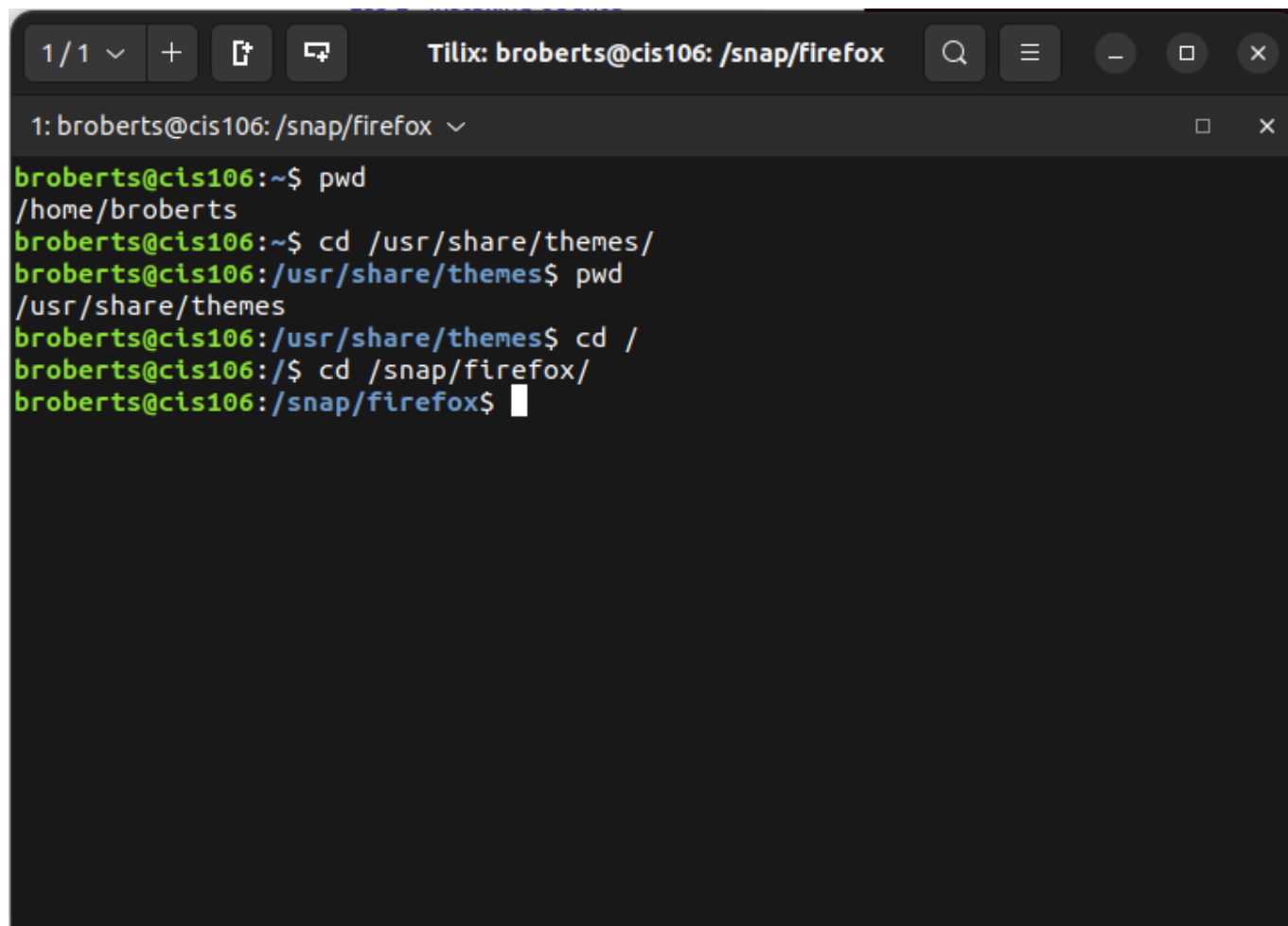
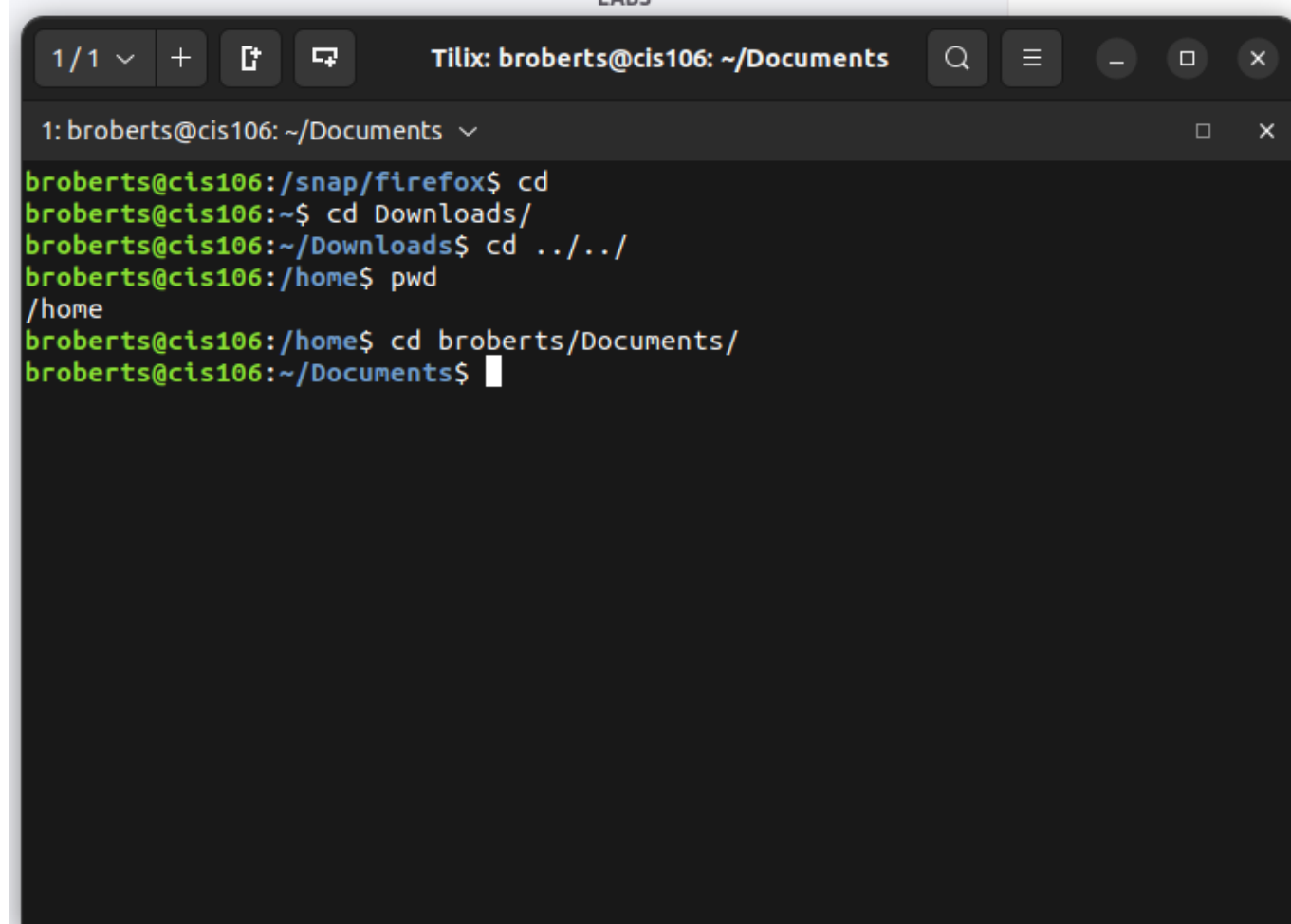


Lab 4

Question 1



```
1/1  +  [Share] [Copy]  Tilix: broberts@cis106: /snap/firefox  [Search] [Menu] [Zoom Out] [Zoom In] [Close]
1: broberts@cis106: /snap/firefox  [Close]
broberts@cis106:~$ pwd
/home/broberts
broberts@cis106:~$ cd /usr/share/themes/
broberts@cis106:/usr/share/themes$ pwd
/usr/share/themes
broberts@cis106:/usr/share/themes$ cd /
broberts@cis106:/$ cd /snap/firefox/
broberts@cis106:/snap/firefox$
```



```
1/1  +  [Share] [Copy]  Tilix: broberts@cis106: ~/Documents  [Search] [Menu] [Zoom Out] [Zoom In] [Close]
1: broberts@cis106: ~/Documents  [Close]
broberts@cis106:/snap/firefox$ cd
broberts@cis106:~$ cd Downloads/
broberts@cis106:~/Downloads$ cd ../../
broberts@cis106:/home$ pwd
/home
broberts@cis106:/home$ cd broberts/Documents/
broberts@cis106:~/Documents$
```

Question 2

```

1/1  +  [ ]  [ ]
1: broberts@cis106: ~/lab4files  v

broberts@cis106:~$ cd /usr/share/
broberts@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
broberts@cis106:/usr/share$ cd ~/lab4files/
broberts@cis106:~/lab4files$ ls -lh
total 6.5M
-rw-rw-r-- 1 broberts broberts 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 broberts broberts 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 broberts broberts 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 broberts broberts 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 broberts