

**Assignment No 1****Assignment Name :- Study Linux Commands****Name Nandini Madhukar Achugatla****PRN NO:- 22120141. Roll .NO:-333073.****Professor Name :- Prof. Vishal Meshram.**

- 1) Ls - The most frequently used command in Linux to list directories.**

**1. ls command**

The ls command without any options lists files and directories in a plain format without displaying much information like file types, permissions, modified date and time to mention just but a few.

**Syntax - \$ ls****Output –**

```
root@DESKTOP-G106AF:~/Cloud/Assign1
root@DESKTOP-G106AF:~# mkdir
mkdir: missing operand
try 'mkdir --help' for more information.
root@DESKTOP-G106AF:~# mkdir CloudDevops
root@DESKTOP-G106AF:~# [1]+  Done                  mkdir Cloud
root@DESKTOP-G106AF:~# ls
ls: /: No such file or directory
root@DESKTOP-G106AF:~# cd c:
bash: cd: c: not found
root@DESKTOP-G106AF:~# cd c/
bash: cd: c/: No such file or directory
root@DESKTOP-G106AF:~# ls
Cloud
root@DESKTOP-G106AF:~# cd Cloud
root@DESKTOP-G106AF:~/Cloud 1s
root@DESKTOP-G106AF:~/Cloud# mkdir Assign1
root@DESKTOP-G106AF:~/Cloud# ls
Assign1
root@DESKTOP-G106AF:~/Cloud# cd Assign1
root@DESKTOP-G106AF:~/Cloud/Assign1# touch scripts.txt
root@DESKTOP-G106AF:~/Cloud/Assign1# ls
scripts.txt
root@DESKTOP-G106AF:~/Cloud/Assign1# cat scripts.txt
root@DESKTOP-G106AF:~/Cloud/Assign1# touch unit.txt
root@DESKTOP-G106AF:~/Cloud/Assign1# touch unit2.txt
root@DESKTOP-G106AF:~/Cloud/Assign1# ls
scripts.txt  unit.txt  unit2.txt
root@DESKTOP-G106AF:~/Cloud/Assign1#
```

## 2 pwd command —

Used to print working directory command in Linux .

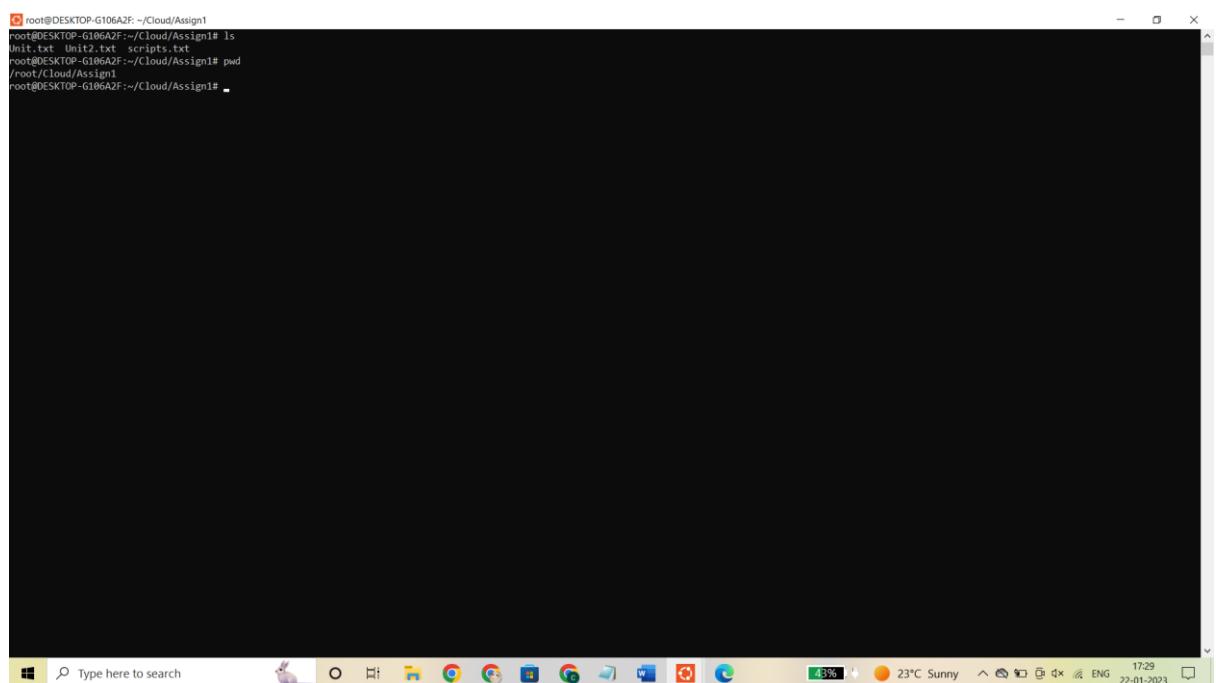
**pwd** stands for **P**rint **W**orking **D**irectory. It prints the path of the working directory, starting from the root.**pwd** is shell built-in command(**pwd**) or an actual binary(/bin/**pwd**).

\$PWD is an [environment variable](#) which stores the path of the current directory.

This command has two flags.

### Syntax - \$pwd

### Output



```
root@DESKTOP-G106A2F:~/Cloud/Assign1
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
Unit1.txt  Unit2.txt  scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# pwd
/root/Cloud/Assign1
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 03. cd command-

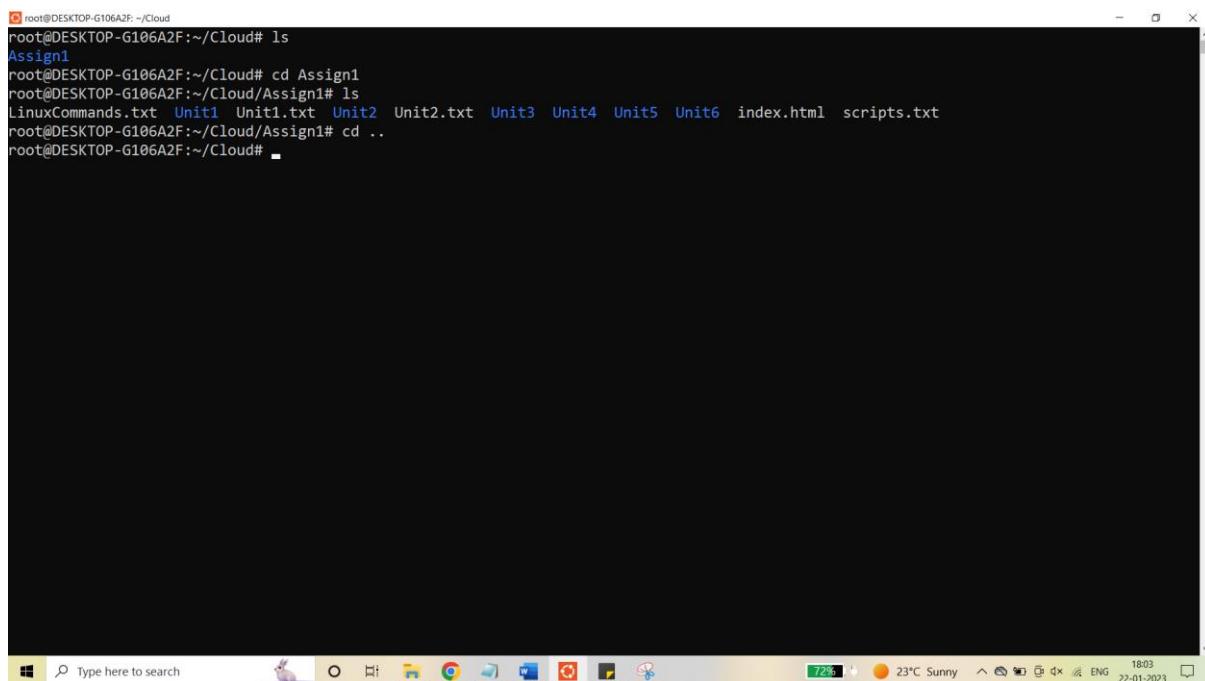
It is Linux command used to navigate through directories.

The cd command is highly popular, along with ls. It refers to “change directory” and, as its name suggests, switches you to the directory you’re trying to access.

**Syntax -**

**\$ cd [directory]**

**Output:-**



