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# Common Kali Linux Commands Overview



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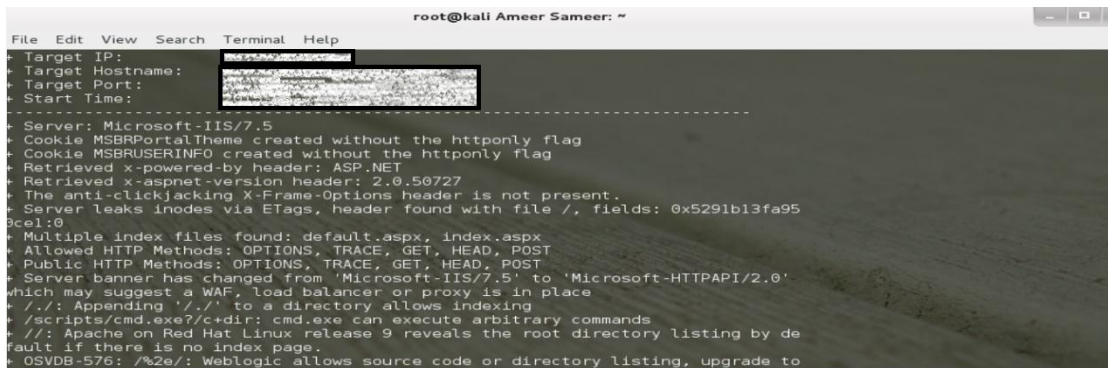
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﴿ بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ ﴾

اقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ ﴿١﴾ خَلَقَ الْإِنْسَانَ مِنْ عَلَقٍ ﴿٢﴾ اقْرَأْ وَرَبُّكَ الْأَكْرَمُ ﴿٣﴾ الَّذِي  
عَلَّمَ بِالْقَلَمِ ﴿٤﴾ عَلَّمَ الْإِنْسَانَ مَا لَمْ يَعْلَمْ ﴿٥﴾

﴿ In the Name of Allah, the Merciful, the Most Merciful ﴾

Read (Prophet Muhammad) in the Name of your Lord who created, ﴿١﴾ created the  
human from a (blood) clot. ﴿٢﴾ Read! Your Lord is the Most Generous, ﴿٣﴾ who  
taught by the pen, ﴿٤﴾ taught the human what he did not know. ﴿٥﴾



**Common use A-Z of Kali Linux commands are here below :**

**(A)**

**apropos** Search Help manual pages (man -k)

**apt-get** Search for and install software packages (Debian)

**aptitude** Search for and install software packages (Debian)

**aspell** Spell Checker

**awk** Find and Replace text, database sort/validate/index

**(B)**

**basename** Strip directory and suffix from filenames

**bash** GNU Bourne-Again SHell

**bc** Arbitrary precision calculator language

**bg** Send to background

**break** Exit from a loop

**builtin** Run a shell builtin

**bzip2** Compress or decompress named file(s)

**(C)**

**cal** Display a calendar

**case** Conditionally perform a command

**cat** Concatenate and print (display) the content of files

**cd** Change Directory

**cfdisk** Partition table manipulator for Linux

**chgrp** Change group ownership

**chmod** Change access permissions

**chown** Change file owner and group

**chroot** Run a command with a different root directory

**chkconfig** System services (runlevel)

**cksum** Print CRC checksum and byte counts

**clear** Clear terminal screen

**cmp** Compare two files

**comm** Compare two sorted files line by line

**command** Run a command - ignoring shell functions

**continue** Resume the next iteration of a loop

**cp** Copy one or more files to another location

**cron** Daemon to execute scheduled commands

**crontab** Schedule a command to run at a later time

**csplit** Split a file into context-determined pieces

**cut** Divide a file into several parts

(D)