broberts 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 broberts broberts 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 broberts broberts 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 broberts broberts 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 broberts broberts 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 broberts broberts 135K Feb 22 2022 website.html
broberts@cis106:~/lab4files$ ls -lhs
total 6.5M
-rw-rw-r-- 1 broberts broberts 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 broberts broberts 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 broberts broberts 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 broberts broberts 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 broberts broberts 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 broberts broberts 135K Feb 22 2022 website.html
-rw-rw-r-- 1 broberts broberts 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 broberts broberts 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 broberts broberts 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 broberts broberts 76 Feb 22 2022 helloWorld.c
broberts@cis106:~/lab4files$

```

```

1/1  +  [ ]  [ ]  Tilix: brobe
1: broberts@cis106: ~/lab4files  v

total 6.5M
-rw-rw-r-- 1 broberts broberts 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 broberts broberts 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 broberts broberts 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 broberts broberts 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 broberts broberts 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 broberts broberts 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 broberts broberts 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 broberts broberts 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 broberts broberts 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 broberts broberts 135K Feb 22 2022 website.html
broberts@cis106:~/lab4files$ ls -lhs
total 6.5M
-rw-rw-r-- 1 broberts broberts 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 broberts broberts 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 broberts broberts 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 broberts broberts 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 broberts broberts 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 broberts broberts 135K Feb 22 2022 website.html
-rw-rw-r-- 1 broberts broberts 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 broberts broberts 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 broberts broberts 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 broberts broberts 76 Feb 22 2022 helloWorld.c

```

```
broberts@cis106:~/lab4files$ ls -lhs --i
ls: option '--i' is ambiguous; possibilities: '--inode' '--ignore-backups' '--ignore' '--indicator-sty
Try 'ls --help' for more information.
