Name	:-	Md. Nayan Ali
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Report No	:-	02
Name of The Lab	:-	Basic command of Linux operating system.

Objective:- Linux is a family of open source Unix-like operating systems based on the Linux kernel, an operating system kernel first released on September 17, 1991, by Linus Torvalds. Linux is one of the most popular operating system among other OS because it is a free of cost operating system. From today's lab we have learnt about linux command. How linux command works in the linux terminal we saw from today's lab.

Thanks to our course teacher Mr. Nazrul Islam sir who helped us to learn about basic operation of linux and how command works on linux terminal.

Discussion:-

i) What is Linux command?

Ans : Linux is an open-source operating system. It is like Windows, Mac-OS etc. Linux is a Unix-Like operating system. All the Linux/Unix commands are run in the terminal provided by the Linux system. This terminal is just like command prompt of Windows OS. Linux/Unix commands are *case-sensitive.* The terminal can be used to accomplish all Administrative tasks. This includes package installation, file manipulation, and user management. Linux terminal is user-interactive. The terminal outputs the results of commands which are specified by the user itself. All the work which could be done by the mouse pointer we can do by using command in the linux terminal.

ii) Write 15 commands in Linux operating system.

There are a lot of linux command for linux operating system. The most useful 15 linux command out of many are given below with there work details and also the screenshot of the command are also given below which will help us to understand how the linux command works.

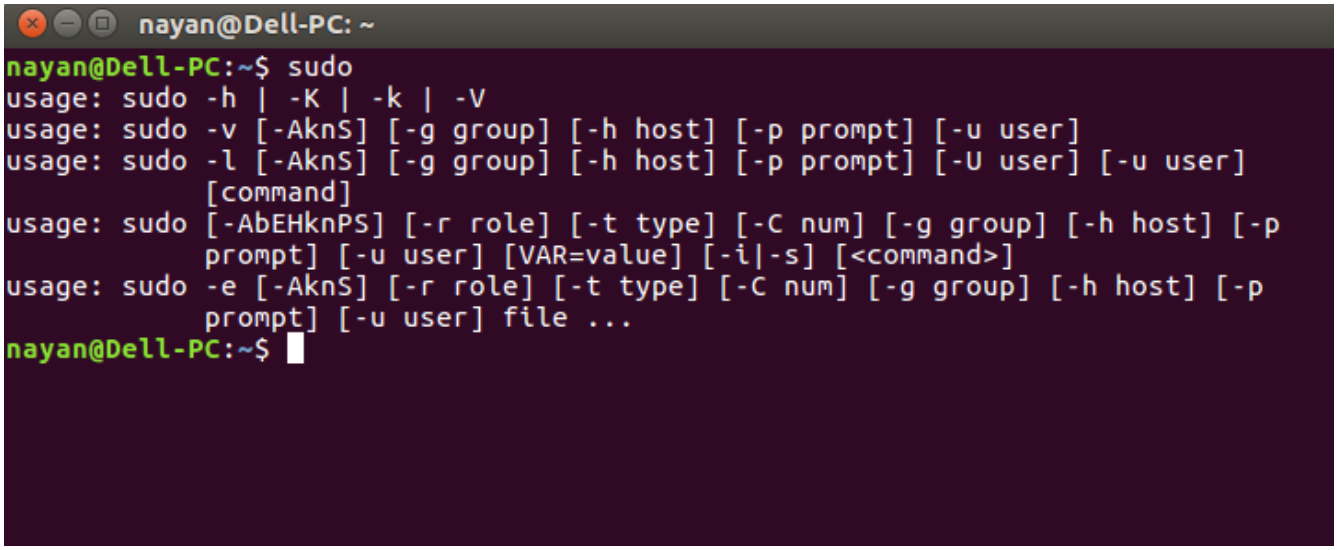
Command of Linux Operating System:-

1. sudo
2. ls a.) ls –l b.) ls -a
3. pwd
4. cd ..
5. ls –al –color=yes

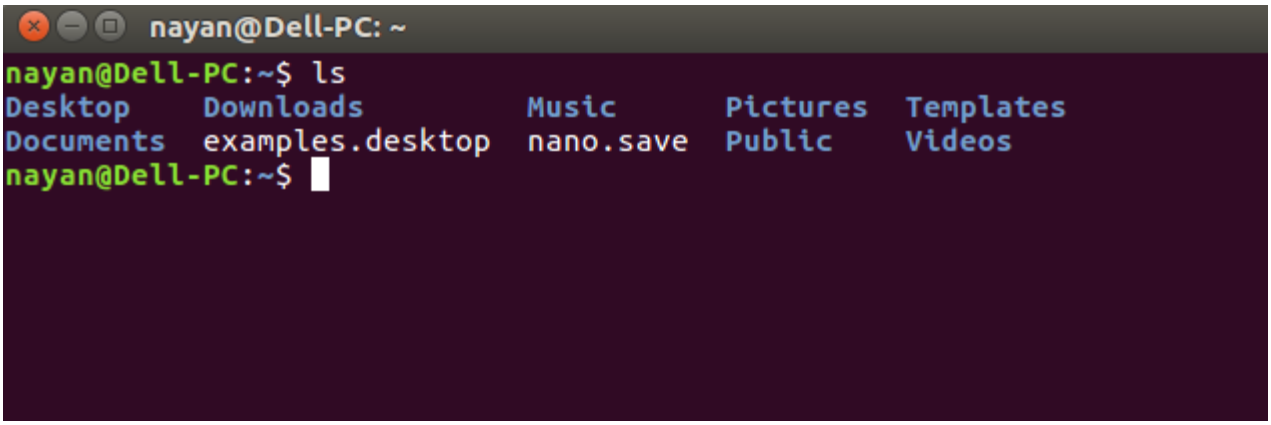
6. df –h
7. du –sh
8. uname
9. passwd
10. ip
11. more
12. kill –l
13. vim
14. history
15. sudo apt –get upgrade

