

# lab 4

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## question 1

Directory	Function
bin	essential commands
dev	device files
etc	system configuration files
home	user home directories
media	mount point
opt	add-on software packages
proc	kernel information,process control,system hardware information
srv	info relating to service
usr	software not essential
var	dedicated to variable data

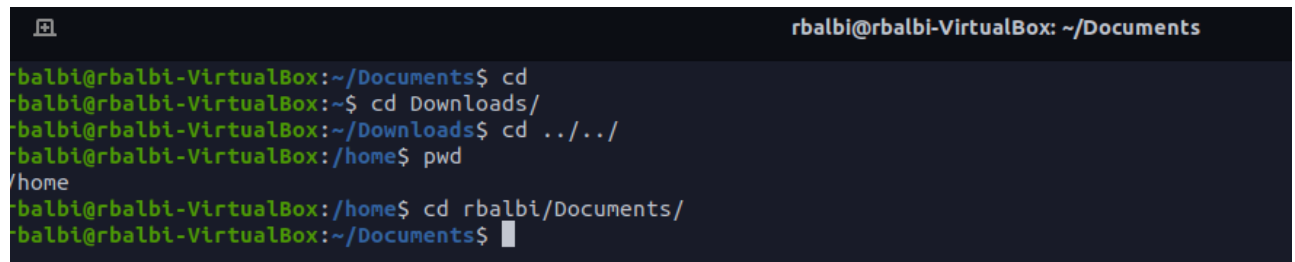
## table 2

command	description	syntax	example
cd	change directory	cd ~	cd ../
pwd	current directory	pwd	pwd
ls	list content of directory	ls -a	list all files inside a given directory

## question 2

- pwd command :used for displaying the current working directory
- cd command : used for changing the current directory

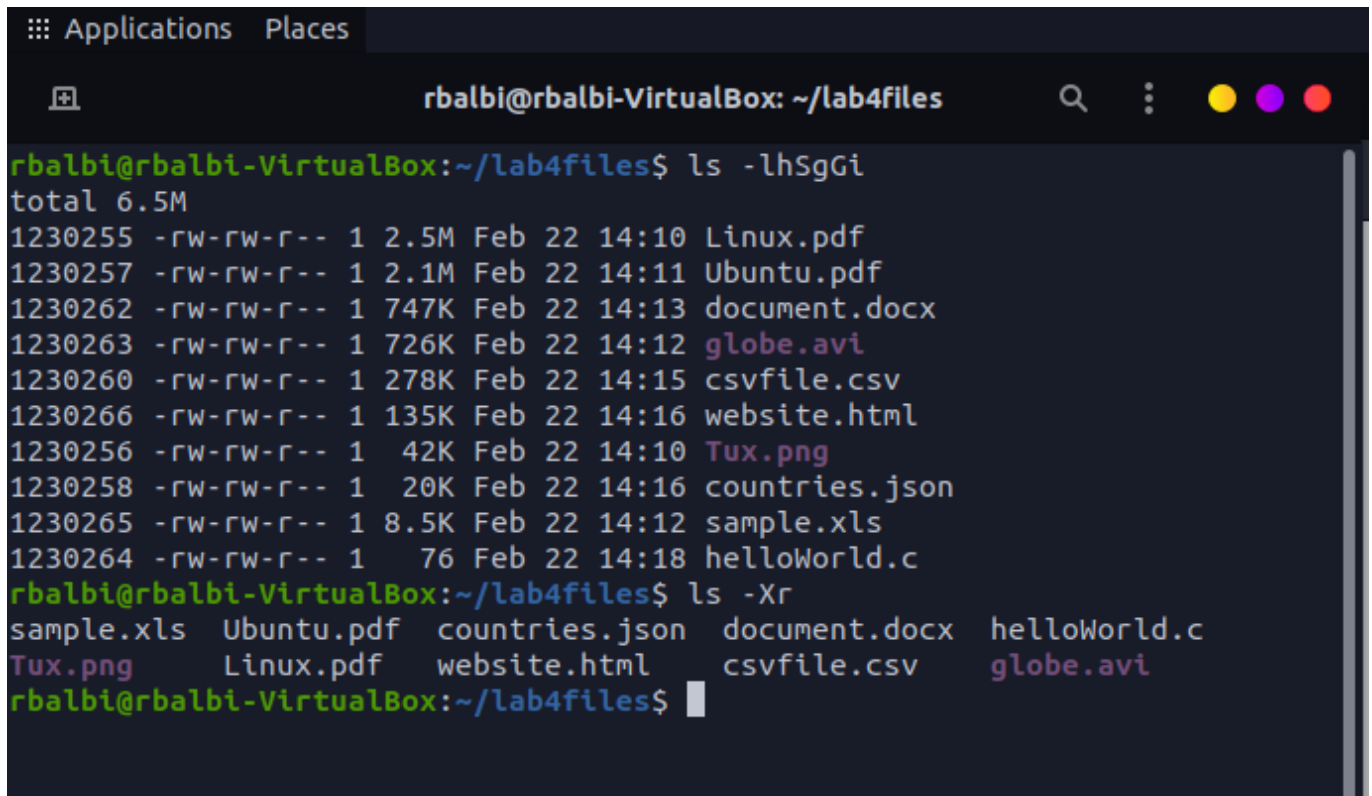
```
rbalbi@rbalbi-VirtualBox: /etc/firefox$  
rbalbi@rbalbi-VirtualBox:~$ pwd  
/home/rbalbi  
rbalbi@rbalbi-VirtualBox:~$ cd /usr/share/themes/  
rbalbi@rbalbi-VirtualBox:/usr/share/themes$ pwd  
/usr/share/themes  
rbalbi@rbalbi-VirtualBox:/usr/share/themes$ cd /  
rbalbi@rbalbi-VirtualBox:/$ cd /etc/firefox/  
rbalbi@rbalbi-VirtualBox:/etc/firefox$
```



```
rbalbi@rbalbi-VirtualBox: ~/Documents  
rbalbi@rbalbi-VirtualBox:~/Documents$ cd  
rbalbi@rbalbi-VirtualBox:~$ cd Downloads/  
rbalbi@rbalbi-VirtualBox:~/Downloads$ cd ../../  
rbalbi@rbalbi-VirtualBox:/home$ pwd  
/home  
rbalbi@rbalbi-VirtualBox:/home$ cd rbalbi/Documents/  
rbalbi@rbalbi-VirtualBox:~/Documents$
```