broberts@cis106:~/lab4files$ ls -lhs --inode
total 6.5M
1442406 -rw-rw-r-- 1 broberts broberts 2.5M Feb 22 2022 Linux.pdf
1442775 -rw-rw-r-- 1 broberts broberts 2.1M Feb 22 2022 Ubuntu.pdf
1442778 -rw-rw-r-- 1 broberts broberts 747K Feb 22 2022 document.docx
1442779 -rw-rw-r-- 1 broberts broberts 726K Feb 22 2022 globe.avi
1442777 -rw-rw-r-- 1 broberts broberts 278K Feb 22 2022 csvfile.csv
1442782 -rw-rw-r-- 1 broberts broberts 135K Feb 22 2022 website.html
1442774 -rw-rw-r-- 1 broberts broberts 42K Feb 22 2022 Tux.png
1442776 -rw-rw-r-- 1 broberts broberts 20K Feb 22 2022 countries.json
1442781 -rw-rw-r-- 1 broberts broberts 8.5K Feb 22 2022 sample.xls
1442780 -rw-rw-r-- 1 broberts broberts 76 Feb 22 2022 helloWorld.c
broberts@cis106:~/lab4files$ ls -Xr
sample.xls  Ubuntu.pdf  countries.json  document.docx  helloWorld.c
Tux.png    Linux.pdf   website.html   csvfile.csv    globe.avi
broberts@cis106:~/lab4files$
```

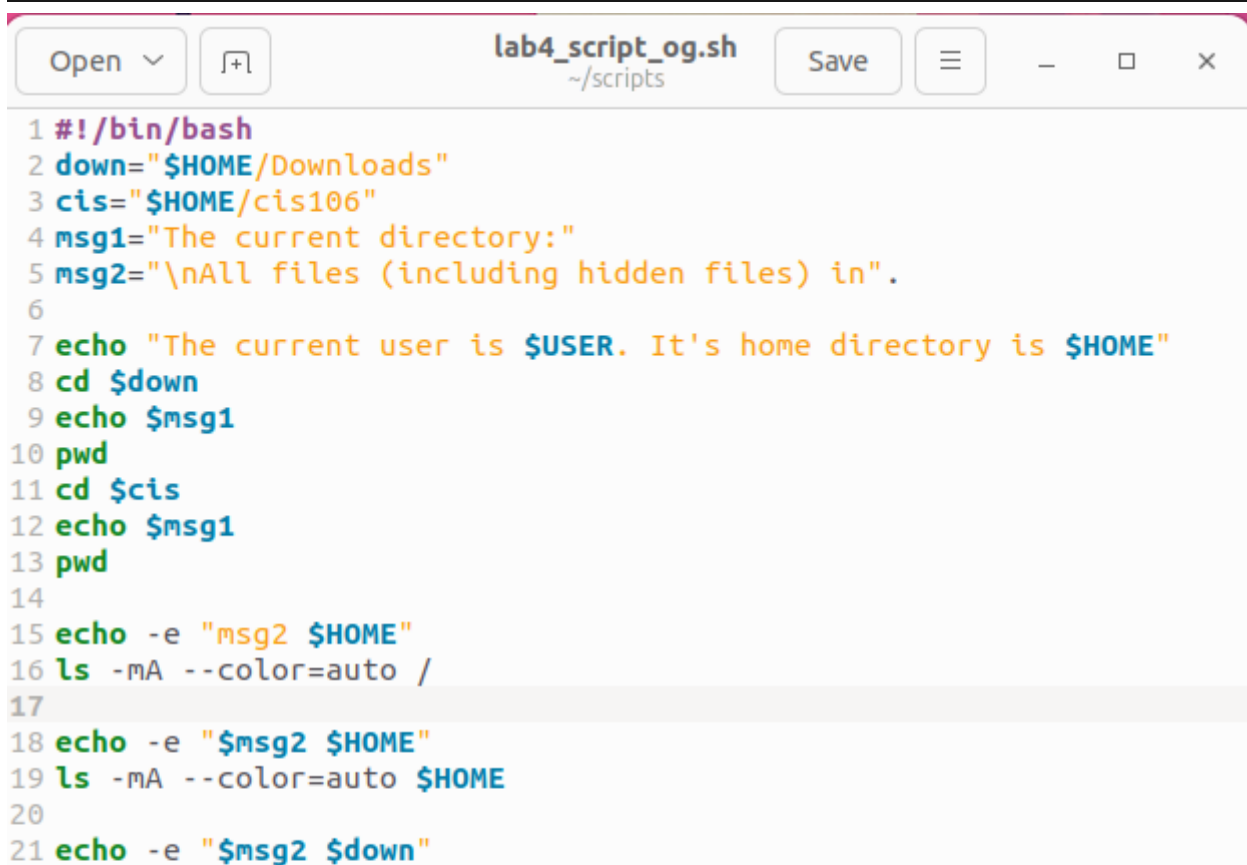
Question 3

```
broberts@cis106:~$ cd scripts/
broberts@cis106:~/scripts$ bash lab4_script_og.sh
The current user is broberts. It's home directory is /home/broberts
The current directory:
/home/broberts/Downloads
The current directory:
/home/broberts/cis106
msg2 /home/broberts
bin, boot, cdrom, dev, etc, home, lib, lib32, lib64, libx32, lost+found, media,
mnt, opt, proc, root, run, sbin, snap, srv, swapfile, sys, tmp, usr, var

All files (including hidden files) in. /home/broberts
.bash_history, .bash_logout, .bashrc, .cache, cis106, .config, Desktop, .dmrc,