```
root@DESKTOP-G106A2F:~/Cloud#
root@DESKTOP-G106A2F:~/Cloud# ls
Assign1
root@DESKTOP-G106A2F:~/Cloud# cd Assign1
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
LinuxCommands.txt  Unit1  Unit1.txt  Unit2  Unit2.txt  Unit3  Unit4  Unit5  Unit6  index.html  scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# cd ..
root@DESKTOP-G106A2F:~/Cloud#
```

### 04 mkdir Command –

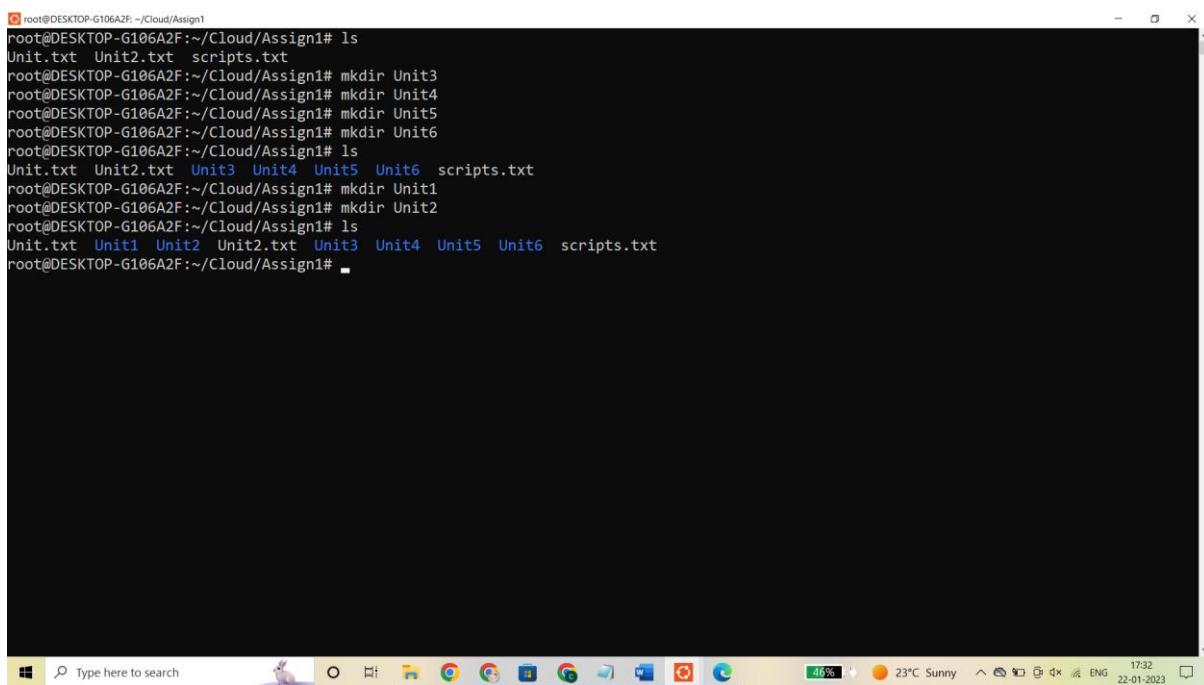
It is used to create directories in LinuxT

To create folders in the shell, you use the mkdir command. Just specify the new folder's name, ensure it doesn't exist, and you're ready to go.

**Syntax –**

`mkdir [options...] [directories ...]`

**output-**



The screenshot shows a Windows desktop environment with a terminal window open. The terminal window has a dark background and displays the following command-line session:

```
root@DESKTOP-G106A2F:~/Cloud/Assign1
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
Unit.txt Unit2.txt scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# mkdir Unit3
root@DESKTOP-G106A2F:~/Cloud/Assign1# mkdir Unit4
root@DESKTOP-G106A2F:~/Cloud/Assign1# mkdir Unit5
root@DESKTOP-G106A2F:~/Cloud/Assign1# mkdir Unit6
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
Unit.txt Unit2.txt Unit3 Unit4 Unit5 Unit6 scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# mkdir Unit1
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
Unit.txt Unit1 Unit2 Unit3 Unit4 Unit5 Unit6 scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

The taskbar at the bottom of the screen shows various application icons, including File Explorer, Edge, and other system icons. The system tray indicates battery level (46%), temperature (23°C), and date/time (22-01-2023).

### 05. mv command —

Move or rename files in Linux— The most frequently used command in Linux to list directories.

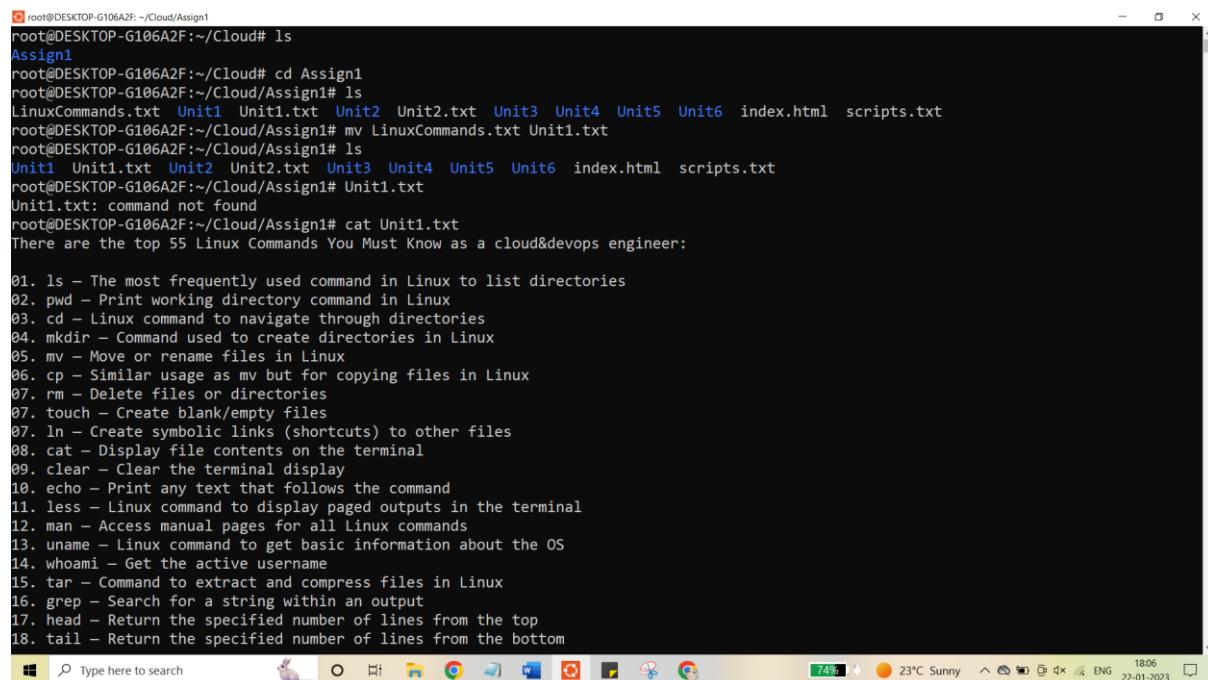
You use the mv command to move (or rename) files and directories through your file system.

To use this command, you'd type its name with the source and destination files

Syntax –

**mv [Option] source destination**

Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1
root@DESKTOP-G106A2F:~/Cloud# ls
Assign1
root@DESKTOP-G106A2F:~/Cloud# cd Assign1
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
LinuxCommands.txt  Unit1  Unit1.txt  Unit2  Unit2.txt  Unit3  Unit4  Unit5  Unit6  index.html  scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# mv LinuxCommands.txt Unit1.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
Unit1  Unit1.txt  Unit2  Unit2.txt  Unit3  Unit4  Unit5  Unit6  index.html  scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# Unit1.txt
Unit1.txt: command not found
root@DESKTOP-G106A2F:~/Cloud/Assign1# cat Unit1.txt
There are the top 55 Linux Commands You Must Know as a cloud&devops engineer:

01. ls – The most frequently used command in Linux to list directories
02. pwd – Print working directory command in Linux
03. cd – Linux command to navigate through directories
04. mkdir – Command used to create directories in Linux
05. mv – Move or rename files in Linux
06. cp – Similar usage as mv but for copying files in Linux
07. rm – Delete files or directories
07. touch – Create blank/empty files
07. ln – Create symbolic links (shortcuts) to other files
08. cat – Display file contents on the terminal
09. clear – Clear the terminal display
10. echo – Print any text that follows the command
11. less – Linux command to display paged outputs in the terminal
12. man – Access manual pages for all Linux commands
13. uname – Linux command to get basic information about the OS
14. whoami – Get the active username
15. tar – Command to extract and compress files in Linux
16. grep – Search for a string within an output
17. head – Return the specified number of lines from the top
18. tail – Return the specified number of lines from the bottom
```

### 06. cp command—

Similar usage as mv but for copying files in Linux

It's so easy to copy files and folders directly in the Linux terminal that sometimes it can replace conventional file managers.

To use the cp command, just type it along with the source and destination files.

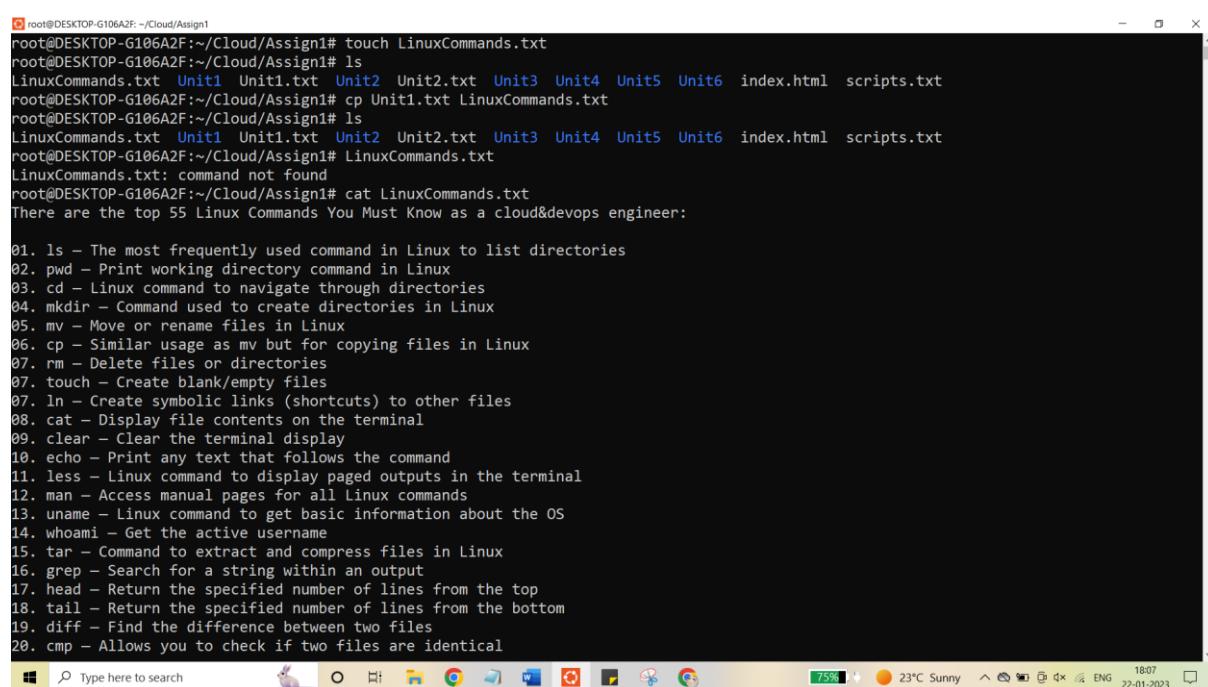
#### Syntax-

cp [OPTION] Source Destination

cp [OPTION] Source Directory

cp [OPTION] Source-1 Source-2 Source-3 Source-n Directory

#### Output



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# touch LinuxCommands.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
LinuxCommands.txt  Unit1  Unit1.txt  Unit2  Unit2.txt  Unit3  Unit4  Unit5  Unit6  index.html  scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# cp Unit1.txt LinuxCommands.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
LinuxCommands.txt  Unit1  Unit1.txt  Unit2  Unit2.txt  Unit3  Unit4  Unit5  Unit6  index.html  scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# LinuxCommands.txt
LinuxCommands.txt: command not found
root@DESKTOP-G106A2F:~/Cloud/Assign1# cat LinuxCommands.txt
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03. cd – Linux command to navigate through directories
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05. mv – Move or rename files in Linux
06. cp – Similar usage as mv but for copying files in Linux
07. rm – Delete files or directories
07. touch – Create blank/empty files
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08. cat – Display file contents on the terminal
09. clear – Clear the terminal display
10. echo – Print any text that follows the command
11. less – Linux command to display paged outputs in the terminal
12. man – Access manual pages for all Linux commands
13. uname – Linux command to get basic information about the OS
14. whoami – Get the active username
15. tar – Command to extract and compress files in Linux
16. grep – Search for a string within an output
17. head – Return the specified number of lines from the top
18. tail – Return the specified number of lines from the bottom
19. diff – Find the difference between two files
20. cmp – Allows you to check if two files are identical
```

