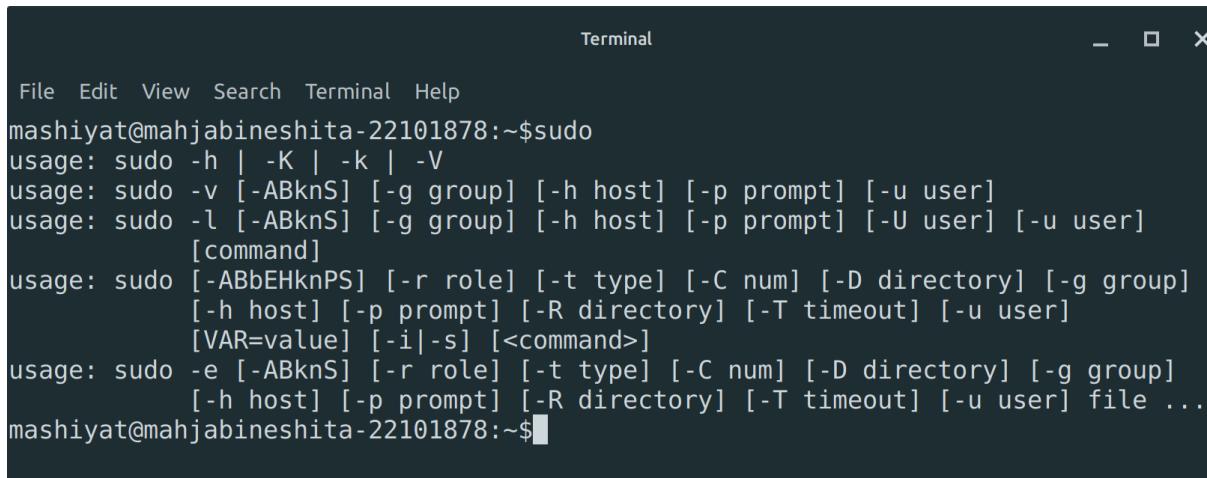


1.Command: *sudo*

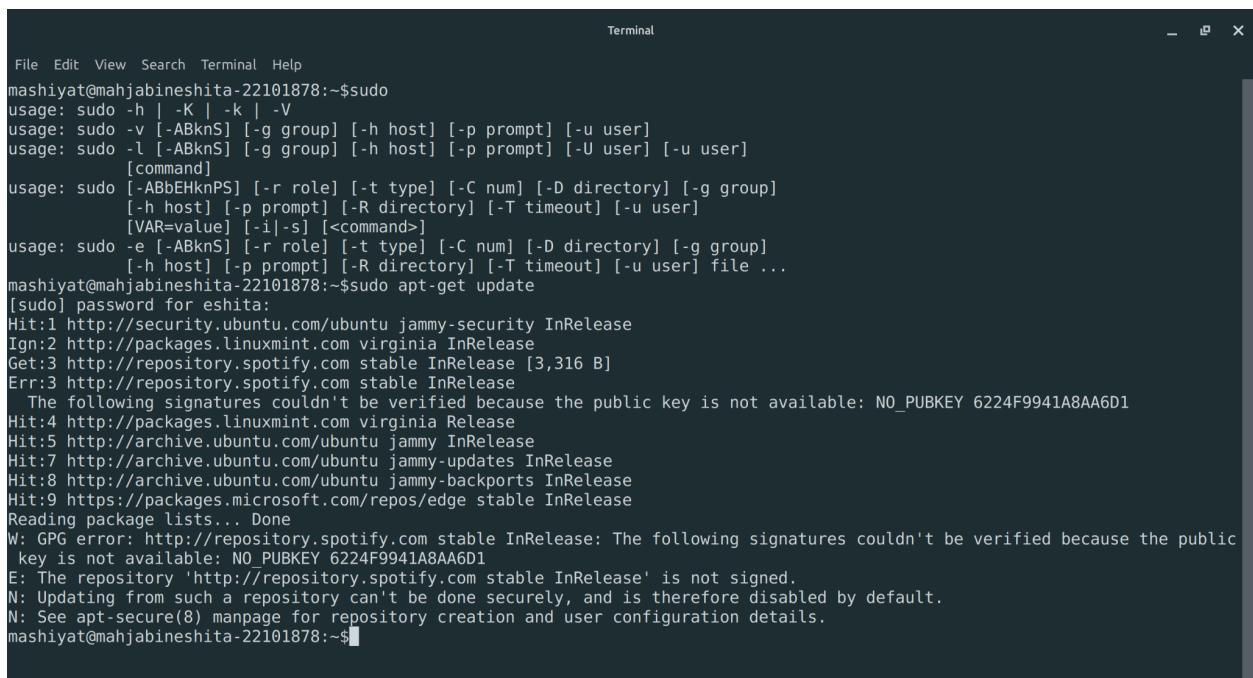
This command helps to run commands with administrative privileges just like “run as administrator” in windows



```
Terminal
File Edit View Search Terminal Help
mashiyat@mahjabineshita-22101878:~$sudo
usage: sudo -h | -K | -k | -V
usage: sudo -v [-ABknS] [-g group] [-h host] [-p prompt] [-u user]
usage: sudo -l [-ABknS] [-g group] [-h host] [-p prompt] [-U user] [-u user]
      [command]
usage: sudo [-ABbEHknPS] [-r role] [-t type] [-C num] [-D directory] [-g group]
           [-h host] [-p prompt] [-R directory] [-T timeout] [-u user]
           [VAR=value] [-i|-s] [<command>]
usage: sudo -e [-ABknS] [-r role] [-t type] [-C num] [-D directory] [-g group]
           [-h host] [-p prompt] [-R directory] [-T timeout] [-u user] file ...
mashiyat@mahjabineshita-22101878:~$
```

