

lab 4 Submission

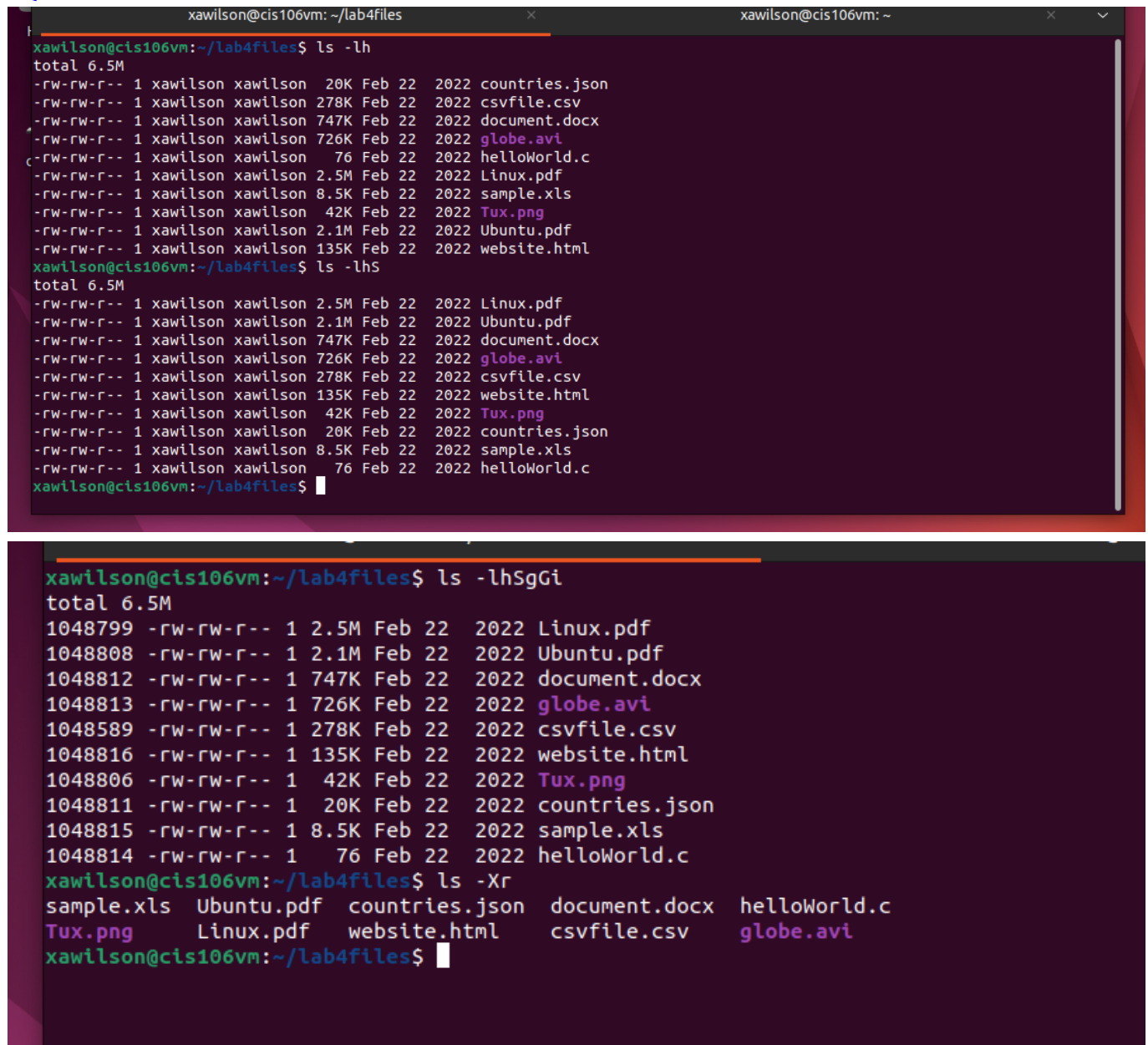
Q.1

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

```
xawilson@cis106vm: ~/Documents
xawilson@cis106vm:~$ pwd
/home/xawilson
xawilson@cis106vm:~$ cd Downloads/
xawilson@cis106vm:~/Downloads$ cd ../../
xawilson@cis106vm:/home$ pwd
/home
xawilson@cis106vm:/home$ ls
xawilson
xawilson@cis106vm:/home$ cd xawilson/
.cache/   Desktop/  .gnupg/   Pictures/  snap/     Videos/
cis-106/  Documents/ .local/   .pki/     .ssh/     .vscode/
.config/  Downloads/ Music/    Public/   Templates/ xawilson/
xawilson@cis106vm:/home$ cd xawilson/Documents/
xawilson@cis106vm:~/Documents$ pwd
/home/xawilson/Documents
xawilson@cis106vm:~/Documents$
```