**date** Display or change the date time

**dc** Desk Calculator

**dd** Convert and copy a file, write disk headers, boot records

**ddrescue** Data recovery tool

**declare** Declare variables and give them attributes

**df** Display free disk space

**diff** Display the differences between two files

**diff3** Show differences among three files

**dig** DNS lookup

**dir** Briefly list directory contents

**dircolors** Colour setup for `ls`

**dirname** Convert a full pathname to just a path

**dirs** Display list of remembered directories

**dmesg** Print kernel driver messages

**du** Estimate file space usage

**(E)**

**echo** Display message on screen

**egrep** Search file(s) for lines that match an extended expression

**eject** Eject removable media

**enable** Enable and disable builtin shell commands

**env** Environment variables

**ethtool** Ethernet card settings

**eval** Evaluate several commands/arguments

**exec** Execute a command

**exit** Exit the shell

**expect** Automate arbitrary applications accessed over a terminal

**expand** Convert tabs to spaces

**export** Set an environment variable

**expr** Evaluate expressions

**(F)**

**false** Do nothing, unsuccessfully

**fdformat** Low-level format a floppy disk

**fdisk** Partition table manipulator for Linux

**fg** Send job to foreground

**fgrep** Search file(s) for lines that match a fixed string

**file** Determine file type

**find** Search for files that meet a desired criteria

**fmt** Reformat paragraph text

**fold** Wrap text to fit a specified width.

**for** Expand words, and execute commands

**format** Format disks or tapes

**free** Display memory usage

**fsck** File system consistency check and repair

**ftp** File Transfer Protocol

**function** Define Function Macros

**fuser** Identify/kill the process that is accessing a file

(G)

**gawk** Find and Replace text within file(s)

**getopts** Parse positional parameters

**grep** Search file(s) for lines that match a given pattern

**groupadd** Add a user security group

**groupdel** Delete a group

**groupmod** Modify a group

**groups** Print group names a user is in

**gzip** Compress or decompress named file(s)

(H)

**hash** Remember the full pathname of a name argument

**head** Output the first part of file(s)

**help** Display help for a built-in command

**history** Command History

**hostname** Print or set system name

(I)

**iconv** Convert the character set of a file

**id** Print user and group id's

**if** Conditionally perform a command

**ifconfig** Configure a network interface

**ifdown** Stop a network interface



**ifup** Start a network interface up

**import** Capture an X server screen and save the image to file

**install** Copy files and set attributes

**(J)**

**jobs** List active jobs

**join** Join lines on a common field

**(K)**

**kill** Stop a process from running

**killall** Kill processes by name

**(L)**

**less** Display output one screen at a time

**let** Perform arithmetic on shell variables

**ln** Create a symbolic link to a file

**local** Create variables

**locate** Find files

**logname** Print current login name

**logout** Exit a login shell

**look** Display lines beginning with a given string

**lpc** Line printer control program

**lpr** Off line print

**lprint** Print a file

**lprind** Abort a print job



**lprintq** List the print queue

**lprm** Remove jobs from the print queue

**ls** List information about file(s)

**lsuf** List open files

(M)

**make** Recompile a group of programs

**man** Help manual

**mkdir** Create new folder(s)

**mkfifo** Make FIFOs (named pipes)

**mkisofs** Create an hybrid ISO9660/JOLIET/HFS filesystem

**mknod** Make block or character special files

**more** Display output one screen at a time

**mount** Mount a file system

**mttools** Manipulate MS-DOS files

**mtr** Network diagnostics (traceroute/ping)

**mv** Move or rename files or directories

**mmv** Mass Move and rename (files)

(N)

**netstat** Networking information

**nice** Set the priority of a command or job

**nl** Number lines and write files

**nohup** Run a command immune to hangups

**notify-send** Send desktop notifications

**nslookup** Query Internet name servers interactively

(O)

**open** Open a file in its default application

**op** Operator access

(P)

**passwd** Modify a user password

**paste** Merge lines of files

**pathchk** Check file name portability

**ping** Test a network connection

**pkill** Stop processes from running

**popd** Restore the previous value of the current directory

**pr** Prepare files for printing

**printcap** Printer capability database

**printenv** Print environment variables

**printf** Format and print data

**ps** Process status

**pushd** Save and then change the current directory

**pwd** Print Working Directory

(Q)

**quota** Display disk usage and limits

**quotacheck** Scan a file system for disk usage

**quotactl** Set disk quotas

**(R)**

**ram** ram disk device

**rcp** Copy files between two machines

**read** Read a line from standard input

**readarray** Read from stdin into an array variable

**readonly** Mark variables/functions as readonly

**reboot** Reboot the system

**rename** Rename files

**renice** Alter priority of running processes

**remsync** Synchronize remote files via email

**return** Exit a shell function

**rev** Reverse lines of a file

**rm** Remove files

**rmdir** Remove folder(s)

**rsync** Remote file copy (Synchronize file trees)

**(S)**

**screen** Multiplex terminal, run remote shells via ssh

**scp** Secure copy (remote file copy)

**sdiff** Merge two files interactively

**sed** Stream Editor

**select** Accept keyboard input

**seq** Print numeric sequences

**set** Manipulate shell variables and functions

**sftp** Secure File Transfer Program

**shift** Shift positional parameters

**shopt** Shell Options

**shutdown** Shutdown or restart linux

**sleep** Delay for a specified time

**slocate** Find files

**sort** Sort text files

**source** Run commands from a file `.'

**split** Split a file into fixed-size pieces

**ssh** Secure Shell client (remote login program)

**strace** Trace system calls and signals

**su** Substitute user identity

**sudo** Execute a command as another user

**sum** Print a checksum for a file

**suspend** Suspend execution of this shell

**symlink** Make a new name for a file

**sync** Synchronize data on disk with memory

(T)