iii) . Description of the linux command:-

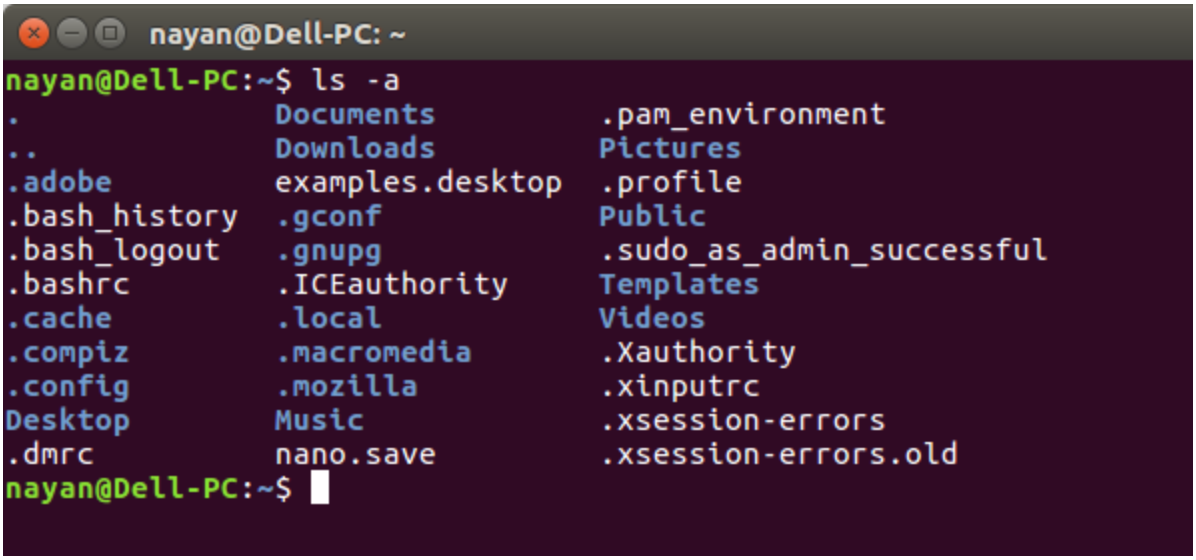
1. **sudo:-** This is a very powerful command that allows an authorized user to execute commands as the root user of the system.



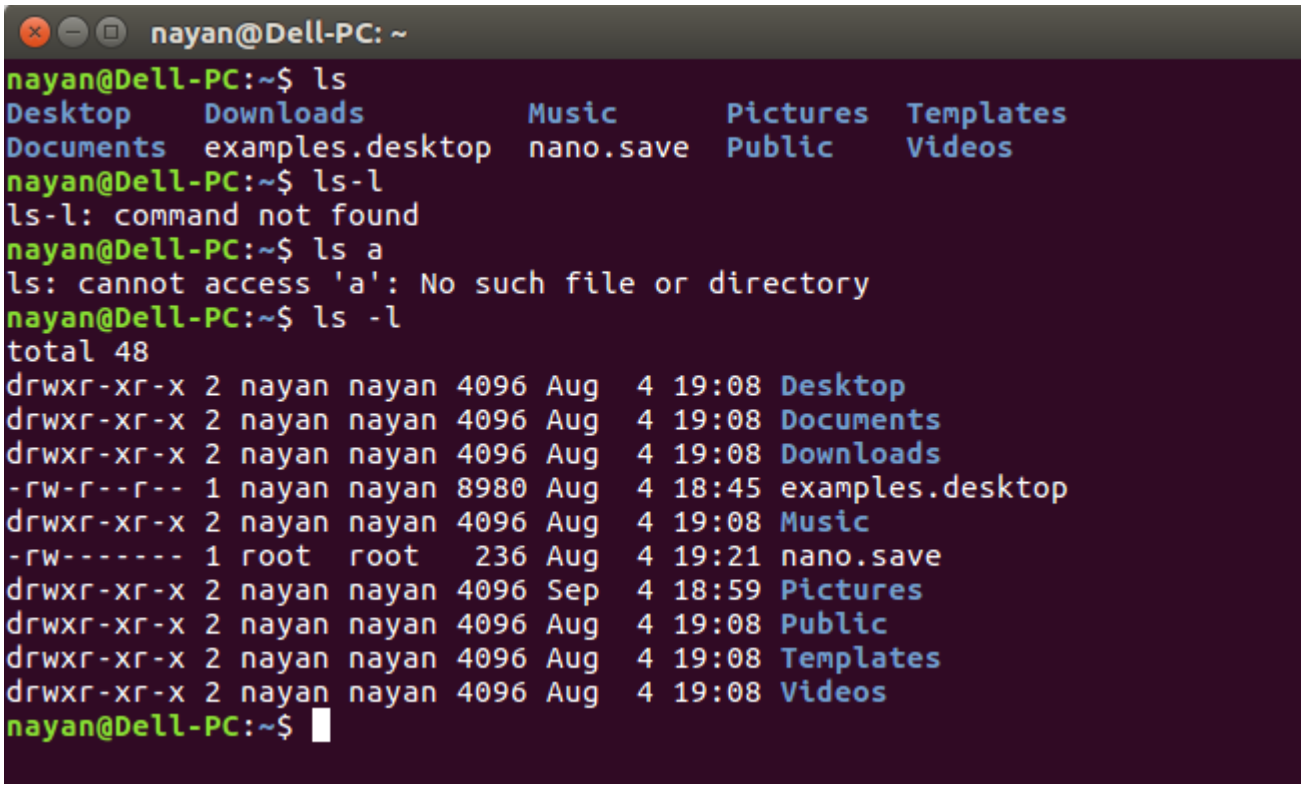
2. **ls**:- This is the list directory command and displays the contents of the current working directory. Using the variant **ls -l** gives long form information and **ls -a** also will show us any hidden files in the directory.