2.Command: *apt-get update*

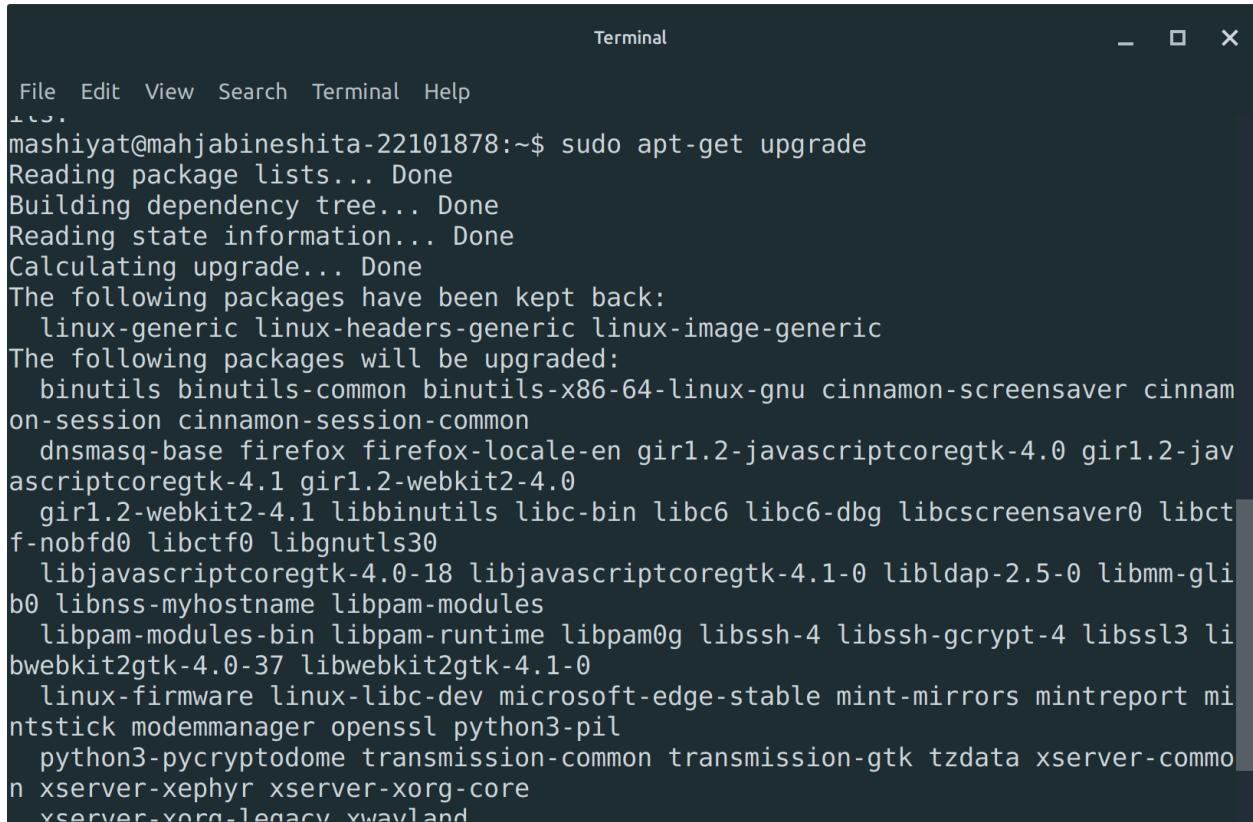
This command helps to know if there are any packages available in the system. It will gather information from all configured sources and update the local package index .



```
Terminal
File Edit View Search Terminal Help
mashiyat@mahjabineshita-22101878:~$sudo
usage: sudo -h | -K | -k | -V
usage: sudo -v [-ABknS] [-g group] [-h host] [-p prompt] [-u user]
usage: sudo -l [-ABknS] [-g group] [-h host] [-p prompt] [-U user] [-u user]
      [command]
usage: sudo [-ABbEHknPS] [-r role] [-t type] [-C num] [-D directory] [-g group]
           [-h host] [-p prompt] [-R directory] [-T timeout] [-u user]
           [VAR=value] [-i|-s] [<command>]
usage: sudo -e [-ABknS] [-r role] [-t type] [-C num] [-D directory] [-g group]
           [-h host] [-p prompt] [-R directory] [-T timeout] [-u user] file ...
mashiyat@mahjabineshita-22101878:~$sudo apt-get update
[sudo] password for eshita:
Hit:1 http://security.ubuntu.com/ubuntu jammy-security InRelease
Ign:2 http://packages.linuxmint.com virginia InRelease
Get:3 http://repository.spotify.com stable InRelease [3,316 B]
Err:3 http://repository.spotify.com stable InRelease
      The following signatures couldn't be verified because the public key is not available: NO_PUBKEY 6224F9941A8AA6D1
Hit:4 http://packages.linuxmint.com virginia Release
Hit:5 http://archive.ubuntu.com/ubuntu jammy InRelease
Hit:7 http://archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:8 http://archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:9 https://packages.microsoft.com/repos/edge stable InRelease
Reading package lists... Done
W: GPG error: http://repository.spotify.com stable InRelease: The following signatures couldn't be verified because the public key is not available: NO_PUBKEY 6224F9941A8AA6D1
E: The repository 'http://repository.spotify.com stable InRelease' is not signed.
N: Updating from such a repository can't be done securely, and is therefore disabled by default.
N: See apt-secure(8) manpage for repository creation and user configuration details.
mashiyat@mahjabineshita-22101878:~$
```

3. Command: *sudo apt-get upgrade*

After updating the packages I have used this command to upgrade my database. It is for upgrading all the packages with their newer versions.



