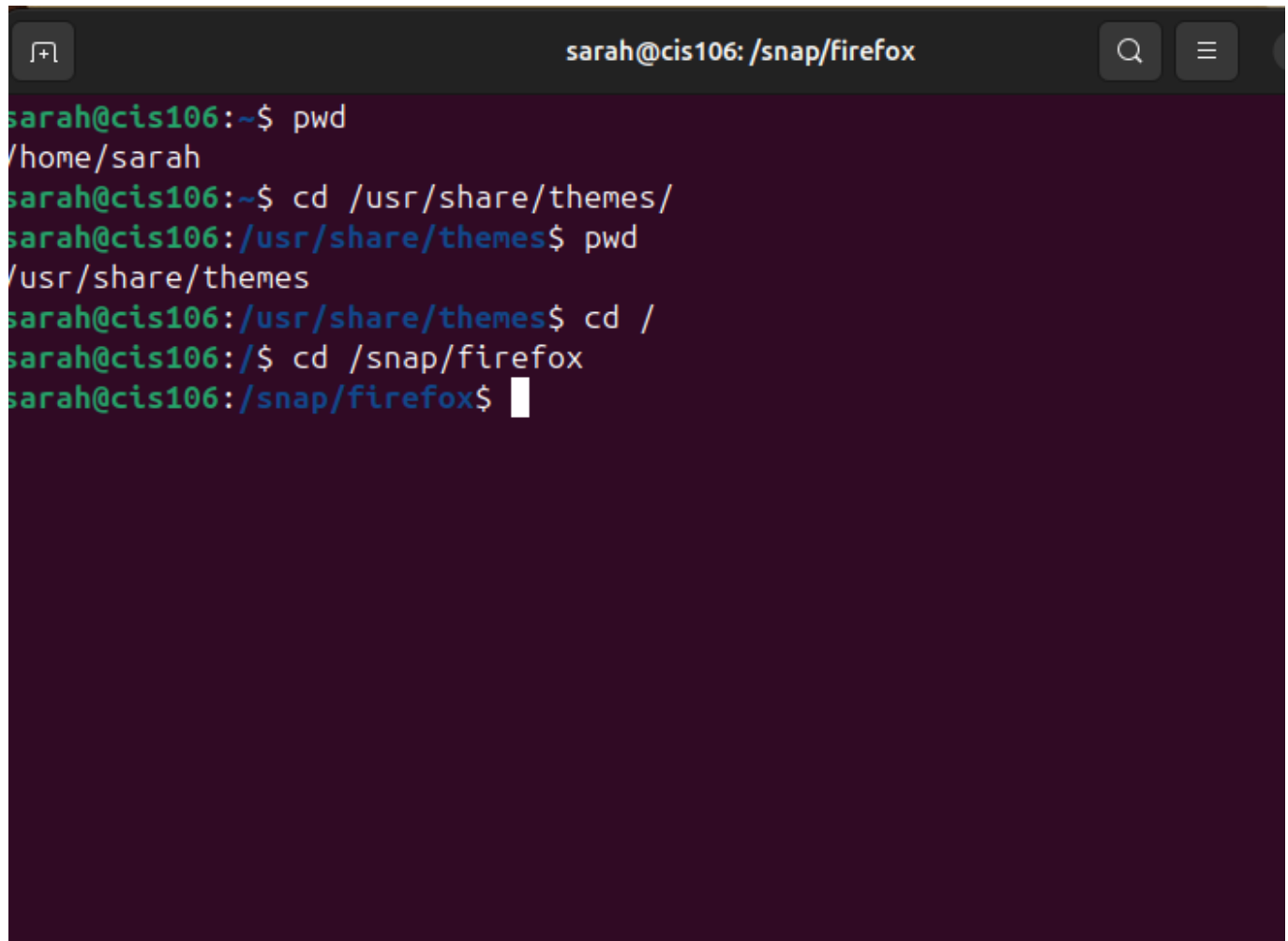


Lab 4

Question 1

A terminal window with a dark purple background. The title bar at the top shows 'sarah@cis106: /snap/firefox' on the right and a window icon on the left. The terminal text shows a series of commands and their outputs: 'pwd' returns '/home/sarah', '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 snap directory. The prompt is currently 'sarah@cis106:/snap/firefox\$' with a white cursor.