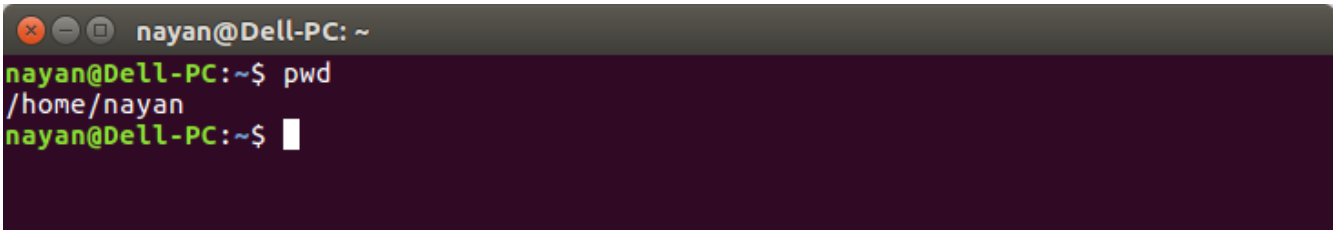
a. ls –a


nayan@Dell-PC: ~
nayan@Dell-PC:~$ ls -a
.
..
.adobe
.bash_history
.bash_logout
.bashrc
.cache
.compiz
.config
Desktop
.dmrc
Documents
Downloads
examples.desktop
.gconf
.gnupg
.ICEauthority
.local
.macromedia
.mozilla
Music
nano.save
.pam_environment
Pictures
.profile
Public
.sudo_as_admin_successful
Templates
Videos
.Xauthority
.xinputrc
.xsession-errors
.xsession-errors.old
nayan@Dell-PC:~$

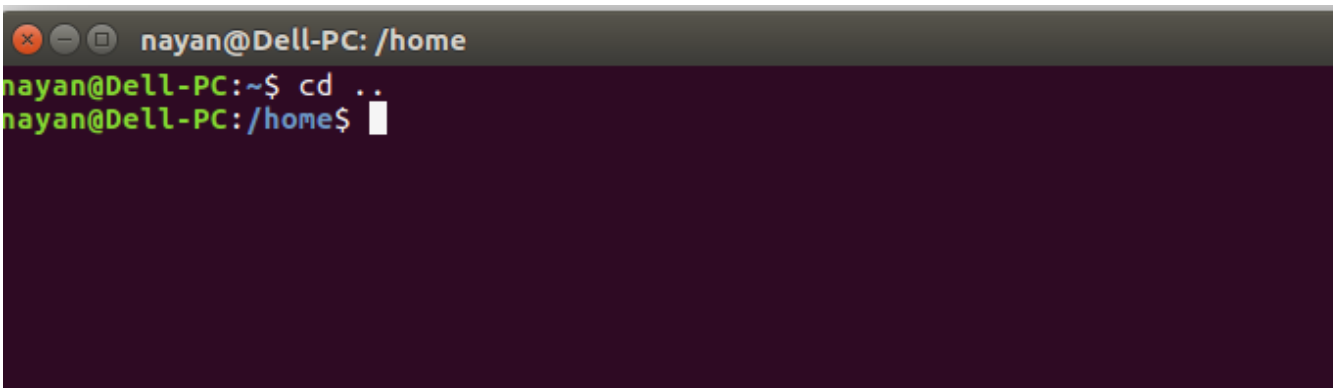
b. ls –l


nayan@Dell-PC: ~
nayan@Dell-PC:~$ ls
Desktop Downloads Music Pictures Templates
Documents examples.desktop nano.save Public Videos
nayan@Dell-PC:~$ ls-l
ls-l: command not found
nayan@Dell-PC:~$ ls a
ls: cannot access 'a': No such file or directory
nayan@Dell-PC:~$ ls -l
total 48
drwxr-xr-x 2 nayan nayan 4096 Aug 4 19:08 Desktop
drwxr-xr-x 2 nayan nayan 4096 Aug 4 19:08 Documents
drwxr-xr-x 2 nayan nayan 4096 Aug 4 19:08 Downloads
-rw-r--r-- 1 nayan nayan 8980 Aug 4 18:45 examples.desktop
drwxr-xr-x 2 nayan nayan 4096 Aug 4 19:08 Music
-rw------- 1 root root 236 Aug 4 19:21 nano.save
drwxr-xr-x 2 nayan nayan 4096 Sep 4 18:59 Pictures
drwxr-xr-x 2 nayan nayan 4096 Aug 4 19:08 Public
drwxr-xr-x 2 nayan nayan 4096 Aug 4 19:08 Templates
drwxr-xr-x 2 nayan nayan 4096 Aug 4 19:08 Videos
nayan@Dell-PC:~$

3 **pwd**:- The current working directory is displayed with this command.