### 07. rm command —

Delete files or directories

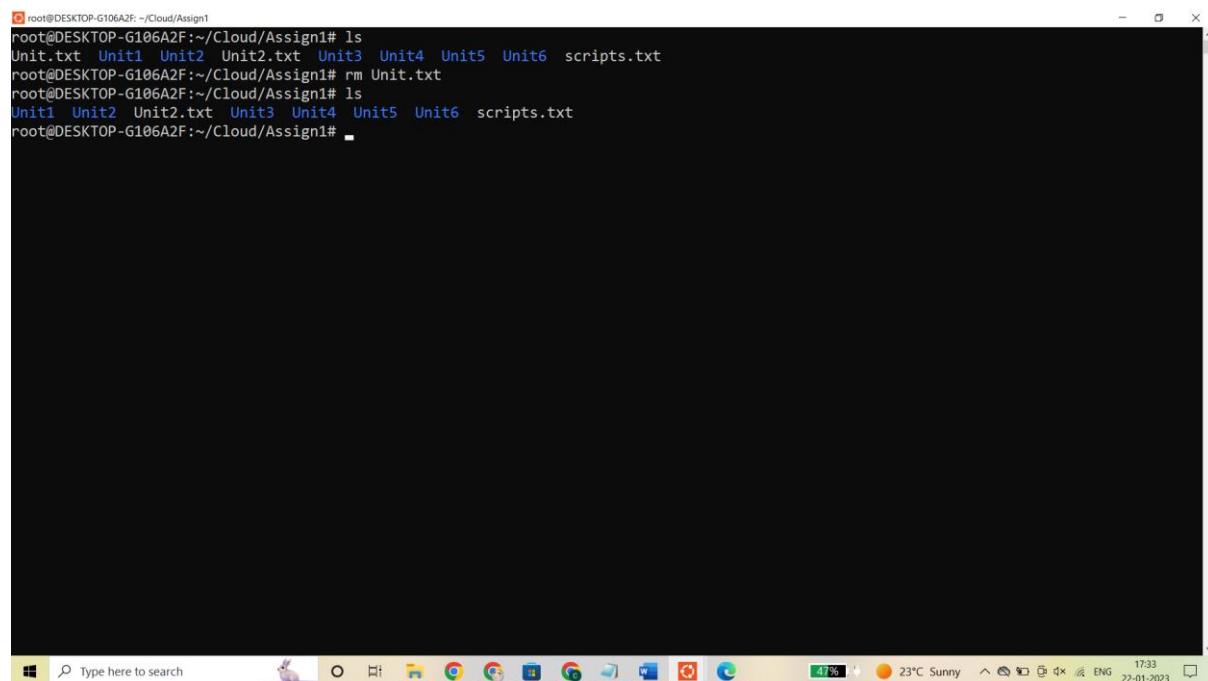
You can use the rm command to remove files and directories. Be careful while using it, though, because it's very difficult (yet not impossible) to recover files deleted this way.

#### Syntax-

rm [OPTION]... FILE...

#### Output

```
root@DESKTOP-G106A2F:~/Cloud/Assign1
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
Unit.txt  Unit1  Unit2  Unit2.txt  Unit3  Unit4  Unit5  Unit6  scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# rm Unit.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
Unit1  Unit2  Unit2.txt  Unit3  Unit4  Unit5  Unit6  scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```



### 08. touch command—

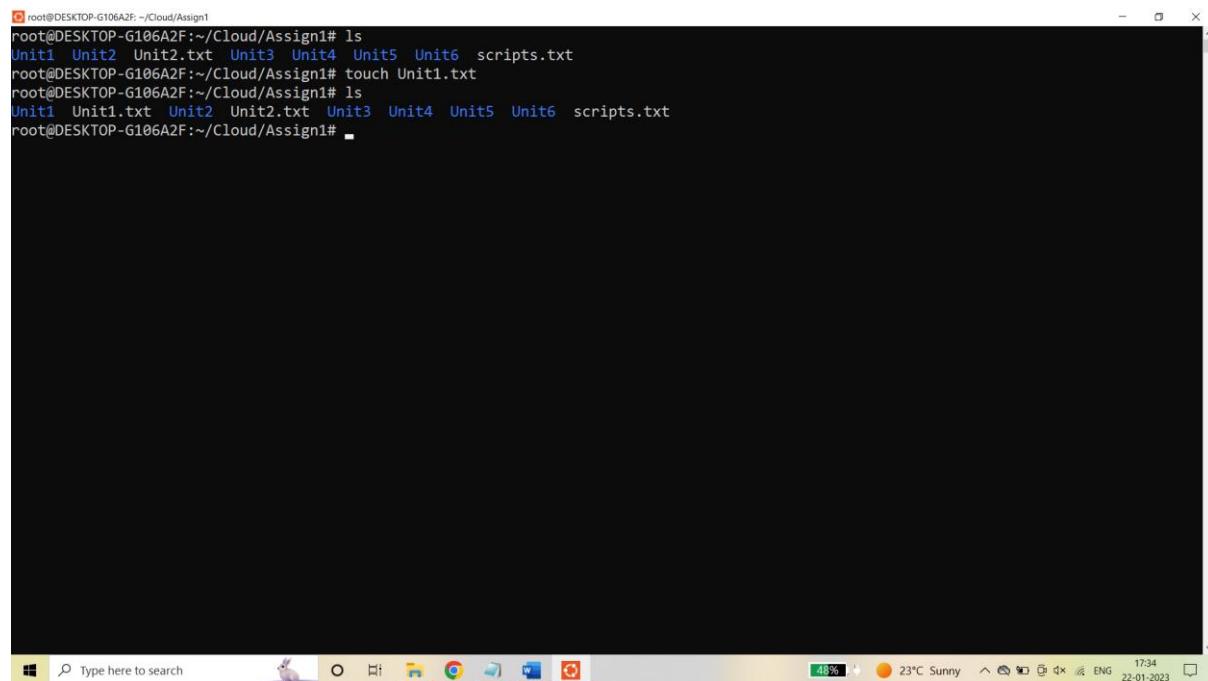
It used to Create blank/empty files.

The Linux touch command is used to create a file without any content. The file created using the touch command is empty with zero bytes. This command can be used when the user doesn't have data to store at the time of file creation.

#### Syntax :-

touch <filename>

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
Unit1 Unit2 Unit2.txt Unit3 Unit4 Unit5 Unit6 scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# touch Unit1.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
Unit1 Unit1.txt Unit2 Unit2.txt Unit3 Unit4 Unit5 Unit6 scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 09. In command--

Create symbolic links (shortcuts) to other files A symlink (symbolic) is a type of file that points to other files or directories (folders) in Linux. You can create a symlink (symbolic) by using the ln command in the command line. Symbolic links are useful because they act as shortcuts to a file or directory.

#### Syntax-

#### Output-

### 10. cat command—

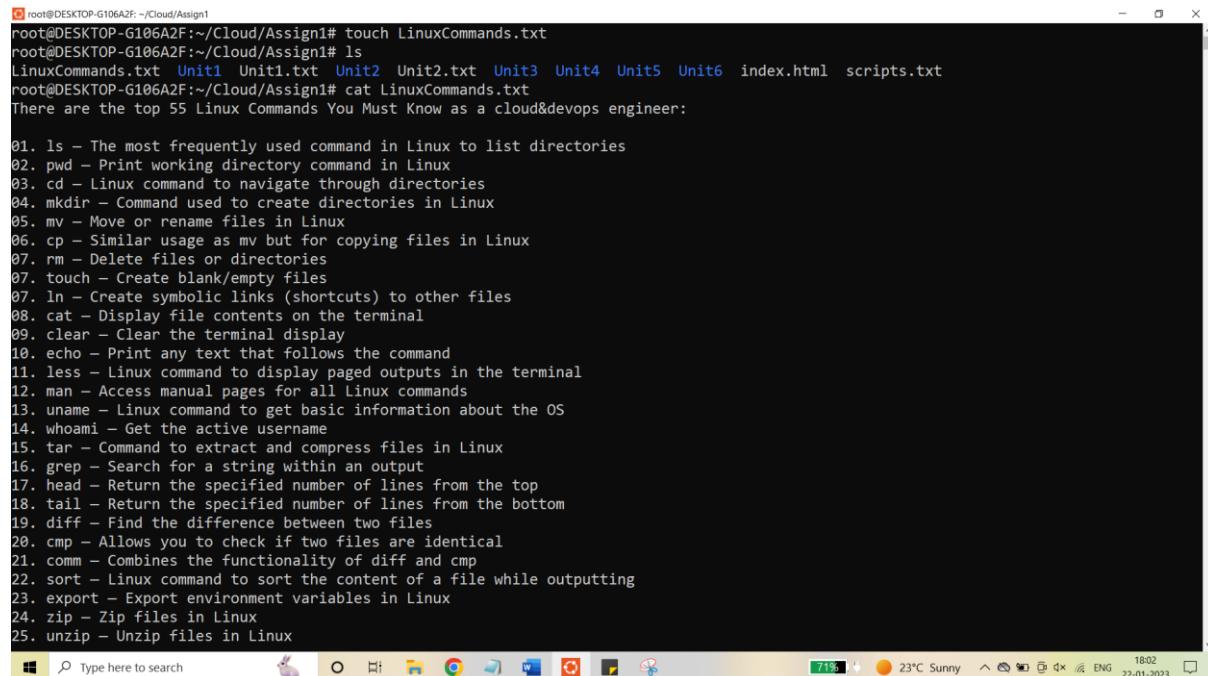
Display file contents on the terminal .

Cat is short for concatenate. This command displays the contents of one or more files without having to open the file for editing.

#### Syntax-

\$cat filename

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1
root@DESKTOP-G106A2F:~/Cloud/Assign1# touch LinuxCommands.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
LinuxCommands.txt  Unit1  Unit1.txt  Unit2  Unit2.txt  Unit3  Unit4  Unit5  Unit6  index.html  scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# cat LinuxCommands.txt
There are the top 55 Linux Commands You Must Know as a cloud&devops engineer:

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07. rm – Delete files or directories
07. touch – Create blank/empty files
07. ln – Create symbolic links (shortcuts) to other files
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09. clear – Clear the terminal display
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11. less – Linux command to display paged outputs in the terminal
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14. whoami – Get the active username
15. tar – Command to extract and compress files in Linux
16. grep – Search for a string within an output
17. head – Return the specified number of lines from the top
18. tail – Return the specified number of lines from the bottom
19. diff – Find the difference between two files
20. cmp – Allows you to check if two files are identical
21. comm – Combines the functionality of diff and cmp
22. sort – Linux command to sort the content of a file while outputting
23. export – Export environment variables in Linux
24. zip – Zip files in Linux
25. unzip – Unzip files in Linux
```