question 3

```
balbi@rbalbi-VirtualBox:/usr/share$ ls home/rbalbi/lab4files/
ls: cannot access 'home/rbalbi/lab4files/': No such file or directory
balbi@rbalbi-VirtualBox:/usr/share$ ls /home/rbalbi/lab4files/
countries.json  document.docx  helloWorld.c  sample.xls  Ubuntu.pdf
csvfile.csv     globe.avi      Linux.pdf     Tux.png     website.html
balbi@rbalbi-VirtualBox:/usr/share$ cd ~/lab4files/
balbi@rbalbi-VirtualBox:~/lab4files$ ls -lh
total 6.5M
-rw-rw-r-- 1 rbalbi rbalbi 20K Feb 22 14:16 countries.json
-rw-rw-r-- 1 rbalbi rbalbi 278K Feb 22 14:15 csvfile.csv
-rw-rw-r-- 1 rbalbi rbalbi 747K Feb 22 14:13 document.docx
-rw-rw-r-- 1 rbalbi rbalbi 726K Feb 22 14:12 globe.avi
-rw-rw-r-- 1 rbalbi rbalbi 76 Feb 22 14:18 helloWorld.c
-rw-rw-r-- 1 rbalbi rbalbi 2.5M Feb 22 14:10 Linux.pdf
-rw-rw-r-- 1 rbalbi rbalbi 8.5K Feb 22 14:12 sample.xls
-rw-rw-r-- 1 rbalbi rbalbi 42K Feb 22 14:10 Tux.png
-rw-rw-r-- 1 rbalbi rbalbi 2.1M Feb 22 14:11 Ubuntu.pdf
-rw-rw-r-- 1 rbalbi rbalbi 135K Feb 22 14:16 website.html
balbi@rbalbi-VirtualBox:~/lab4files$ ls -lhs
total 6.5M
-rw-rw-r-- 1 rbalbi rbalbi 2.5M Feb 22 14:10 Linux.pdf
-rw-rw-r-- 1 rbalbi rbalbi 2.1M Feb 22 14:11 Ubuntu.pdf
-rw-rw-r-- 1 rbalbi rbalbi 747K Feb 22 14:13 document.docx
-rw-rw-r-- 1 rbalbi rbalbi 726K Feb 22 14:12 globe.avi
-rw-rw-r-- 1 rbalbi rbalbi 278K Feb 22 14:15 csvfile.csv
-rw-rw-r-- 1 rbalbi rbalbi 135K Feb 22 14:16 website.html
-rw-rw-r-- 1 rbalbi rbalbi 42K Feb 22 14:10 Tux.png
-rw-rw-r-- 1 rbalbi rbalbi 20K Feb 22 14:16 countries.json
-rw-rw-r-- 1 rbalbi rbalbi 8.5K Feb 22 14:12 sample.xls
-rw-rw-r-- 1 rbalbi rbalbi 76 Feb 22 14:18 helloWorld.c
balbi@rbalbi-VirtualBox:~/lab4files$
```



```
Applications  Places
rbalbi@rbalbi-VirtualBox: ~/lab4files
rbalbi@rbalbi-VirtualBox:~/lab4files$ ls -lhSgGi
total 6.5M
1230255 -rw-rw-r-- 1 2.5M Feb 22 14:10 Linux.pdf
1230257 -rw-rw-r-- 1 2.1M Feb 22 14:11 Ubuntu.pdf
1230262 -rw-rw-r-- 1 747K Feb 22 14:13 document.docx
1230263 -rw-rw-r-- 1 726K Feb 22 14:12 globe.avi
1230260 -rw-rw-r-- 1 278K Feb 22 14:15 csvfile.csv
1230266 -rw-rw-r-- 1 135K Feb 22 14:16 website.html
1230256 -rw-rw-r-- 1 42K Feb 22 14:10 Tux.png
1230258 -rw-rw-r-- 1 20K Feb 22 14:16 countries.json
1230265 -rw-rw-r-- 1 8.5K Feb 22 14:12 sample.xls
1230264 -rw-rw-r-- 1 76 Feb 22 14:18 helloWorld.c
rbalbi@rbalbi-VirtualBox:~/lab4files$ ls -Xr
sample.xls  Ubuntu.pdf  countries.json  document.docx  helloWorld.c
Tux.png     Linux.pdf   website.html    csvfile.csv    globe.avi
rbalbi@rbalbi-VirtualBox:~/lab4files$
```

