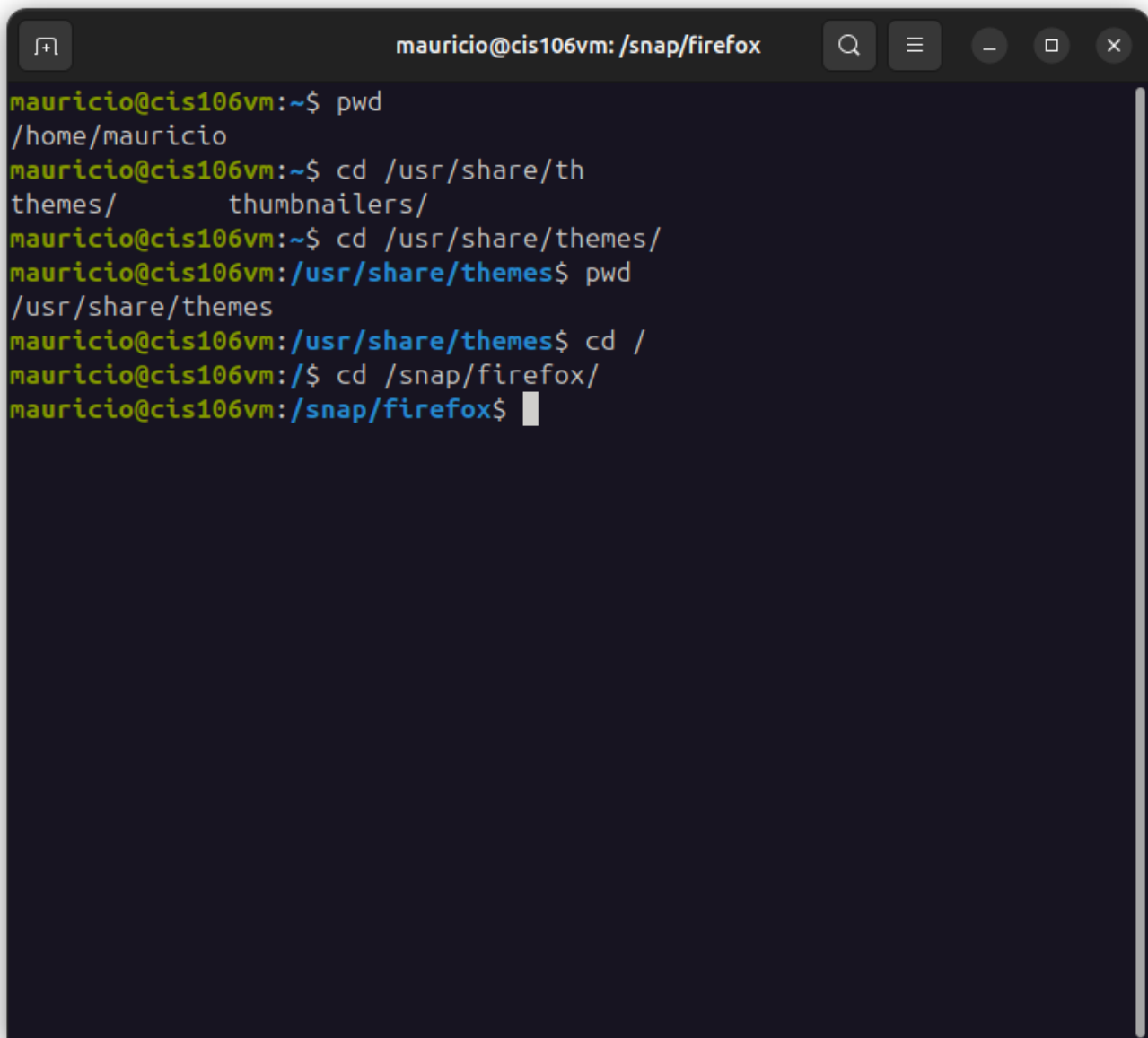


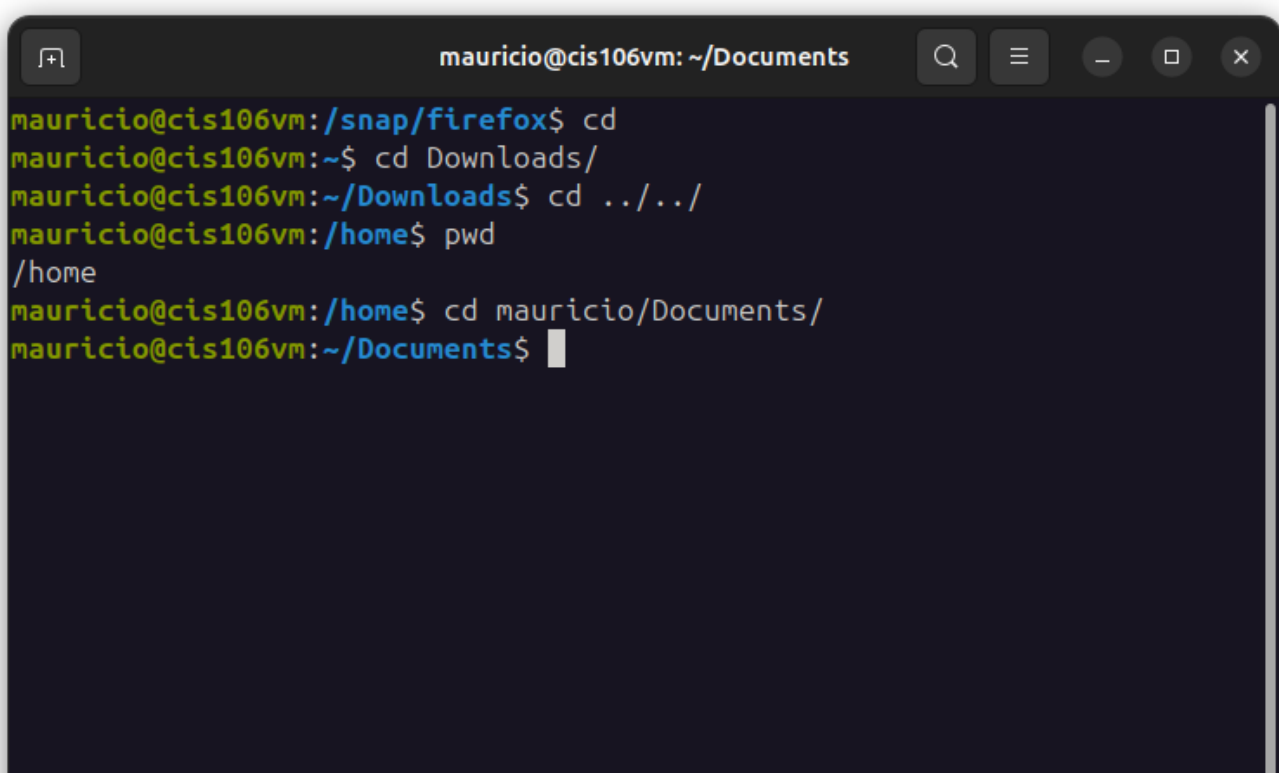
# Lab 4 Submission

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## Question 1 | Moving around the file system

A terminal window with a dark background and light-colored text. The title bar at the top reads "mauricio@cis106vm: /snap/firefox". The terminal shows a series of commands and their outputs: "pwd" returns "/home/mauricio", "cd /usr/share/themes/" returns "themes/ thumbnails/", "cd /usr/share/themes/" returns "/usr/share/themes", "cd /" returns "/", and "cd /snap/firefox/" returns "/snap/firefox\$". The cursor is at the end of the last line.

```
mauricio@cis106vm: /snap/firefox
mauricio@cis106vm:~$ pwd
/home/mauricio
mauricio@cis106vm:~$ cd /usr/share/themes/
themes/      thumbnailers/
mauricio@cis106vm:~$ cd /usr/share/themes/
mauricio@cis106vm:/usr/share/themes$ pwd
/usr/share/themes
mauricio@cis106vm:/usr/share/themes$ cd /
mauricio@cis106vm:/$ cd /snap/firefox/
mauricio@cis106vm:/snap/firefox$
```