### 11. clear command —

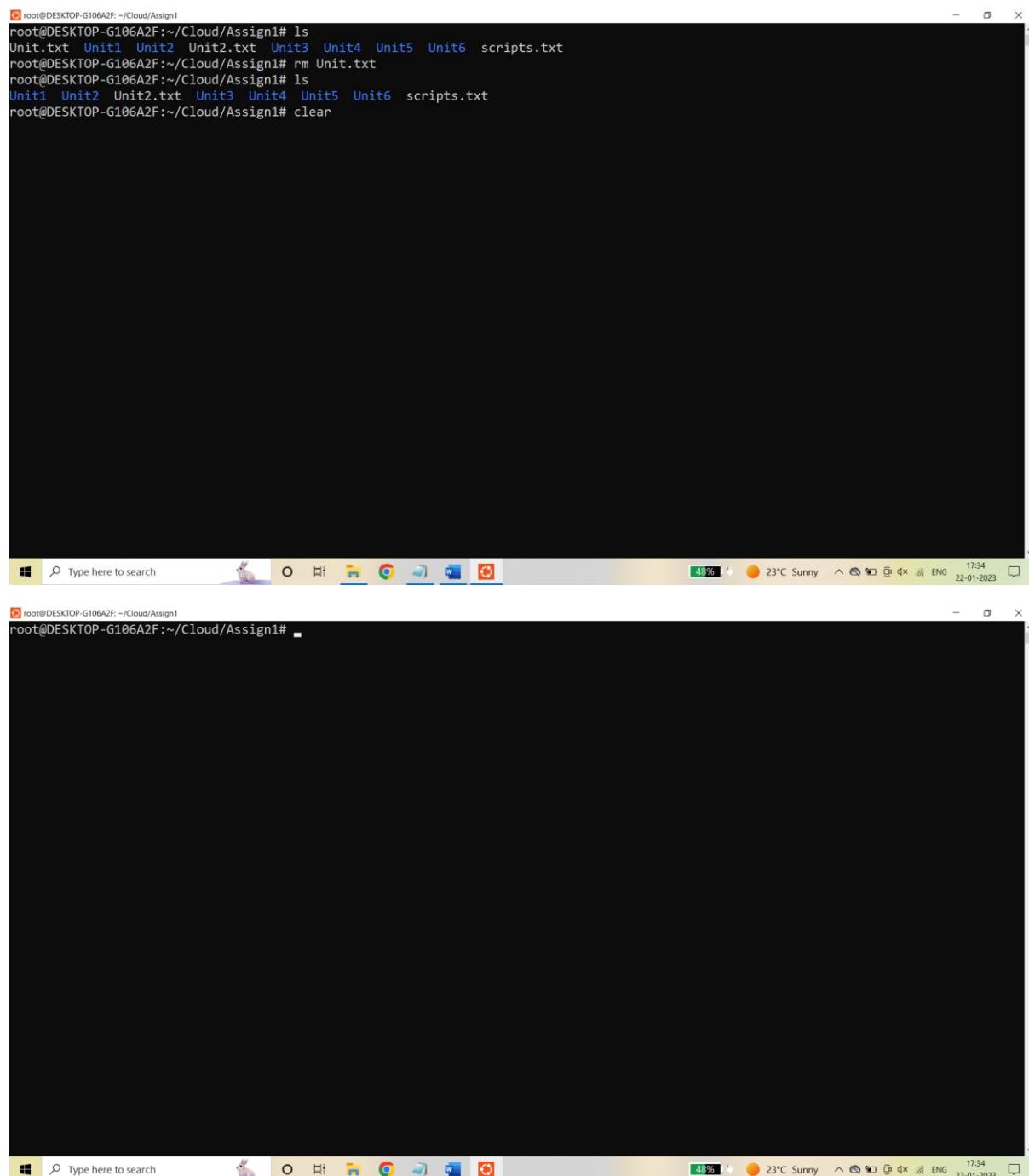
It is used to Clear the terminal display

Clear is a standard Unix computer operating system command that is used to clear the terminal screen. This command first looks for a terminal type in the environment and after that, it figures out the terminfo database for how to clear the screen.

**Syntax :**

```
$clear
```

**Output**



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
Unit.txt  Unit1  Unit2  Unit2.txt  Unit3  Unit4  Unit5  Unit6  scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# rm Unit.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
Unit1  Unit2  Unit2.txt  Unit3  Unit4  Unit5  Unit6  scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# clear