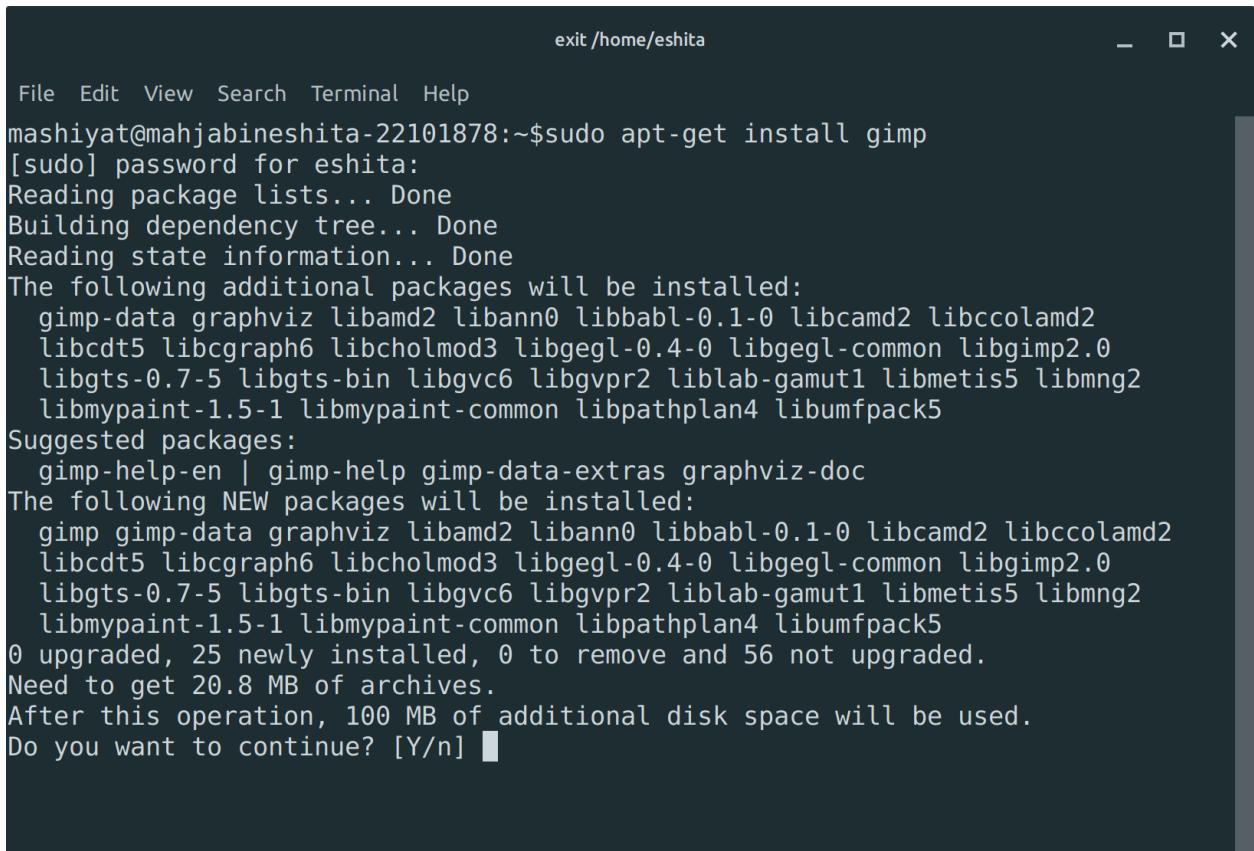
The screenshot shows a terminal window titled "Terminal". The window has a dark theme with white text. At the top, there is a menu bar with "File", "Edit", "View", "Search", "Terminal", and "Help". Below the menu, the terminal prompt is "mashiyat@mahjabineshita-22101878:~\$". The command "sudo apt-get upgrade" is entered and its output is displayed. The output shows the process of reading package lists, building dependency trees, and calculating upgrades. It lists packages that have been kept back and those that will be upgraded, including various system components like binutils, firefox, and various libraries and tools.

```
mashiyat@mahjabineshita-22101878:~$ sudo apt-get upgrade
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following packages have been kept back:
  linux-generic linux-headers-generic linux-image-generic
The following packages will be upgraded:
  binutils binutils-common binutils-x86-64-linux-gnu cinnamon-screensaver cinnamon-session cinnamon-session-common
  dnsmasq-base firefox firefox-locale-en gir1.2-javascriptcoregtk-4.0 gir1.2-javascriptcoregtk-4.1 gir1.2-webkit2-4.0
  gir1.2-webkit2-4.1 libbinutils libc-bin libc6 libc6-dbg libcscreensaver0 libctf-nobfd0 libctf0 libgnutls30
  libjavascriptcoregtk-4.0-18 libjavascriptcoregtk-4.1-0 libldap-2.5-0 libmm-glib0 libnss-myhostname libpam-modules
  libpam-modules-bin libpam-runtime libpam0g libssh-4 libssh-gcrypt-4 libssl3 libwebkit2gtk-4.0-37 libwebkit2gtk-4.1-0
  linux-firmware linux-libc-dev microsoft-edge-stable mint-mirrors mintreport mintstick modemmanager openssl python3-pil
  python3-pycryptodome transmission-common transmission-gtk tzdata xserver-common xserver-xephyr xserver-xorg-core
  xserver-xorg-legacy xwayland
```

4.Command: *sudo apt-get install gimp*

Mashiyat Mahjabin Eshita (22101878)

I am installing the gimp package here.

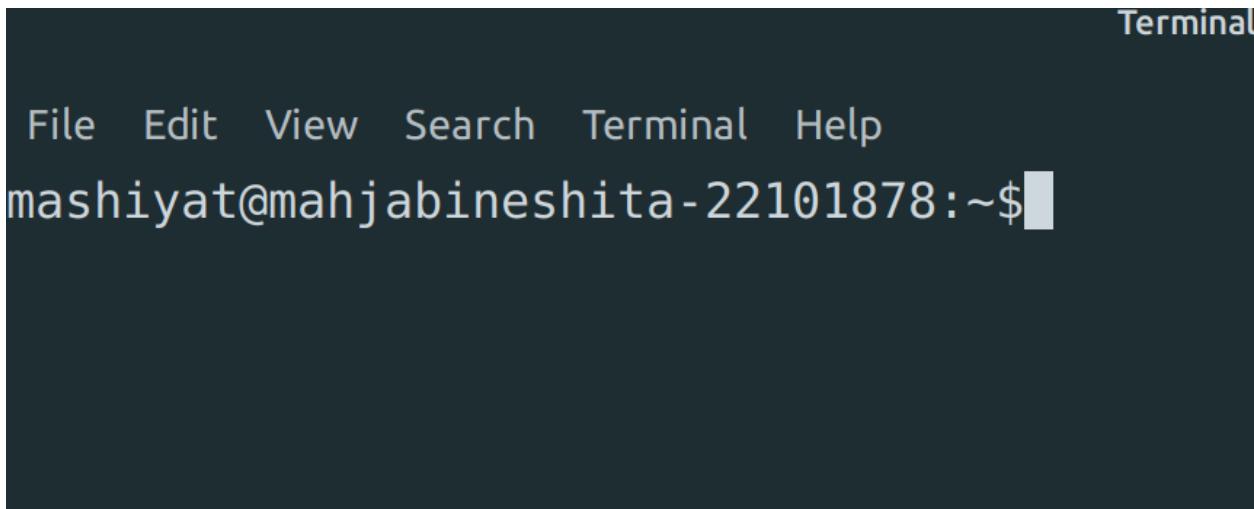


```
exit /home/eshita
File Edit View Search Terminal Help
mashiyat@mahjabineshita-22101878:~$sudo apt-get install gimp
[sudo] password for eshita:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  gimp-data graphviz libbamd2 libann0 libbabl-0.1-0 libcamd2 libccolamd2
  libcdt5 libcgraph6 libcholmod3 libegl-0.4-0 libegl-common libgimp2.0
  libgts-0.7-5 libgts-bin libgvc6 libgvpr2 liblab-gamut1 libmetis5 libmng2
  libmypaint-1.5-1 libmypaint-common libpathplan4 libumfpack5
Suggested packages:
  gimp-help-en | gimp-help gimp-data-extras graphviz-doc
The following NEW packages will be installed:
  gimp gimp-data graphviz libbamd2 libann0 libbabl-0.1-0 libcamd2 libccolamd2
  libcdt5 libcgraph6 libcholmod3 libegl-0.4-0 libegl-common libgimp2.0
  libgts-0.7-5 libgts-bin libgvc6 libgvpr2 liblab-gamut1 libmetis5 libmng2
  libmypaint-1.5-1 libmypaint-common libpathplan4 libumfpack5
0 upgraded, 25 newly installed, 0 to remove and 56 not upgraded.
Need to get 20.8 MB of archives.
After this operation, 100 MB of additional disk space will be used.
Do you want to continue? [Y/n] █
```

5.Command: *sudo apt-get autoclean*

I am using this command to remove those cache files that can not be downloaded from their sources now.

