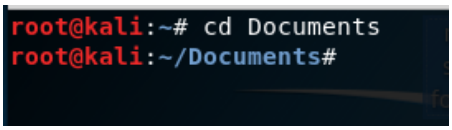
LINUX COMMANDS

1) ls command

- ls is list files and directories where we won't be able to view details like file types, size, modified date and time, permission and links.
- Syntax: ls [options][file/dir]

2) cd command

- cd is stands for change directory, changes the terminal shell's current working directory.
- Syntax: cd [directory]

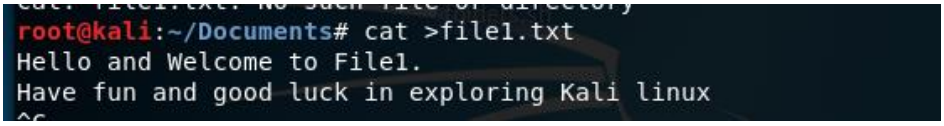


3) mv command

- mv is command for move. it is a Unix command that moves one or more files or directories from one place to another.
- Syntax: mv [options] source destination

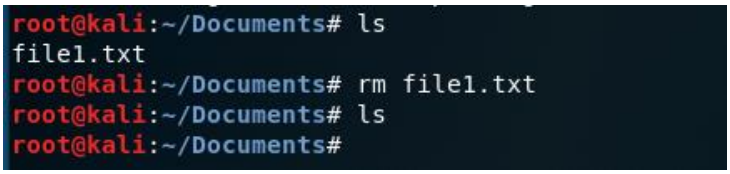
4) cat command

- cat is a standard Unix utility that used to display the context of text files and to combine several files to one files.
- Syntax: cat [options] file1 file2



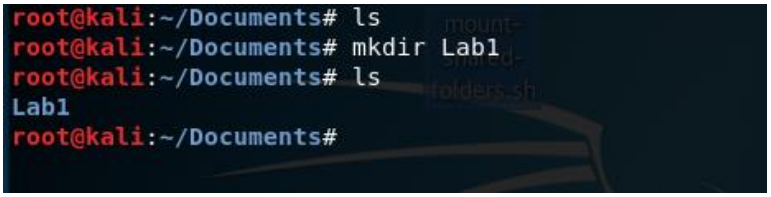
5) rm command

- rm is command for remove. It is a basic UNIX command used to remove objects such as files, directories, device nodes, symbolic links, and so on from the filesystem.

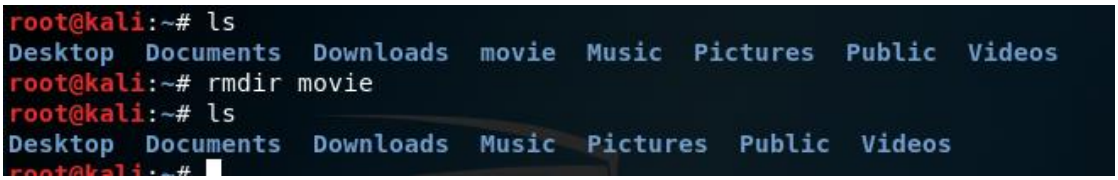


6) mkdir/rmdir command

- The mkdir is short for make directory command in the Unix, DOS, OS/2, and Microsoft Windows operating system.
- Syntax: mkdir filename



- The rmdir is a command for remove directory command in the Unix, DOS, OS/2, and Microsoft Windows operating systems.
- Syntax: rmdir filename



7) touch command

- touch is a standard Unix command-line interface program which is used to change the file's timestamps. In its default usage, it is the equivalent of creating or opening a file and saving it without any change to the file contents.
- Syntax: touch filename

8) pwd command

- The pwd command is short for print working directory that writes the full pathname of the current working directory to the standard output.
- Syntax: pwd [option](option is not necessary)

```
root@kali:~# cd Documents
root@kali:~/Documents# pwd
/root/Documents
root@kali:~/Documents#
```

