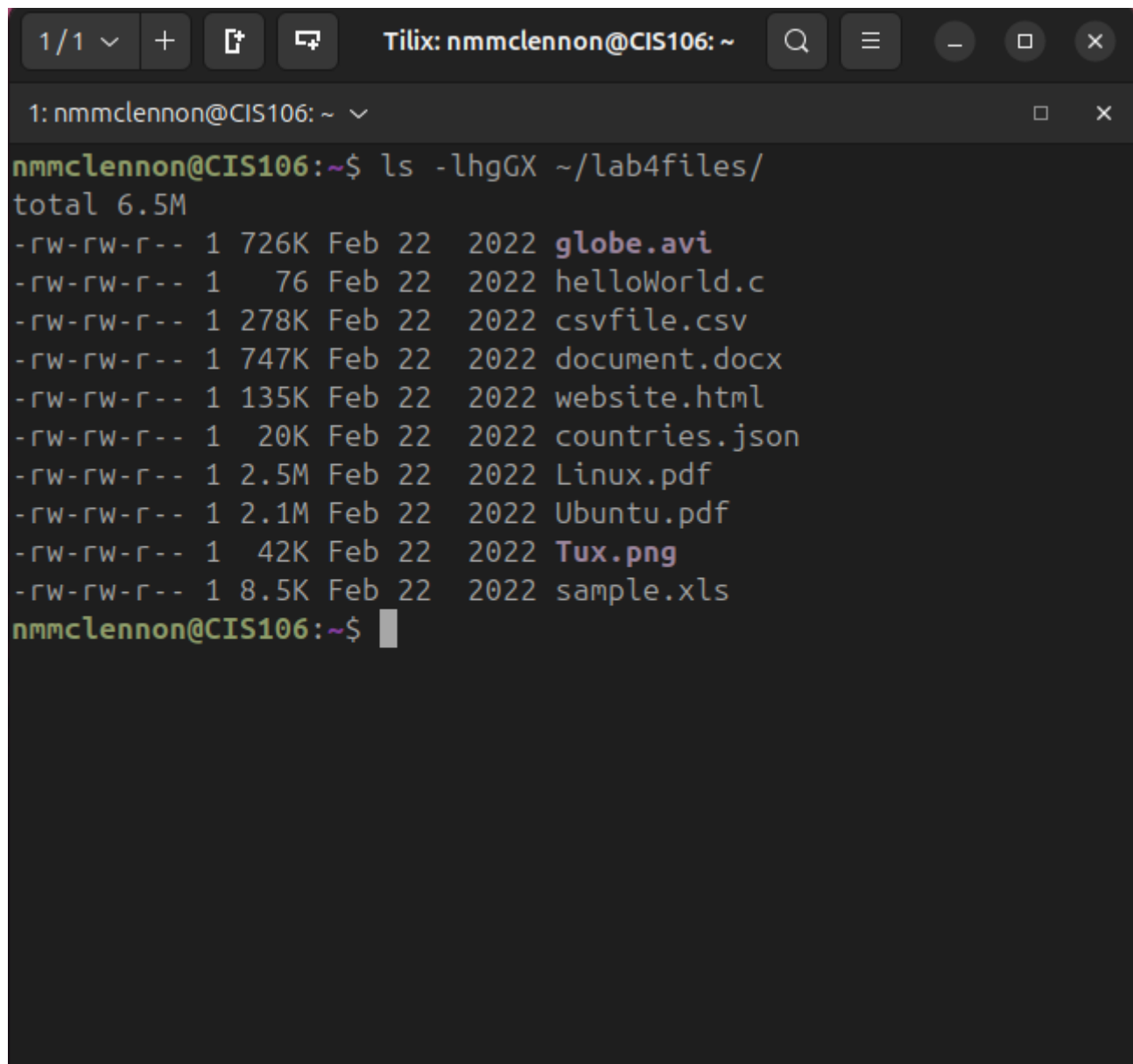


Lab 4

Question 1

```
nmmclennon@CIS106:~$ ls -lhGX ~/lab4files/
total 6.5M
-rw-rw-r-- 1 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 135K Feb 22 2022 website.html
-rw-rw-r-- 1 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 8.5K Feb 22 2022 sample.xls
nmmclennon@CIS106:~$ ls -lxXhg
total 2.2M
drwxrwxr-x 7 nmmclennon 4.0K Oct 13 17:03 cis106
drwxr-xr-x 2 nmmclennon 4.0K Sep 16 08:26 Desktop
drwxr-xr-x 2 nmmclennon 4.0K Sep 16 08:26 Documents
drwxr-xr-x 4 nmmclennon 4.0K Oct 14 14:09 Downloads
drwxrwxr-x 2 nmmclennon 4.0K Feb 22 2022 lab4files
drwxr-xr-x 2 nmmclennon 4.0K Sep 16 08:26 Music
drwxr-xr-x 3 nmmclennon 4.0K Oct 5 11:10 Pictures
drwxrwxr-x 2 nmmclennon 4.0K Feb 27 2022 practicels
drwxr-xr-x 2 nmmclennon 4.0K Sep 16 08:26 Public
drwxrwxr-x 2 nmmclennon 4.0K Oct 14 15:00 scripts
drwx----- 8 nmmclennon 4.0K Oct 5 13:56 snap
drwxr-xr-x 2 nmmclennon 4.0K Sep 16 08:26 Templates
drwxr-xr-x 2 nmmclennon 4.0K Sep 16 08:26 Videos
-rw-rw-r-- 1 nmmclennon 2.1K Sep 16 09:30 essentials.sh
-rw-rw-r-- 1 nmmclennon 1.8K Sep 16 09:31 libre.sh
-rw-rw-r-- 1 nmmclennon 2.0K Sep 16 09:31 vscode.sh
-rw-rw-r-- 1 nmmclennon 2.2M Oct 8 21:57 practicels.tar.xz
```