question 4

```
rbalbi@rbalbi-VirtualBox:~/lab4files$ cd /etc/  
rbalbi@rbalbi-VirtualBox:/etc$ tree ~/lab4files/  
/home/rbalbi/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  
rbalbi@rbalbi-VirtualBox:/etc$
```

```
rbalbi@rbalbi-VirtualBox:~/Downloads$ tree ../lab4files/ -XJ  
<?xml version="1.0" encoding="UTF-8"?>  
<tree>  
  <directory name="../lab4files/">  
    <file name="countries.json"></file>  
    <file name="csvfile.csv"></file>  
    <file name="document.docx"></file>  
    <file name="globe.avi"></file>  
    <file name="helloWorld.c"></file>  
    <file name="Linux.pdf"></file>  
    <file name="sample.xls"></file>  
    <file name="Tux.png"></file>  
    <file name="Ubuntu.pdf"></file>  
    <file name="website.html"></file>  
  </directory>  
  ]} <report>  
    <directories>0</directories>  
    <files>10</files>  
  </report>  
</tree>  
rbalbi@rbalbi-VirtualBox:~/Downloads$
```

question 5

```

rbalbi@rbalbi-VirtualBox: ~/Downloads x
rbalbi@rbalbi-VirtualBox: ~/Downloads x
rbalbi@rbalbi-VirtualBox:~/Downloads$ exa --help
Usage:
  exa [options] [files...]

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

DISPLAY OPTIONS
  -l, --oneline       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
  -R, --recurse       recurse into directories
  -T, --tree          recurse into directories as a tree
  -F, --classify      display type indicator by file names
  --colo[u]r=WHEN    when to use terminal colours (always, auto, never)
  --colo[u]r-scale    highlight levels of file sizes distinctly
  --icons             display icons
  --no-icons          don't display icons (always overrides --icons)

FILTERING AND SORTING OPTIONS
  -a, --all           show hidden and 'dot' files
  -d, --list-dirs     list directories as files; don't list their contents
  -L, --level DEPTH  limit the depth of recursion
  -r, --reverse       reverse the sort order
  -s, --sort SORT_FIELD which field to sort by
  --group-directories-first list directories before other files
  -D, --only-dirs     list only directories
  -I, --ignore-glob GLOBS glob patterns (pipe-separated) of files to ignore
  --git-ignore        ignore files mentioned in '.gitignore'
Valid sort fields:    name, Name, extension, Extension, size, type,
                     modified, accessed, created, inode, and none.
                     date, time, old, and new all refer to modified.

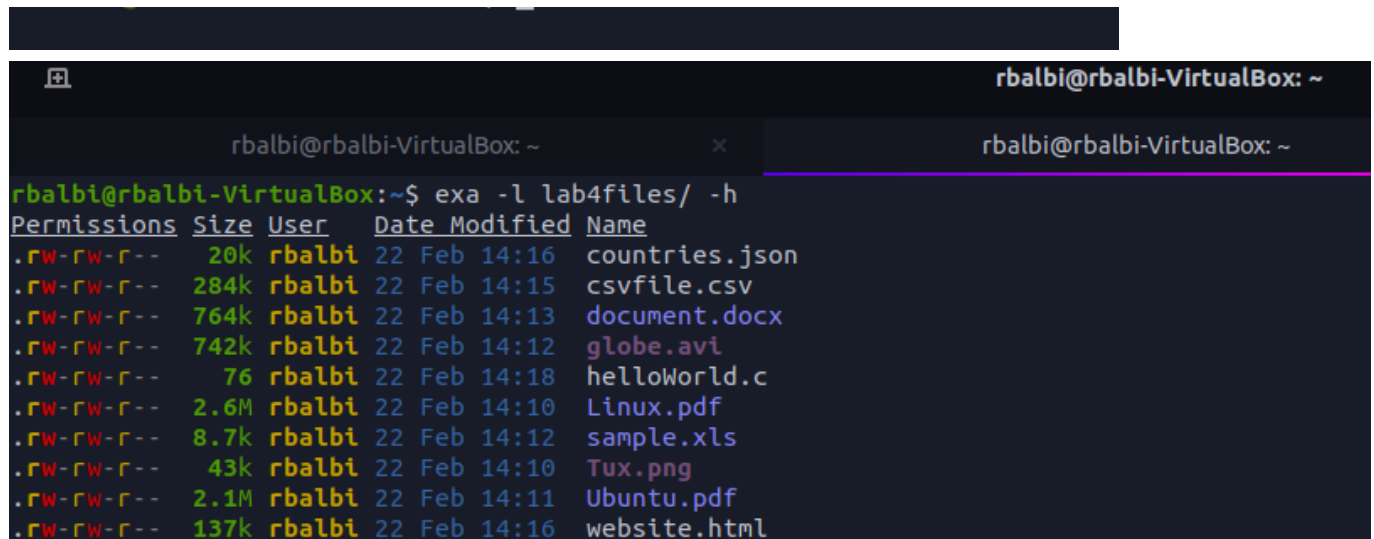
LONG VIEW OPTIONS
  -b, --binary        list file sizes with binary prefixes