Cleaned everything, the PC restarted so I could not take the screen shot. But after returning to the terminal everything was clean.



```
Terminal
File Edit View Search Terminal Help
mashiyat@mahjabineshita-22101878:~$ █
```

Mashiyat Mahjabin Eshita (22101878)

6.Command: *date*

I used this command to see the current date and time. I can use this to manipulate the time zone and specific times and dates using this command.

```
Terminal

File Edit View Search Terminal Help
mashiyat@mahjabineshita-22101878:~$date
Wed Jan 31 06:19:34 PM +06 2024
mashiyat@mahjabineshita-22101878:~$
```

7. Command: *df*

This command displays information about the disk space usage of all mounted file systems.

Here, the file system shows the name of the system

Size shows the total size of the file system

There are other things like Used, Available, Use%, and Mounted on

```
Terminal

File Edit View Search Terminal Help
mashiyat@mahjabineshita-22101878:~$df
Filesystem      1K-blocks    Used   Available  Use% Mounted on
tmpfs          780080     2000    778080    1% /run
/dev/nvme0n1p2 490617784 19985836 445636468  5% /
tmpfs          3900388    78324   3822064   3% /dev/shm
tmpfs           5120        4      5116    1% /run/lock
/dev/nvme0n1p1  523248    6220    517028    2% /boot/efi
tmpfs          780076     104    779972    1% /run/user/1000
mashiyat@mahjabineshita-22101878:~$
```

8. Command: *free*

This command shows the free space available on my system. After using the command I get to know they show total, used, free, shared, buffers, cached space of the system

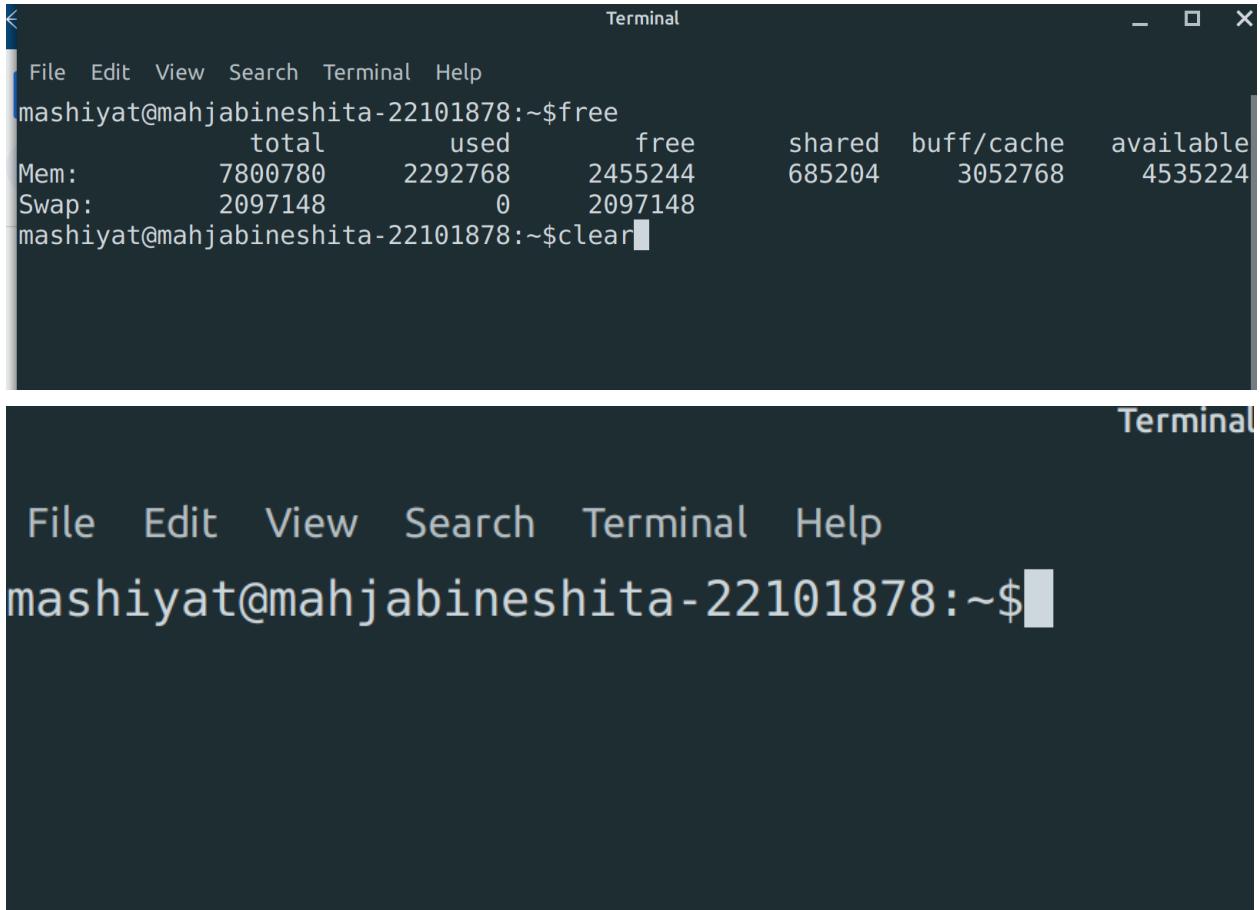
```
Terminal - □ ×

File Edit View Search Terminal Help
mashiyat@mahjabineshita-22101878:~$free
      total        used         free        shared  buff/cache   available
Mem:   7800780    2292768    2455244    685204    3052768    4535224
Swap: 2097148          0    2097148
mashiyat@mahjabineshita-22101878:~$
```

9. Command: *clear*

Using this command for clearing up my terminal every time but as this is clearing my terminal

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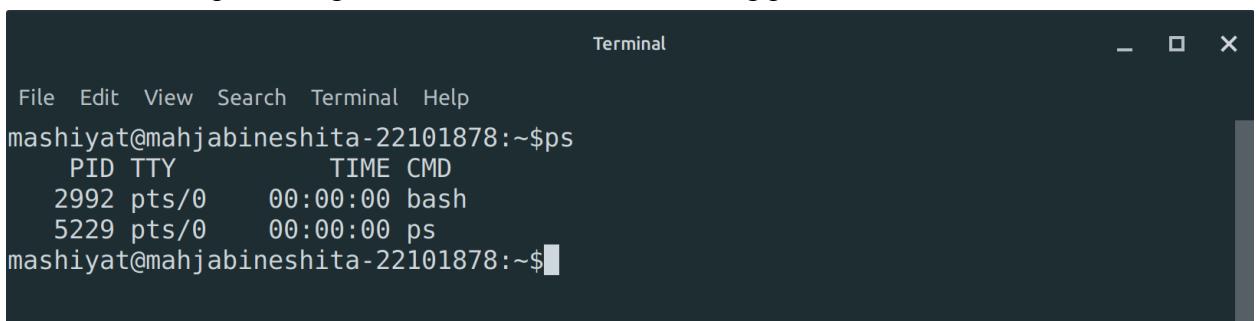
```
mashiyat@mahjabineshita-22101878:~$ free
total        used        free      shared  buff/cache   available
Mem:    7800780     2292768     2455244      685204     3052768     4535224
Swap:  2097148          0  2097148
mashiyat@mahjabineshita-22101878:~$ clear
```



```
mashiyat@mahjabineshita-22101878:~$
```

