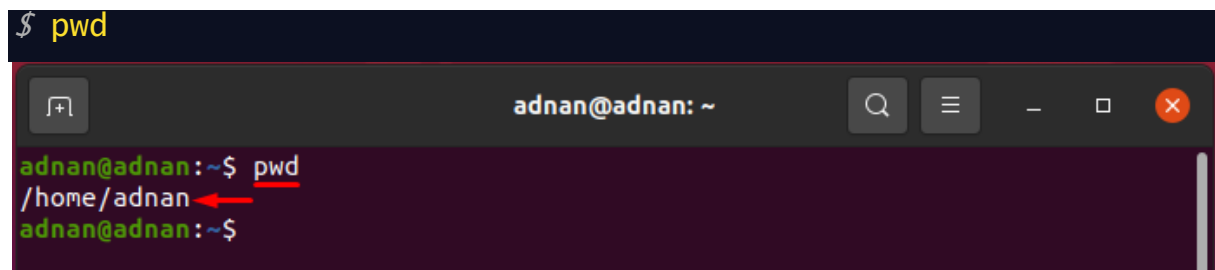


## Command 1: pwd

This command refers to the present working directory in which you are operating; in simpler words, in which your terminal is open. To check PWD, execute the pwd keyword in your terminal and hit enter; the command of PWD is written below along with the result of that command.

0 seconds of 2 minutes, 28 secondsVolume 0%

```
$ pwd
```

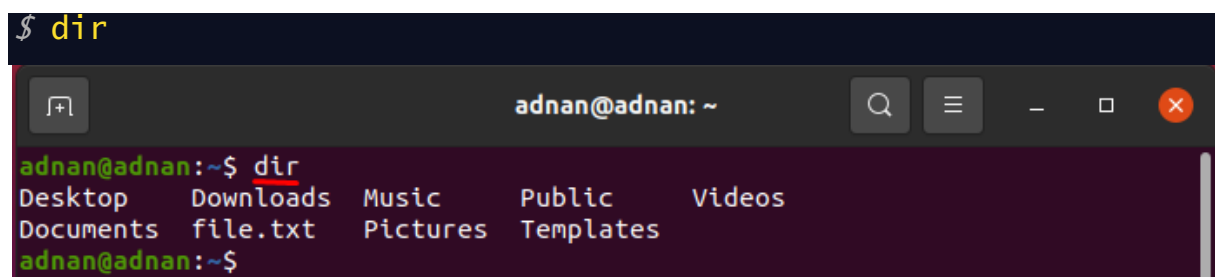


The screenshot shows a terminal window titled 'adnan@adnan: ~'. The user enters the command 'pwd' at the prompt 'adnan@adnan:~\$'. The terminal output is '/home/adnan', with a red arrow pointing to the text. The prompt then returns to 'adnan@adnan:~\$'.

## Command 2: dir

The dir command is used to print (on the terminal) all the available directories in the present working directory:

```
$ dir
```

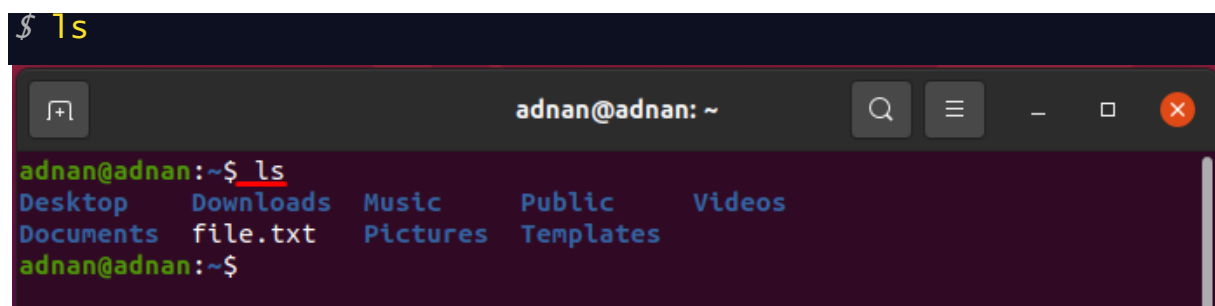


The screenshot shows a terminal window titled 'adnan@adnan: ~'. The user enters the command 'dir' at the prompt 'adnan@adnan:~\$'. The terminal output lists the following: Desktop, Downloads, Music, Public, Videos, Documents, file.txt, Pictures, and Templates. The prompt then returns to 'adnan@adnan:~\$'.

## Command 3: ls

This command is used to list down all the directories and files inside the present working directory (or you can give the path of a specific directory); the ls command can be executed as shown below:

```
$ ls
```

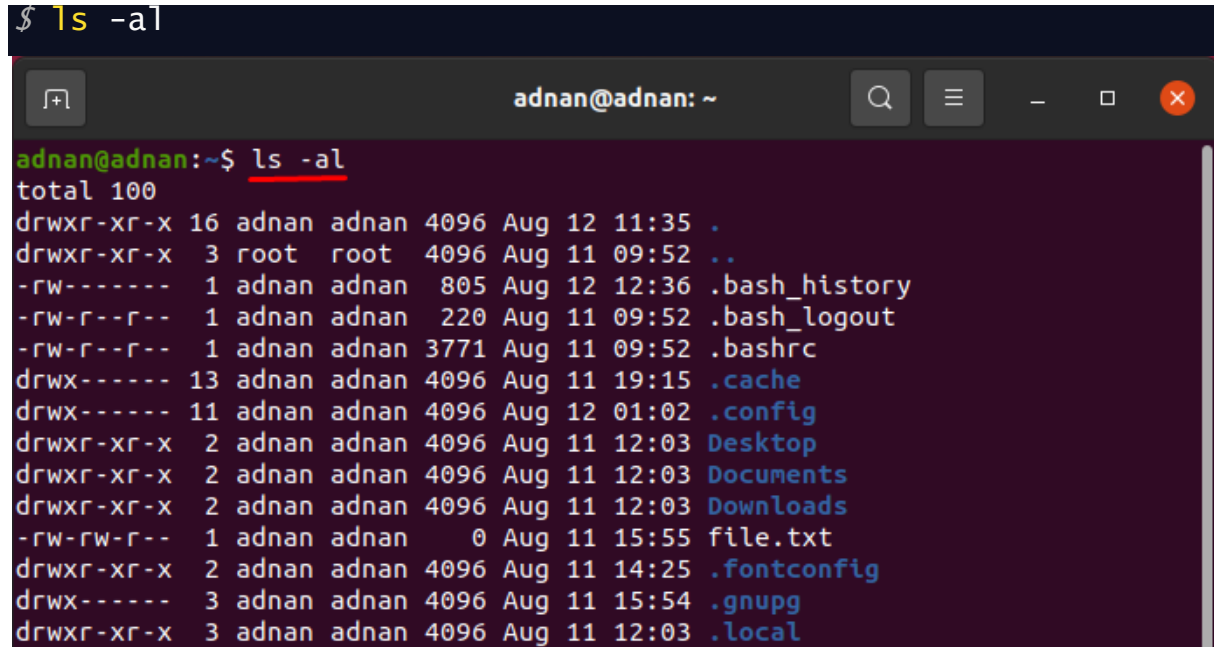


The screenshot shows a terminal window titled 'adnan@adnan: ~'. The user enters the command 'ls' at the prompt 'adnan@adnan:~\$'. The terminal output lists the following: Desktop, Downloads, Music, Public, Videos, Documents, file.txt, Pictures, and Templates. The prompt then returns to 'adnan@adnan:~\$'.