9) top command

- top (table of processes) is a task manager program found in many Unix-like operating systems.
- Syntax: top [option]

```
root@kali:~# top

top - 23:00:56 up  1:09,  1 user,  load average: 0.94, 0.53, 0.32
Tasks: 217 total,   1 running, 216 sleeping,   0 stopped,   0 zombie
%Cpu(s):  4.7 us,  8.0 sy,  0.0 ni, 86.6 id,  0.0 wa,  0.0 hi,  0.7 si,  0.0 st
KiB Mem :   999464 total,    95184 free,   773288 used,   130992 buff/cache
KiB Swap:  1046524 total,   855804 free,   190720 used.    88108 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR S %CPU %MEM     TIME+ COMMAND
  906 root      20   0  371176  22152  10556 S  6.1  2.2   5:23.66 Xorg
 1010 root      20   0 3318868 235892  39760 S  3.6 23.6   2:24.44 gnome-shell
 1733 root      20   0   46876   3728   3072 R  1.3  0.4   0:00.27 top
   22 root      20   0       0      0      0 S  0.6  0.0   0:33.82 kworker/0:1
 1721 root      20   0  590680  38268  26200 S  0.6  3.8   0:02.08 gnome-term+
    1 root      20   0  219268   5516   4332 S  0.3  0.6   0:14.42 systemd
 1193 root      20   0  738620  33956  20628 S  0.3  3.4   0:05.50 nautilus-d+
    2 root      20   0       0      0      0 S  0.0  0.0   0:00.05 kthreadd
    4 root       0 -20       0      0      0 S  0.0  0.0   0:00.00 kworker/0:+
    6 root       0 -20       0      0      0 S  0.0  0.0   0:00.00 mm_percpu_+
    7 root      20   0       0      0      0 S  0.0  0.0   0:04.16 ksoftirqd/0
    8 root      20   0       0      0      0 S  0.0  0.0   0:05.42 rcu_sched
    9 root      20   0       0      0      0 S  0.0  0.0   0:00.00 rcu_bh
   10 root      rt   0       0      0      0 S  0.0  0.0   0:00.00 migration/0
```

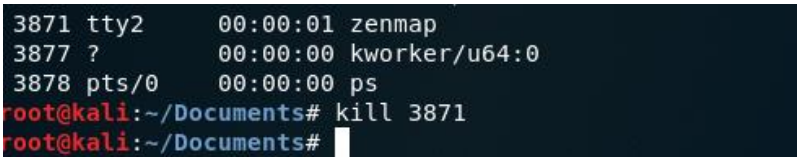
10) ps command

- The ps program is short for process status. It displays the currently-running processes
- 1. PID = Process ID number
  2. TTY = Terminal associated with the process
  3. CMD = Name of the process

```
root@kali:~/Documents# ps
  PID TTY          TIME CMD
 1586 pts/0    00:00:00 bash
 3828 pts/0    00:00:00 ps
```

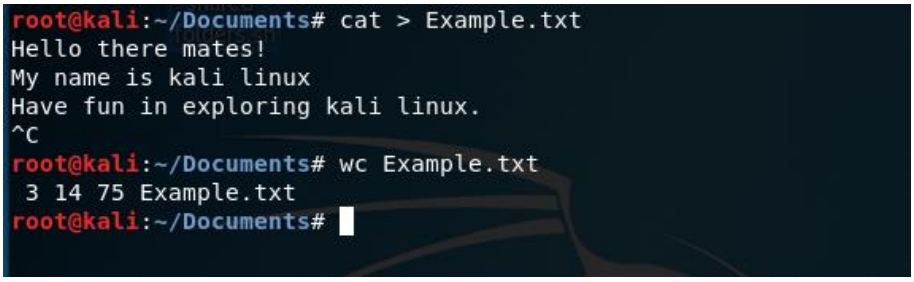
11) kill command

- kill is a command that is used in several popular operating systems to send signals to running processes.
- Syntax: kill [signal]



12) wc command

- wc (short for word count) is a command in Unix-like operating systems.The program reads either standard input or a list of files and generates one or more of the following statistics: newline count, word count, and byte count. If a list of files is provided, both individual file and total statistics follow.
- 1. wc -l <filename> prints the line count (note that if the last line does not have \n, it will not be counted)
  2. wc -c <filename> prints the byte count
  3. wc -m <filename> prints the character count
  4. wc -w <filename> prints the word count



13) ping command

- Ping is a computer network administration software utility used to test the reachability of a host on an Internet Protocol (IP) network. It measures the round-trip time for messages sent from the originating host to a destination computer that are echoed back to the source.

14) grep command

- ✓ grep is a command-line utility for searching plain-text data sets for lines that match a regular expression.

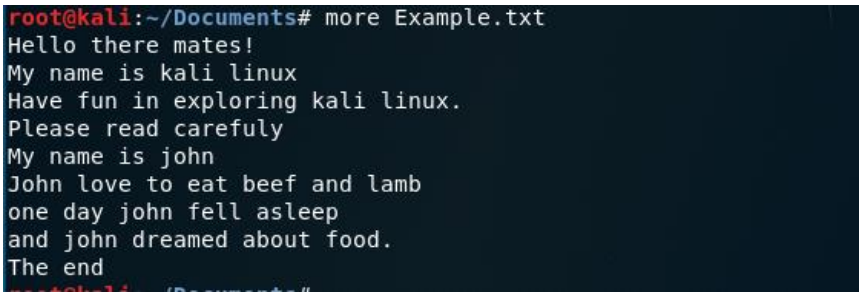
15) more/less command

- ✓ **More** is a command to view (but not modify) the contents of a text file one screen at a time

more [options] [file_name].