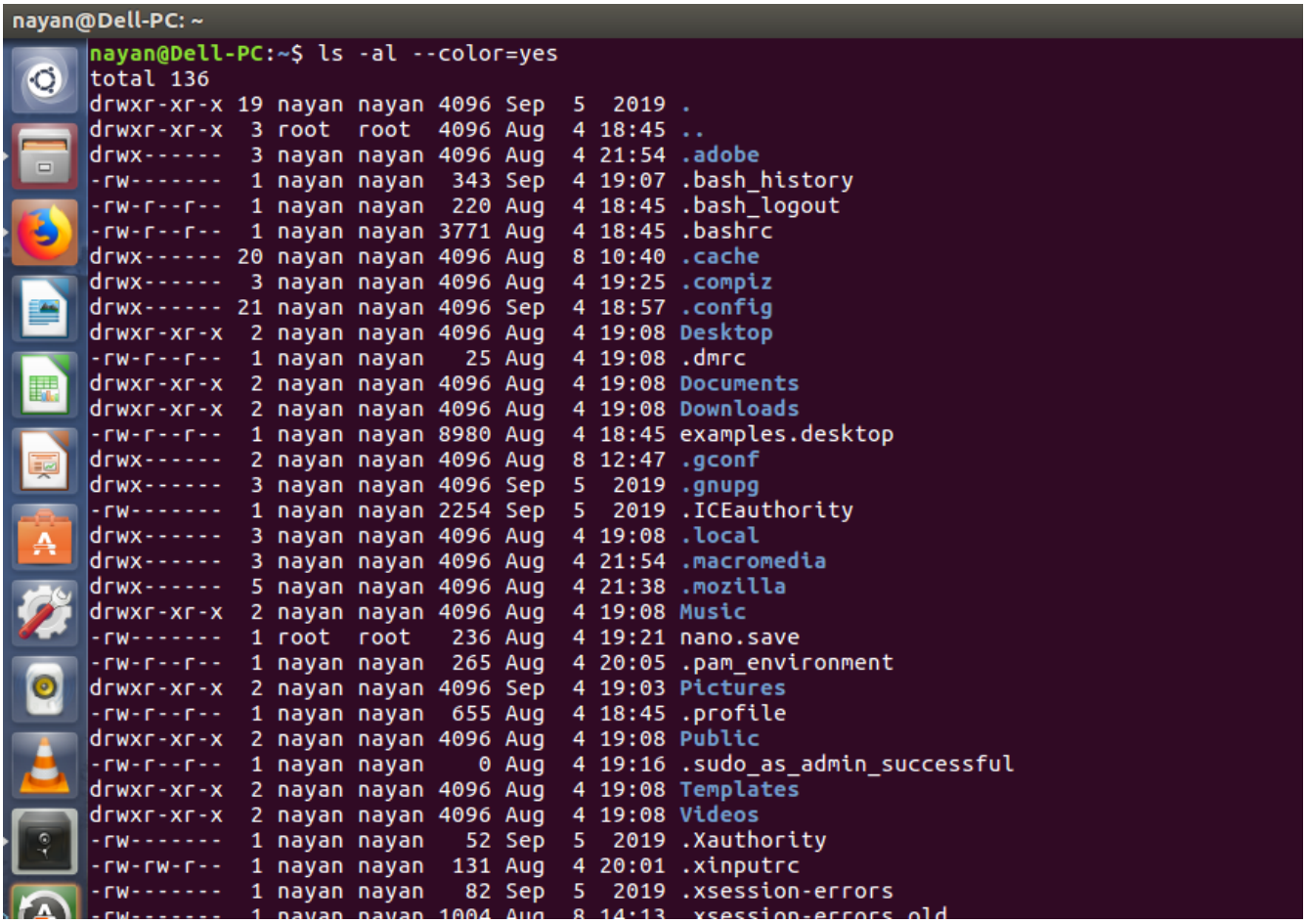


04. **cd ..** :- We can Change our home directory with this command. Appending a space and a name will switch us to the named directory. Appending two periods will bring us to the current directory's parent directory.

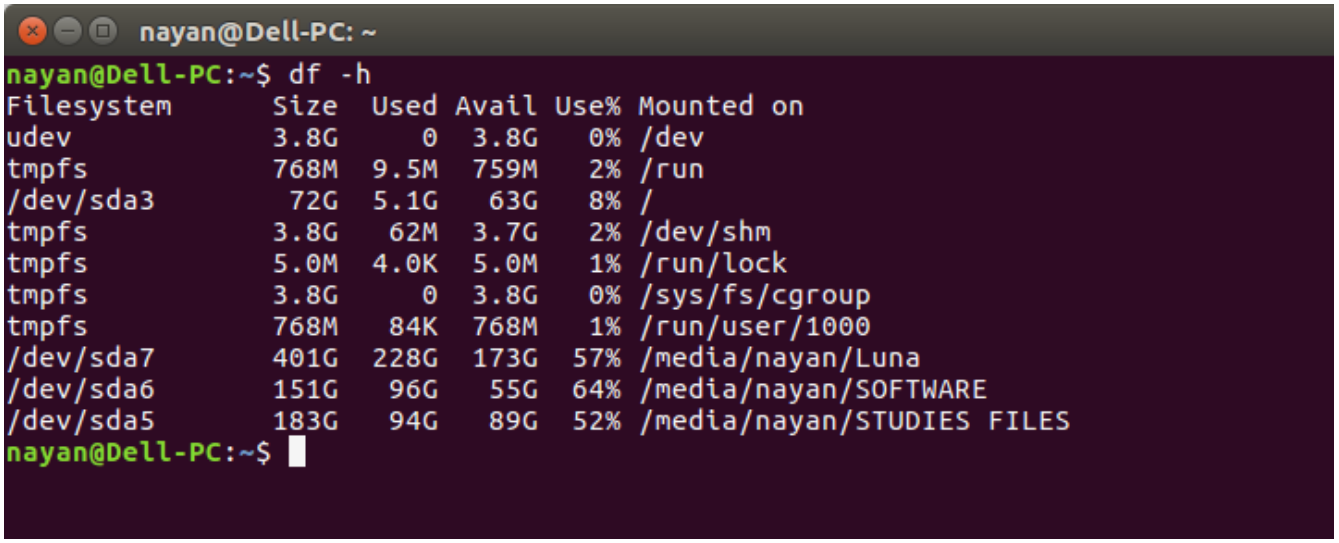


05. **ls –al –color = yes**

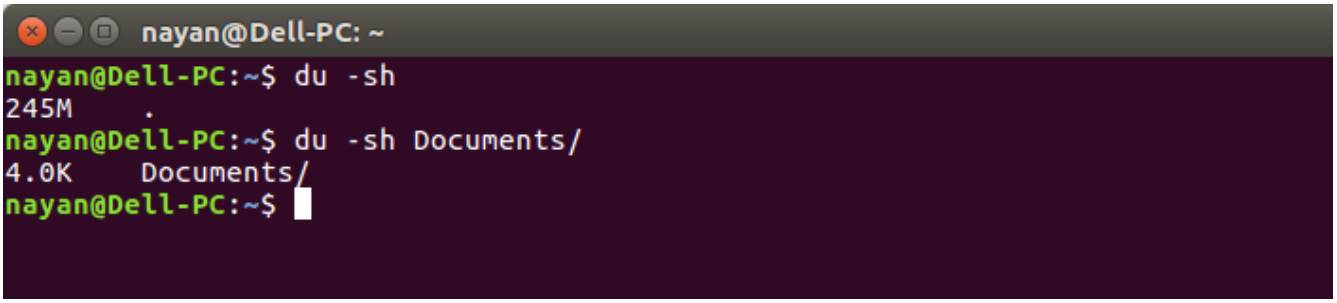
This command shows us all the list of files and their manipulation.