root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

```
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
Unit.txt  Unit1  Unit2  Unit2.txt  Unit3  Unit4  Unit5  Unit6  scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# rm Unit.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
Unit1  Unit2  Unit2.txt  Unit3  Unit4  Unit5  Unit6  scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# clear

root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 12. echo command —

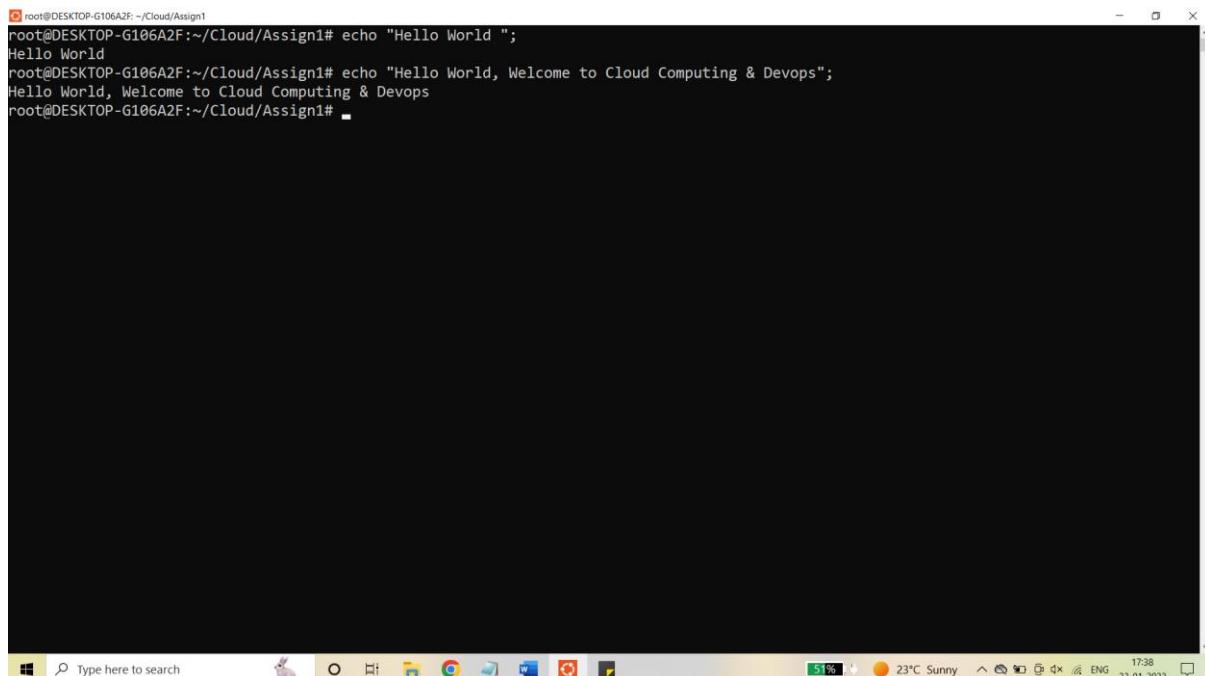
Print any text that follows the command

The echo command is a built-in Linux feature that prints out arguments as the standard output. Echo is commonly used to display text strings or command results as messages.

#### Syntax-

\$echo "String"

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1
root@DESKTOP-G106A2F:~/Cloud/Assign1# echo "Hello World ";
Hello World
root@DESKTOP-G106A2F:~/Cloud/Assign1# echo "Hello World, Welcome to Cloud Computing & Devops";
Hello World, Welcome to Cloud Computing & Devops
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

The screenshot shows a Windows terminal window with a black background and white text. It displays two commands being run at a root prompt. The first command, 'echo "Hello World";', outputs 'Hello World' on a new line. The second command, 'echo "Hello World, Welcome to Cloud Computing & Devops";', outputs 'Hello World, Welcome to Cloud Computing & Devops' on a new line. The terminal window has a title bar with the text 'root@DESKTOP-G106A2F:~/Cloud/Assign1'. At the bottom of the window, there is a taskbar with various icons for Microsoft Office applications like Word, Excel, and PowerPoint, as well as icons for File Explorer, Task View, and Start. The system tray shows the date and time as '22-01-2023 17:38' and the weather as '23°C Sunny'. The desktop background is visible behind the terminal window.

### 13. less command—

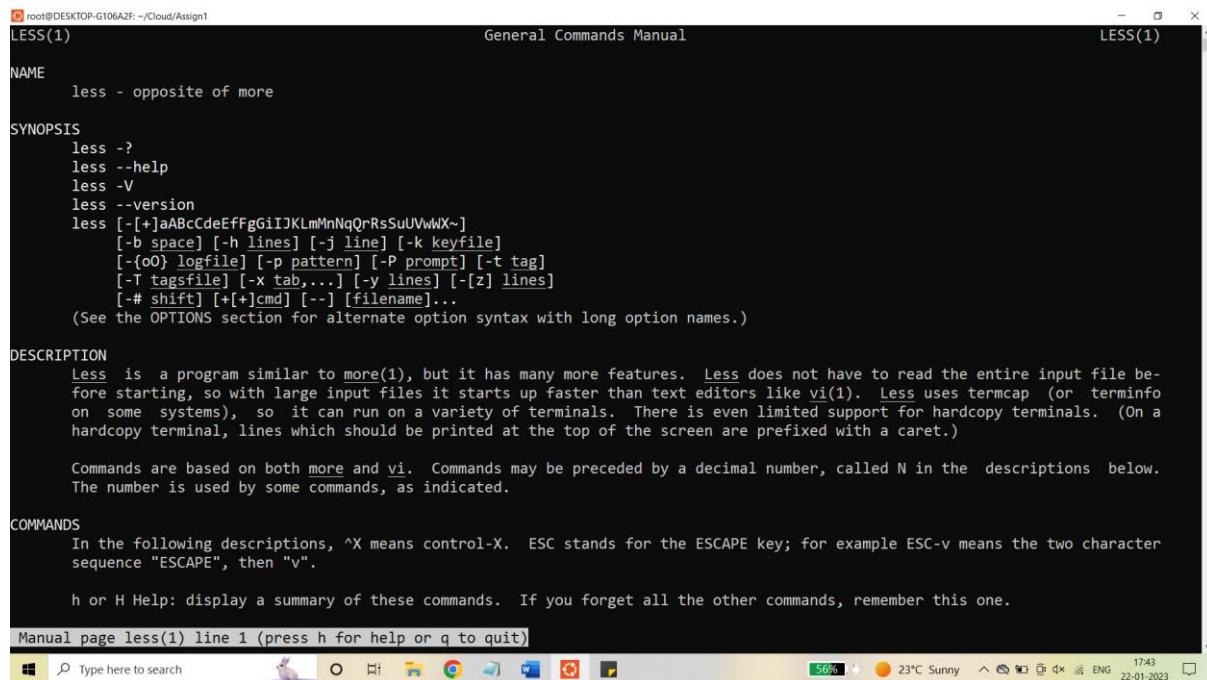
It is Linux command to display paged outputs in the terminal .

The less command is a Linux terminal pager that shows a file's contents one screen at a time. It is useful when dealing with a large text file because it doesn't load the entire file but accesses it page by page, resulting in fast loading speeds.

#### Syntax-

\$less filename

#### Output



root@DESKTOP-G106A2F: ~/Cloud/Assign1

LESS(1) General Commands Manual LESS(1)

**NAME**

less - opposite of more

**SYNOPSIS**

less -?  
less --help  
less -V  
less --version  
less [-[+]aABcCdeEfFgGiJKLmMnNqQrRsSuUVwWx~]  
[-b space] [-h lines] [-j line] [-k keyfile]  
[-{oO} logfile] [-p pattern] [-P prompt] [-t tag]  
[-T tagfile] [-x tab,...] [-y lines] [-z lines]  
[-# shift] [+[-]cmd] [-[-] [filename]...]  
(See the OPTIONS section for alternate option syntax with long option names.)

**DESCRIPTION**

Less is a program similar to more(1), but it has many more features. Less does not have to read the entire input file before starting, so with large input files it starts up faster than text editors like vi(1). Less uses termcap (or terminfo on some systems), so it can run on a variety of terminals. There is even limited support for hardcopy terminals. (On a hardcopy terminal, lines which should be printed at the top of the screen are prefixed with a caret.)

Commands are based on both more and vi. Commands may be preceded by a decimal number, called N in the descriptions below. The number is used by some commands, as indicated.

**COMMANDS**

In the following descriptions, ^X means control-X. ESC stands for the ESCAPE key; for example ESC-v means the two character sequence "ESCAPE", then "v".

h or H Help: display a summary of these commands. If you forget all the other commands, remember this one.

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

Windows taskbar icons: Start, Search, Task View, File Explorer, Google Chrome, Microsoft Edge, File Manager, Taskbar settings, and a system tray with battery, signal, and date/time.

### 14. man command —

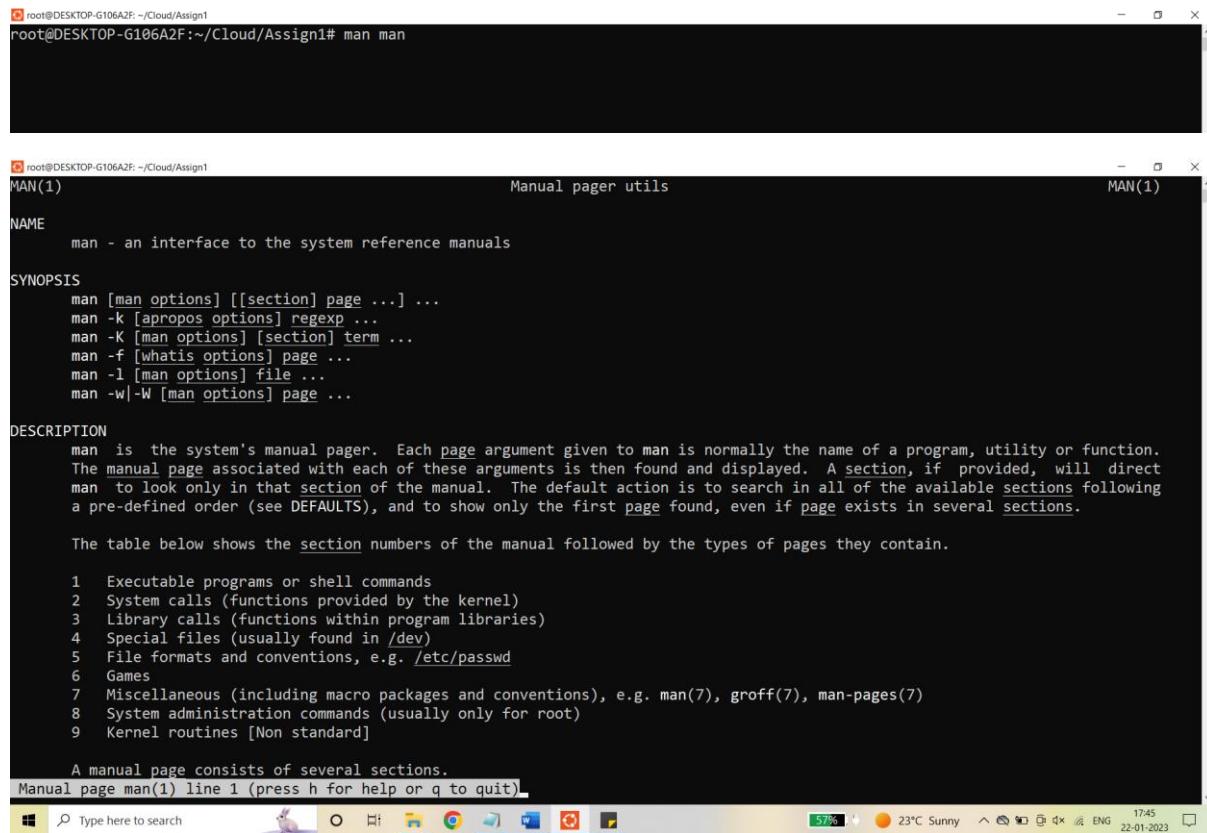
Access manual pages for all Linux commands

The man command is a built-in manual for using Linux commands. It allows users to view the reference manuals of a command or utility run in the terminal. The man page (short for manual page) includes a command description, applicable options, flags, examples, and other informative sections.

#### Syntax-

\$man [OPTION]... [COMMAND NAME]...

#### Output