A terminal window with a dark background and light-colored text. The title bar at the top reads "mauricio@cis106vm: ~/Documents". The terminal shows a series of commands and their outputs: "cd" returns "", "cd Downloads/" returns "~/Downloads", "cd ../../" returns "/home", "pwd" returns "/home", and "cd mauricio/Documents/" returns "~/Documents\$". The cursor is at the end of the last line.

```
mauricio@cis106vm:~/Documents
mauricio@cis106vm:/snap/firefox$ cd
mauricio@cis106vm:~$ cd Downloads/
mauricio@cis106vm:~/Downloads$ cd ../../
mauricio@cis106vm:/home$ pwd
/home
mauricio@cis106vm:/home$ cd mauricio/Documents/
mauricio@cis106vm:~/Documents$
```



## Question 2 | The ls command

```
mauricio@cis106vm:~$ cd /usr/share/
mauricio@cis106vm:/usr/share$ ls ~/lab4files/
countries.json csvfile.csv document.docx globe.avi helloWorld.c Linux.pdf sample.xls Tux.png Ubuntu.pdf website.html
mauricio@cis106vm:/usr/share$ cd /home/mauricio/lab4files
mauricio@cis106vm:~/lab4files$ ls -lh
total 6.5M
-rw-rw-r-- 1 mauricio mauricio 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 mauricio mauricio 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 mauricio mauricio 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 mauricio mauricio 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 mauricio mauricio 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 mauricio mauricio 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 mauricio mauricio 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 mauricio mauricio 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 mauricio mauricio 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 mauricio mauricio 135K Feb 22 2022 website.html
mauricio@cis106vm:~/lab4files$ ls -lhs
total 6.5M
-rw-rw-r-- 1 mauricio mauricio 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 mauricio mauricio 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 mauricio mauricio 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 mauricio mauricio 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 mauricio mauricio 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 mauricio mauricio 135K Feb 22 2022 website.html
-rw-rw-r-- 1 mauricio mauricio 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 mauricio mauricio 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 mauricio mauricio 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 mauricio mauricio 76 Feb 22 2022 helloWorld.c
mauricio@cis106vm:~/lab4files$ ls -lhGsi
total 6.5M
1179813 -rw-rw-r-- 1 2.5M Feb 22 2022 Linux.pdf
1179815 -rw-rw-r-- 1 2.1M Feb 22 2022 Ubuntu.pdf
1179818 -rw-rw-r-- 1 747K Feb 22 2022 document.docx
1179819 -rw-rw-r-- 1 726K Feb 22 2022 globe.avi
1179817 -rw-rw-r-- 1 278K Feb 22 2022 csvfile.csv
1179823 -rw-rw-r-- 1 135K Feb 22 2022 website.html
1179814 -rw-rw-r-- 1 42K Feb 22 2022 Tux.png
1179816 -rw-rw-r-- 1 20K Feb 22 2022 countries.json
1179821 -rw-rw-r-- 1 8.5K Feb 22 2022 sample.xls
1179820 -rw-rw-r-- 1 76 Feb 22 2022 helloWorld.c
mauricio@cis106vm:~/lab4files$ ls -Xr
sample.xls Tux.png Ubuntu.pdf Linux.pdf countries.json website.html document.docx csvfile.csv helloWorld.c globe.avi
mauricio@cis106vm:~/lab4files$
```