Documents, .dotnet, Downloads, .gitconfig, .gnupg, lab4files, .lessht, .local,
Music, Pictures, .pki, practicels, practicels.tar.xz, .profile, Public, scripts,
script.sh, snap, .ssh, .sudo_as_admin_successful, Templates,
.vboxclient-clipboard-tty2-control.pid, .vboxclient-clipboard-tty7-control.pid,
.vboxclient-clipboard-tty7-service.pid,
.vboxclient-draganddrop-tty2-control.pid,
.vboxclient-draganddrop-tty7-control.pid,
.vboxclient-draganddrop-tty7-service.pid,
.vboxclient-hostversion-tty2-control.pid,
.vboxclient-hostversion-tty7-control.pid, .vboxclient-seamless-tty2-control.pid,
.vboxclient-seamless-tty7-control.pid, .vboxclient-seamless-tty7-service.pid,
.vboxclient-vmvga-session-tty2-control.pid,
.vboxclient-vmvga-session-tty7-control.pid,
.vboxclient-vmvga-session-tty7-service.pid, Videos, .vscode, website,
.Xauthority, .xsession-errors, .xsession-errors.old

All files (including hidden files) in. /home/broberts/Downloads
code_1.86.1-1707298119_amd64.deb, code_1.86.2-1707854558_amd64.deb,
lab4files.zip, lab4_script.sh

All files (including hidden files) in. /home/broberts/cis106
cheatSheets, finalProject, .git, labs, notes, weekReports
broberts@cis106:~/scripts$
```



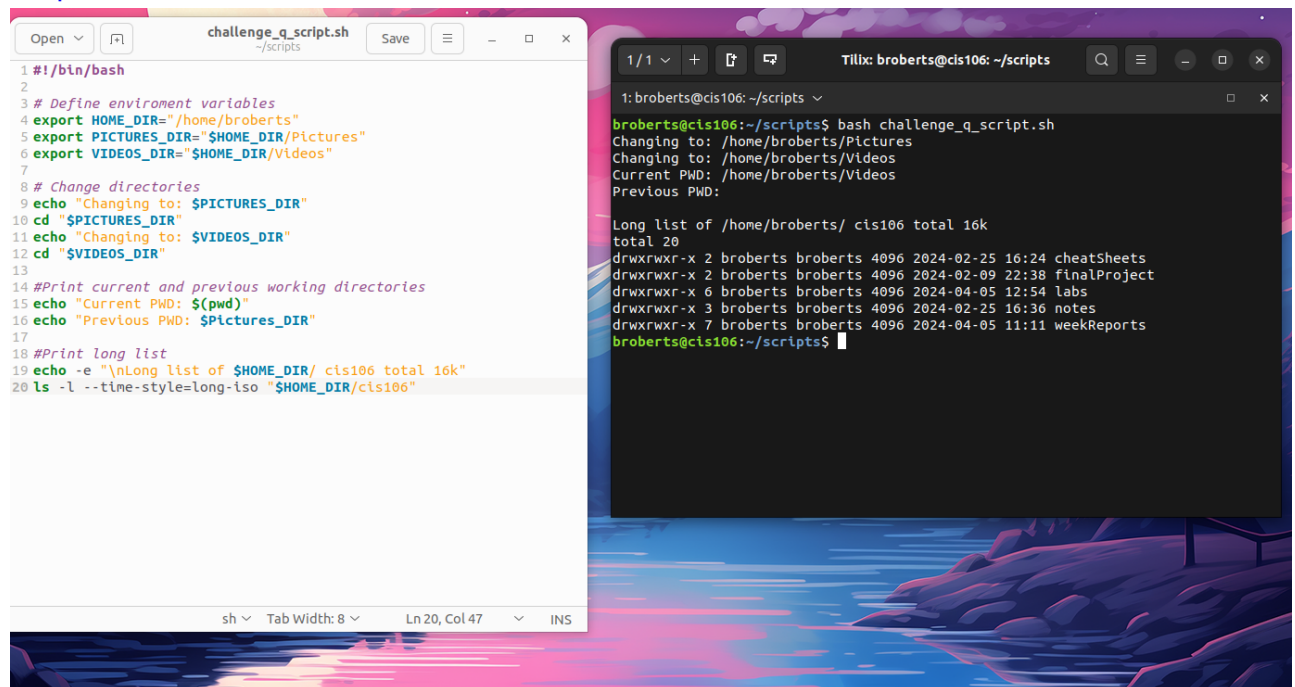
```
1 #!/bin/bash
2 down="$HOME/Downloads"
3 cis="$HOME/cis106"
4 msg1="The current directory:"
5 msg2="\nAll files (including hidden files) in".
6
7 echo "The current user is $USER. It's home directory is $HOME"
8 cd $down
9 echo $msg1