The ls command supports various flags, and each flag has some specific role in printing the directories or files of the current working directory.

To print the detailed information of the files/directories; the “-al” flag is used with the “ls” command:

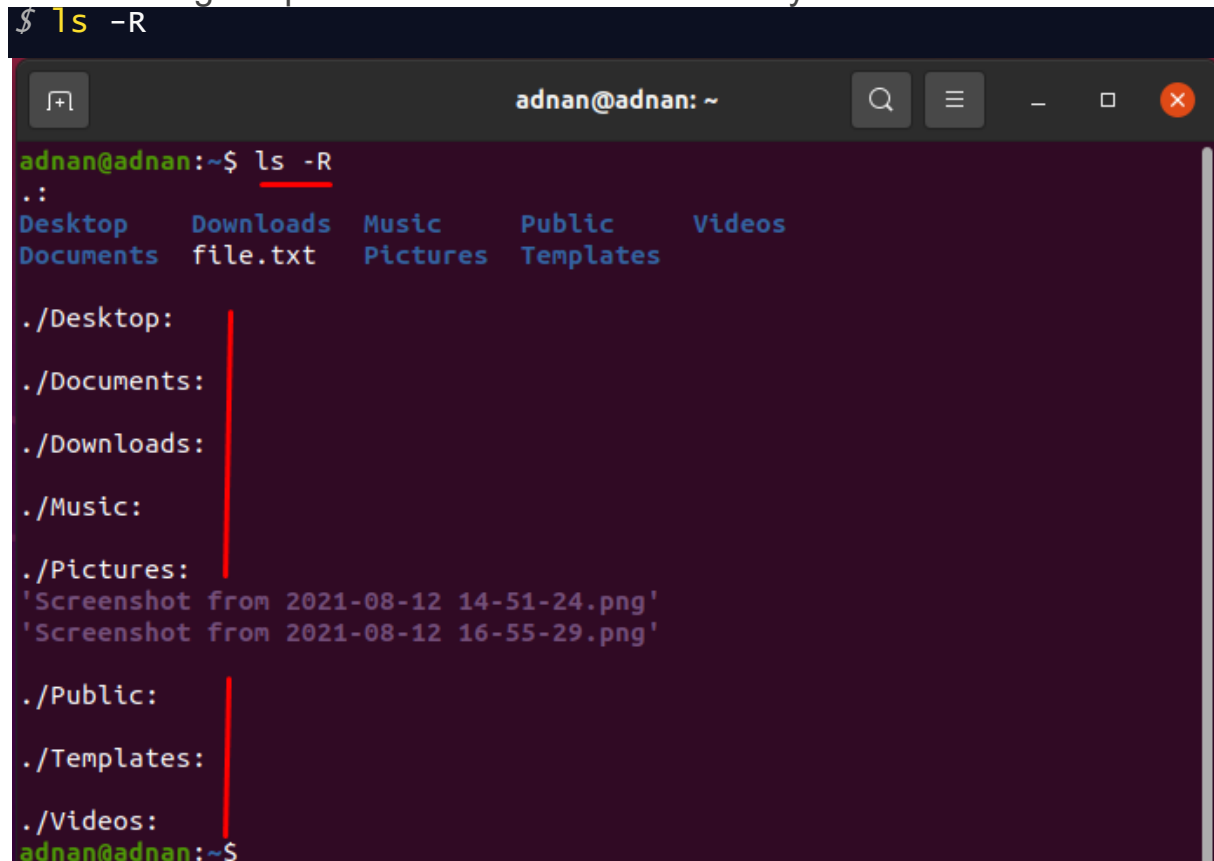
```
$ ls -al
```



```
adnan@adnan:~$ ls -al
total 100
drwxr-xr-x 16 adnan adnan 4096 Aug 12 11:35 .
drwxr-xr-x  3 root  root  4096 Aug 11 09:52 ..
-rw-r--r--  1 adnan adnan   805 Aug 12 12:36 .bash_history
-rw-r--r--  1 adnan adnan   220 Aug 11 09:52 .bash_logout
-rw-r--r--  1 adnan adnan 3771 Aug 11 09:52 .bashrc
drwxr-xr-x 13 adnan adnan 4096 Aug 11 19:15 .cache
drwxr-xr-x 11 adnan adnan 4096 Aug 12 01:02 .config
drwxr-xr-x  2 adnan adnan 4096 Aug 11 12:03 Desktop
drwxr-xr-x  2 adnan adnan 4096 Aug 11 12:03 Documents
drwxr-xr-x  2 adnan adnan 4096 Aug 11 12:03 Downloads
-rw-rw-r--  1 adnan adnan    0 Aug 11 15:55 file.txt
drwxr-xr-x  2 adnan adnan 4096 Aug 11 14:25 .fontconfig
drwxr-xr-x  3 adnan adnan 4096 Aug 11 15:54 .gnupg
drwxr-xr-x  3 adnan adnan 4096 Aug 11 12:03 .local
```