1. -num: This option specifies an integer which is the screen size (in lines).
2. -d: more will prompt the user with the message "[Press space to continue, 'q' to quit.]" and will display "[Press 'h' for instructions.]" instead of ringing the bell when an illegal key is pressed.

3. -l: more usually treats ^L (form feed) as a special character, and will pause after any line that contains a form feed. The -l option will prevent this behavior.
4. -f: Causes more to count logical, rather than screen lines (i.e., long lines are not folded).
5. -p: Do not scroll. Instead, clear the whole screen and then display the text.
6. -c: Do not scroll. Instead, paint each screen from the top, clearing the remainder of each line as it is displayed.
7. -s: Squeeze multiple blank lines into one.
8. -u: Backspaces and carriage returns to be treated as printable characters;
9. +/: This option specifies a string that will be searched for before each file is displayed. (Ex.: more +/Preamble gpl.txt)
10. +num: Start at line number num.



- ✓ **less** is a terminal pager program on Unix, Windows, and Unix-like systems used to view (but not change) the contents of a text file one screen at a time. It is similar to more, but has the extended capability of allowing both forward and backward navigation through the file.

less [options] [file_name].

1. -g: Highlights just the current match of any searched string.
2. -I: Case-insensitive searches.
3. -M: Shows more detailed prompt, including file position.
4. -N: Shows line numbers (useful for source code viewing).
5. -S: Disables line wrap ("chop long lines"). Long lines can be seen by side scrolling.
6. -X: Leave file contents on screen when less exits.
7. -?: Shows help.
8. +F: Follow mode for log.

```
root@kali:~/Documents# less -N Example.txt

     1 Hello there mates!
     2 My name is kali linux
     3 Have fun in exploring kali linux.
     4 Please read carefuly
     5 My name is john
     6 John love to eat beef and lamb
     7 one day john fell asleep
     8 and john dreamed about food.
     9 The end
Example.txt (END)
```

16) uname command

- uname is a computer program that prints the name, version and other details about the current machine and the operating system running on it.
- Syntax: uname [option]

```
root@kali:~/Documents# uname
Linux
```

17) uptime command

- displays how long the system has been running.
- Syntax: uptime [option]

```
root@kali:~/Documents# uptime
 00:35:57 up  6:49,  1 user,  load average: 0.03, 0.02, 0.00
```

18) netstat command

- netstat is use to print network connections, routing tables, interface statistics, nad multicast memberships.
- Syntax: netstat [option]

```
root@kali:~/Documents# netstat
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
udp6       0      0 localhost:49098         localhost:49098         ESTABLISHED
Active UNIX domain sockets (w/o servers)
Proto RefCnt Flags       Type       State         I-Node   Path
unix  2      [ ]         DGRAM                    19762    /run/user/0/systemd/notify
unix  2      [ ]         DGRAM                    14945    /run/user/130/systemd/noti
fy
unix  3      [ ]         DGRAM                    1665     /run/systemd/notify
unix  15     [ ]         DGRAM                    1682     /run/systemd/journal/dev-l
```

19) chmod command

- chmod is the command which change the access permissions to file system objects (files and directories).

```
root@kali:~/Documents# chmod 764 Example.txt
root@kali:~/Documents# ls -l Example.txt
-rwxrw-r-- 1 root root 205 Mar 17 23:55 Example.txt
```

20) chown command

- The command chown, an abbreviation of change owner. Regular users who wish to change the group membership of a file that they own.

```
root@kali:~/Documents# ls -l
total 8
-rwxrw-r-- 1 root root  205 Mar 17 23:55 Example.txt
drwxr-xr-x 2 root root 4096 Mar 18 00:05 LabExercises
root@kali:~/Documents# chown 444 Example.txt
root@kali:~/Documents# ls -l
total 8
-rwxrw-r-- 1  444 root  205 Mar 17 23:55 Example.txt
drwxr-xr-x 2 root root 4096 Mar 18 00:05 LabExercises
```

21) file command

- The command file is to determine type of file.
- Syntax: file filename

```
root@kali:~/Documents# file Example.txt
Example.txt: ASCII text
```

22) ln command

- The ln command used to create a hard link or a symbolic link to an existing file.
- Syntax: ln [target]

1. -f Force existing destination pathnames to be removed to allow the link.
2. -P For each source_file operand that names a file that is a symbolic link, create a (hard) link to the symbolic link itself.
3. -L For each source_file operand that names a file that is a symbolic link, create a hard link to the file referenced by the symbolic link.

```
root@kali:~# ln games Downloads
root@kali:~# ls
Desktop    Downloads  Music     Public     user
Documents  games      Pictures  Templates  Videos
```