

# Completed Lab 5

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## Question 1

```
1: roderick@RsLinux: /dev/cpu/0 ~
roderick@RsLinux:~$ pwd /home/roderick
/home/roderick
roderick@RsLinux:~$ cd /usr/share/themes
roderick@RsLinux:/usr/share/themes$ pwd /usr/share/themes
/usr/share/themes
roderick@RsLinux:/usr/share/themes$ cd /dev/cpu/0
roderick@RsLinux:/dev/cpu/0$ |
```

```
1: roderick@RsLinux: ~/Documents ▾
roderick@RsLinux:/dev/cpu/0$ cd
roderick@RsLinux:~$ cd Downloads/
roderick@RsLinux:~/Downloads$ cd ../../..
roderick@RsLinux:/home$ pwd
/home
roderick@RsLinux:/home$ cd roderick/ Documents/
bash: cd: too many arguments
roderick@RsLinux:/home$ cd roderick/Documents/
roderick@RsLinux:~/Documents$ |
```

## Question 2

Tilix: roderick@RsLinux: ~/lab5files

```

1: roderick@RsLinux: ~/lab5files
roderick@RsLinux:~$ cd /usr/share
roderick@RsLinux:/usr/share$ ls -A ~/lab5files
countries.json  document.docx  helloWorld.c  sample.xls  Ubuntu.pdf
csvfile.csv      globe.avi     Linux.pdf    Tux.png    website.html
roderick@RsLinux:/usr/share$ cd ~/lab5files/
roderick@RsLinux:~/lab5files$ ls -lh
total 6.5M
-rw-rw-r-- 1 roderick roderick 20K Feb 22 2022 countries.json
-rw-rw-r-- 1 roderick roderick 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 roderick roderick 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 roderick roderick 726K Feb 22 2022 globe.avi

2: roderick@RsLinux: ~
-w, --width=COLS           set output width to COLS. 0 means no limit
-x                          list entries by lines instead of by columns
-X                          sort alphabetically by entry extension
-Z, --context               print any security context of each file
--zero                      end each output line with NUL, not newline
-1                          list one file per line
--help                       display this help and exit
--version                    output version information and exit

The SIZE argument is an integer and optional unit (example: 10K is 10*1024).
Units are K,M,G,T,P,E,Z,Y,R,Q (powers of 1024) or KB,MB,... (powers of 1000).

```

Tilix: roderick@RsLinux: ~

```

1: roderick@RsLinux: ~/lab5files
-rw-rw-r-- 1 roderick roderick 135K Feb 22 2022 website.html
roderick@RsLinux:~/lab5files$ ls -lhS
total 6.5M
-rw-rw-r-- 1 roderick roderick 2.5M Feb 22 2022 Linux.pdf
-rw-rw-r-- 1 roderick roderick 2.1M Feb 22 2022 Ubuntu.pdf
-rw-rw-r-- 1 roderick roderick 747K Feb 22 2022 document.docx
-rw-rw-r-- 1 roderick roderick 726K Feb 22 2022 globe.avi
-rw-rw-r-- 1 roderick roderick 278K Feb 22 2022 csvfile.csv
-rw-rw-r-- 1 roderick roderick 135K Feb 22 2022 website.html
-rw-rw-r-- 1 roderick roderick 42K Feb 22 2022 Tux.png
-rw-rw-r-- 1 roderick roderick 20K Feb 22 2022 countries.json

2: roderick@RsLinux: ~
literal, locale, shell, shell-always,
shell-escape, shell-escape-always, c, escape
(overrides QUOTING_STYLE environment variable)

-r, --reverse                reverse order while sorting
-R, --recursive              list subdirectories recursively
-s, --size                   print the allocated size of each file, in blocks
-S                          sort by file size, largest first
--sort=WORD                  change default 'name' sort to WORD:
                            none (-U), size (-S), time (-t),
                            version (-v), extension (-X), name, width