The “-R” flag will print subdirectories of a directory as well:

```
$ ls -R
```



```
adnan@adnan:~$ ls -R
.:
Desktop  Downloads Music    Public  Videos
Documents file.txt Pictures Templates

./Desktop:

./Documents:

./Downloads:

./Music:

./Pictures:
'Screenshot from 2021-08-12 14-51-24.png'
'Screenshot from 2021-08-12 16-55-29.png'

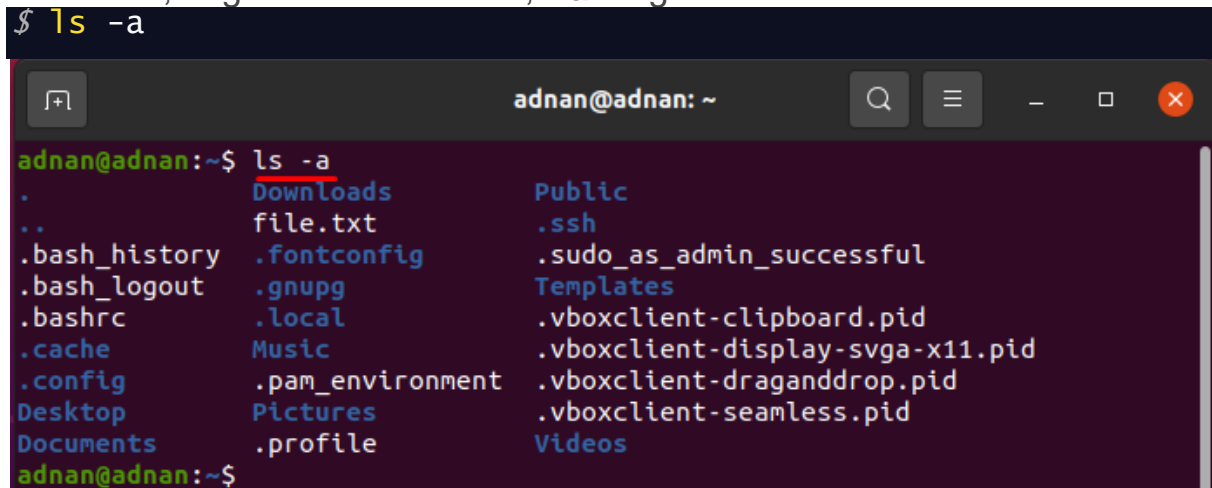
./Public:

./Templates:

./Videos:
adnan@adnan:~$
```

Moreover, to get the hidden files, “-a” flag is used:

```
$ ls -a
```

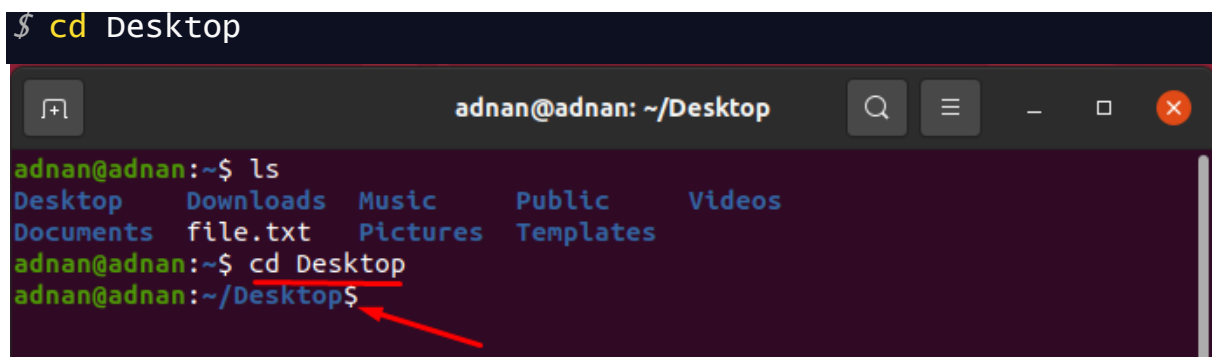


```
adnan@adnan:~$ ls -a
.          Downloads      Public
..         file.txt        .ssh
.bash_history .fontconfig    .sudo_as_admin_successful
.bash_logout .gnupg         Templates
.bashrc     .local         .vboxclient-clipboard.pid
.cache     Music          .vboxclient-display-svgx-x11.pid
.config    .pam_environment .vboxclient-draganddrop.pid
Desktop    Pictures       .vboxclient-seamless.pid
Documents  .profile      Videos
adnan@adnan:~$
```

## Command 4: cd

One of the most used commands of Ubuntu; you can change the directories in the terminal using the “cd” command. For instance, the following command will change the pwd to desktop.

```
$ cd Desktop
```



```
adnan@adnan:~$ ls
Desktop  Downloads  Music      Public      Videos
Documents file.txt   Pictures   Templates
adnan@adnan:~$ cd Desktop
adnan@adnan:~/Desktop$
```

There are multiple uses of this command: one can change the present directory to root directory or home directory using this command. When you open a fresh terminal, you are in the home directory.

To change directory to root. For instance, we are in the Desktop directory and want to switch to the root directory:

```
$ cd /
```

```
adnan@adnan: /
adnan@adnan:~/Desktop$ cd /
adnan@adnan:/$
```

To change the present directory to the home directory:

```
$ cd
adnan@adnan: ~
adnan@adnan:/$ cd
adnan@adnan:~$
```

## Command 5: touch

This Ubuntu command can be used to create a new file as well one can use it to change the timestamp of any file; the command given below will create a new text file in pwd:

```
$ touch file1.txt
adnan@adnan: ~
adnan@adnan:~$ touch file1.txt
adnan@adnan:~$ ls
Desktop  Downloads  Music      Public     Videos
Documents file1.txt  Pictures   Templates
```

If we execute a touch command to create a file, but the file is already created, then it would change the timestamp of that file to the current time; for instance, the command given below will change the timestamp of the file1.txt. you can check that the timestamp has been changed to the current time:

```
$ touch file1.txt
```

```
adnan@adnan: ~  
adnan@adnan:~$ touch file1.txt  
adnan@adnan:~$ stat file1.txt  
  File: file1.txt  
  Size: 0          Blocks: 0          IO Block: 4096   regular empty file  
Device: 805h/2053d Inode: 666718      Links: 1  
Access: (0664/-rw-rw-r--)  Uid: ( 1000/   adnan)   Gid: ( 1000/   adnan)  
Access: 2021-08-12 18:03:18.957624485 +0500  
Modify: 2021-08-12 18:03:18.957624485 +0500  
Change: 2021-08-12 18:03:18.957624485 +0500  
 Birth: -  
adnan@adnan:~$
```

## Command 6: cat

This command is used to show the content of any file: For instance, the following command will display the content inside “file1.txt”:

```
$ cat file1.txt  
  
adnan@adnan:~$ cat file1.txt  
Ford Escape S -24885  
Ford Escape SE-26610  
Ford Escape SEL- 29205  
Ford Escape Titanium - 35755  
Sport - 24475  
Touring - 27075  
Grand Touring - 30175  
Grand Touring Reserve - 32675  
Carbon - 32950  
Signature - 35900  
LX- 23490  
LXS- 24490  
GT-Line - 25390  
EX- 27990  
GT- 30490  
adnan@adnan:~$
```

Or you can use this command to save the content of multiples files to one file:

```
$ cat file1.txt file2.txt > output.txt
```

```
adnan@adnan: ~  
adnan@adnan:~$ cat file1.txt file2.txt > output.txt  
adnan@adnan:~$ cat output.txt  
Ford Escape S -24885  
Ford Escape SE-26610  
Ford Escape SEL- 29205  
Ford Escape Titanium - 35755  
Sport - 24475  
Touring - 27075  
Grand Touring - 30175  
Grand Touring Reserve - 32675  
Carbon - 32950  
Signature - 35900  
LX- 23490  
LXS- 24490  
GT-Line - 25390  
EX- 27990  
GT- 30490
```