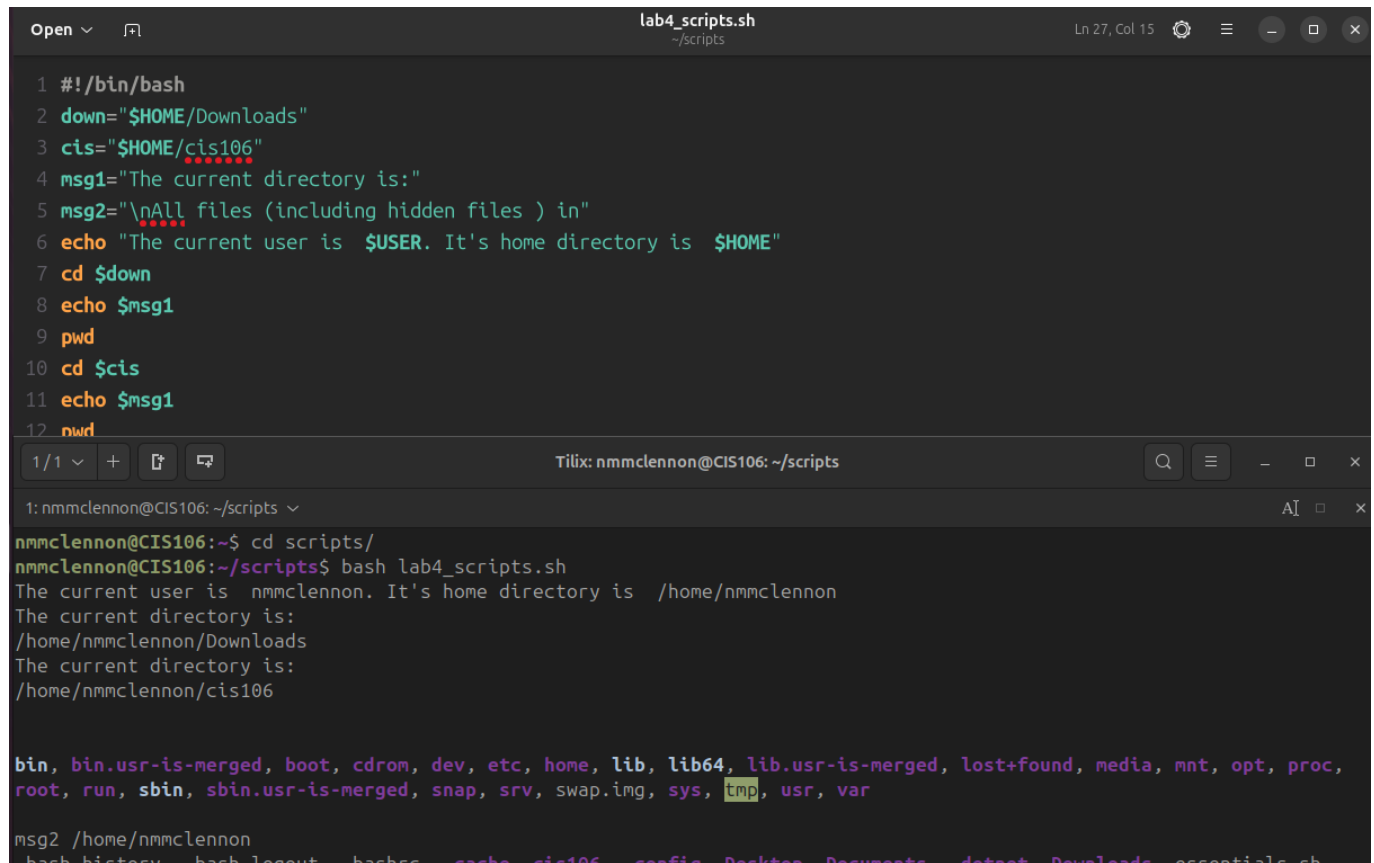
Question 2



A terminal window titled "Tilix: nmmclennon@CIS106: ~" showing the output of the command `ls -lhG ~lab4files/`. The output lists 10 files with their permissions, sizes, dates, and names. The files are: `globe.avi` (726K), `helloWorld.c` (76), `csvfile.csv` (278K), `document.docx` (747K), `website.html` (135K), `countries.json` (20K), `Linux.pdf` (2.5M), `Ubuntu.pdf` (2.1M), `Tux.png` (42K), and `sample.xls` (8.5K). The total size is 6.5M. The prompt is `nmmclennon@CIS106:~$`.

```
1/1  +  [icon] [icon] Tilix: nmmclennon@CIS106: ~  [search] [menu] [minus] [maximize] [close]
1: nmmclennon@CIS106: ~  [icon] [close]
nmmclennon@CIS106:~$ ls -lhGX ~/lab4files/
total 6.5M
-rw-rw-r-- 1 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 135K Feb 22 2022 website.html
-rw-rw-r-- 1 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 8.5K Feb 22 2022 sample.xls
nmmclennon@CIS106:~$
```

Question 3



```
Open  lab4_scripts.sh  Ln 27, Col 15
~/scripts

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  echo "The current user is $USER. It's home directory is $HOME"
7  cd $down
8  echo $msg1
9  pwd
10 cd $cis
11 echo $msg1
12 pwd

1/1  +  [?]  [?]  Tilix: nmmclennon@CIS106: ~/scripts  [Q]  [≡]  -  □  ×

1: nmmclennon@CIS106: ~/scripts  AI  □  ×

nmmclennon@CIS106:~$ cd scripts/
nmmclennon@CIS106:~/scripts$ bash lab4_scripts.sh
The current user is nmmclennon. It's home directory is /home/nmmclennon
The current directory is:
/home/nmmclennon/Downloads
The current directory is:
/home/nmmclennon/cis106

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

msg2 /home/nmmclennon
bash history  bash logout  bashrc  cache  cis106  config  Desktop  Documents  dotnet  Downloads  essentials.sh