## Question 3 | Shell Scripting

```

Open  ▾  • lab4-script.sh
~/.cis106/lab/lab4
Ln 22, Col 5  ⚙  ≡  ⏪  ⏩  ✕

1  #!/bin/bash
2  #Variable creation below
3  cis="$HOME/cis106"
4  downloads="$HOME/Downloads"
5  msg1="The current directory is \t"
6  msg2="\nAll files (Including hidden files) in: "
7
8  #cd and pwd including some of their usage below
9  echo "The current user is $USER. It's home directory is $HOME"
10 cd $downloads
11 echo -e $msg1
12 pwd
13 cd $cis
14 echo -e $msg1
15 pwd
16
17 #Some ls usage below
18 echo -e "$msg2 /"
19 ls -mA --color=auto /
20
21 echo -e "$msg2 $HOME"
22 ls -mA --color=auto $HOME
23
24 echo -e "$msg2 $downloads"
25 ls -mA --color=auto $downloads
26
27 echo -e "$msg2 $cis"
28 ls -mA --color=auto $cis
29

```

## lab4

```

mauricio@cis106vm: ~/cis106/lab/lab4
mauricio@cis106vm:~$ cd /home/mauricio/cis106/lab/lab4
mauricio@cis106vm:~/cis106/lab/lab4$ bash lab4-script.sh
The current user is mauricio. It's home directory is /home/mauricio
The current directory is
/home/mauricio/Downloads
The current directory is
/home/mauricio/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, tmp, usr, var

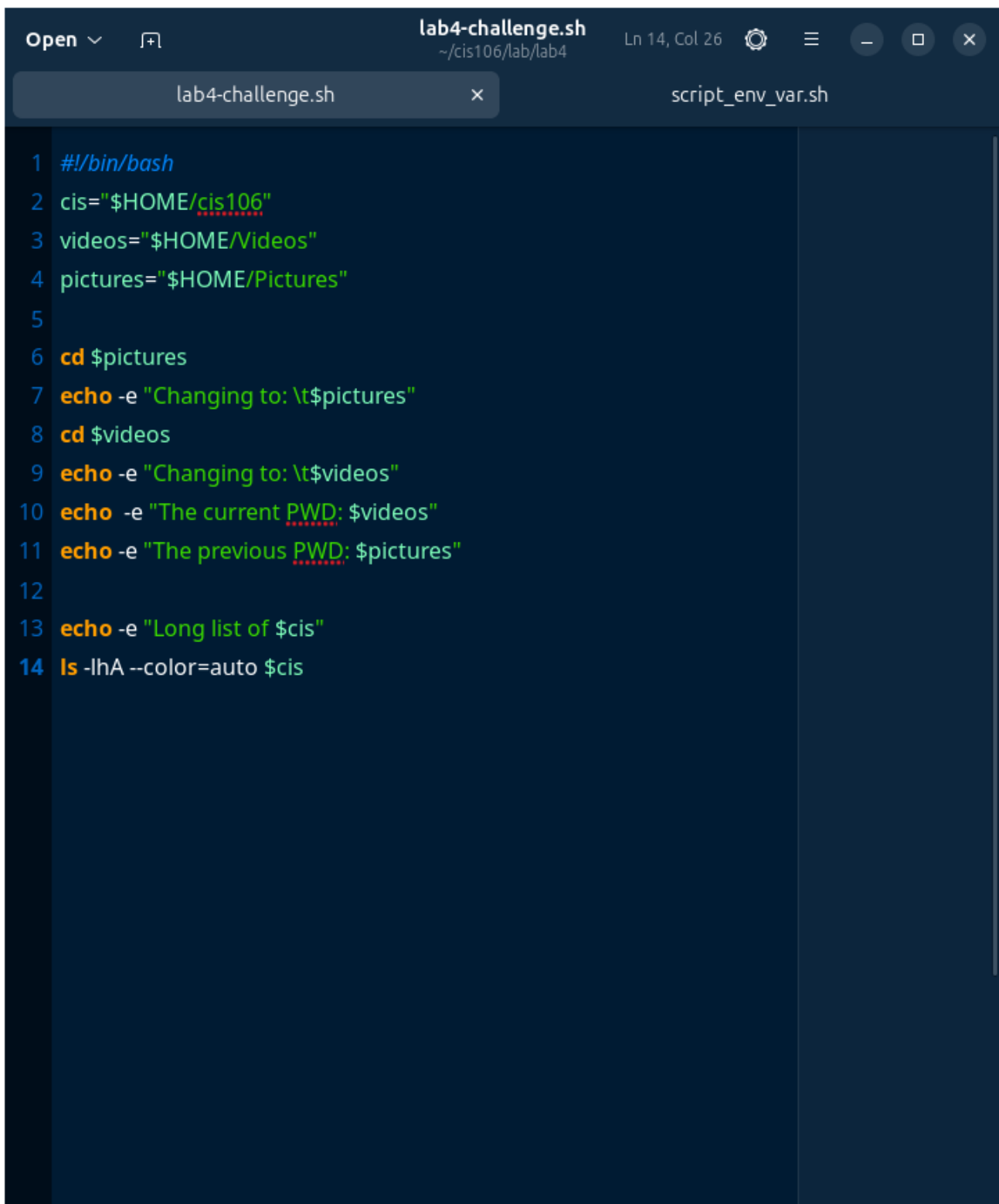
All files (Including hidden files) in: /home/mauricio
.bash_history, .bash_logout, .bashrc, .cache, cis106, .config, Desktop, Documents, .dotnet, Downloads,
essentials.sh, .fonts, games, .gitconfig, .gnupg, Hello.sh, .irb_history, lab4files, .lessshst, .librewolf,
.local, Music, Pictures, .pki, potato.sh, practicels, practicels.tar.xz, .profile, Public, scripts, snap, .ssh,
.sudo_as_admin_successful, Templates, Videos, .viminfo, .vscode, .wget-hsts

All files (Including hidden files) in: /home/mauricio/Downloads
games, lab4files.zip, Office

All files (Including hidden files) in: /home/mauricio/cis106
'cheat sheet', 'final exam', .git, lab, notes, notes2.md, notes2.pdf, notes-HEAD, SlackScreenshot.png,
'week reports'
mauricio@cis106vm:~/cis106/lab/lab4$

