101 Useful Linux Commands - haydenjames.io

Some of these commands require elevated permissions (sudo) to run. Enjoy!

1. Execute the previous command used:
!!

2. Execute a previous command starting with a specific letter. Example:
!s

3. Short way to copy or backup a file before you edit it. For example, copy nginx.conf
cp nginx.conf{,.bak}

4. Toggle between current directory and last directory
cd -

5. Move to parent (higher level) directory. Note the space!
cd ..

6. Go to home directory
cd ~

7. Go to home directory
cd $HOME

8. Go to home directory (when used alone)
cd

9. Set permissions to 755. Corresponds to these permissions: (-rwx-r-x-r-x), arranged in this **sequence: (owner-group-other)**
chmod 755 <filename>

10. Add execute permission to all users.
chmod a+x <filename>

11. Changes ownership of a file or directory to .
chown <username>

12. Make a backup copy of a file (named file.backup)
cp <file> <file>.backup

13. Copy file1, use it to create file2
cp <file1> <file2>

14. Copy directory1 and all its contents (recursively) into directory2
cp -r <directory1> <directory2>/

15. Display date
date

16. Zero the sdb drive. You may want to use GParted to format the drive afterward. You need elevated permissions to run this (sudo).
dd if=/dev/zero of=/dev/sdb

17. Display disk space usage
df -h

18. Take detailed messages from OS and input to text file
dmesg>dmesg.txt

19. Display a LOT of system information. I usually pipe output to less. You need elevated permissions to run this (sudo).
dmidecode

20. Display BIOS information. You need elevated permissions to run this (sudo).
dmidecode -t 0

21. Display CPU information. You need elevated permissions to run this (sudo).
dmidecode -t 4

22. Search for installed packages related to Apache
dpkg –get-selections | grep apache

23. Shows you where in the filesystem the package components were installed
dpkg -L <package_name>

24. Display detailed disk use for each subdirectory
du / -bh | less

25. Print the environment variable PATH
echo $PATH

26. Display environment variables like USER, LANG, SHELL, PATH, TERM, etc.
env

27. Opens a picture with the Eye of Gnome Image Viewer
eog <picture_name>

28. Quit the terminal (or give up super-powers if you've previously done sudo su)
exit

29. Display memory usage
free

30. Easy way to view all the system logs.
gnome-system-log

31. Search through file(s) and display lines containing matching string
grep <string> <filename>

32. Get the number of seconds since the OS was started
grep btime /proc/stat | grep -Eo “[[:digit:]]+”

33. Display the last 1000 commands
history | less

34. Display the name of the local host
hostname

35. Display time.
hwclock –show

36. Display user id (uid) and group id (gid)
id

37. Display your local IP address and netmask
ifconfig

38. Wireless network interface
iwconfig

39. Display wireless network information
iwlist

40. Kill process by name. You need elevated permissions to run this (sudo).
killall process

41. Get the date and time of the last system shutdown
last -x | grep shutdown | head -1 | grep -Eo “[A-Z][a-z]{2} [[:digit:]][[:digit:]] [[:digit:]]{2}:[[:digit:]]{2}”

42. Quit shell session (only for a shell you’ve logged into like one of the virtual consoles)
logout

43. List non-hidden files and subfolders in current directory (like dir for windows). Use -R for recursive and -a to include hidden files.
ls

44. Display file access permissions for all files in the current directory. The format for permissions is drwxrwxrwx where the order is owner-group-other and the numeric values are read=4, write=2, execute=1.
ls -l <filename>

45. List all available applications, in case you’ve forgotten how to open Open Office Writer or another application from the terminal (oowriter)
ls /usr/bin | less

46. Display more networking information
lshw -C network

47. Display kernel modules currently loaded
lsmod

48. Display sound, video, and networking hardware
lspci -nv | less

49. Display usb-connected hardware
lsusb

50. Read the command's man page (manual)
man <command>

51. Create new directory at specified location
mkdir <dirname>

52. Move file to specified directory
mv <file> <dir>

53. Rename file1 to file2
mv <file1> <file2>

54. Display routing table
netstat -rn

55. Print environmental variables
printenv

56. List the processes currently running by this user. There are many useful options, view them with ps –help
ps -Af

57. Print working directory
pwd

58. Delete file
rm <filename>

59. Delete directory and all it's contents
rm -rf <dir>

60. Removes all files that end in txt in current directory
rm *.txt

61. Delete directory (will only work if it's empty)
rmdir <dir>

62. Display your default gateway listed under "default"
route

63. Completely destroy all traces of the file. This takes a while. -n 7 means seven overwrites, -z means zero the bits afterward to hide shredding, -u means delete the file when done, and -v means verbose.
shred -zuv -n 7 <file>

64. Shutdown now.
shutdown -h now

65. Restart now.
shutdown -r now

66. Log into remote computer
ssh <IP address>

67. Open the root shell, giving yourself superuser permissions until you relegate your powers with exit. Unlike sudo su which does the same thing, this method of starting the root shell is uncorrupted by a user's environmental variables.
sudo -i

68. Open the root shell, like sudo -i, but this method retains the user's environmental variables. Relegate superuser permissions and return to normal shell with exit.
sudo su

69. Creates a compressed archive of the specified directory and all files/directories under it.
tar czf <dirname>.tgz <dirname>

70. Expand the contents of a compressed archive and extract to current directory.
tar zxvf <archive>

71. List current processes by cpu use. This is very useful. Press q to quit and h for help.
top

72. Create an empty file if it doesn't exist
touch <filename>

73. Display the name of the current terminal
tty

74. Display your linux kernel
uname -a

75. Display your machine's processor architecture
uname -m

76. Returns one-line synopsis from the command's man page
whatis <command>

77. Returns the location of the program in the filesystem
whereis <command>

78. Returns the application’s path
which <command>

79. Display the users logged into the machine
who

80. Display your login name
whoami

81. This will display the output of test.log as it is being written to by another program
tail –follow test.log

82. If you’ve just navigated to a directory shell and want to open a file or application IN that directory. Just use this command followed by the filename
eg. ./filename.txt

83. Escape operator. Use it before a space if you’re trying to open a file that has whitespace in the name.
\

84. The tilde represents your home directory.
~

85. Run any command when the system load is low
batch <command>

86. Display cpu info
cat /proc/cpuinfo

87. Display memory usage
cat /proc/meminfo

88. Display networking devices
cat /proc/net/dev

89. Display performance information
cat /proc/uptime

90. Display kernel version
cat /proc/version

91. Display file contents
cat <filename>

92. List partition tables
fdisk -l

93. Show the properties/compression of a file or package
file <package_name>

94. Find a file. Search Linux filesystem for a file name.
find / -name <filename>

95. To create a *.gz compressed file
gzip test.txt

96. To uncompress a *.gz file
gzip -d test.txt.gz

97. Display compression ratio of the compressed file using gzip -l
$ gzip -l *.gz

98. Output file status
stat filename.txt

99. Download a file from the internet
wget http://remote_file_url

100. Show list of last 10 logged in users.
last -n 10

101. Display a tree of processes
pstree

Note: If you are pasting a command from above that includes a “ or ‘ and it does not work, you may have to re-type those quotes in shell manually.