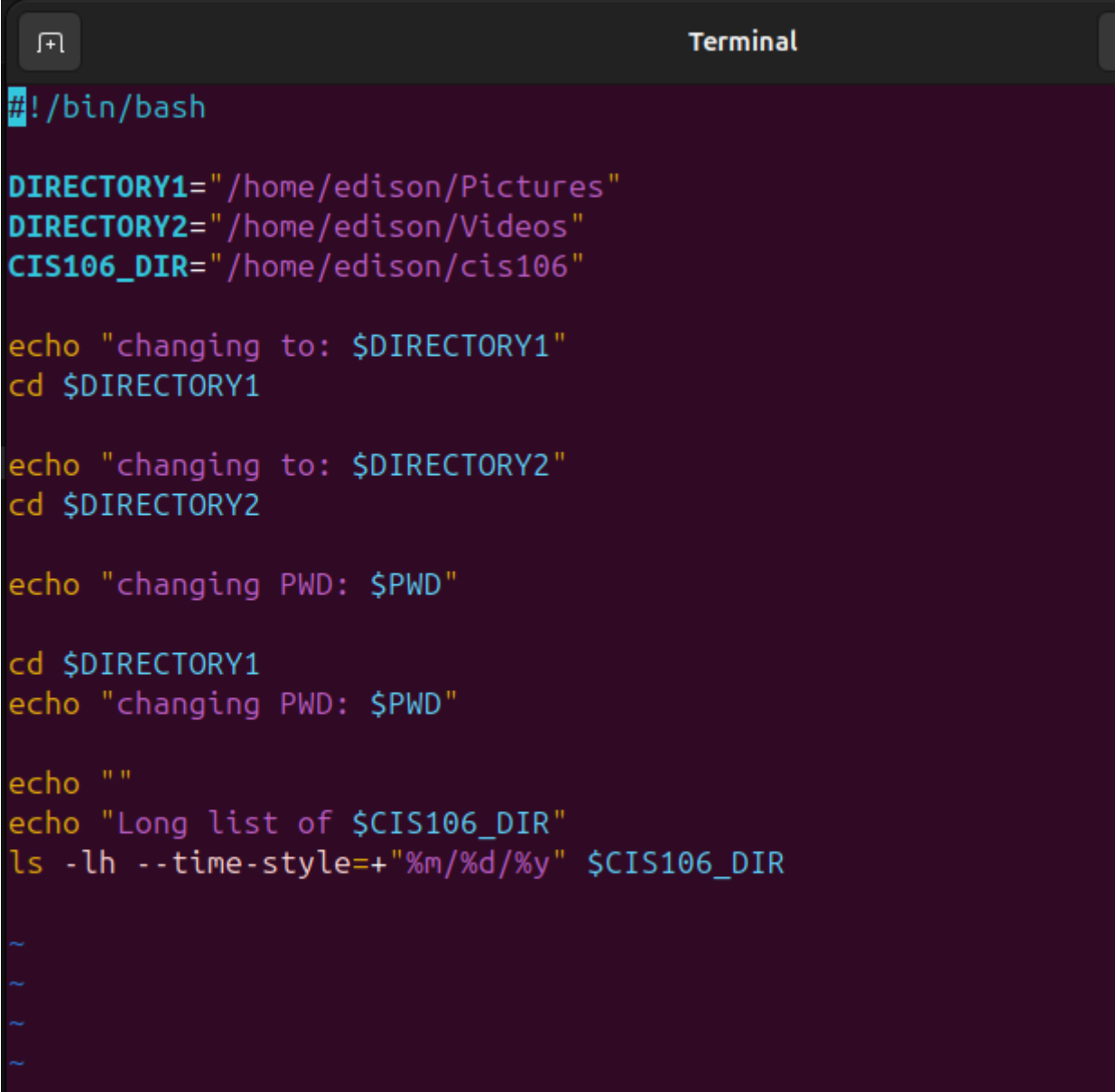
All files (including hidden files) in /
/:
bin, bin.usr-is-merged, boot, cdrom, dev, etc, home, lib, lib64, lib.usr-is-merged,
lost+found, media, mnt, opt, proc, root, run, sbin, sbin.usr-is-merged, snap, srv, swap.img,
sys, usr, var

All files (including hidden files) in /home/edison
.:
.bash_history, .bash_logout, .bashrc, .cache, cis106, .config, Desktop, Documents, .dotnet,
Downloads, .fonts, .gitconfig, .gnupg, lab4files, .lessht, .local, Music, Pictures, .pkt,
.profile, Public, Scripts, snap, .ssh, .sudo_as_admin_successful, Templates,
.vboxclient-clipboard-tty2-control.pid, .vboxclient-clipboard-tty2-service.pid,
.vboxclient-draganddrop-tty2-control.pid, .vboxclient-hostversion-tty2-control.pid,
.vboxclient-seamless-tty2-control.pid, .vboxclient-vmsvga-session-tty2-control.pid,
.vboxclient-vmsvga-session-tty2-service.pid, Videos, .viminfo, .vscode, .wget-hsts
All files (including hidden files) in /home/edison/Downloads
.:
bin, bin.usr-is-merged, boot, cdrom, dev, etc, home, lib, lib64, lib.usr-is-merged,
lost+found, media, mnt, opt, proc, root, run, sbin, sbin.usr-is-merged, snap, srv, swap.img,
sys, usr, var

/home/edison/Downloads:
lab4files.zip, 'Managing Software Cheat Sheet.png',
'reprint-25SP-CIS-106-MF1-In Class Activities 7.txt'
```

Question 4 (Challenge question)

 Script Source code



```
#!/bin/bash

DIRECTORY1="/home/edison/Pictures"
DIRECTORY2="/home/edison/Videos"
CIS106_DIR="/home/edison/cis106"

echo "changing to: $DIRECTORY1"
cd $DIRECTORY1

echo "changing to: $DIRECTORY2"
cd $DIRECTORY2

echo "changing PWD: $PWD"

cd $DIRECTORY1
echo "changing PWD: $PWD"

echo ""
echo "Long list of $CIS106_DIR"
ls -lh --time-style="+%m/%d/%y" $CIS106_DIR

~
~
~
~
```