10. Command: *ps*

Ps command helps me to get information about the running process of the current situation.



```
mashiyat@mahjabineshita-22101878:~$ ps
 PID TTY      TIME CMD
 2992 pts/0    00:00:00 bash
 5229 pts/0    00:00:00 ps
mashiyat@mahjabineshita-22101878:~$
```

11. Command: *ls*

The ls command shows to list the content of the directory. After running the ls command in a terminal, I can see the files and directories that are currently working. This command shows the file names, their permissions, ownership information, and the date of the last modification.

Here, using ls-r reverse the order of the sort

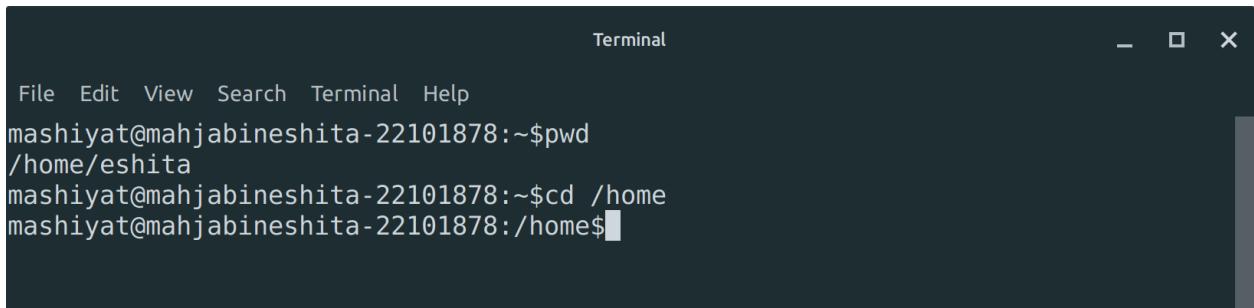


```
Terminal
File Edit View Search Terminal Help
mashiyat@mahjabineshita-22101878:~$ls -r
Videos Templates Public Pictures Music Downloads Documents Desktop
mashiyat@mahjabineshita-22101878:~$
```

12. Command: *cd*

Cd is used for seeing the current working directory. Here cd / (Takes me to the root directory) and there are two other commands such as, cd.. , cd -- which are used for up and previous directory respectively.

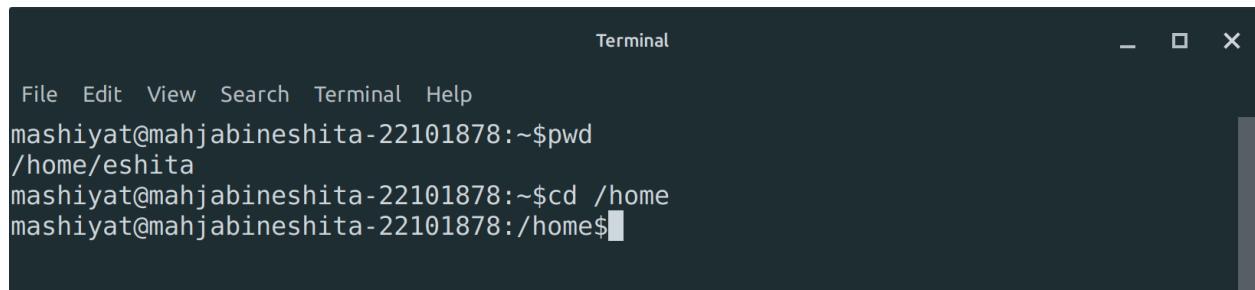
For example, when I used cd /home it opened the home folder in the current directory.



```
Terminal
File Edit View Search Terminal Help
mashiyat@mahjabineshita-22101878:~$pwd
/home/eshita
mashiyat@mahjabineshita-22101878:~$cd /home
mashiyat@mahjabineshita-22101878:/home$
```

13. Command: *pwd*

I used the pwd command to see the full pathname of the current working directory. Whenever I need to know the current working directory I can use this command.

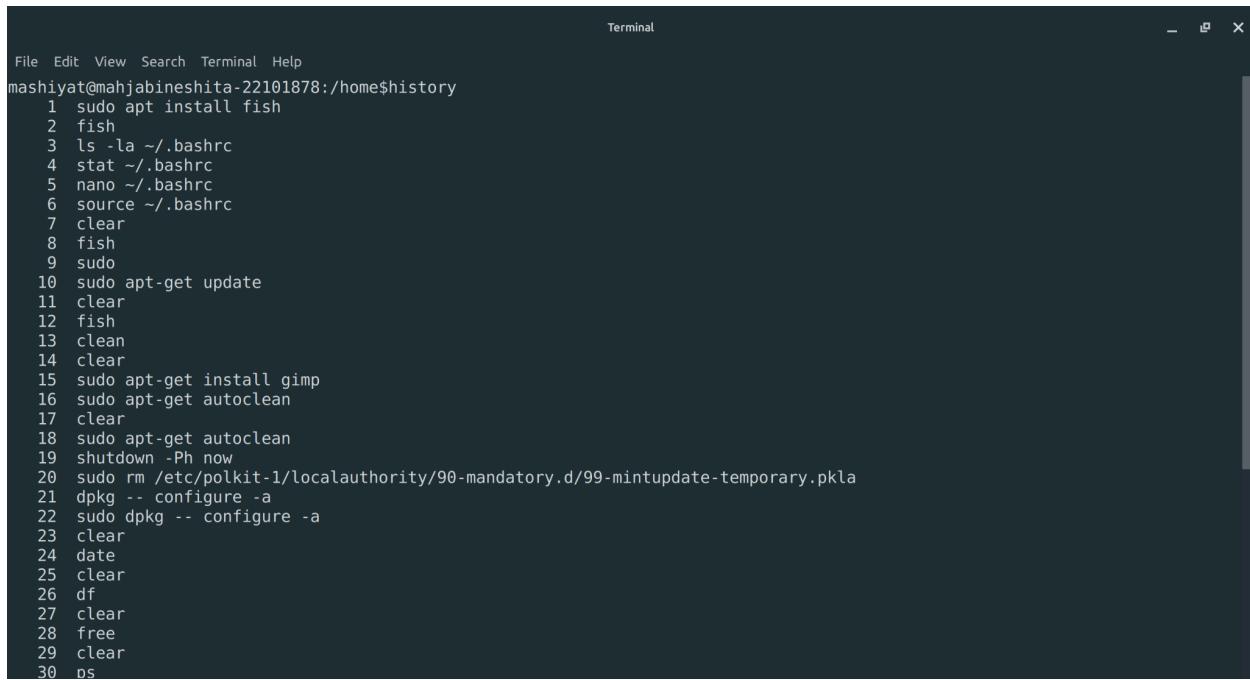


```
Terminal
File Edit View Search Terminal Help
mashiyat@mahjabineshita-22101878:~$pwd
/home/eshita
mashiyat@mahjabineshita-22101878:~$cd /home
mashiyat@mahjabineshita-22101878:/home$
```