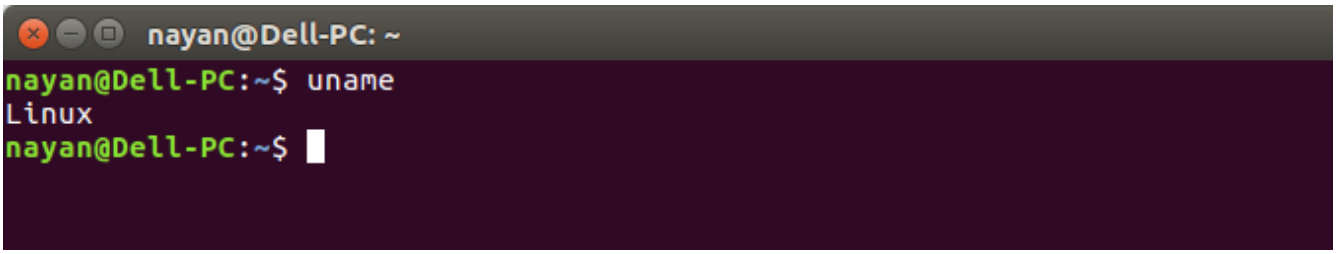
06. **df –h** :- this command shows how many size is used by the drives of the disk.



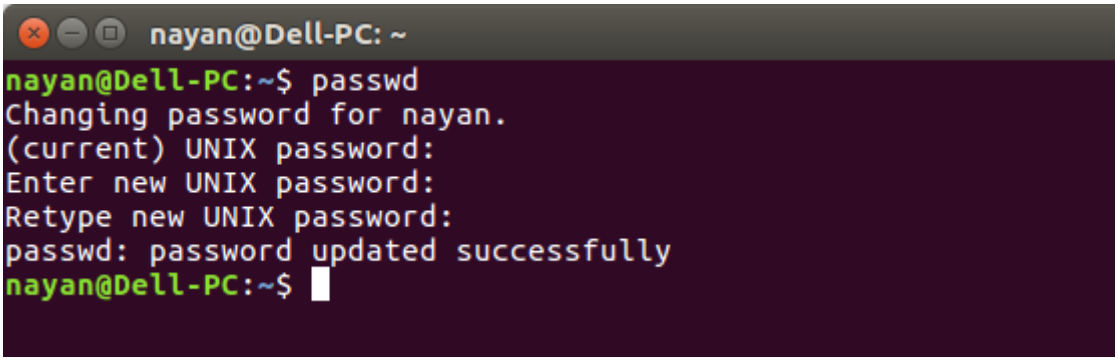
07. **du –f**:- We can Use du (Disk Usage) to view how much space files and folders occupy. Here nayan@dell-pc (my pc) shows 245M and Documents shows 4.0K sized used



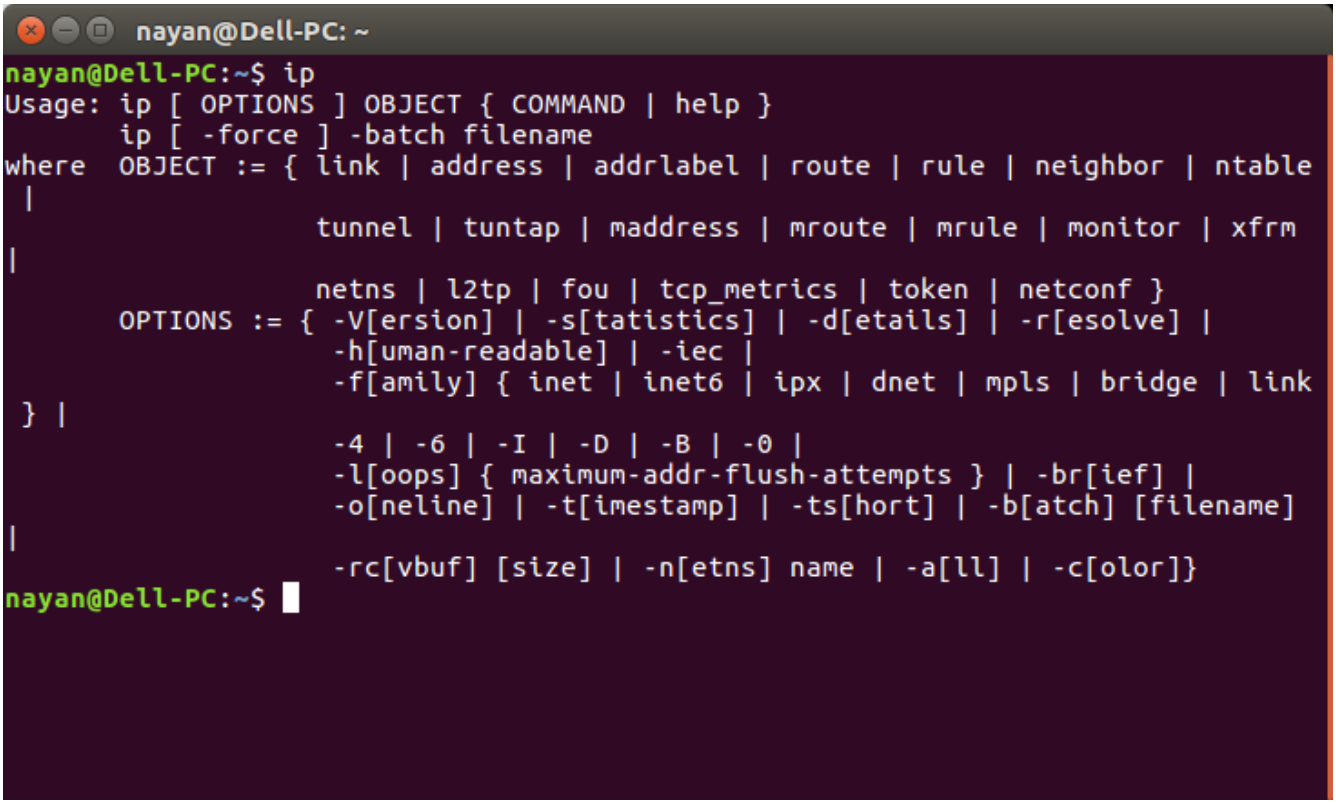
08**. uname**:- This command displays information regarding the machine name and operating system.