## Command 7: mkdir

The above-mentioned command will make a directory in your pwd; for example, the following command will make the directory “new” in pwd.

```
$ mkdir new  
adnan@adnan:~$ mkdir new  
adnan@adnan:~$ ls  
Desktop    Downloads  file2.txt  new      Pictures  Templates  
Documents  file1.txt  Music     output.txt Public     Videos  
adnan@adnan:~$
```

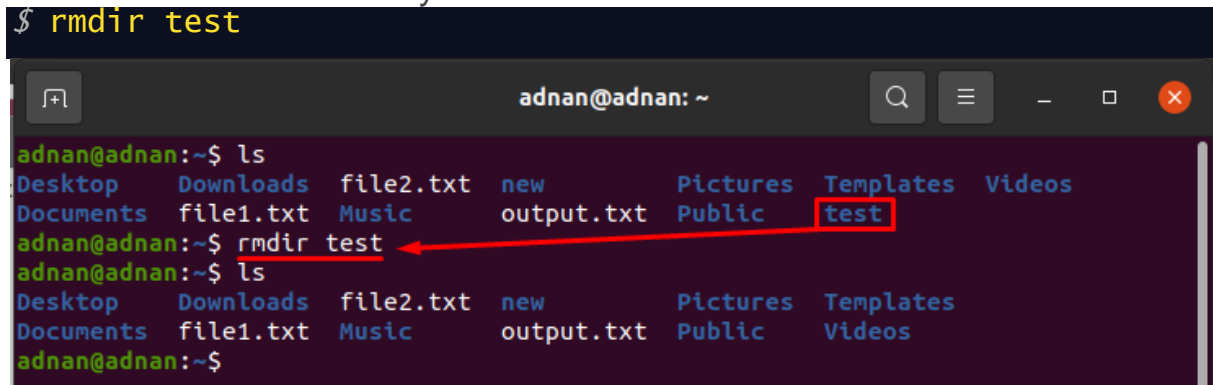
## Command 8: rm

This remove command is used to remove the specific file from a directory; For instance, below mentioned command would remove the “test.txt” file from the pwd:

```
$ rm test.txt  
adnan@adnan:~$ ls  
Desktop    Downloads  file2.txt  new      Pictures  Templates  test.txt  
Documents  file1.txt  Music     output.txt Public     test      Videos  
adnan@adnan:~$ rm test.txt  
adnan@adnan:~$ ls  
Desktop    Downloads  file2.txt  new      Pictures  Templates  Videos  
Documents  file1.txt  Music     output.txt Public     test  
adnan@adnan:~$
```

Or you can remove the empty directory, as the command given below will remove the “test” directory:

```
$ rmdir test
```



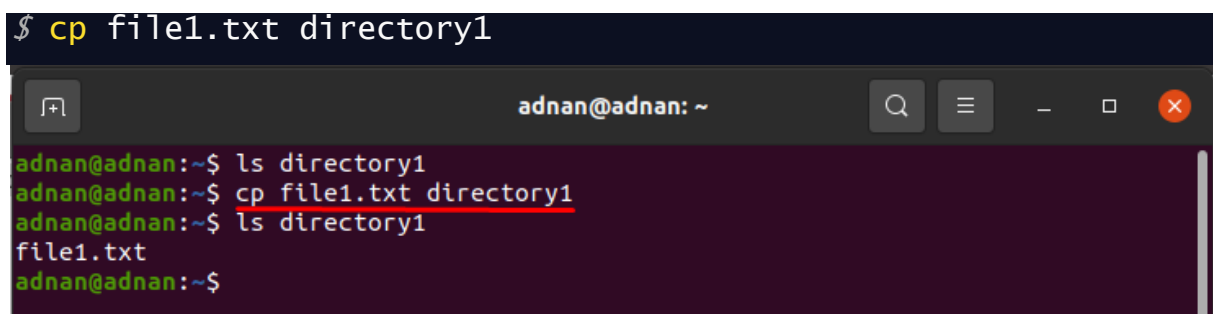
```
adnan@adnan:~$ ls
Desktop  Downloads  file2.txt  new      Pictures  Templates  Videos
Documents file1.txt  Music      output.txt Public     test
adnan@adnan:~$ rmdir test
adnan@adnan:~$ ls
Desktop  Downloads  file2.txt  new      Pictures  Templates  Videos
Documents file1.txt  Music      output.txt Public     Videos
adnan@adnan:~$
```

## Command 9: cp

The cp command will help you to copy any file or folder to any directory;

To copy a file to directory1:

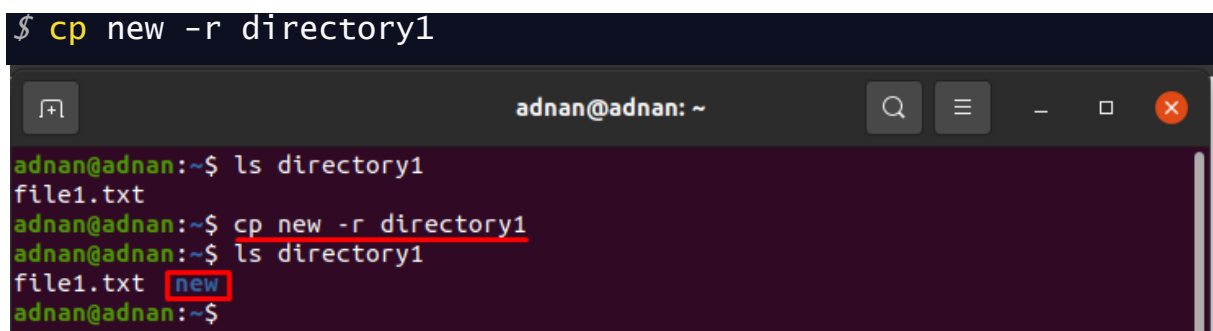
```
$ cp file1.txt directory1
```



```
adnan@adnan:~$ ls directory1
adnan@adnan:~$ cp file1.txt directory1
adnan@adnan:~$ ls directory1
file1.txt
adnan@adnan:~$
```