```

## Question 4 | Challenge Write a script



```
1 #!/bin/bash
2 cis="$HOME/cis106"
3 videos="$HOME/Videos"
4 pictures="$HOME/Pictures"
5
6 cd $pictures
7 echo -e "Changing to: \t$pictures"
8 cd $videos
9 echo -e "Changing to: \t$videos"
10 echo -e "The current PWD: $videos"
11 echo -e "The previous PWD: $pictures"
12
13 echo -e "Long list of $cis"
14 ls -lHA --color=auto $cis
```

lab4

```
mauricio@cis106vm: ~/cis106/lab/lab4
mauricio@cis106vm:~/cis106/lab/lab4$ bash lab4-challenge.sh
Changing to: /home/mauricio/Pictures
Changing to: /home/mauricio/Videos
The current PWD: /home/mauricio/Videos
The previous PWD: /home/mauricio/Pictures
Long list of /home/mauricio/cis106
total 896K
drwxrwxr-x 2 mauricio mauricio 4.0K Feb 24 21:22 'cheat sheet'
drwxrwxr-x 2 mauricio mauricio 4.0K Feb 10 21:43 'final exam'
drwxrwxr-x 8 mauricio mauricio 4.0K Feb 25 23:50 .git
drwxrwxr-x 6 mauricio mauricio 4.0K Mar 16 16:38 lab
drwxrwxr-x 5 mauricio mauricio 4.0K Feb 24 22:36 notes
-rw-rw-r-- 1 mauricio mauricio 2.2K Feb 23 19:36 notes2.md
-rw-rw-r-- 1 mauricio mauricio 90K Feb 23 19:36 notes2.pdf
-rw-rw-r-- 1 mauricio mauricio 1 Feb 23 19:36 notes~HEAD
-rw-rw-r-- 1 mauricio mauricio 772K Feb 10 21:25 SlackScreenshot.png
drwxrwxr-x 5 mauricio mauricio 4.0K Feb 24 21:17 'week reports'
mauricio@cis106vm:~/cis106/lab/lab4$
```