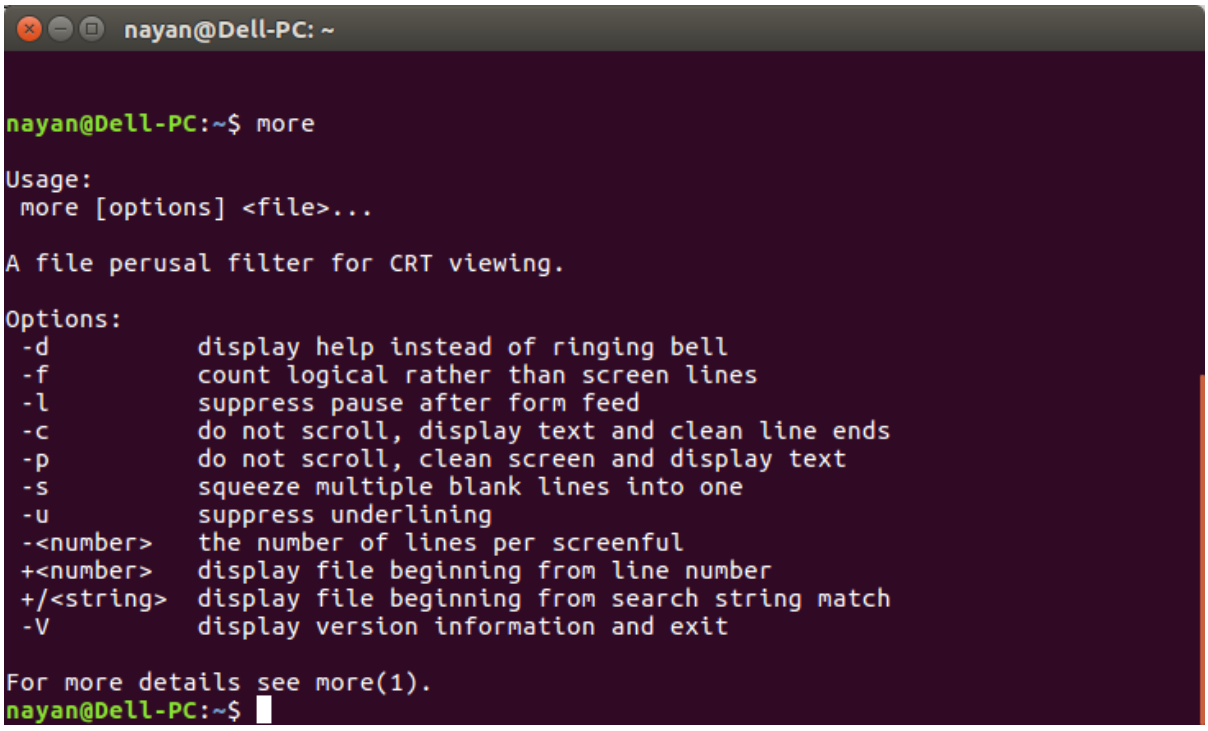
09. **passwd** :- This command allows us to create or update passwords for user accounts.



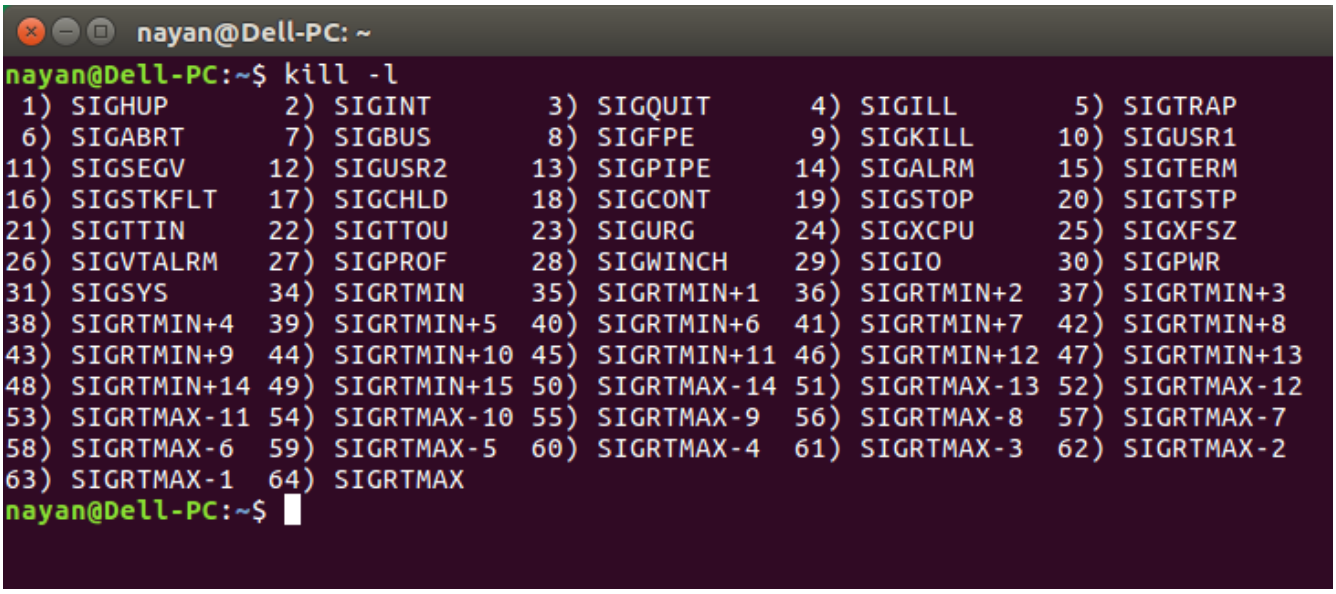
10. **ip** :- This displays and manages routing, devices, and can be used to assign an IP address to a specific interface.