```

Challenge Question 4

Script Source Code

```
1: nmmclennon@CIS106: ~/scripts ▾  
nmmclennon@CIS106:~/scripts$ bash challenge_question4.sh  
Changing to: /home/nmmclennon  
Changing to: /home/nmmclennon  
Current PWD: /home/nmmclennon/Videos  
Previous PWD: /home/nmmclennon/Pictures  
Long list of /home/nmmclennon  
total 1504  
drwxrwxr-x 2 nmmclennon nmmclennon 4096 Oct 5 11:03 cheatsheets  
-rw-rw-r-- 1 nmmclennon nmmclennon 106453 Sep 16 11:19 'github pic.png'  
-rw-rw-r-- 1 nmmclennon nmmclennon 1497 Sep 16 11:19 johndoeinfo.txt  
-rw-rw-r-- 1 nmmclennon nmmclennon 3824 Sep 16 11:19 johndoe.jpeg  
drwxrwxr-x 6 nmmclennon nmmclennon 4096 Oct 13 15:15 labs  
drwxrwxr-x 5 nmmclennon nmmclennon 4096 Oct 13 17:03 notes  
-rw-rw-r-- 1 nmmclennon nmmclennon 817 Sep 16 11:19 notes1.md  
-rw-rw-r-- 1 nmmclennon nmmclennon 39934 Sep 16 11:19 notes1.pdf  
-rw-rw-r-- 1 nmmclennon nmmclennon 469 Sep 16 11:19 resume.md  
-rw-rw-r-- 1 nmmclennon nmmclennon 38149 Sep 16 11:19 resume.pdf  
-rw-rw-r-- 1 nmmclennon nmmclennon 236541 Sep 16 11:19 resume.png  
-rw-rw-r-- 1 nmmclennon nmmclennon 362167 Sep 16 11:19 slack.png  
-rw-rw-r-- 1 nmmclennon nmmclennon 120441 Sep 16 11:19 UbuntuDesktop.png  
-rw-rw-r-- 1 nmmclennon nmmclennon 0 Sep 16 11:19 ubuntu.html  
-rw-rw-r-- 1 nmmclennon nmmclennon 5515 Sep 16 11:19 UbuntuLogo.svg  
-rw-rw-r-- 1 nmmclennon nmmclennon 2562 Sep 16 11:19 ubuntu.md  
-rw-rw-r-- 1 nmmclennon nmmclennon 201522 Sep 16 11:19 ubuntu.pdf  
-rw-rw-r-- 1 nmmclennon nmmclennon 2119 Sep 16 11:19 ubuntu.txt  
drwxrwxr-x 5 nmmclennon nmmclennon 4096 Oct 13 15:05 WeekReports  
-rw-rw-r-- 1 nmmclennon nmmclennon 221 Sep 16 11:19 wr1.md  
-rw-rw-r-- 1 nmmclennon nmmclennon 366481 Sep 16 11:19 wr1.pdf  
nmmclennon@CIS106:~/scripts$
```