If you want to copy the complete folder, then;

```
$ cp new -r directory1
```

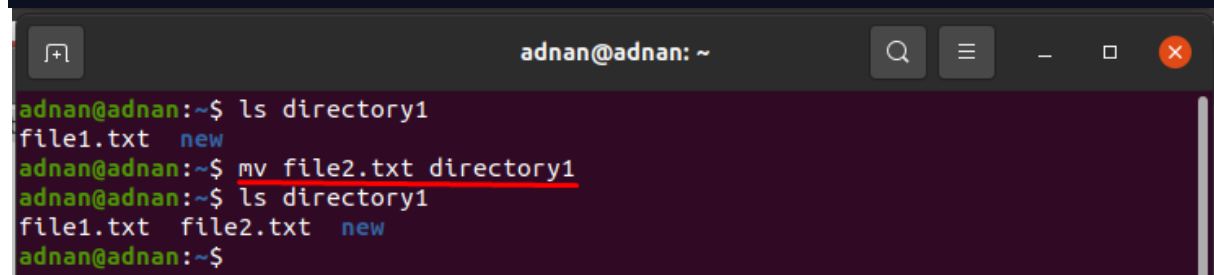


```
adnan@adnan:~$ ls directory1
file1.txt
adnan@adnan:~$ cp new -r directory1
adnan@adnan:~$ ls directory1
file1.txt new
adnan@adnan:~$
```

## Command 10: mv

You can use this command to move files around the computer, and you can also rename files or directories inside a specific directory: the command given below will move the “**file2.txt**” to “**directory1**”:

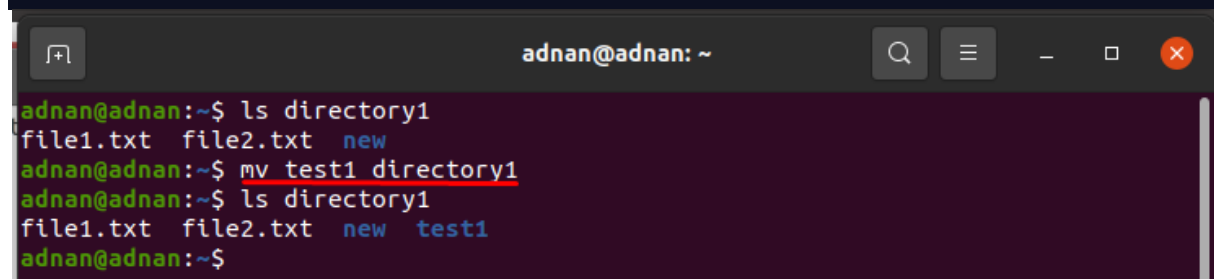
```
$ mv file2.txt directory1
```



```
adnan@adnan: ~  
adnan@adnan:~$ ls directory1  
file1.txt  new  
adnan@adnan:~$ mv file2.txt directory1  
adnan@adnan:~$ ls directory1  
file1.txt  file2.txt  new  
adnan@adnan:~$
```

Moreover, the command given below will move the “**test1**” directory to “**directory1**”:

```
$ mv test1 directory1
```

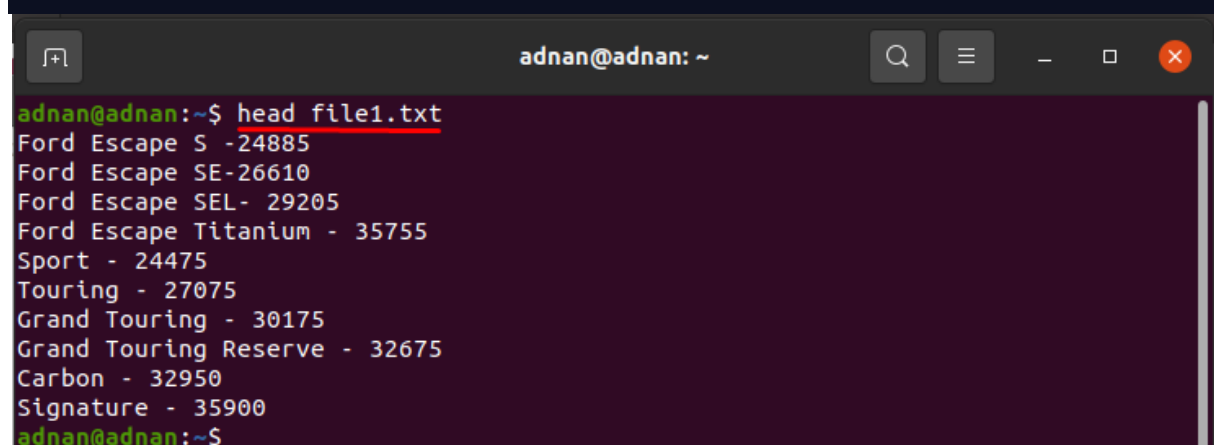


```
adnan@adnan: ~  
adnan@adnan:~$ ls directory1  
file1.txt  file2.txt  new  
adnan@adnan:~$ mv test1 directory1  
adnan@adnan:~$ ls directory1  
file1.txt  file2.txt  new  test1  
adnan@adnan:~$
```

## Command 11: head

This command helps you to get the first ten lines of a text file; for instance, the following command will help to get the first ten lines of the “**file1.txt**” file:

```
$ head file1.txt
```



```
adnan@adnan: ~  
adnan@adnan:~$ head file1.txt  
Ford Escape S -24885  
Ford Escape SE-26610  
Ford Escape SEL- 29205  
Ford Escape Titanium - 35755  
Sport - 24475  
Touring - 27075  
Grand Touring - 30175  
Grand Touring Reserve - 32675  
Carbon - 32950  
Signature - 35900  
adnan@adnan:~$
```

## Command 12: tail



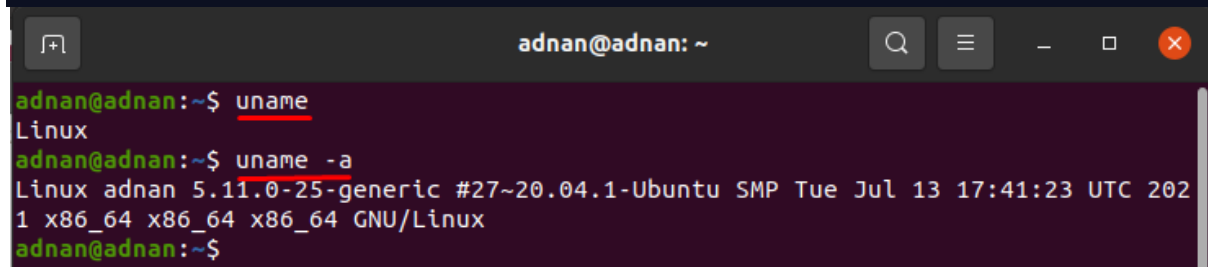
The tail command is used to get the last ten lines of the text file; the command below will print the ten lines from the bottom of “file1.txt”:

```
$ tail file1.txt
```

## Command 13: uname

You can use the command to get the release number, version of Linux, and much more. The “-a” flag is used to get detailed information.

```
$ uname -a
```