```
root@DESKTOP-G106A2F:~/Cloud/Assign1
root@DESKTOP-G106A2F:~/Cloud/Assign1# man man

root@DESKTOP-G106A2F:~/Cloud/Assign1
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)
8 System administration commands (usually only for root)
9 Kernel routines [Non standard]

       A  manual  page  consists  of  several  sections.
Man page man(1) line 1 (press h for help or q to quit).
```

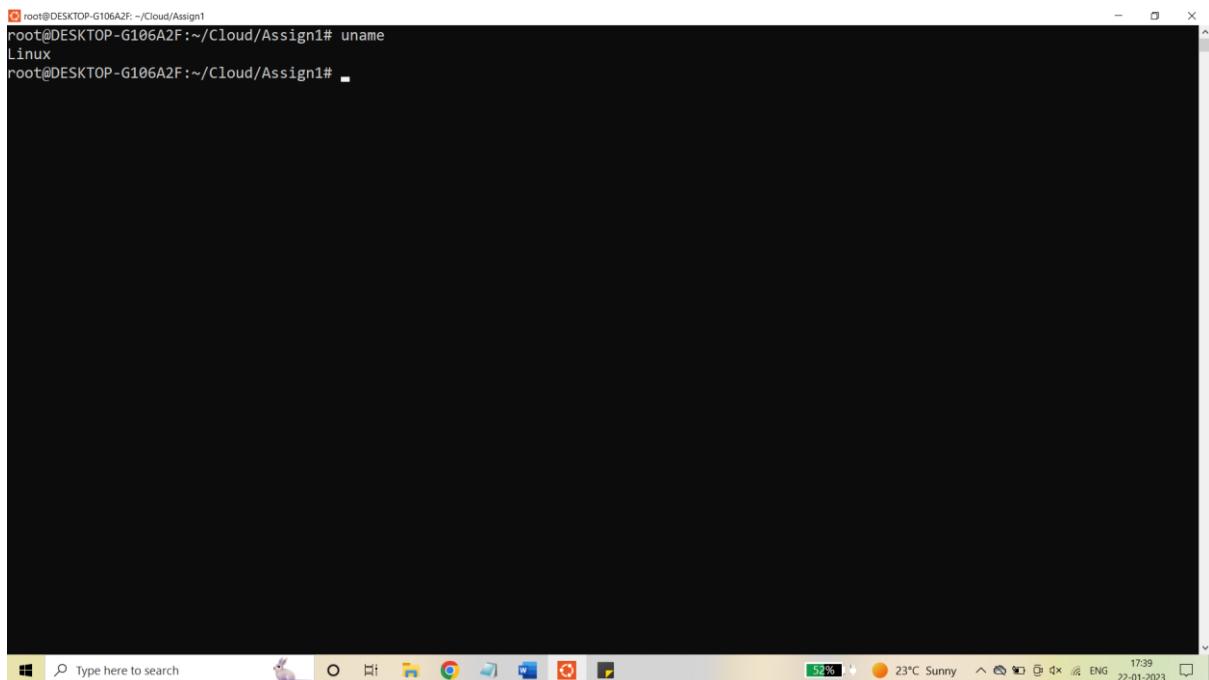
### 15. uname command—

It is Linux comma The uname command writes to standard output the name of the operating system that you are using.nd to get basic information about the OS.

#### Syntax-

\$uname

#### Output



```
root@DESKTOP-G106A2F:~/Cloud/Assign1
root@DESKTOP-G106A2F:~/Cloud/Assign1# uname
Linux
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

The screenshot shows a Windows desktop environment. In the center is a terminal window with a black background and white text. It displays the command 'uname' being run by a user with root privileges ('root@DESKTOP-G106A2F'). The output of the command, 'Linux', is shown. The desktop taskbar at the bottom has several icons, including the Start button, a search bar, and pinned application icons for File Explorer, Google Chrome, and others. The system tray shows battery level (92%), signal strength, weather (23°C, Sunny), language (ENG), and date (22-01-2023). The time on the taskbar is 17:39.

### 16. whoami command—

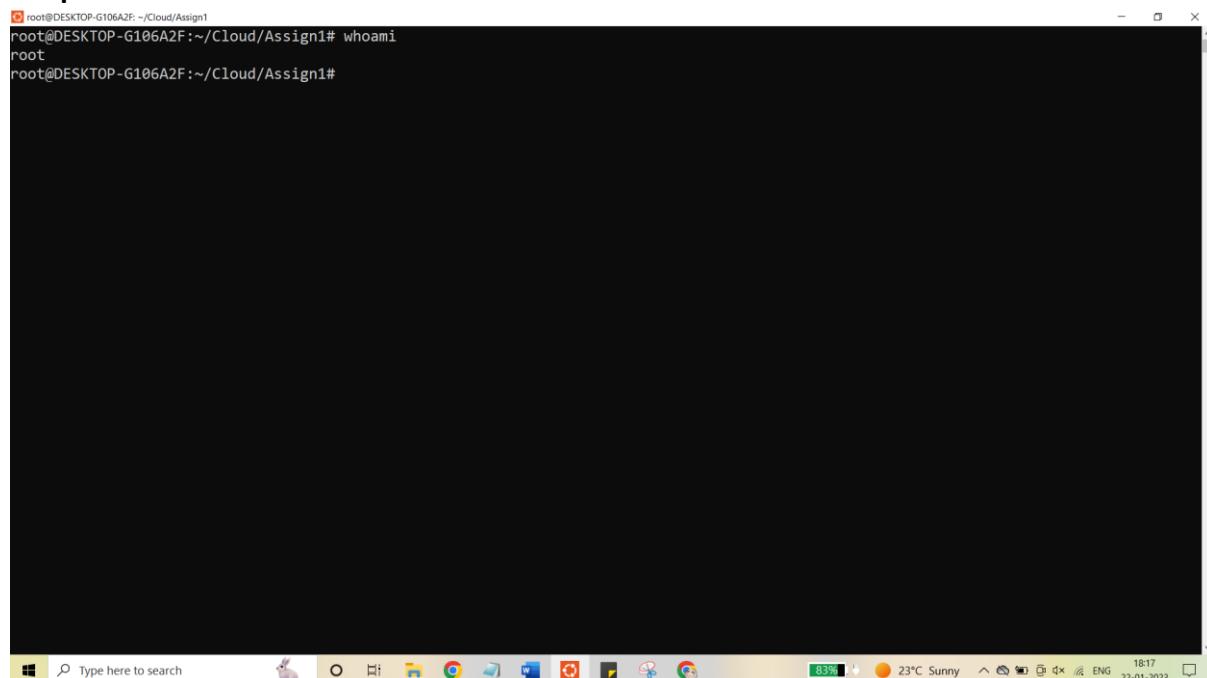
It is used to get the active username.

Using the whoami command, you can get the currently logged-in user in the Windows system. The whoami command prints the username with the domain name.

#### Syntax

```
$whoami
```

#### Output -



A screenshot of a Windows Command Prompt window. The title bar says "root@DESKTOP-G106A2F: ~/Cloud/Assign1". The command "whoami" is typed and the output "root" is displayed. The window has a standard Windows border and a scroll bar on the right. Below the window is the Windows taskbar with various icons and system status indicators like battery level (83%), weather (23°C Sunny), date (22-01-2023), and time (18:17).

```
root@DESKTOP-G106A2F:~/Cloud/Assign1# whoami
root
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 17. tar command —

Command to extract and compress files in Linux



A screenshot of a Linux terminal window. The command "tar cvf file1.tar \*.c" is run, compressing "one.c" and "two.c" into "file1.tar". The terminal shows the directory structure and the commands being entered.

