Need help?

man commandname	Open the help manual
apropos keyword	Searches the keyword inside the help manual
apropos -a keyword	Searches for multiple keywords inside the help manual
commandname --help	Displays help for the command
whatis commandname	One line description of a command
linuxconf	Linux configuration
aspell	Spell checker
alias	To create simple commands

* Alias example: alias armas ='grep -inT armas Um.txt' --> This defines the command armas to execute the grep command.

* Typing only alias will display the already created commands

Wildcards: (set of characters of arbitrary lenghts); ? (any character); [numbers] (range of characters)

Basic commands

whoami	To learn your username
clear	Clears the screen
exit	Exits the terminal
echo "randomwords"	Returns what you wrote
expr number + number	To perform basic math operations
date	Dipslays the date and time of the system
nano	Opens nano, the linux text editor

Basic commands (cont)

sqlite3	Example of a vesion of sql to use from linux
soofice	See files on Libreoffice
gedit	Opens text/code editor Gedit
gedit filename	Opens the file on Gedit
cal	Displays the calender and easter date
seq	Prints a numeral sequence

Permissions

ls -l	Displays permissions to filesand directories
ls -la	Displays permissions to files and directories, including hidden files
chmod	Change permissions to files and directories
sudo	Temporarily grants elevated permissions
sudo useradd	Adds a user to the system
sudo useradd -g groupname username	Sets the user's default group
sudo userass -G group(-s)name username	Adds the user to additional groups
sudo usermod	Modifies existing user accounts

Permissions (cont)

sudo usermod -g	Changes thhe primary group
sudo usermo -G	Changes the secondary group
sudo usermode -d path username	Changes the user's home directory
sudo usermode -l	Changes the user login name
sudo usermod -L	Locks the account
sudo userdel	Deletes user
sudo chown user/groupname file	Commands changes to the ownership of a file or directory

Permissions in Linux look like drwxrwxrwx. 1st char is a d (for directory) or - (for regular files). The 3 sets refer to user-group-other.The options for characters are: u (indicats changes will be made to user permissions); g (indicates changes will be made to the group permissions), o (indicates changes will be made to other permissions); + (adds permissions to them); - (removes permissions from them); = (assigns permissions to them)

Directories & Files

tree	Lists the directory conten on a tree format
pwd	Prints the current working directory path
ls	Displays the names of the directories and files in the current directory
ls -a	Displays hidden files

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Directories & Files (cont)

cd direct-oryname	Changes directory
cd /	Back to the root directory
cd ~	Changes to the home directory
cd ..	Changes to the preceding directory
mkdir newdir-ect-oryname	Create new directories
touch	Creates a new empty file
rmdir direco-tyname	Delete directories
rmdir -r	Deletes the directory and files
rm filename	Deletes a file
cp [options] origin destiny	Copie files and directories
mv file/d-irecto-ryname /path	Moves directories and files to a new location. Can also be used to rename files.
tar -xf filename	Extracts files
stat filename	Displays info about an file
stat -f	Displays info about the system file (not the file)

Directories & Files (cont)

find filename	To find a file

- Home directory: the one in which the session is started after login.
- Working directory: the one being used at the moment.
-Root directory: mother directory, first of the tree.

* " " are needed to have spaces on the directory name

*rmdir only works in empty directories

*hidden files will have an . (dot) at the beggining

* stat can be used with multiple files (stat filename filename)

Processes

top	Shows the executing processes on Linux
ps	Shows the active exeuting processes on the machine
ps -e	Lists all the processes in order
ps -f	Shows the same as ps but in a table
ps -e-f	Shows the processes in order, on a table
ps tree	Shows the processes in tree
kill	Ends the process
kill -9	Is used when kill doesn't work
kill -1	Restarts the process

* kill -9 and kill -1 can be combined (kill -9-1)

Networks

ping	Verify if an server is available
traceroute	Shows the network route
nslookup	Lets you find info about the computer in the network through DNS
telnet	Log in securely on a remote computer
ssh -X	Log in securely on a remote computer
Xfce4--session	Start an graphical session on a remote computer
exit	Leave the remote session
quit	Leave the remote session
who	Shows who has an active session on this machine
who -w	Know some more info
finger	Shows info about an user
write username	Send messages to other users
talk	Also used to communciate with other users. In this case, thy msut accept the connection with the same command
mesg n	Indicates that I don't want to receive more messages
mesg y	Indicates that I'm available
at	Schedules the execution of commands on the computer

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Networks (cont)

scp	Securely copie files between different machines

- ping -c 4 apps .fe.up.pt
- nslookup moodle.up.pt or nslookup 193.137.35.211
- telnet towel.clinkenlights.nl.
-ssh -X gnomo.fe.up-pt or ssh -X mccarthy.fe.up.pt
- at 11:15 commandstobeexecuted ctrl+d
-scp user@mccarthy.fe.up.pt:/usr/SCCOM/ola.txt copiado.txt
*when using write, use ctrl+c to send the message or use echo mensagem | write username

Reading files content

cat filename	Concatenate and display the content of files
tac	Like cat but in reverse
grep filename	Returns all lines of a file that contain a specified string
head filename	Dispalys the first 10 lines of the file
head -number	Displays the n first lines
tail filename	Displays the last 10 lines
tail -number filename	Displays the last n number of lines
less	Displays the content of a file one page at a time
more filename	Displays the file
wc	Counts characters, words and lines
wc -c	Counts bytes
wc -m	Counts characters
wc -w	Counts words

Reading files content (cont)

nl	counts the number of lines
nl -a	numbers
sort	reorganizes the file by lines, so that they are ordered by number and alphabeticaly
sort -r	like sort but in reverse
grep -n	Prints all lines according to the condition and numerates them
grep -t	All the lines will start on the same place
grep -i	Looks for the condition, ignoring the letter capitalization
grep -w	searches only for the complete word and not for words that contain part of the chosen word

Joining commands

There are several ways to combine commands on a single line.
Running commands one after the other: ; or && or ||.
&& If the command that preeceds && completes sccessfully, the following is run.
|| If the command that precedes || fails, the following runs.

Joining commands (cont)

Run more than one command concurrently (the output from the first command is piped to the next as the first command is runnign):
| or a filter with a |

Using ; : cd mydir ; ls
Using && : command && command
Using || : command || command
Using | : history | grep "cp" (displays all the cp commands that are recorded among the 16 most recently recorded command in history file). ls -l | grep "Jan" (displays the files that were last changed in January). ps -e | grep cc | wc -l (lists all o the processes active in the system and pipes the output to grep, which searches for every instace of the string cc. The output of the grep is then piped to wc, which counts every line in which the string cc occurs and sends the number of lines to standard output).. --
> : redirects the output of a command to an file (the result of the command will appear on the file and not on the shell. When there's content on the file, it will repace it. When there's no file it will create a new one).
>>> : adds to the file

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Administration

apt	Search for and install software packages
apt-get	Search for and install software packages
apt remove	Removes a package
apt upgrade	updats the whole system
apt update	Upgrades the repository
- It might be necessary to use sudo to use apt	