**tail** Output the last part of file

**tar** Tape ARchiver

**tee** Redirect output to multiple files

**test** Evaluate a conditional expression

**time** Measure Program running time

**times** User and system times

**touch** Change file timestamps

**top** List processes running on the system

**traceroute** Trace Route to Host

**trap** Run a command when a signal is set(bourne)

**tr** Translate, squeeze, and/or delete characters

**true** Do nothing, successfully

**tsort** Topological sort

**tty** Print filename of terminal on stdin

**type** Describe a command

**(U)**

**ulimit** Limit user resources

**umask** Users file creation mask

**umount** Unmount a device

**unalias** Remove an alias

**uname** Print system information

**unexpand** Convert spaces to tabs

**uniq** Uniquify files

**units** Convert units from one scale to another

**unset** Remove variable or function names

**unshar** Unpack shell archive scripts

**until** Execute commands (until error)

**uptime** Show uptime

**useradd** Create new user account

**userdel** Delete a user account

**usermod** Modify user account

**users** List users currently logged in

**uuencode** Encode a binary file

**uudecode** Decode a file created by uuencode

(v)

**v** Verbosely list directory contents (`ls -l -b`)

**vdirc** Verbosely list directory contents (`ls -l -b`)

**vi** Text Editor

**vmstat** Report virtual memory statistics

(w)

**wait** Wait for a process to complete

**watch** Execute/display a program periodically

**wc** Print byte, word, and line counts

**whereis** Search the user's \$path, man pages and source files for a program

**which** Search the user's \$path for a program file

**while** Execute commands

**who** Print all usernames currently logged in

**whoami** Print the current user id and name (`id -un')

**wget** Retrieve web pages or files via HTTP, HTTPS or FTP

**write** Send a message to another user

(x)

**xargs** Execute utility, passing constructed argument list(s)

**xdg-open** Open a file or URL in the user's preferred application.

**yes** Print a string until interrupted

### Some Examples:

#### Command: ls

The command “ls” stands for (List Directory Contents), List the contents of the folder, be it file or folder, from which it runs. The most common options are -a (all files) and -l (long or details) Tab completion is supported and may be configured with .inputrc

When output to file the files are listed one per line. By default, colour is not used to distinguish types of files. That is equivalent to using --color=none. Using the --color option without the optional WHEN argument is equivalent to using --color=always. With --color=auto, color codes are output only if standard output is connected to a terminal (tty).



```

root@kali:~# ls
adduser.conf      idmapd.conf      PolicyKit
adjtime           ifplugd          polkit-1
aliases          ImageMagick      postgresql
alternatives      inetsim          postgresql-common
anacron           init             ppp
apache2           init.d           profile
apc.conf          initramfs-tools  profile.d
apm               initramfs        protocols
apt               inputrc          proxychains.conf
arpwatch.conf     inserv           pulse
at.deny           inserv.conf      purple
at-spi2           inserv.conf.d    python
avahi             iproute2         python2.6
avrdude.conf      issue            python2.7
axelrc            issue.net        rc0.d
bash.bashrc       java-6-openjdk   rc1.d
bash_completion  java-7-openjdk   rc2.d
bash_completion.d javascript-common  rc3.d
beef-xss          john             rc4.d
bindresvport.blacklist kbd              rc5.d
bluemoon          kde4             rc6.d
bluetooth         kernel           rc.local
bonobo-activation kismet          rcS.d

```

## Command: lsblk

The “lsblk” stands for (List Block Devices), print block devices by their assigned name (but not RAM) on the standard output in a tree-like fashion.

```

root@kali:~# lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
sda          8:0    0   30G  0 disk
├─sda1       8:1    0  28.8G  0 part /
├─sda2       8:2    0    1K  0 part
└─sda5       8:5    0   1.3G  0 part [SWAP]
sdb          8:16   1   3.7G  0 disk
└─sdb1       8:17   1   2.9G  0 part /media/7404-AE1E
sr0         11:0    1 1024M  0 rom

```

he “lsblk -l” command list block devices in ‘list’ structure (not tree like fashion).

Note: lsblk is very useful and easiest way to know the name of New Usb Device you just plugged in, especially when you have to deal with disk/blocks in terminal.