Q.2

1Q2



The image shows two terminal windows from a VM named 'xawilson@cis106vm'. The first window shows the output of 'ls -lh' and 'ls -lhs' commands, listing files like countries.json, csvfile.csv, document.docx, globe.avi, helloWorld.c, Linux.pdf, sample.xls, Tux.png, Ubuntu.pdf, and website.html. The second window shows the output of 'ls -lhSgGi' and 'ls -Xr' commands, providing a more detailed view of the same files, including permissions, sizes, and group IDs.

```
xawilson@cis106vm: ~/lab4files
xawilson@cis106vm:~/lab4files$ ls -lh
total 6.5M
-rw-rw-r-- 1 xawilson xawilson 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 xawilson xawilson 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 xawilson xawilson 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 xawilson xawilson 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 xawilson xawilson 76 Feb 22 2022 helloWorld.c
-rw-rw-r-- 1 xawilson xawilson 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 xawilson xawilson 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 xawilson xawilson 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 xawilson xawilson 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 xawilson xawilson 135K Feb 22 2022 website.html
xawilson@cis106vm:~/lab4files$ ls -lhs
total 6.5M
-rw-rw-r-- 1 xawilson xawilson 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 xawilson xawilson 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 xawilson xawilson 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 xawilson xawilson 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 xawilson xawilson 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 xawilson xawilson 135K Feb 22 2022 website.html
-rw-rw-r-- 1 xawilson xawilson 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 xawilson xawilson 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 xawilson xawilson 8.5K Feb 22 2022 sample.xls
-rw-rw-r-- 1 xawilson xawilson 76 Feb 22 2022 helloWorld.c
xawilson@cis106vm:~/lab4files$

xawilson@cis106vm:~/lab4files$ ls -lhSgGi
total 6.5M
1048799 -rw-rw-r-- 1 2.5M Feb 22 2022 Linux.pdf
1048808 -rw-rw-r-- 1 2.1M Feb 22 2022 Ubuntu.pdf
1048812 -rw-rw-r-- 1 747K Feb 22 2022 document.docx
1048813 -rw-rw-r-- 1 726K Feb 22 2022 globe.avi
1048589 -rw-rw-r-- 1 278K Feb 22 2022 csvfile.csv
1048816 -rw-rw-r-- 1 135K Feb 22 2022 website.html
1048806 -rw-rw-r-- 1 42K Feb 22 2022 Tux.png
1048811 -rw-rw-r-- 1 20K Feb 22 2022 countries.json
1048815 -rw-rw-r-- 1 8.5K Feb 22 2022 sample.xls
1048814 -rw-rw-r-- 1 76 Feb 22 2022 helloWorld.c
xawilson@cis106vm:~/lab4files$ ls -Xr
sample.xls  Ubuntu.pdf  countries.json  document.docx  helloWorld.c
Tux.png    Linux.pdf   website.html   csvfile.csv    globe.avi
xawilson@cis106vm:~/lab4files$
```

Q.3

```

xawilson@cis106vm: ~/Downloads
xawilson@cis106vm:/etc$ tree ~/lab4files/
/home/xawilson/lab4files/
├── countries.json
├── csvfile.csv
├── document.docx
├── globe.avi
├── helloWorld.c
├── Linux.pdf
├── sample.xls
├── Tux.png
├── Ubuntu.pdf
└── website.html

0 directories, 10 files
xawilson@cis106vm:/etc$ cd ~/Downloads/
xawilson@cis106vm:~/Downloads$ tree -fph ../lab4files/
[drwxrwxr-x 4.0K] ../lab4files
├── [-rw-rw-r-- 20K] ../lab4files/countries.json
├── [-rw-rw-r-- 277K] ../lab4files/csvfile.csv
├── [-rw-rw-r-- 746K] ../lab4files/document.docx
├── [-rw-rw-r-- 725K] ../lab4files/globe.avi
├── [-rw-rw-r-- 76] ../lab4files/helloWorld.c
├── [-rw-rw-r-- 2.5M] ../lab4files/Linux.pdf
├── [-rw-rw-r-- 8.5K] ../lab4files/sample.xls
├── [-rw-rw-r-- 42K] ../lab4files/Tux.png
├── [-rw-rw-r-- 2.0M] ../lab4files/Ubuntu.pdf
└── [-rw-rw-r-- 134K] ../lab4files/website.html

0 directories, 10 files
xawilson@cis106vm:~/Downloads$