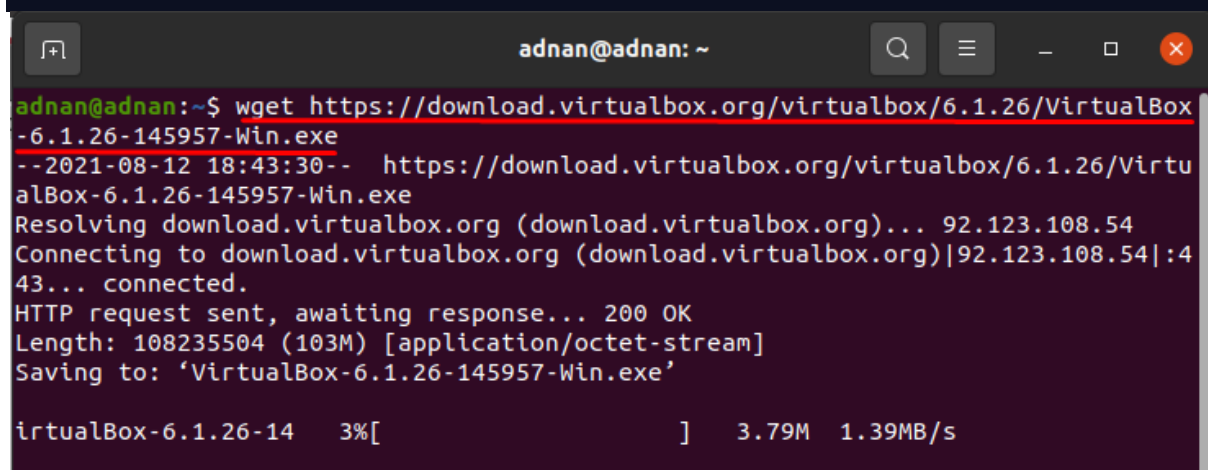


```
adnan@adnan: ~  
adnan@adnan:~$ uname  
Linux  
adnan@adnan:~$ uname -a  
Linux adnan 5.11.0-25-generic #27~20.04.1-Ubuntu SMP Tue Jul 13 17:41:23 UTC 2021 x86_64 x86_64 x86_64 GNU/Linux  
adnan@adnan:~$
```

## Command 14: wget

You can use the wget command to download the content from the internet; for instance, the following command will download VirtualBox.

```
$ wget https://download.virtualbox.org/virtualbox/6.1.26/VirtualBox-6.1.26-145957-Win.exe
```



```
adnan@adnan: ~  
adnan@adnan:~$ wget https://download.virtualbox.org/virtualbox/6.1.26/VirtualBox-6.1.26-145957-Win.exe  
--2021-08-12 18:43:30-- https://download.virtualbox.org/virtualbox/6.1.26/VirtualBox-6.1.26-145957-Win.exe  
Resolving download.virtualbox.org (download.virtualbox.org)... 92.123.108.54  
Connecting to download.virtualbox.org (download.virtualbox.org)|92.123.108.54|:443... connected.  
HTTP request sent, awaiting response... 200 OK  
Length: 108235504 (103M) [application/octet-stream]  
Saving to: 'VirtualBox-6.1.26-145957-Win.exe'  
  
VirtualBox-6.1.26-14 3%[          ] 3.79M 1.39MB/s
```

## Command 15: apt-get or -apt

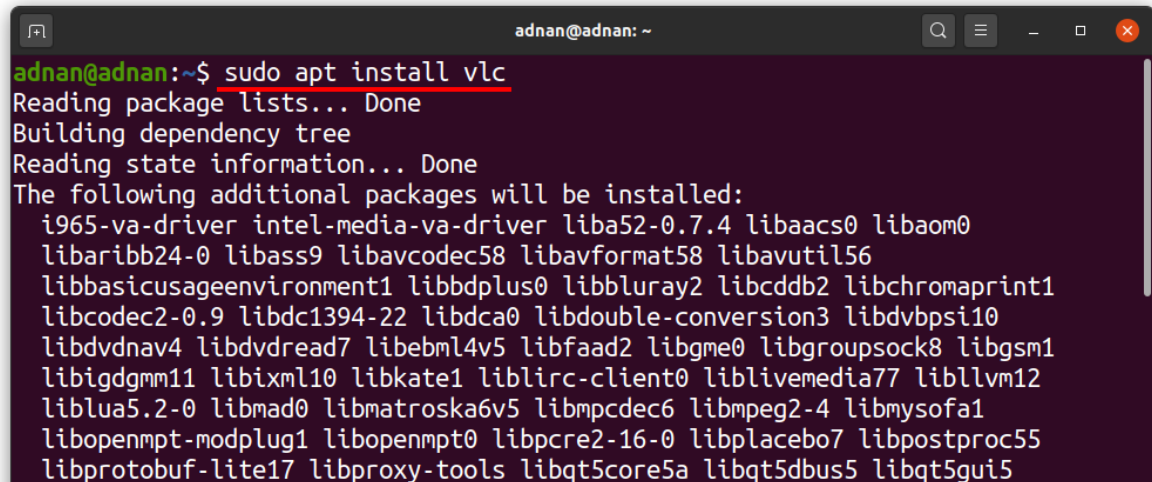
This is one of the most important and most used commands of Ubuntu that works with Ubuntu Advanced Packaging Tool (APT); you can use this “-apt-get” or “-apt” to install or remove packages, or you can perform other maintenance tasks. The “apt” requires sudo privileges to successfully execute the command.

The syntax stated below will help you to install the required package:

```
$ sudo apt install [packagename]
```

For install to install vlc media player package use:

```
$ sudo apt install vlc
```