```

```
1: roderick@RsLinux: ~/lab5files ~
-rw-rw-r-- 1 roderick roderick 76 Feb 22 2022 helloWorld.c
roderick@RsLinux:~/lab5files$ ls -lshGg
total 6.5M
20K -rw-rw-r-- 1 20K Feb 22 2022 countries.json
280K -rw-rw-r-- 1 278K Feb 22 2022 csvfile.csv
748K -rw-rw-r-- 1 747K Feb 22 2022 document.docx
728K -rw-rw-r-- 1 726K Feb 22 2022 globe.avi
4.0K -rw-rw-r-- 1 76 Feb 22 2022 helloWorld.c
2.5M -rw-rw-r-- 1 2.5M Feb 22 2022 Linux.pdf
12K -rw-rw-r-- 1 8.5K Feb 22 2022 sample.xls
44K -rw-rw-r-- 1 42K Feb 22 2022 Tux.png

2: roderick@RsLinux: ~
literal, locale, shell, shell-always,
shell-escape, shell-escape-always, c, escape
(overrides QUOTING_STYLE environment variable)

-r, --reverse
-R, --recursive
-s, --size
-S
--sort=WORD
reverse order while sorting
list subdirectories recursively
print the allocated size of each file, in blocks
sort by file size, largest first
change default 'name' sort to WORD:
    none (-U), size (-S), time (-t),
    version (-v), extension (-X), name, width
```

```
1: roderick@RsLinux: ~/lab5files ~
136K -rw-rw-r-- 1 135K Feb 22 2022 website.html
roderick@RsLinux:~/lab5files$ ls -lhSGgi
total 6.5M
654156 -rw-rw-r-- 1 2.5M Feb 22 2022 Linux.pdf
654158 -rw-rw-r-- 1 2.1M Feb 22 2022 Ubuntu.pdf
654161 -rw-rw-r-- 1 747K Feb 22 2022 document.docx
654162 -rw-rw-r-- 1 726K Feb 22 2022 globe.avi
654160 -rw-rw-r-- 1 278K Feb 22 2022 csvfile.csv
654165 -rw-rw-r-- 1 135K Feb 22 2022 website.html
654157 -rw-rw-r-- 1 42K Feb 22 2022 Tux.png
654159 -rw-rw-r-- 1 20K Feb 22 2022 countries.json

2: roderick@RsLinux: ~
0 if OK,
1 if minor problems (e.g., cannot access subdirectory),
2 if serious trouble (e.g., cannot access command-line argument).

GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
Full documentation <https://www.gnu.org/software/coreutils/ls>
or available locally via: info '(coreutils) ls invocation'
roderick@RsLinux:~$ /sort
bash: /sort: No such file or directory
roderick@RsLinux:~$ |
```

The screenshot shows a terminal window titled "Tilix: roderick@RsLinux: ~". The window has two tabs:

- Tab 1:** Displays a file listing from the directory "/lab5files". The files listed are:
  - 654162 -rw-rw-r-- 1 726K Feb 22 2022 globe.avi
  - 654160 -rw-rw-r-- 1 278K Feb 22 2022 csvfile.csv
  - 654165 -rw-rw-r-- 1 135K Feb 22 2022 website.html
  - 654157 -rw-rw-r-- 1 42K Feb 22 2022 Tux.png
  - 654159 -rw-rw-r-- 1 20K Feb 22 2022 countries.json
  - 654164 -rw-rw-r-- 1 8.5K Feb 22 2022 sample.xls
  - 654163 -rw-rw-r-- 1 76 Feb 22 2022 helloWorld.cThe command run is `roderick@RsLinux:~/lab5files$ ls -Xr`.
- Tab 2:** Displays the help output for the "ls" command. It includes:
  - 0 if OK,
  - 1 if minor problems (e.g., cannot access subdirectory),
  - 2 if serious trouble (e.g., cannot access command-line argument).It also provides links to online help and full documentation, and information about local availability via info. The command run is `roderick@RsLinux:~$ /sort`.