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

Question 2

```
sarah@cis106: ~/lab4files
-rw-rw-r-- 1 sarah sarah 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 sarah sarah 76 Feb 22 2022 helloWorld.c
sarah@cis106:~/lab4files$ ls -lhSGi
total 6.5M
655439 -rw-rw-r-- 1 sarah 2.5M Feb 22 2022 Linux.pdf
655442 -rw-rw-r-- 1 sarah 2.1M Feb 22 2022 Ubuntu.pdf
655473 -rw-rw-r-- 1 sarah 747K Feb 22 2022 document.docx
655474 -rw-rw-r-- 1 sarah 726K Feb 22 2022 globe.avi
655472 -rw-rw-r-- 1 sarah 278K Feb 22 2022 csvfile.csv
655477 -rw-rw-r-- 1 sarah 135K Feb 22 2022 website.html
655440 -rw-rw-r-- 1 sarah 42K Feb 22 2022 Tux.png
655448 -rw-rw-r-- 1 sarah 20K Feb 22 2022 countries.json
655476 -rw-rw-r-- 1 sarah 8.5K Feb 22 2022 sample.xls
655475 -rw-rw-r-- 1 sarah 76 Feb 22 2022 helloWorld.c
sarah@cis106:~/lab4files$ ls -lhSGi --no-owner
ls: unrecognized option '--no-owner'
Try 'ls --help' for more information.
sarah@cis106:~/lab4files$ ls -lhSGig
total 6.5M
655439 -rw-rw-r-- 1 2.5M Feb 22 2022 Linux.pdf
655442 -rw-rw-r-- 1 2.1M Feb 22 2022 Ubuntu.pdf
655473 -rw-rw-r-- 1 747K Feb 22 2022 document.docx
655474 -rw-rw-r-- 1 726K Feb 22 2022 globe.avi
655472 -rw-rw-r-- 1 278K Feb 22 2022 csvfile.csv
655477 -rw-rw-r-- 1 135K Feb 22 2022 website.html
655440 -rw-rw-r-- 1 42K Feb 22 2022 Tux.png
655448 -rw-rw-r-- 1 20K Feb 22 2022 countries.json
655476 -rw-rw-r-- 1 8.5K Feb 22 2022 sample.xls
655475 -rw-rw-r-- 1 76 Feb 22 2022 helloWorld.c
sarah@cis106:~/lab4files$ ls -Xr
sample.xls  Ubuntu.pdf  countries.json  document.docx  helloWorld.c
Tux.png    Linux.pdf   website.html   csvfile.csv    globe.avi
sarah@cis106:~/lab4files$
```

Question 3

```

1 #!/bin/bash
2 down="$HOME/Downloads"
3 msg1="The current directory is:"
4 cis="$HOME/cis106"
5 msg2="all 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 /"
16 ls -lA --color=auto $HOME
17
18 echo -e "$msg2 $HOME"
19 ls -lA --color=auto $HOME
20
21 echo -e "$msg2 $down"
22 ls -lA --color=auto $down
23
24 echo -e "$msg2 $cis"
25 ls -lA --color=auto $cis

```

```

sarah@cis106: ~/Scripts
the current user is sarah. It's home directory is /home/sarah
The current directory is:
/home/sarah/Downloads
The current directory is:
/home/sarah/cis106

all files (including hidden files) in /
ls: invalid argument 'auto/' for '--color'
Valid arguments are:
  - 'always', 'yes', 'force'
  - 'never', 'no', 'none'
  - 'auto', 'tty', 'if-tty'
Try 'ls --help' for more information.

all files (including hidden files) in /home/sarah
.bash_history, .bash_logout, .bashrc, .cache, cis106, .config, Desktop,
Documents, .dotnet, Downloads, error_librewolfinstaller.log, .fontconfig,
.gitconfig, .gnupg, lab4files, 'lab4files (2)', lab4files.zip, .lessht,
librewolf, .local, Music, Pictures, .pki, practiceels, practiceels.tar.xz,
.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/sarah/Downloads
'lab4files (2)'

all files (including hidden files) in /home/sarah/cis106
cheatsheets, .git, labs, notes, 'week reports'
sarah@cis106:~/Scripts$

```

Question 4(Challenge Question)

- Script Source Code

```

1 #!/bin/bash
2 pict="/home/raalberto/Pictures"
3 vid="/home/raalberto/Videos"
4
5 echo "Changing to: $pict"
6 cd ~/Pictures
7
8 echo "Changing to: $vid"
9 cd ~/Videos
10
11 echo "Current PWD: $vid"
12 cd ~/Videos
13
14 echo "Previous PWD: $pict"
15 cd ~/Pictures
16
17 echo " "
18 echo "Long list of /home/raalberto/cis106"
19 ls -lGis ~/cis106/
20

```

```

sarah@cis106: ~/Scripts
drwxrwxrwt 18 root root 4096 EDT tmp
drwxr-xr-x 12 root root 4096 EDT usr
drwxr-xr-x 14 root root 4096 EDT var
sarah@cis106:~/Scripts$ bash challenge_question.sh
Changing to: /home/raalberto/Pictures
Changing to: /home/raalberto/Videos
Current PWD: /home/raalberto/Videos
Previous PWD: /home/raalberto/Pictures

Long list of /home/raalberto/cis106
ls: cannot access '/cis106/': No such file or directory
sarah@cis106:~/Scripts$ bash challenge_question.sh
Changing to: /home/raalberto/Pictures
Changing to: /home/raalberto/Videos
Current PWD: /home/raalberto/Videos
Previous PWD: /home/raalberto/Pictures

How Long list of /home/raalberto/cis106
total 16
535196 drwxrwxr-x 2 4096 Oct 10 17:22 cheatsheets
529452 drwxrwxr-x 6 4096 Oct 20 17:05 labs
535195 drwxrwxr-x 6 4096 Oct 19 18:57 notes
535194 drwxrwxr-x 6 4096 Oct 19 15:08 'week reports'
sarah@cis106:~/Scripts$

```

Extra practice (not mandatory but recommended)