## Command: sudo

he “sudo” (super user do) command allows a permitted user to execute a command as the superuser or another user, as specified by the security policy in the sudoers list.

exp: root@Kali:~# sudo add-apt-repository ppa:tualatrix/ppa

Note: sudo allows user to borrow superuser privileged, while a similar command ‘su’ allows user to actually log in as superuser. Sudo is safer than su.

It is not advised to use sudo or su for day-to-day normal use, as it can result in serious error if accidentally you did something wrong, that’s why a very popular saying in Linux community is:

“To err is human, but to really foul up everything, you need root password.”

### **Command: mkdir**

The “mkdir” (Make directory) command create a new directory with name path. However is the directory already exists, it will return an error message “cannot create folder, folder already exists”.

```
exp: root@Kalitut:~# mkdir Kalitut
```

Note: Directory can only be created inside the folder, in which the user has write permission. mkdir: cannot create directory `Kalitut`: File exists (Don't confuse with file in the above output, you might remember what i said at the beginning – In Linux every file, folder, drive, command, scripts are treated as file).

### **Command: chmod**

The Linux “chmod” command stands for (change file mode bits). chmod changes the file mode (permission) of each given file, folder, script, etc.. according to mode asked for.

There exist 3 types of permission on a file (folder or anything but to keep things simple we will be using file).

Read (r)=4

Write(w)=2

Execute(x)=1

So if you want to give only read permission on a file it will be assigned a value of ‘4’, for write permission only, a value of ‘2’ and for execute permission only, a value of ‘1’ is to be given. For read and write permission  $4+2 = '6'$  is to be given, and so on.

Now permission need to be set for 3 kinds of user and usergroup. The first is owner, then usergroup and finally world.

```
rwxr-x--x abc.sh
```

Here the root's permission is rwx (read, write and execute).

usergroup to which it belongs, is r-x (read and execute only, no write permission) and

for world is -x (only execute).

To change its permission and provide read, write and execute permission to owner, group and world.

```
root@Kali:~# chmod 777 abc.sh
```

only read and write permission to all three.

```
root@Kali:~# chmod 666 abc.sh
```

read, write and execute to owner and only execute to group and world.

```
root@Kali:~# chmod 711 abc.sh
```

Note: one of the most important command useful for sysadmin and user both. On a multi-user environment or on a server, this command comes to rescue, setting wrong permission will either makes a file inaccessible or provide unauthorized access to someone.

### **Command: tar**

The “tar” command is a Tape Archive is useful in creation of archive, in a number of file format and their extraction.

```
root@Kali:~# tar -zxvf abc.tar.gz (Remember 'z' for .tar.gz)
```

```
root@Kali:~# tar -jxvf abc.tar.bz2 (Remember 'j' for .tar.bz2)
```

```
root@Kali:~# tar -cvf archive.tar.gz(.bz2) /path/to/folder/abc
```

Note: A ‘tar.gz’ means gzipped. ‘tar.bz2’ is compressed with bzip which uses a better but slower compression method.

### **Command: cp**

The “copy” stands for (Copy), it copies a file from one location to another location.

```
root@Kali:~# cp /home/user/Downloads abc.tar.gz  
/home/user/Desktop (Return 0 when success)
```

Note: cp is one of the most commonly used command in shell scripting and it can be used with wildcard characters (Describe in the above block), for customised and desired file copying.

### **Command: mv**

The “mv” command moves a file from one location to another location.

```
root@Kali:~# mv /home/user/Downloads abc.tar.gz  
/home/user/Desktop (Return 0 when success)
```

Note: mv command can be used with wildcard characters. mv should be used with caution, as moving of system/unauthorised file may lead to security as well as breakdown of system.

### **Command: pwd**

The command “pwd” (print working directory), prints the current working directory with full path name from terminal.

```
root@Kali:~# pwd  
  
/home/user/Desktop
```

Note: This command won’t be much frequently used in scripting but it is an absolute life saver for newbie who gets lost in terminal in their early connection with nux. (Linux is most commonly referred as nux or nix).

### **Command: cd**

Finally, the frequently used “cd” command stands for (change directory), it change the working directory to execute, copy, move write, read, etc. from terminal itself.

```
root@Kali:~# cd /home/user/Desktop  
  
server@localhost:~$ pwd  
  
/home/user/Desktop
```

Note: cd comes to rescue when switching between directories from terminal. “Cd ~” will change the working directory to user’s home directory, and is very useful if a user finds himself lost in terminal. “Cd ..” will change the working directory to parent directory (of current working directory).



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