## Question 3

Tilix: roderick@RsLinux: ~/marstenHouse

```
1: roderick@RsLinux: ~/marstenHouse
roderick@RsLinux:~/marstenHouse$ cd marstenHouse
roderick@RsLinux:~/marstenHouse$ ls
kitchen
roderick@RsLinux:~/marstenHouse$ pwd
/home/roderick/marstenHouse
roderick@RsLinux:~/marstenHouse$ ls -a
. .. .key5 kitchen
roderick@RsLinux:~/marstenHouse$ realpath ".key5"
/home/roderick/marstenHouse/.key5
roderick@RsLinux:~/marstenHouse$ |
```

...rick@RsLinux: ~/marstenHouse/kitchen/dining\_room/basement

```
1: roderick@RsLinux: ~/marstenHouse/kitchen/dining_room/basement
roderick@RsLinux:~/marstenHouse$ ls -a
. .. .key5 kitchen
roderick@RsLinux:~/marstenHouse$ realpath ".key5"
/home/roderick/marstenHouse/.key5
roderick@RsLinux:~/marstenHouse$ cd kitchen
roderick@RsLinux:~/marstenHouse/kitchen$ ls
dining_room
roderick@RsLinux:~/marstenHouse/kitchen$ ls -a
. .. dining_room .key2
roderick@RsLinux:~/marstenHouse/kitchen$ realpath ".key2"
/home/roderick/marstenHouse/kitchen/.key2
roderick@RsLinux:~/marstenHouse/kitchen$ cd dining_room/
roderick@RsLinux:~/marstenHouse/kitchen/dining_room$ ls -a
. .. basement dining_room .key4 library master_bedroom
roderick@RsLinux:~/marstenHouse/kitchen/dining_room$ realpath ".key4"
/home/roderick/marstenHouse/kitchen/dining_room/.key4
roderick@RsLinux:~/marstenHouse/kitchen/dining_room$ cd basement/
roderick@RsLinux:~/marstenHouse/kitchen/dining_room/basement$ ls -a
. .. .key1 .key3
roderick@RsLinux:~/marstenHouse/kitchen/dining_room/basement$ realpath ".key1"
/home/roderick/marstenHouse/kitchen/dining_room/basement/.key1
roderick@RsLinux:~/marstenHouse/kitchen/dining_room/basement$ realpath ".key3"
/home/roderick/marstenHouse/kitchen/dining_room/basement/.key3
roderick@RsLinux:~/marstenHouse/kitchen/dining_room/basement$ |
```

```
1: roderick@RsLinux: ~/marstenHouse
/home/roderick/marstenHouse/kitchen/dining_room/basement/.key1
roderick@RsLinux:~/marstenHouse/kitchen/dining_room/basement$ realpath ".key3"
/home/roderick/marstenHouse/kitchen/dining_room/basement/.key3
roderick@RsLinux:~/marstenHouse/kitchen/dining_room/basement$ cd marstenHouse
bash: cd: marstenHouse: No such file or directory
roderick@RsLinux:~/marstenHouse/kitchen/dining_room/basement$ ../../..
bash: ../../..: Is a directory
roderick@RsLinux:~/marstenHouse/kitchen/dining_room/basement$ cd ../../..
roderick@RsLinux:~/marstenHouse$ tree -a
.
└── .key5
    ├── kitchen
    │   ├── dining_room
    │   │   ├── basement
    │   │   │   ├── .key1
    │   │   │   └── .key3
    │   │   ├── dining_room
    │   │   │   ├── .key4
    │   │   │   ├── library
    │   │   │   └── master_bedroom
    │   │   └── .key2
    └── .key2
7 directories, 5 files
roderick@RsLinux:~/marstenHouse$ |
```