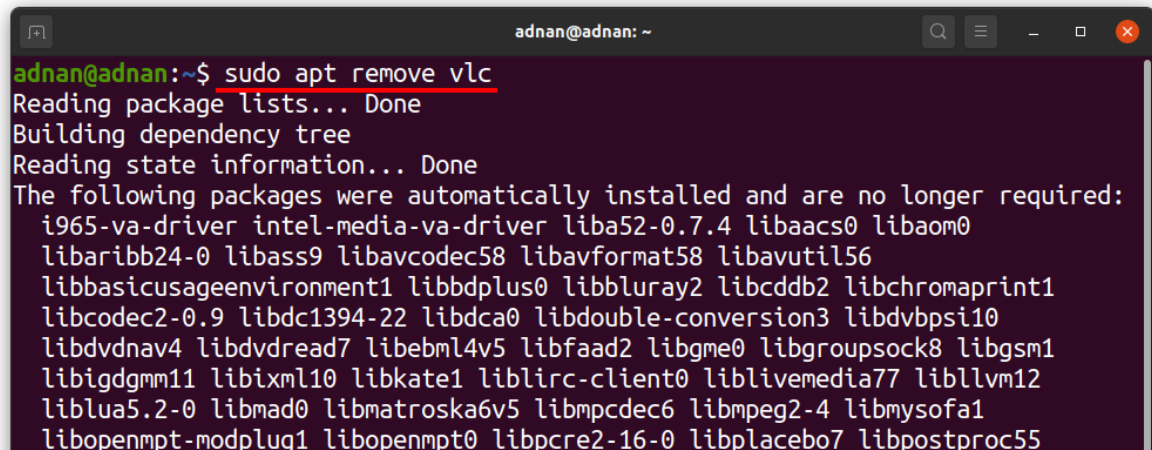


```
adnan@adnan:~$ sudo apt install vlc
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  i965-va-driver intel-media-va-driver liba52-0.7.4 libaacs0 libaom0
  libaribb24-0 libass9 libavcodec58 libavformat58 libavutil56
  libbasicusageenvironment1 libbdplus0 libbluray2 libcdcb2 libchromaprint1
  libcodec2-0.9 libdc1394-22 libdca0 libdouble-conversion3 libdvbpsi10
  libdvnav4 libdvread7 libebml4v5 libfaad2 libgme0 libgroupsock8 libgsm1
  libigdgmm11 libixml10 libkate1 liblirc-client0 liblivemedia77 libllvm12
  liblua5.2-0 libmad0 libmatroska6v5 libmpcdec6 libmpeg2-4 libmysofa1
  libopenmpt-modplug1 libopenmpt0 libpcres2-16-0 libplacebo7 libpostproc55
  libprotobuf-lite17 libproxy-tools libqt5core5a libqt5dbus5 libqt5gui5
```

Or you can remove the package by executing the command given below:

```
$ sudo apt remove [packagename]
```

And to delete vlc media player package:



```
adnan@adnan:~$ sudo apt remove vlc
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  i965-va-driver intel-media-va-driver liba52-0.7.4 libaacs0 libaom0
  libaribb24-0 libass9 libavcodec58 libavformat58 libavutil56
  libbasicusageenvironment1 libbdplus0 libbluray2 libcdcb2 libchromaprint1
  libcodec2-0.9 libdc1394-22 libdca0 libdouble-conversion3 libdvbpsi10
  libdvnav4 libdvread7 libebml4v5 libfaad2 libgme0 libgroupsock8 libgsm1
  libigdgmm11 libixml10 libkate1 liblirc-client0 liblivemedia77 libllvm12
  liblua5.2-0 libmad0 libmatroska6v5 libmpcdec6 libmpeg2-4 libmysofa1
  libopenmpt-modplug1 libopenmpt0 libpcres2-16-0 libplacebo7 libpostproc55
```

## Command 16: history

The history command shows the list of commands (with numeric numbers) executed:

```
$ history
```

```
adnan@adnan: ~  
adnan@adnan:~$ history  
1 clear  
2 sudo apt update  
3 clear  
4 sudo apt upgrade  
5 clear  
6 sudo apt update  
7 clear  
8 sudo aptinstall build-essential dkms linux-headers-$(uname -r)  
9 sudo apt install build-essential dkms linux-headers-$(uname -r)  
10 clear  
11 sudo shutdown -r now  
12 touch file.txt  
13 service  
14 clear  
15 man service  
16 clear  
17 man cat  
18 clear
```

And you can execute any of the listed commands. For instance, if you want to execute the 2nd command (which is apt update command), then you have to write “!2” to get the result of that command:

```
$ !2  
adnan@adnan:~$ !2  
sudo apt update  
[sudo] password for adnan:
```

## Command 17: grep

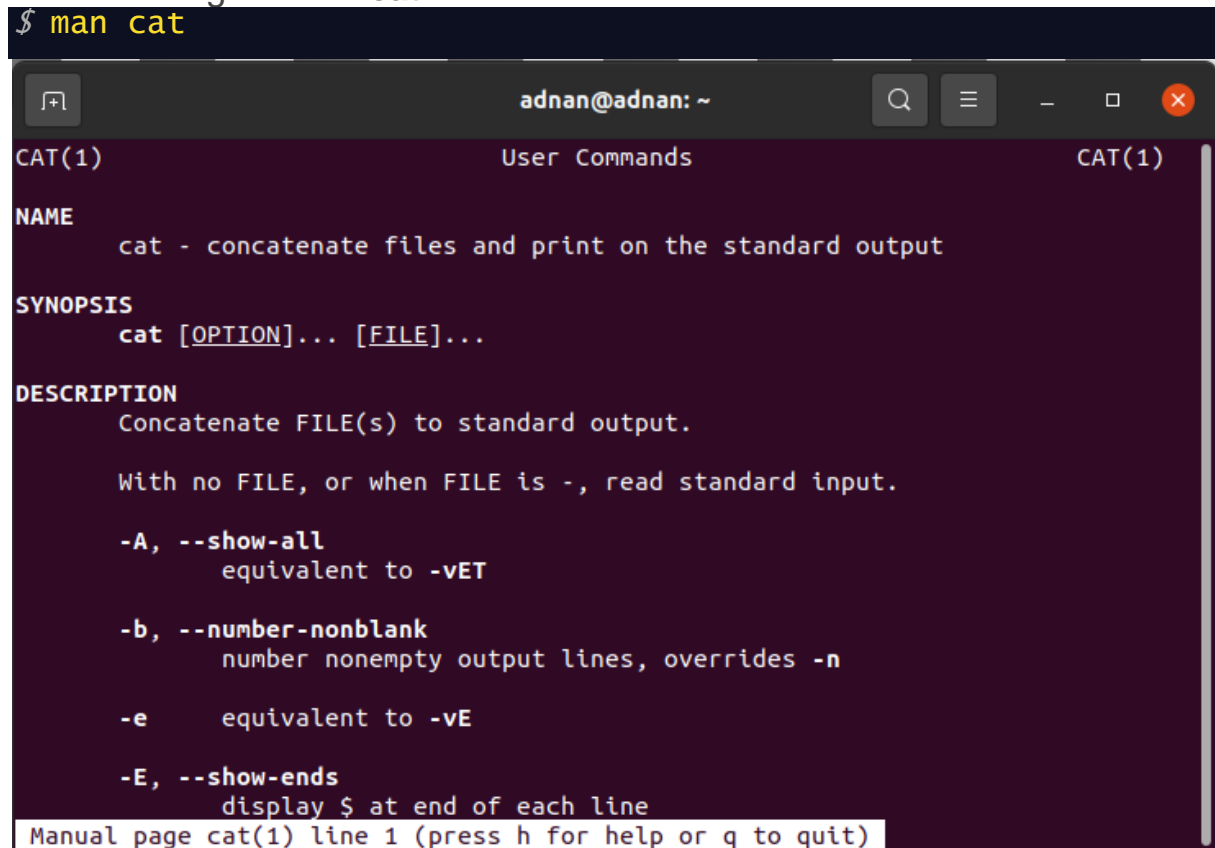
With the help of grep, you can search for a pattern in which a specific word lies; for instance, the command given below will print all the lines that contain “20” from “file1.txt”:

```
$ cat file1.txt | grep 20  
adnan@adnan:~$ cat file1.txt | grep 20  
Ford Escape SEL- 29205  
adnan@adnan:~$
```