```
handini@DESKTOP-G106A2F:~/CC$ cd CC
handini@DESKTOP-G106A2F:~/CC$ mkdir Unit1
handini@DESKTOP-G106A2F:~/CC$ cd Unit1
handini@DESKTOP-G106A2F:~/CC/Unit1$ touch one.c
handini@DESKTOP-G106A2F:~/CC/Unit1$ touch two.c
handini@DESKTOP-G106A2F:~/CC/Unit1$ tar cvf file1.tar *.c
one.c
two.c
handini@DESKTOP-G106A2F:~/CC/Unit1$
```

### 18. grep command –

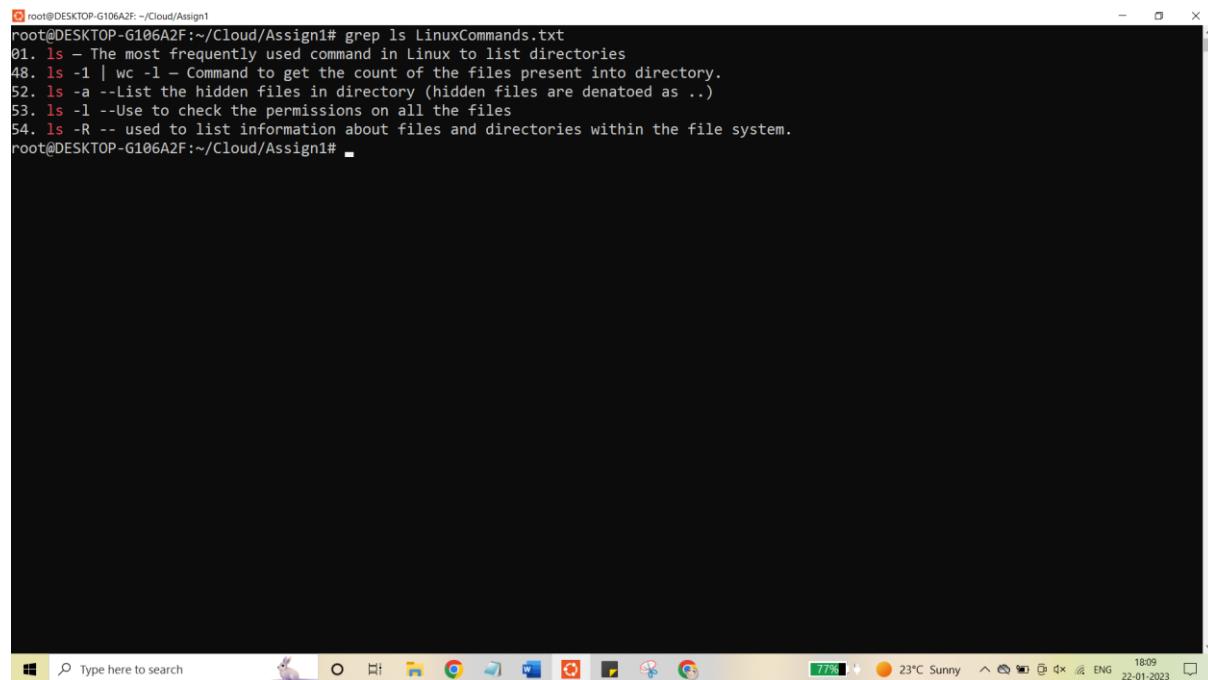
It is used to Search for a string within an output. Grep is an acronym that stands for Global Regular Expression Print.

Grep is a Linux / Unix command-line tool used to search for a string of characters in a specified file. The text search pattern is called a regular expression. When it finds a match, it prints the line with the result. The grep command is handy when searching through large log files.

#### Syntax

```
grep [options] pattern [files]
```

#### Output



A screenshot of a Windows desktop environment. At the bottom is a taskbar with various icons. In the center is a terminal window titled 'root@DESKTOP-G106A2F:~/Cloud/Assign1'. The terminal displays the following text:

```
root@DESKTOP-G106A2F:~/Cloud/Assign1# grep ls LinuxCommands.txt
01. ls - The most frequently used command in Linux to list directories
48. ls -l | wc -l - Command to get the count of the files present into directory.
52. ls -a --List the hidden files in directory (hidden files are denoted as ..)
53. ls -l --Use to check the permissions on all the files
54. ls -R -- used to list information about files and directories within the file system.
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

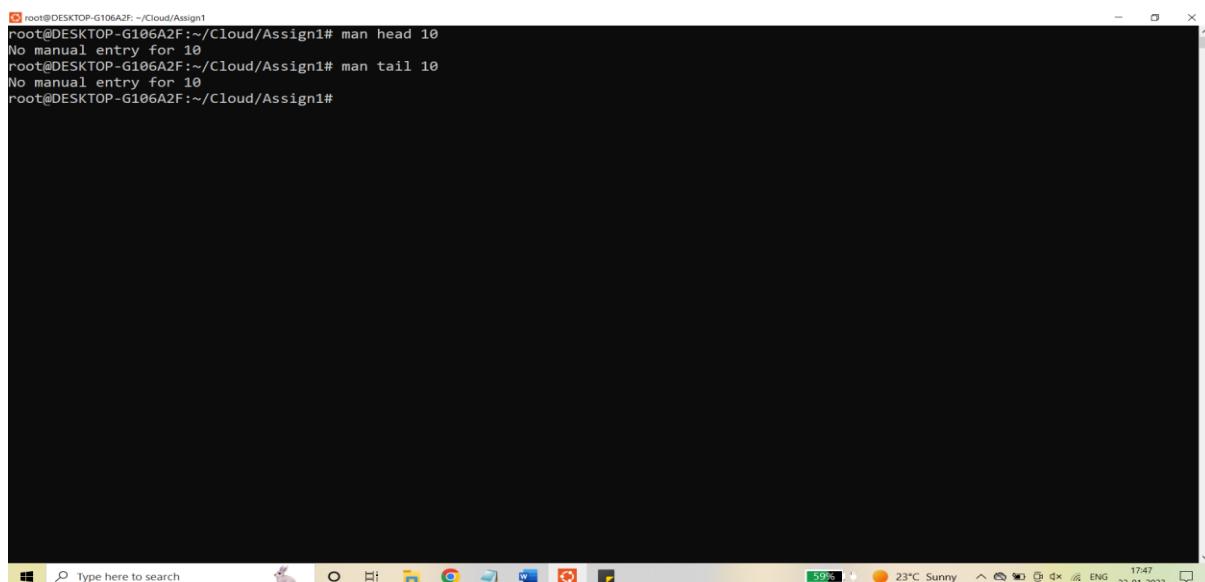
### 19. head command —

It is used to Return the specified number of lines from the top. The head command, as the name implies, print the top N number of data of the given input. By default, it prints the first 10 lines of the specified files. If more than one file name is provided then data from each file is preceded by its file name.

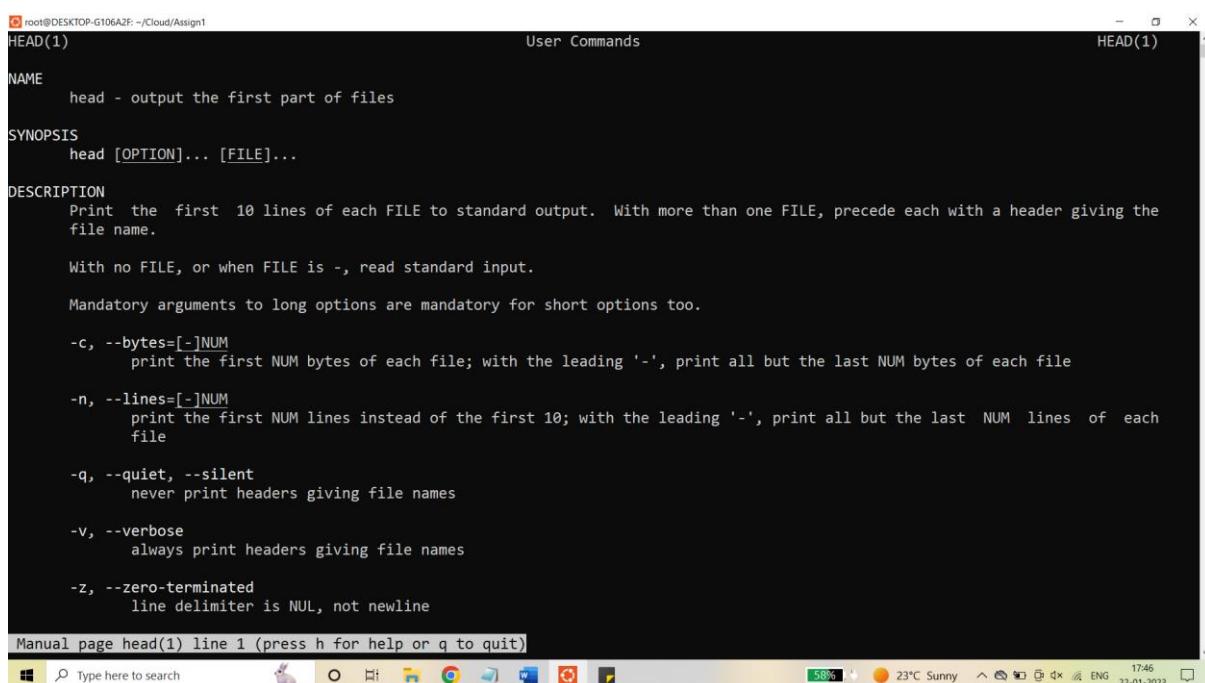
#### Syntax-

**head [OPTION]... [FILE]...**

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# man head 10
No manual entry for 10
root@DESKTOP-G106A2F:~/Cloud/Assign1# man tail 10
No manual entry for 10
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```



```
root@DESKTOP-G106A2F:~/Cloud/Assign1
HEAD(1)                               User Commands                               HEAD(1)

NAME
    head - output the first part of files

SYNOPSIS
    head [OPTION]... [FILE]...

DESCRIPTION
    Print the first 10 lines of each FILE to standard output. With more than one FILE, precede each with a header giving the file name.

    With no FILE, or when FILE is -, read standard input.

    Mandatory arguments to long options are mandatory for short options too.

    -c, --bytes=[-]NUM
        print the first NUM bytes of each file; with the leading '-', print all but the last NUM bytes of each file

    -n, --lines=[-]NUM
        print the first NUM lines instead of the first 10; with the leading '-', print all but the last NUM lines of each file

    -q, --quiet, --silent
        never print headers giving file names

    -v, --verbose
        always print headers giving file names

    -z, --zero-terminated
        line delimiter is NUL, not newline

Manual page head(1) line 1 (press h for help or q to quit)
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 20. tail command —

It is used to return the specified number of lines from the bottom.

It is the complementary of head command. The tail command, as the name implies, print the last N number of data of the given input. By default it prints the last 10 lines of the specified files. If more than one file name is provided then data from each file is precedes by its file name.

#### Syntax-

**head [OPTION]... [FILE]...**

#### Output-

