1 System information and administration

blkid	List the block devices, and its ids
cfdisk, fdisk	Alter the partition table
cpu-info, cpuid, lscpu	List detailed cpu information
df, dfc, duf	Show available disk space
du, duf	Show disk space usage
free	List both available and used memory, and SWAP space
halt, poweroff, shutdown	Stop the system
journalctl	Query the systemd journal
lsblk	Display information about the system's block devices
lsdev, lshw	Display information about installed hardware
lsof	List open files
lspci	List all pci devices
lsusb	List all usb devices
mailq	Listing of the contents of the mail queue on the standard output
reboot	Reboot the system
systemctl	Reboot the system
systemd-cat	Connect a pipeline or program's output with the journal
uname	Display the Linux kernel that is in use
uptime	Display the time the system is already up and running

2 Find files and directories

find	Find files, and directories by various criteria
locate	Find files, and directories by name based on the locate database
updatedb	Initialize, and update the locate database

3 File and directory operations

cd	Change to a directory
cp	Copy a file
file	Identify the file type
ln	Create a link
ls	List the contents of a directory
mkdir	Create a directory
mmv	Rename, or move multiple files, or directories
mv	Rename, or move a single file, or directory
pwd	Print the current working directory
rm	Remove one or more files, or directories
rmdir	Remove an empty directory
touch	Create an empty file, or update the timestamp of an existing file
umask	Set file mode creation mask

4 Package management (selection)

apt, apt-get, aptitude, synaptic	Install, update, and remove software packages [1]
apt-cache	Manage, and query the package cache [1]
dpkg	Install, update, and remove software packages [1]
dpkg-reconfigur	Reconfigure package configuration [1]
rpm, yum	Install, update, and remove software packages [2]

Notes:
[1]: Debian GNU/Linux, Ubuntu, and Linux Mint
[2]: RedHat Linux, Fedora, and OpenSuse

5 Network commands

`dhclient`	Request a dynamic IP address
`host`	DNS lookup utility
`hostname`	Display the system's hostname
`ifconfig,` `iwconfig`	Configure network interfaces, and display interface configuration (deprecated)
`ifup`	Enable a network interface
`ip`	Configure network interfaces, and display interface configuration
`ifdown`	Disable a network interface
`iwlist`	List available wireless networks
`nc, netcat`	TCP/IP swiss army knife
`netstat, ss`	Display network statistics
`nslookup`	Lookup name service entries
`ping, ping6`	Send ICMP package to a host
`route`	Display routing table
`tcpdump`	Dump traffic on a network
`traceroute,` `traceroute6`	Print the route packets trace to network host

6 Secure data transfer

`rsync, scp`	Synchronize data locally, or remotely using a secure, encrypted channel
`ssh`	Connect to a remote system using a secure, encrypted channel
`ssh-copy-id`	Transfer an SSH public key to a remote system for password-less authentification
`ssh-keygen`	Generate an SSH key pair for password-less authentification

7 Using pagers

`less, more`	Display data page by page
`most`	Display data page by page, and in multiple windows

8 Users, groups, and access control

`addgroup`	Add a new group [1]
`adduser`	Add a new user [1]
`chage`	Modify the duration a user account is valid
`chgrp`	Modify the group of a file, or directory
`chmod`	Modify the access rights of a file, or directory
`chown`	Modify the owner of a file, or directory
`delgroup`	Remove an existing group [1]
`deluser`	Remove an existing user [1]
`getent`	Lookup user information in local databases
`groupadd`	Add a new group [2]
`groupdel`	Remove an existing group [2]
`groupmod`	Modify an existing group [2]
`groups`	Display the groups a user belongs to
`id`	Display user information
`last`	Show last login time for a user
`passwd,` `usermod`	Modify password for a user account
`pwgen`	Generate a random password
`su`	Switch to a different user account
`sudo`	Run command as administrative user
`useradd`	Add a new user [2]
`userdel`	Remove an existing user [2]
`usermod`	Modify an existing user [2]
`users, w, who`	List logged-in users
`wall`	Write a message to all users currently logged in
`whoami`	Display current user name

Notes:
[1] High-level tool [2] Low-level tool

9 Getting help

`apropos`	Display a short help text explaining the given command
`info`	Get help using the GNU Info system
`man`	Display an extended help text explaining the given command
`manpath`	Manage the path for manual pages
`whatis`	Looks up the index database for short help texts explaining the given command