## Command 18: man

The `man` command will help you to get the complete user manual of any specific command; for instance, the following command will list down the detailed usage of the “**cat**” command:

```
$ man cat
```



The terminal window displays the man page for the `cat` command. The window title is `adnan@adnan: ~`. The page is titled `CAT(1)` and `User Commands`. The content includes:

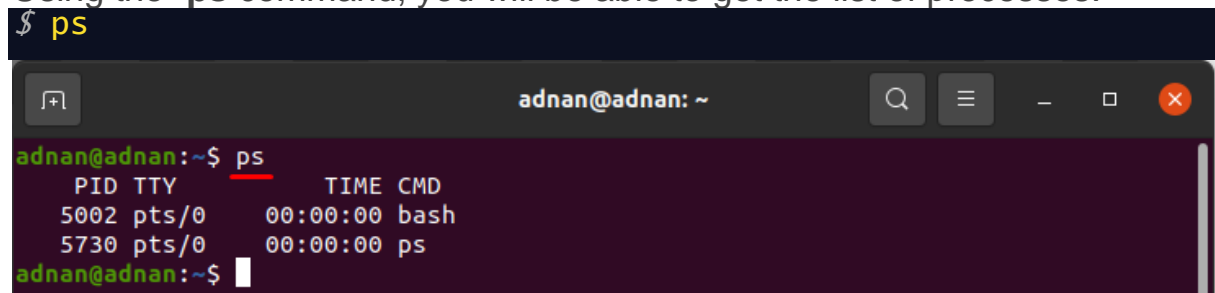
- NAME**  
`cat` - concatenate files and print on the standard output
- SYNOPSIS**  
`cat [OPTION]... [FILE]...`
- DESCRIPTION**  
Concatenate FILE(s) to standard output.  
With no FILE, or when FILE is -, read standard input.
- Options:**
  - `-A, --show-all` equivalent to `-vET`
  - `-b, --number-nonblank` number nonempty output lines, overrides `-n`
  - `-e` equivalent to `-vE`
  - `-E, --show-ends` display \$ at end of each line

Manual page cat(1) line 1 (press h for help or q to quit)

## Command 19: ps

Using the `-ps` command, you will be able to get the list of processes.

```
$ ps
```



The terminal window displays the output of the `ps` command. The window title is `adnan@adnan: ~`. The output shows the following processes:

PID	TTY	TIME	CMD
5002	pts/0	00:00:00	bash
5730	pts/0	00:00:00	ps

## Command 20: zip or unzip

To convert your files to zip archive; you can get help by using the “**gzip**” command; moreover, a zipped file can be unzipped using the “**gunzip**” command:

```
$ gzip file1.txt
```

```
adnan@adnan: ~  
adnan@adnan:~$ gzip file1.txt  
adnan@adnan:~$ ls  
Desktop    Documents  file1.txt.gz  new      Pictures  Templates  
directory1 Downloads  Music        output.txt  Public    Videos  
adnan@adnan:~$
```

You can unzip the “file1.txt” as shown below:

```
$ gunzip file1.txt
```

```
adnan@adnan: ~  
adnan@adnan:~$ gunzip file1.txt  
adnan@adnan:~$ ls  
Desktop    Documents  file1.txt  new      Pictures  Templates  
directory1 Downloads  Music      output.txt  Public    Videos  
adnan@adnan:~$
```

## Command 21: hostname

This command will print your hostname on the terminal:

```
$ hostname
```

```
adnan@adnan: ~  
adnan@adnan:~$ hostname  
adnan  
adnan@adnan:~$
```

## Command 22: ping

You can use the ping command to check the connectivity to your server; for example, the command below will ping to YouTube and also prints the response time:

```
$ ping youtube.com
```

```
adnan@adnan: ~  
adnan@adnan:~$ ping youtube.com  
PING youtube.com (142.250.185.46) 56(84) bytes of data.  
64 bytes from mct01s19-in-f14.1e100.net (142.250.185.46): icmp_seq=1 ttl=112 time=37.3 ms  
64 bytes from mct01s19-in-f14.1e100.net (142.250.185.46): icmp_seq=2 ttl=112 time=36.0 ms  
64 bytes from mct01s19-in-f14.1e100.net (142.250.185.46): icmp_seq=3 ttl=112 time=36.0 ms  
64 bytes from mct01s19-in-f14.1e100.net (142.250.185.46): icmp_seq=4 ttl=112 time=36.0 ms  
64 bytes from mct01s19-in-f14.1e100.net (142.250.185.46): icmp_seq=5 ttl=112 time=35.9 ms
```

## Command 23: w

This command will display the user details that are currently logged into the system:

```
$ w  
adnan@adnan:~$ w  
19:04:21 up 6:30, 1 user, load average: 0.00, 0.02, 0.06  
USER      TTY      FROM            LOGIN@   IDLE   JCPU   PCPU WHAT  
adnan     :0       :0              11:34    ?xdm?  10:53  0.04s /usr/lib/gdm3/g
```

## Command 24: useradd

Ubuntu supports multiuser access; if you want to add another user to your system, execute the following command to do so:

```
$ sudo useradd MIKE  
adnan@adnan:~$ sudo useradd MIKE  
[sudo] password for adnan:  
adnan@adnan:~$
```

Or you can delete the user also;

```
$ sudo userdel MIKE
```

```
adnan@adnan: ~  
adnan@adnan:~$ sudo userdel MIKE  
[sudo] password for adnan:  
adnan@adnan:~$
```

## Command 25: passwd

With the help of the passwd command, you can change the password of your Ubuntu user:

You must pass “**username**” to “**passwd**” to change the password of that; for example, the command given below will change the password of user “**adnan**”.

```
$ passwd adnan  
  
adnan@adnan:~$ passwd adnan  
Changing password for adnan.  
Current password:  
New password:   
Retype new password:   
passwd: password updated successfully  
adnan@adnan:~$
```

## Conclusion

Command-line interface (CLI) is the basic utility of any machine; you can use it to perform multiple tasks and can perform all those operations that can be performed using GUI. It is not just a simple app; it is key to every operating system as there are terminal commands behind GUI operations. All in all, CLI can be used to operate the entire operating system without GUI. Like other OS, Ubuntu also contains a terminal that supports hundreds of commands to perform different operations. This article lists down the most used Ubuntu commands and their usage. Every command can perform a specific task and can help you to automate the requested action.