14. Command: *history*

This command helped me by showing a list of the previously executed commands, with the

unique numbers assigned to the commands.

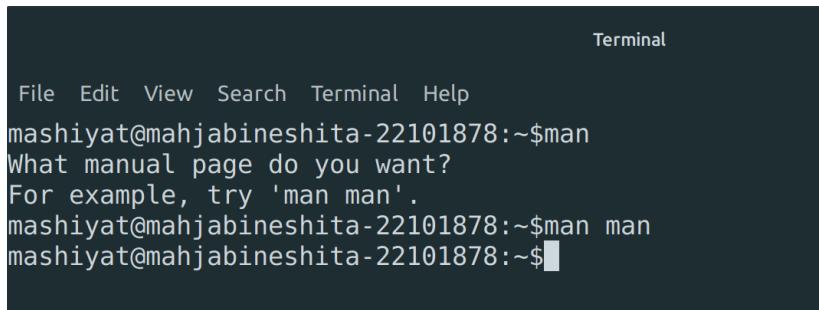


A screenshot of a terminal window titled "Terminal". The window shows a command history with numbered entries from 1 to 30. The entries include various Linux commands such as `sudo apt install fish`, `ls -la ~/.bashrc`, `stat ~/.bashrc`, `nano ~/.bashrc`, `source ~/.bashrc`, `clear`, `fish`, `sudo`, `sudo apt-get update`, `clear`, `fish`, `clean`, `clear`, `sudo apt-get install gimp`, `sudo apt-get autoclean`, `clear`, `sudo apt-get autoclean`, `shutdown -Ph now`, `sudo rm /etc/polkit-1/localauthority/90-mandatory.d/99-mintupdate-temporary.pkla`, `dpkg -- configure -a`, `sudo dpkg -- configure -a`, `clear`, `date`, `clear`, `df`, `clear`, `free`, `clear`, and `ps`.

```
File Edit View Search Terminal Help
mashiyat@mahjabineshita-22101878:/home$history
1 sudo apt install fish
2 fish
3 ls -la ~/.bashrc
4 stat ~/.bashrc
5 nano ~/.bashrc
6 source ~/.bashrc
7 clear
8 fish
9 sudo
10 sudo apt-get update
11 clear
12 fish
13 clean
14 clear
15 sudo apt-get install gimp
16 sudo apt-get autoclean
17 clear
18 sudo apt-get autoclean
19 shutdown -Ph now
20 sudo rm /etc/polkit-1/localauthority/90-mandatory.d/99-mintupdate-temporary.pkla
21 dpkg -- configure -a
22 sudo dpkg -- configure -a
23 clear
24 date
25 clear
26 df
27 clear
28 free
29 clear
30 ps
```

15. Command: *man*

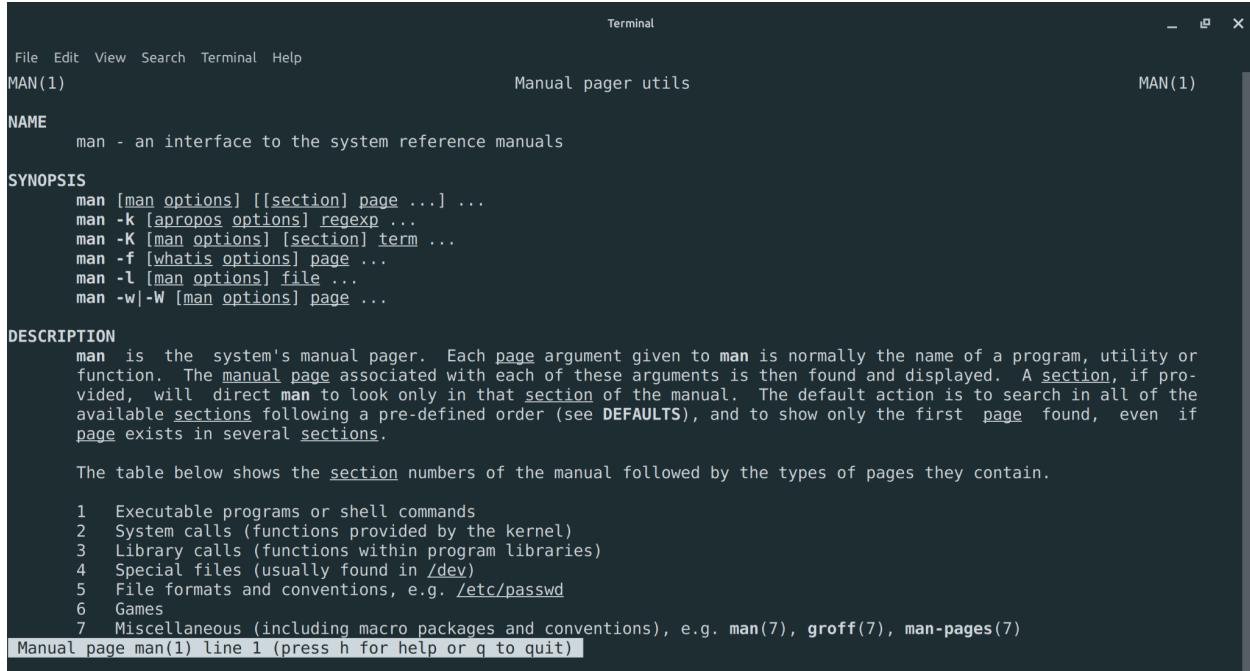
Here, the man command displays a manual page. It helps me to know about the manual itself.