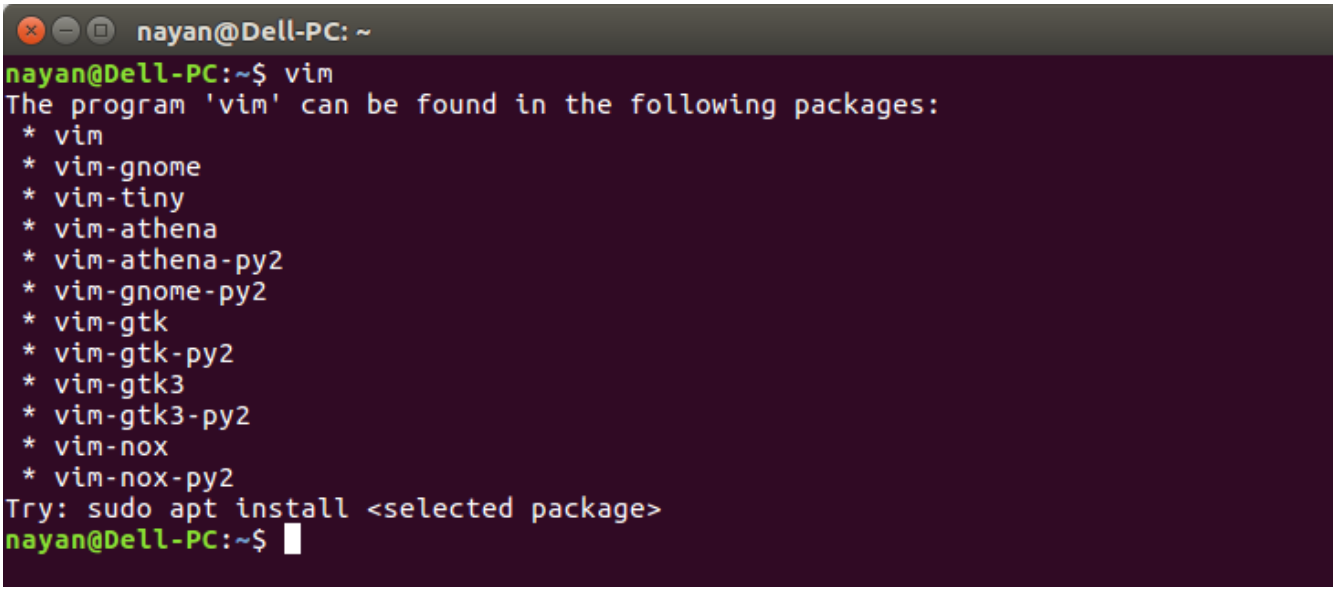
11. **more** :- This is a very helpful command that displays multiple pages of information one screen at a time.



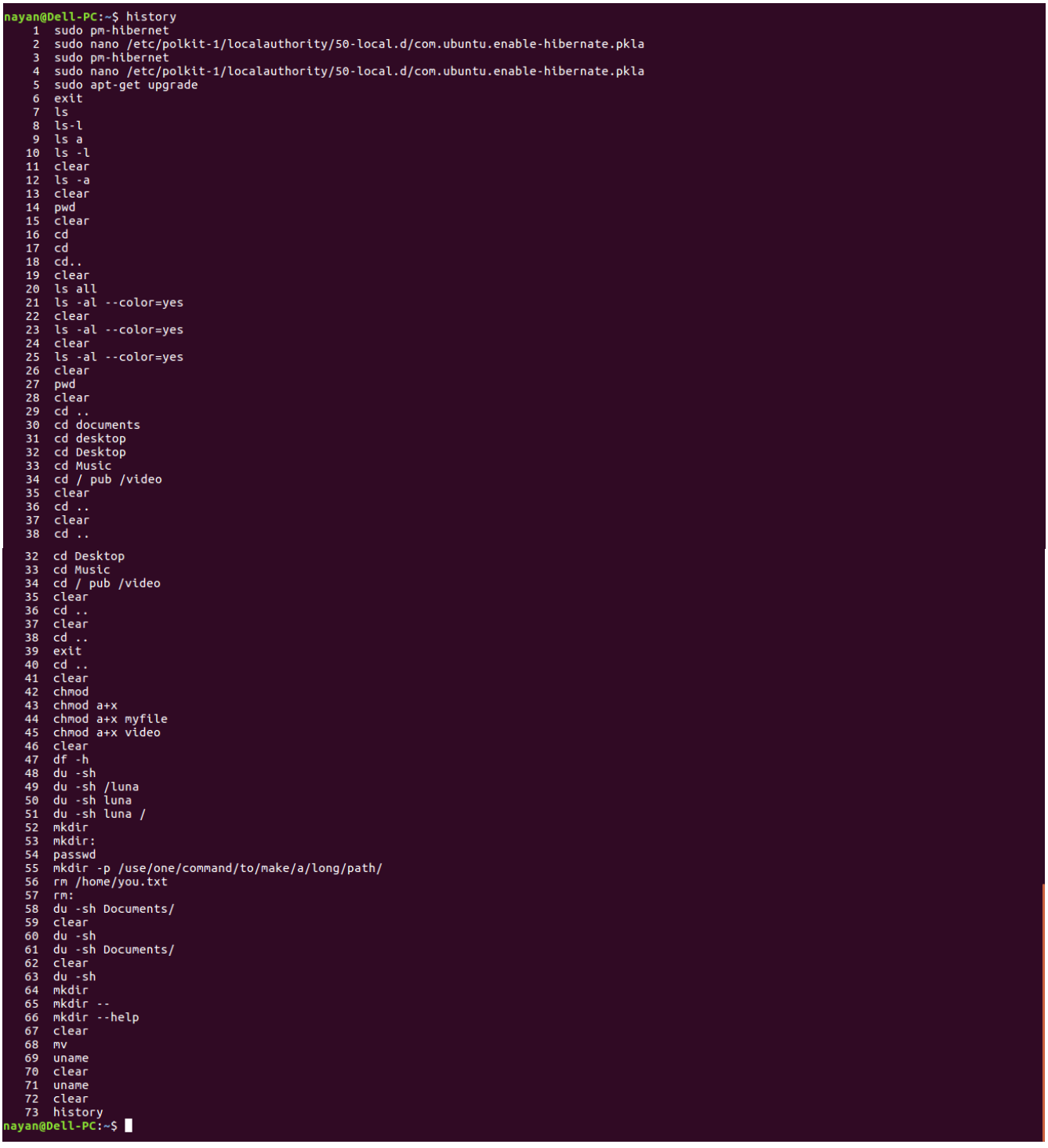
12. **kill –l**:- To display all the available signals we can use below command option



