Introduction to Linux
a2.pluto.it [1]

based on "Linux - codice e comandi essenziali"
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List directory contents

ls	basic listing
ls *.dat	filtering the listing
ls -R	recursive listing
ls -1	one column listing
ls -m	listing separated by commas
ls -a	listing including hidden objects
ls -F	listing with special characters
*	executable
/	directory
@	symbolic link
|	FIFO
=	socket
ls --color	colored listing
ls -l	long (ownership/authorizations) listing
ls -r	inverted listing
ls -X	listing by extensions
ls -t	listing by time and date
ls -S	listing by dimension
ls -h	listing with human readable dimensions
ls | more	listing one page at the time

Working with files and directories

pwd	to print working directory
cd	to change directory
cd	moves to the directory /
cd ~	moves to one's home directory
cd -	moves to the preceding directory
cd ..	moves to the preceding directory
mkdir	to create a new directory
mkdir -v	to create a new directory in verbose mode
mkdir -p	to create a new directory with its subdirectory
touch	to create a new file
touch -t	to create a new file with a specific date
cp	to copy a file or a directory
$cp*$	special copy
$cp - v$	copy in verbose mode
$cp - i$	copy in interactive mode
$cp - R$	copy a directory
$cp - a$	archiving, equivalent to $-dpR$
mv	to move or rename files or directories
rm	to remove files or directories
$rm*$	special remove
$rm - v$	remove in verbose mode
$rm - i$	remove in interactive mode
$rm - Rf$	remove directories

Wild cards

*	can represent anything		
example	file.*	file*	*file*
?	can replace one character		
example	file1?.a	file?.a	
[]	can identify a category		
example	file[1-2].a	file1[2-3].a	

The comand man

man command	to enter the comand manual
f	to move forward
b	to go backwards
q	to quit
/pattern	to look for a pattern
n	next result
N	previous result
man -k	to look for a command
man -f	to quickly know a command function
man -u	to update the database man
man [1-8]	to read a specific manual
1	general commands
2	kernel system calls
3	library functions
4	special files
5	configurations files
6	games
7	various files
8	administrative commands

The command info

info	similar to the command man
PagUp	previous page
PagDown	next page
b	first page
e	last page
n	next level
p	previous level
]	next sub level
[	previous sub level
u	up a level
d	home directory
m	menu
i	to search in the titles
s	to search
?	to ask for help
q	to quit

General commands

whereis	to find a command path
whatis	similar to man -f
apropos	similar to man -k
which	to know which command is used

Building blocks

a; b	to execute several comands
a && b	to execute several commands only if the preceding succeeded
a || b	to execute several commands only if the preceding failed
a | b	to use a command's output as input for the following
a > b	to redirect the output to a file
a >> b	to append output to a file
$(a)	to use a command's output
a < b	to use a file as input for a command

Visualizing a file

cat	to visualize a file in stdout
cat file1 file2 > file3	concatenate 2 files in a third
cat -n file1 file2	concatenate with line numbers
less	to visualize a file one page at the time
/pattern	to search a pattern
n	next result
N	previous result
v	edit
head	to visualize the first 10 lines of a file(s)
head -n	to visualize the first n lines of a file(s)
tail	opposite of head

Printing processes

lpstat	to print cups status information
-p	list all the printers
-d	list default printer
-s	list printers's connection type
-t	list all printers's informations
lpr	to print files
-P	to use any printer
-#	to print more copies
lpq	to list printing queues
lprm	to delete a printing process

Archiving and compressing

gzip	to compress file(s)/directory(ies) in one *gzip* file
-r	recursive compression
-[0-9]	compression level
gunzip	to extract *.gzip* files
tar	to compress file(s)/directory(ies) in one *tar* file
-cf	to archive file(s)
-zcvf	to compress file(s)/directory(ies) (also gzip)
-zvtf	to test a compressed file (also gzip)
-zxvf	to extract a file
e.g.: tar -cf file | gzip -c > file.tar.gz	

Easily finding informations

locate	to search a file
-i	to ignore case
-n	to show only the first n results
updatedb	to update the database
grep	to find a pattern
e.g.: grep pattern path	
''	to search for more words
-R	to search in several directories
-i	to ignore case
-w	to search a word and not a pattern
-n	to also show the line number of the resuts
-A	to show lines after the pattern
-B	to show lines before the pattern
-C	to show lines before and after the pattern
-v	to search the lines without the pattern
-l	to list the files where the pattern was found
TIP: wild cards apply to grep	

Command find

e.g.: find path pattern	
-name	to find a file by its name
-user	to find a file by its owner
-group	to find a file by its group
-size	to find a file by its size (k,M,G)
-type	to find a file by its type (f,d,l,b,c,p,s)
-a	to show results only if everything is true
-o	to show results even if only one is true
-n	to show results only if none is true
-exec	to execute a command on all results
- fprint	to send results to a file

The shell

history	to list lasts commands
!!	to execute last command
![##]	to execute commamd ##
!string	to execute last command corresponding to string
alias	to list all aliases
alias aliasnm	to show aliasnm
alias aliasnm='command'	to create a temporary alias
TIP: to make an alias permanent add it to .bash.aliases	
unalias	to remove an alias
ln file link	to make links between files