A screenshot of a terminal window titled "Terminal". The user types `man` and receives instructions on how to use it, followed by a prompt for a specific manual page name.

```
File Edit View Search Terminal Help
mashiyat@mahjabineshita-22101878:~$man
What manual page do you want?
For example, try 'man man'.
mashiyat@mahjabineshita-22101878:~$man man
mashiyat@mahjabineshita-22101878:~$
```

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The screenshot shows a terminal window with the title "Terminal". The window contains the "Manual pager utils" manual page for the "man" command. The page is titled "MAN(1)" and includes sections for "NAME", "SYNOPSIS", and "DESCRIPTION". The SYNOPSIS section lists various command-line options for "man". The DESCRIPTION section provides a detailed explanation of what "man" does, mentioning it's a manual pager and describing the sections and types of pages it handles. A table below the description maps section numbers to their types. The bottom of the window shows a status bar with the text "Manual page man(1) line 1 (press h for help or q to quit)".

```
File Edit View Search Terminal Help
MAN(1)                               Manual pager utils                               MAN(1)

NAME
    man - an interface to the system reference manuals

SYNOPSIS
    man [man options] [[section] page ...] ...
    man -k [apropos options] regexp ...
    man -K [man options] [section] term ...
    man -f [whatis options] page ...
    man -l [man options] file ...
    man -w|-W [man options] page ...

DESCRIPTION
    man is the system's manual pager. Each page argument given to man is normally the name of a program, utility or function. The manual page associated with each of these arguments is then found and displayed. A section, if provided, will direct man to look only in that section of the manual. The default action is to search in all of the available sections following a pre-defined order (see DEFAULTS), and to show only the first page found, even if page exists in several sections.

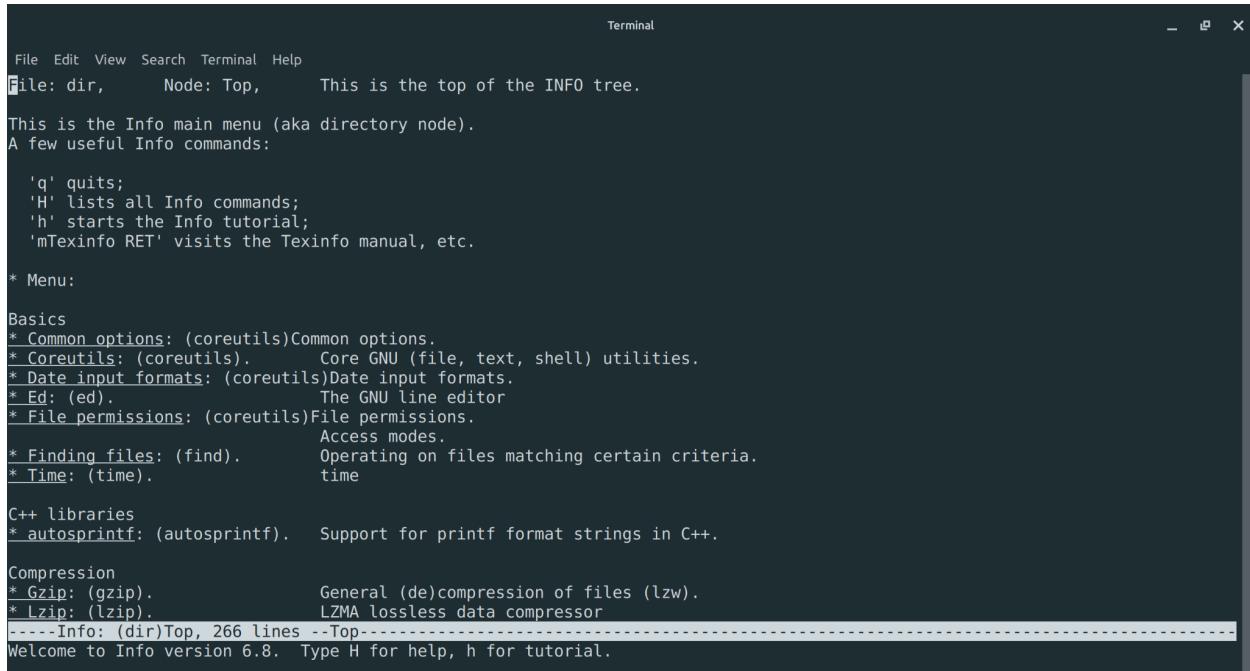
    The table below shows the section numbers of the manual followed by the types of pages they contain.

    1 Executable programs or shell commands
    2 System calls (functions provided by the kernel)
    3 Library calls (functions within program libraries)
    4 Special files (usually found in /dev)
    5 File formats and conventions, e.g. /etc/passwd
    6 Games
    7 Miscellaneous (including macro packages and conventions), e.g. man(7), groff(7), man-pages(7)

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

16. Command: *info*

Here, Using info is similar to man but it provides more precise information.



The screenshot shows a terminal window with the title "Terminal". It displays the Info main menu, which is a directory node. The menu lists various Info commands and categories. It includes sections for "Basics", "Compression", and "C++ libraries". At the bottom, it shows the welcome message "Welcome to Info version 6.8. Type H for help, h for tutorial".

```
File Edit View Search Terminal Help
File: dir,      Node: Top,      This is the top of the INFO tree.

This is the Info main menu (aka directory node).
A few useful Info commands:

  'q' quits;
  'H' lists all Info commands;
  'h' starts the Info tutorial;
  'mTexinfo RET' visits the Texinfo manual, etc.

* Menu:

  Basics
  * Common_options: (coreutils)Common options.
  * Coreutils: (coreutils).      Core GNU (file, text, shell) utilities.
  * Date_input_formats: (coreutils)Date input formats.
  * Ed: (ed).                  The GNU line editor
  * File_permissions: (coreutils)File permissions.
                                Access modes.
  * Finding_files: (find).     Operating on files matching certain criteria.
  * Time: (time).              time

  C++ libraries
  * autosprintf: (autosprintf). Support for printf format strings in C++.