13. **vim** :- Executing this command allows us to edit text and program files.

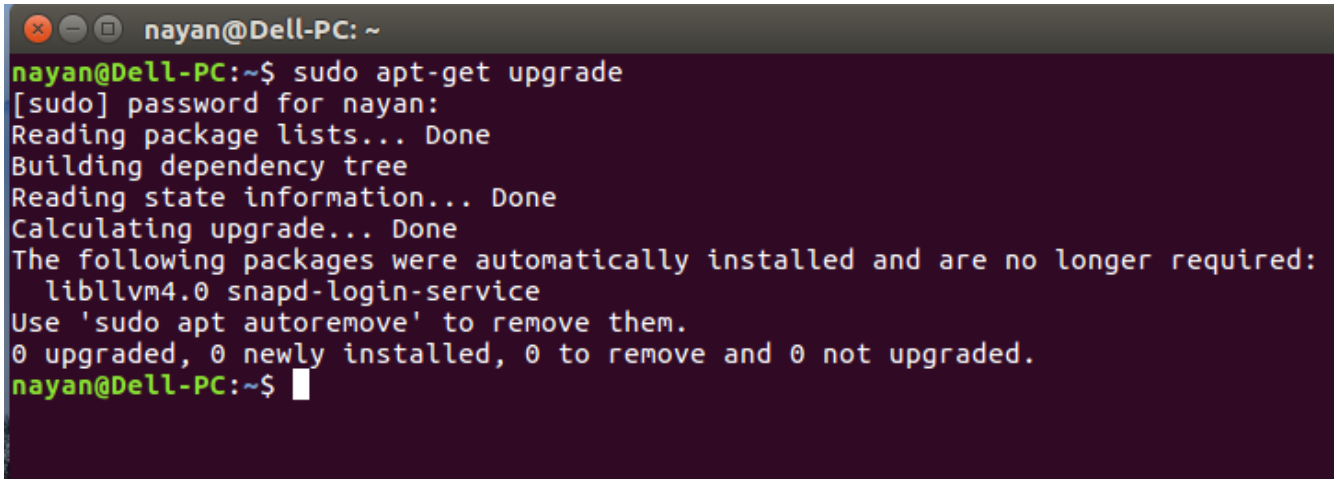


14. **history** :- Using this command we can see a list of the recently executed commands entered through the command line.



```
nayan@Dell-PC:~$ history
    1  sudo pm-hibernet
    2  sudo nano /etc/polkit-1/localauthority/50-local.d/com.ubuntu.enable-hibernate.pkla
    3  sudo pm-hibernet
    4  sudo nano /etc/polkit-1/localauthority/50-local.d/com.ubuntu.enable-hibernate.pkla
    5  sudo apt-get upgrade
    6  exit
    7  ls
    8  ls-l
    9  ls a
   10  ls -l
   11  clear
   12  ls -a
   13  clear
   14  pwd
   15  clear
   16  cd
   17  cd
   18  cd..
   19  clear
   20  ls all
   21  ls -al --color=yes
   22  clear
   23  ls -al --color=yes
   24  clear
   25  ls -al --color=yes
   26  clear
   27  pwd
   28  clear
   29  cd ..
   30  cd documents
   31  cd desktop
   32  cd Desktop
   33  cd Music
   34  cd / pub /video
   35  clear
   36  cd ..
   37  clear
   38  cd ..
   32  cd Desktop
   33  cd Music
   34  cd / pub /video
   35  clear
   36  cd ..
   37  clear
   38  cd ..
   39  exit
   40  cd ..
   41  clear
   42  chmod
   43  chmod a+x
   44  chmod a+x myfile
   45  chmod a+x video
   46  clear
   47  df -h
   48  du -sh
   49  du -sh /luna
   50  du -sh luna
   51  du -sh luna /
   52  mkdir
   53  mkdir:
   54  passwd
   55  mkdir -p /use/one/command/to/make/a/long/path/
   56  rm /home/you.txt
   57  rm:
   58  du -sh Documents/
   59  clear
   60  du -sh
   61  du -sh Documents/
   62  clear
   63  du -sh
   64  mkdir
   65  mkdir --
   66  mkdir --help
   67  clear
   68  mv
   69  uname
   70  clear
   71  uname
   72  clear
   73  history
nayan@Dell-PC:~$
```

15 **sudo apt –get upgrade** :- This command help us to upgrade our system software and keep us up to date.



Conclusion : Linux Terminal is one of the best feature linux have. It help us do our things without using mouse. We can do all the necessary things using command on linux terminal. By using command we can change password our computer, we can create rename any folder and files. To use terminal as root user we need our password which is good for the security of the system. Learning linux command we can help ourselves to operate linux smoothly. We need to learn basic linux command to run linux operating system properly.