Command Line Reference

What is a command ?

A command is a written order given to the computer via a terminal. It follows a *specific format* and is composed of a command name followed by a set of parameters. Depending on the command, a parameter can be the name of a file or a directory, a string (piece of text) ... Most commands accept a special type of parameter called option that can be used to customize the behavior of the command.
example: ls -l document.txt

- ls : the name of the command
- -l : the first parameter (an option)
- document.txt : the second parameter (the name of a file)

Opening a terminal

The command line interface is used through a software called terminal. It exists many terminal softwares. To open a terminal:
Linux: go in Activities and search and open `terminal`
Windows: in the file explorer, Right-Click git-bash here

The TAB key (autocompletion)

Commands can be long to write, especially with long file names. To speed up the process, most terminal support a feature called *autocompletion* that can be activated by pressing the TAB key : ↹ (located on the left of the keyboard).

Autocompletion means that the current name will be completed automatically. Example: assuming there exists a directory called `Directory`, if I start writing the following command:

```
$ cd Di
```

and if I press ↹, the `Di` will be completed to `Directory`:

```
$ cd Directory
```

The man(ual)

Each command is accompanied by its manual which can be accessed through the command :
`man command_name`
example: `man ls`
Navigating the man:

- q : quit/exit
- ↑ ↓ : move up/down
- / `word` Enter : search for "word" (n for next match and Ctrl+n for previous match)

Executing a file (program/script/...)

Some files can be executed from the command line. This means that the file is a kind of program written in a language understood by the terminal and/or the computer. To execute a file from the terminal, simply type its name after `./`.
example: `./myScript.sh`

Basic commands

command	*description*	*example*	*effect*
`ls`	list directory content	`$ ls`	list current directory content
		`$ ls -a`	list all content including hidden files
		`$ ls -l`	list detailed information on each file (size, modification date, permissions ...)
cd	change directory	`$ cd Folder`	go to directory "Folder"
		`$ cd ..`	go to parent directory (..)
		`$ cd`	go to home directory
`cp`	copy a file	`$ cp file1 file2`	copy file1 into file2
mv	move or rename a file	`$ mv file1 file2`	move file1 into file2
mkdir	create a directory	`$ mkdir Folder`	create a directory named "Folder"
tar	manipulate archives	`$ tar -xvzf archive.tgz`	extract the content of the archive "archive.tgz"
		`$ tar -cvzf archive.tgz file1 file2`	group and compress file1 and file2 in the archive "archive.tgz"
zip	compress zip archive	`$ zip archive.zip  file1 file2`	group and compress file1 and file2 in the archive "archive.zip"
unzip	extract zip archive	`$ unzip archive.zip`	extract the content of the archive "archive.zip"
cat	print file	`$ cat document.txt`	print the content of the file "document.txt"
grep	search lines matching a pattern	`$ grep 'Hello' document.txt`	print all the line of "document.txt" that include the word 'Hello'