  -B, --bytes         list file sizes in bytes, without any prefixes
  -g, --group         list each file's group
  -h, --header        add a header row to each column
  -H, --links         list each file's number of hard links
  -i, --inode         list each file's inode number
  -n, --modified      use the modified timestamp field
  -u, --numeric       list numeric user and group IDs
  -s, --blocks        show number of file system blocks
  -t, --time FIELD    which timestamp field to list (modified, accessed, created)
  -u, --accessed      use the accessed timestamp field
  -U, --created       use the created timestamp field
  --changed           use the changed timestamp field
  --time-style        how to format timestamps (default, iso, long-iso, full-iso)
  --no-permissions    suppress the permissions field
  --octal-permissions list each file's permission in octal format
  --no-filesize       suppress the filesize field
  --no-user           suppress the user field
  --no-time           suppress the time field
  --git              list each file's Git status, if tracked or ignored
  -@, --extended      list each file's extended attributes and sizes
rbalbi@rbalbi-VirtualBox:~/Downloads$

```

```

rbalbi@rbalbi-VirtualBox:~$ exa -l lab4files/
.rw-rw-r-- 20k rbalbi 22 Feb 14:16 countries.json
.rw-rw-r-- 284k rbalbi 22 Feb 14:15 csvfile.csv
.rw-rw-r-- 764k rbalbi 22 Feb 14:13 document.docx
.rw-rw-r-- 742k rbalbi 22 Feb 14:12 globe.avi
.rw-rw-r-- 76 rbalbi 22 Feb 14:18 helloWorld.c
.rw-rw-r-- 2.6M rbalbi 22 Feb 14:10 Linux.pdf
.rw-rw-r-- 8.7k rbalbi 22 Feb 14:12 sample.xls
.rw-rw-r-- 43k rbalbi 22 Feb 14:10 Tux.png
.rw-rw-r-- 2.1M rbalbi 22 Feb 14:11 Ubuntu.pdf
.rw-rw-r-- 137k rbalbi 22 Feb 14:16 website.html
rbalbi@rbalbi-VirtualBox:~$ exa -T lab4files/
lab4files
├── countries.json
├── csvfile.csv
├── document.docx
├── globe.avi
├── helloWorld.c
├── Linux.pdf
├── sample.xls
├── Tux.png
├── Ubuntu.pdf
└── website.html
rbalbi@rbalbi-VirtualBox:~$

```

A terminal window titled 'rbalbi@rbalbi-VirtualBox: ~' with a dark background. The prompt is 'rbalbi@rbalbi-VirtualBox: ~\$'. The command 'exa -l lab4files/ -h' has been executed, displaying a table of files. The table has columns for Permissions, Size, User, Date, Modified, and Name. The files listed are countries.json, csvfile.csv, document.docx, globe.avi, helloWorld.c, Linux.pdf, sample.xls, Tux.png, Ubuntu.pdf, and website.html.

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