10 pwd
11 cd $cis
12 echo $msg1
13 pwd
14
15 echo -e "msg2 $HOME"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

```
22 ls -mA --color=auto $down
23
24 echo -e "$msg2 $cis"
25 ls -mA --color=auto $cis
```

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Question 4 (Challenge question)

- Script Source Code



```
1 #!/bin/bash
2
3 # Define environment variables
4 export HOME_DIR="/home/broberts"
5 export PICTURES_DIR="$HOME_DIR/Pictures"
6 export VIDEOS_DIR="$HOME_DIR/Videos"
7
8 # Change directories
9 echo "Changing to: $PICTURES_DIR"
10 cd "$PICTURES_DIR"
11 echo "Changing to: $VIDEOS_DIR"
12 cd "$VIDEOS_DIR"
13
14 # Print current and previous working directories
15 echo "Current PWD: $(pwd)"
16 echo "Previous PWD: $PICTURES_DIR"
17
18 # Print long list
19 echo -e "\nLong list of $HOME_DIR/ cis106 total 16k"
20 ls -l --time-style=long-iso "$HOME_DIR/cis106"
```

```
1: broberts@cis106: ~/scripts
broberts@cis106:~/scripts$ bash challenge_q_script.sh
Changing to: /home/broberts/Pictures
Changing to: /home/broberts/Videos
Current PWD: /home/broberts/Videos
Previous PWD:
Long list of /home/broberts/ cis106 total 16k
total 20
drwxrwxr-x 2 broberts broberts 4096 2024-02-25 16:24 cheatSheets
drwxrwxr-x 2 broberts broberts 4096 2024-02-09 22:38 finalProject
drwxrwxr-x 6 broberts broberts 4096 2024-04-05 12:54 labs
drwxrwxr-x 3 broberts broberts 4096 2024-02-25 16:36 notes
drwxrwxr-x 7 broberts broberts 4096 2024-04-05 11:11 weekReports
broberts@cis106:~/scripts$
```