10 Processes and job control

`bg`	Send process to the background
`fg`	Bring a process into the foreground
`htop`, `top`	A process monitor
`jobs`	List running jobs
`kill`	Send a signal to a process
`killall`	Send a signal to a number of processes
`nice`, `renice`	Modify the nice level of a process
`pgrep`	Find a process by its name, or by Regular Expression
`pkill`	Look up or signal processes based on name and other attributes
`ps`	List running processes
`pstree`	Display processes as a tree structure
`pwdx`	Display the working directory of a process
`sleep`	Pause the execution of commands
`watch`	Execute a program periodically, showing output fullscreen

11 Text and data stream processing

`awk`	Alter, or extract data from text files preferably by column
`cat`	Output a file from top to bottom
`cmp`, `diff`	Compare two files, and show the differences between them
`colrm`	Remove a column from a file
`column`	Display data column-wise
`cut`	Extract data from text files by column
`egrep`, `fgrep`, `grep`	Filter text files by pattern line-wise
`head`	Print a specified number of lines beginning at the top of a file
`hexdump`	Output data as hexadecimal characters
`nl`	Output a file, and add line numbers
`paste`	Combine single files into one
`sed`	Modify a file line-wise
`sort`	Sort a file
`split`	Split a file based on conditions
`tac`	Output a file from bottom to top
`tail`	Print a specified number of lines beginning at the bottom of a file
`tr`	Replace text in a file
`uniq`	Report, or remove duplicate lines
`tee`	Read from `stdin`, and print to both a file, and `stdout`
`wc`	Count lines, words, and characters of a file

12 Dealing with log files

`logger`	A shell command interface to the syslog system log module
`logrotate`	Rotates, compresses, and mails system logs

13 Handling file systems

`e2fsck`, `fsck`	File system check
`mkfs`	Create a file system
`mkswap`	Prepare a partition for SWAP usage
`mount`	Mount a file system
`swapoff`	Disable a SWAP partition
`swapon`	Ensable a SWAP partition
`tune2fs`	Modify existing file system
`umount`	Unmount a file system

14 Working with terminals and shells, adjust the working environment

`alias`	List, or alter aliases for commmands
`clear`	Clear the screen
`echo`	Output text on the screen
`env`	Display the environment variables
`exit`, `logout`	Quit the current shell session
`fc`	Modify the command history
`history`	Display the previously used commands
`screen`, `tmux`	A terminal multiplexer
`set`	Enable, or change a run-time parameter
`time`	Measure the execution time of a command
`type`	Identify command type
`unalias`	Remove an alias for a command
`unset`	Remove, or disable a runtime parameter
`whatis`	Lookup the index database for command descriptions
`whereis`	Lookup the binary files, source code files, and manual pages for a command
`which`	Identify which command will be run by the shell
`xargs`	Build and execute command lines from standard input

15 Handling the Linux kernel

`dmesg`	Display, and control the kernel ring buffer
`insmod`	Insert (activate) a kernel module into the currently running Linux kernel
`lsmod`	List the kernel modules from the currently running Linux kernel
`modprobe`	Try to insert (activate) a kernel module into the currently running Linux kernel
`rmmode`	Remove (deactivate) a kernel module from the currently running Linux kernel
`uname`	Display information about the currently running Linux kernel

16 Printing

`lp`, `lpr`	Print files, or change an existing printing job
`lpc`	Manage printers
`lpq`	Display the contents of the printer queue
`lprm`	Remove an existing job from the printer queue

17 System time, date, calendar, and locales

`cal`, `ncal`	Display a calendar
`date`	Display a date in various formats
`hwclock`	Manage both the hardware, and the system clock
`locale`	Display information about the current locale
`ntpdate`, `ntpsec-ntpdate`	Retrieve the time information from an NTP server
`timedatectl`	Control the system time and date

18   Archives and data compression

bunzip2	Unpack a compressed file (bzip2 format)
bzcat	Output file content to stdout from a compressed file (bzip2 format)
bzegrep, bzfgrep, bzgrep	Search in a bz-compressed file
bzip2	Compress a file (bzip2 format)
gunzip	Unpack a compressed file (gzip format)
gzip	Compress a file (gzip format)
tar	Create, and manage a tape archive (tar file)
unzip	Unpack a compressed file (zip format)
xz	Compress a file (xz format)
xzcat	Output file content to stdout from a compressed file (xz format)
xzegrep, xzfgrep, xzgrep	Search in a xz-compressed file
zip	Compress a file (zip format)
zcat	Output file content to stdout from a compressed file (zip format)
zegrep, zfgrep, zgrep	Search in a zip-compressed file

19   System libraries

ldd	Print shared library dependencies
ldconfig	Configure dynamic linker run-time bindings

Notes