```

```

xawilson@cis106vm: ~/Downloads
xawilson@cis106vm:~/Downloads$ tree -tug ../lab4files/
[xawilson xawilson] ../lab4files/
├── [xawilson xawilson] Linux.pdf
├── [xawilson xawilson] Tux.png
├── [xawilson xawilson] Ubuntu.pdf
├── [xawilson xawilson] sample.xls
├── [xawilson xawilson] globe.avi
├── [xawilson xawilson] document.docx
├── [xawilson xawilson] csvfile.csv
├── [xawilson xawilson] countries.json
├── [xawilson xawilson] website.html
└── [xawilson xawilson] helloWorld.c

0 directories, 10 files
xawilson@cis106vm:~/Downloads$ exa help
"help": No such file or directory (os error 2)
xawilson@cis106vm:~/Downloads$ exa --help
Usage:
  exa [options] [files...]

META OPTIONS
  -?, --help          show list of command-line options
  -v, --version       show version of exa

DISPLAY OPTIONS
  -1, --online        display one entry per line
  -l, --long          display extended file metadata as a table

```

```
■ -G, --grid      display entries as a grid (default)
■ -x, --across    sort the grid across, rather than downwards
```

```

xawilson@cis106vm: ~/Downloads

xawilson@cis106vm:~/Downloads$ exa ~/lab4files/ -l
.rw-rw-r-- 20k xawilson 22 Feb 14:16 countries.json
.rw-rw-r-- 284k xawilson 22 Feb 14:15 csvfile.csv
.rw-rw-r-- 764k xawilson 22 Feb 14:13 document.docx
.rw-rw-r-- 742k xawilson 22 Feb 14:12 globe.avi
.rw-rw-r-- 76 xawilson 22 Feb 14:18 helloWorld.c
.rw-rw-r-- 2.6M xawilson 22 Feb 14:10 Linux.pdf
.rw-rw-r-- 8.7k xawilson 22 Feb 14:12 sample.xls
.rw-rw-r-- 43k xawilson 22 Feb 14:10 Tux.png
.rw-rw-r-- 2.1M xawilson 22 Feb 14:11 Ubuntu.pdf
.rw-rw-r-- 137k xawilson 22 Feb 14:16 website.html
xawilson@cis106vm:~/Downloads$ exa ~/lab4files/ -lh
Permissions Size User      Date Modified Name
.rw-rw-r-- 20k xawilson 22 Feb 14:16 countries.json
.rw-rw-r-- 284k xawilson 22 Feb 14:15 csvfile.csv
.rw-rw-r-- 764k xawilson 22 Feb 14:13 document.docx
.rw-rw-r-- 742k xawilson 22 Feb 14:12 globe.avi
.rw-rw-r-- 76 xawilson 22 Feb 14:18 helloWorld.c
.rw-rw-r-- 2.6M xawilson 22 Feb 14:10 Linux.pdf
.rw-rw-r-- 8.7k xawilson 22 Feb 14:12 sample.xls
.rw-rw-r-- 43k xawilson 22 Feb 14:10 Tux.png
.rw-rw-r-- 2.1M xawilson 22 Feb 14:11 Ubuntu.pdf
.rw-rw-r-- 137k xawilson 22 Feb 14:16 website.html
xawilson@cis106vm:~/Downloads$

```

```

xawilson@cis106vm:~/Downloads$ exa ~/lab4files/ -lh
Permissions Size User      Date Modified Name
.rw-rw-r-- 20k xawilson 22 Feb 14:16 countries.json
.rw-rw-r-- 284k xawilson 22 Feb 14:15 csvfile.csv
.rw-rw-r-- 764k xawilson 22 Feb 14:13 document.docx
.rw-rw-r-- 742k xawilson 22 Feb 14:12 globe.avi
.rw-rw-r-- 76 xawilson 22 Feb 14:18 helloWorld.c
.rw-rw-r-- 2.6M xawilson 22 Feb 14:10 Linux.pdf
.rw-rw-r-- 8.7k xawilson 22 Feb 14:12 sample.xls
.rw-rw-r-- 43k xawilson 22 Feb 14:10 Tux.png
.rw-rw-r-- 2.1M xawilson 22 Feb 14:11 Ubuntu.pdf
.rw-rw-r-- 137k xawilson 22 Feb 14:16 website.html
xawilson@cis106vm:~/Downloads$ exa ~/lab4files/ -lh --no-user -u
Permissions Size Date Accessed Name
.rw-rw-r-- 20k 22 Feb 14:16 countries.json
.rw-rw-r-- 284k 22 Feb 14:15 csvfile.csv
.rw-rw-r-- 764k 22 Feb 14:13 document.docx
.rw-rw-r-- 742k 22 Feb 14:12 globe.avi
.rw-rw-r-- 76 22 Feb 14:18 helloWorld.c
.rw-rw-r-- 2.6M 22 Feb 14:10 Linux.pdf
.rw-rw-r-- 8.7k 22 Feb 14:12 sample.xls
.rw-rw-r-- 43k 22 Feb 14:10 Tux.png
.rw-rw-r-- 2.1M 22 Feb 14:11 Ubuntu.pdf
.rw-rw-r-- 137k 22 Feb 14:16 website.html
xawilson@cis106vm:~/Downloads$

```