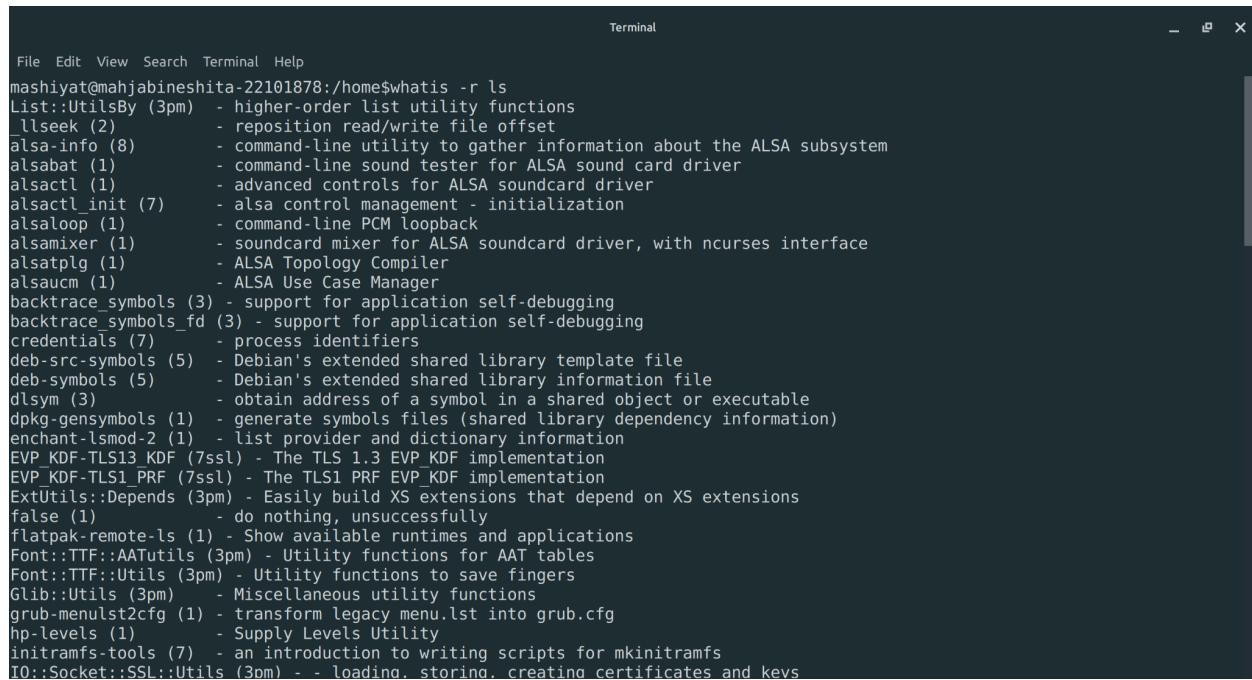
  Compression
  * Gzip: (gzip).             General (de)compression of files (lzw).
  * Lzip: (lzip).              LZMA lossless data compressor
-----Info: (dir)Top, 266 lines --Top-----
Welcome to Info version 6.8. Type H for help, h for tutorial.
```

17. Command: *whatis <command>*

This command displayed to me a brief description of what is the functionality of a specific built-in Linux command.

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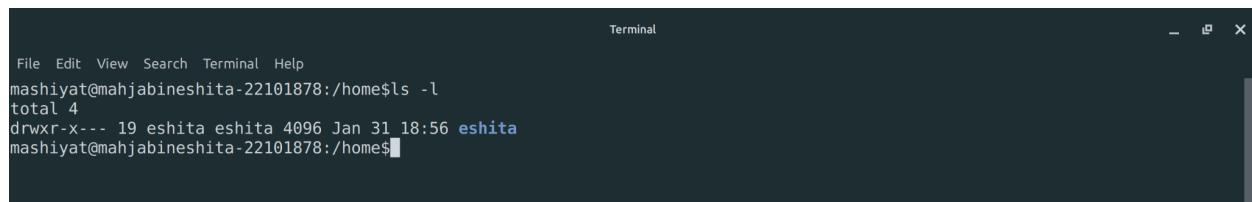
For example, I used whatis -r ls command to see the functionality.



```
File Edit View Search Terminal Help
mashiyat@mahjabineshita-22101878:/home$whatis -r ls
List::UtilsBy (3pm) - higher-order list utility functions
_llseek (2) - reposition read/write file offset
alsa-info (8) - command-line utility to gather information about the ALSA subsystem
alsabat (1) - command-line sound tester for ALSA sound card driver
alsactl (1) - advanced controls for ALSA soundcard driver
alsactl_init (7) - alsactl management - initialization
alsaloop (1) - command-line PCM loopback
alsamixer (1) - soundcard mixer for ALSA soundcard driver, with ncurses interface
alsatplg (1) - ALSA Topology Compiler
alsaucm (1) - ALSA Use Case Manager
backtrace_symbols (3) - support for application self-debugging
backtrace_symbols_fd (3) - support for application self-debugging
credentials (7) - process identifiers
deb-src-symbols (5) - Debian's extended shared library template file
deb-symbols (5) - Debian's extended shared library information file
dlsym (3) - obtain address of a symbol in a shared object or executable
dpkg-gensymbols (1) - generate symbols files (shared library dependency information)
enchant-lsmod-2 (1) - list provider and dictionary information
EVP_KDF-TLS13_KDF (7ssl) - The TLS 1.3 EVP_KDF implementation
EVP_KDF-TLS1_PRF (7ssl) - The TLS1 PRF EVP_KDF implementation
ExtUtils::Depends (3pm) - Easily build XS extensions that depend on XS extensions
false (1) - do nothing, unsuccessfully
flatpak-remote-ls (1) - Show available runtimes and applications
Font::TTF::AAUtils (3pm) - Utility functions for AAT tables
Font::TTF::Utils (3pm) - Utility functions to save fingers
Glib::Utils (3pm) - Miscellaneous utility functions
grub-menulst2cfg (1) - transform legacy menu.lst into grub.cfg
hp-levels (1) - Supply Levels Utility
initramfs-tools (7) - an introduction to writing scripts for mkinitramfs
IO::Socket::SSL::Utils (3pm) - loading, storing, creating certificates and keys
```

18. Command: *ls -l*

Here, this command lists files and directories in the current directory in long format.



```
File Edit View Search Terminal Help
mashiyat@mahjabineshita-22101878:/home$ls -l
total 4
drwxr-x--- 19 eshita eshita 4096 Jan 31 18:56 eshita
mashiyat@mahjabineshita-22101878:/home$
```

19. Command: *echo*

Using echo command helps me to print anything in the terminal.



```
File Edit View Search Terminal Help
mashiyat@mahjabineshita-22101878:/home$echo "Hello, This is Mashiyat!! Nice to meet you :)" "
echo "Hello, This is Mashiyatclear Nice to meet you :)"
Hello, This is Mashiyatclear Nice to meet you :
mashiyat@mahjabineshita-22101878:/home$
```

20. Command: *echo grep*

This command shows something that is written in the string if they can find it. For example, if I grep “Hello” then it will be printed but if the string is not found then it will not be shown as an

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output.



A screenshot of a terminal window titled "Terminal". The window has a dark background and light-colored text. At the top, there is a menu bar with "File", "Edit", "View", "Search", "Terminal", and "Help". Below the menu, the terminal prompt is "mashiyat@mahjabineshita-22101878:/home\$". The user has run several commands:

```
File Edit View Search Terminal Help
mashiyat@mahjabineshita-22101878:/home$echo "Hello World, everything good?"
Hello World, everything good?
mashiyat@mahjabineshita-22101878:/home$echo "Hello World, everything good?"|grep "Panda"
mashiyat@mahjabineshita-22101878:/home$echo "Hello World, everything good?" | grep "World"
Hello World, everything good?
mashiyat@mahjabineshita-22101878:/home$
```