```
root@DESKTOP-G106A2F:~/Cloud/Assign1
root@DESKTOP-G106A2F:~/Cloud/Assign1# man head 10
No manual entry for 10
root@DESKTOP-G106A2F:~/Cloud/Assign1# man tail 10
No manual entry for 10
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

```
root@DESKTOP-G106A2F:~/Cloud/Assign1
TAIL(1)                                         User Commands                                         TAIL(1)

NAME
    tail - output the last part of files

SYNOPSIS
    tail [OPTION]... [FILE]...

DESCRIPTION
    Print the last 10 lines of each FILE to standard output. With more than one FILE, precede each with a header giving the
    file name.

    With no FILE, or when FILE is -, read standard input.

    Mandatory arguments to long options are mandatory for short options too.

    -c, --bytes=[+]NUM
        output the last NUM bytes; or use -c +NUM to output starting with byte NUM of each file

    -f, --follow[={name|descriptor}]
        output appended data as the file grows;
        an absent option argument means 'descriptor'

    -F      same as --follow=name --retry

    -n, --lines=[+]NUM
        output the last NUM lines, instead of the last 10; or use -n +NUM to output starting with line NUM

    --max-unchanged-stats=N
        with --follow=name, reopen a FILE which has not

Manual page tail(1) line 1 (press h for help or q to quit)
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 21 diff command —

Find the difference between two files.

Diff stands for difference. This command is used to display the differences in the files by comparing the files line by line.

The Important thing to remember is that diff uses certain special symbols and instructions that are required to make two files identical. It tells you the instructions on how to change the first file to make it match the second file.

Special symbols are:

A : add

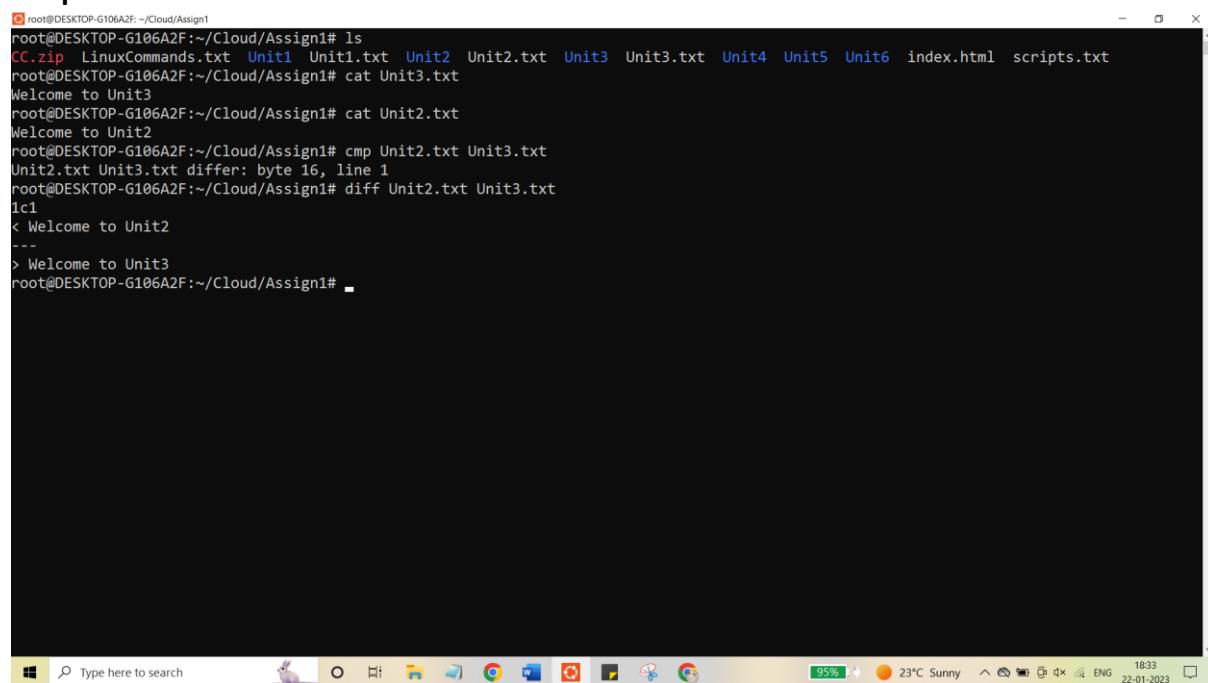
C : change

D : delete

#### Syntax-

**diff [options] File1 File2**

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
CC.zip LinuxCommands.txt Unit1 Unit1.txt Unit2 Unit2.txt Unit3 Unit3.txt Unit4 Unit5 Unit6 index.html scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# cat Unit3.txt
Welcome to Unit3
root@DESKTOP-G106A2F:~/Cloud/Assign1# cat Unit2.txt
Welcome to Unit2
root@DESKTOP-G106A2F:~/Cloud/Assign1# cmp Unit2.txt Unit3.txt
Unit2.txt Unit3.txt differ: byte 16, line 1
root@DESKTOP-G106A2F:~/Cloud/Assign1# diff Unit2.txt Unit3.txt
1c1
< Welcome to Unit2
---
> Welcome to Unit3
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 22. cmp command —

Allows you to check if two files are identical.

Cmp command in Linux/UNIX is used to compare the two files byte by byte and helps you to find out whether the two files are identical or not.

When cmp is used for comparison between two files, it reports the location of the first mismatch to the screen if difference is found and if no difference is found i.e the files compared are identical. Cmp displays no message and simply returns the prompt if the files compared are identical.

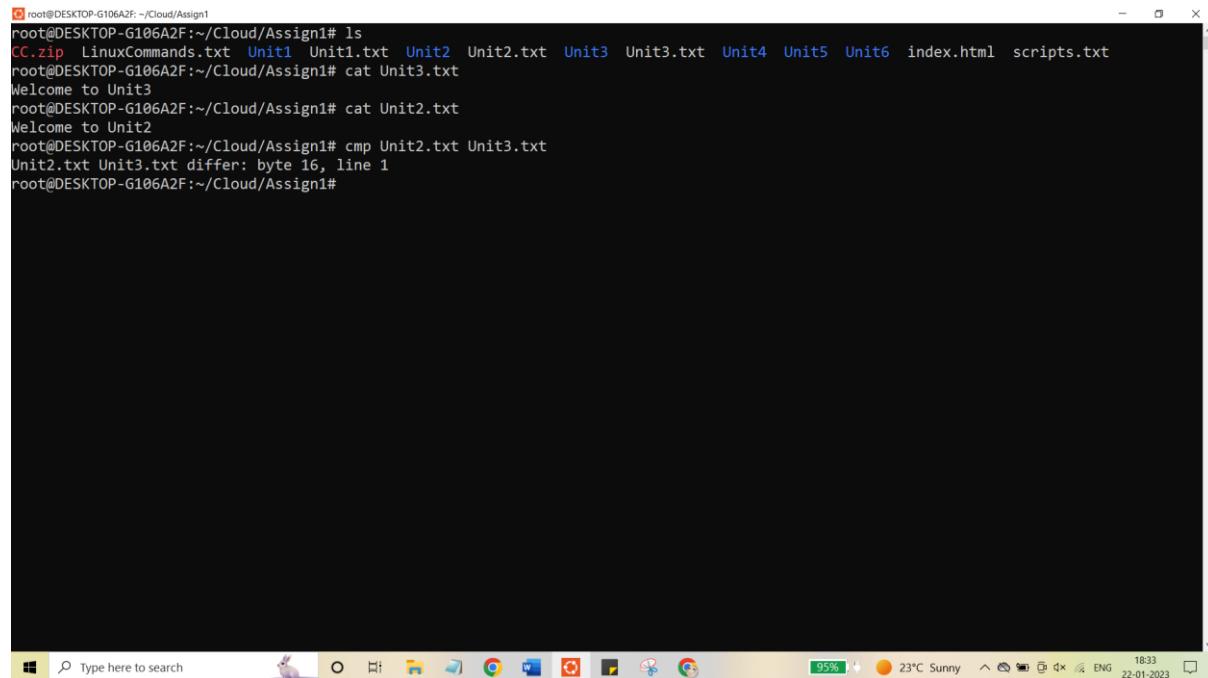
#### Syntax-

**cmp [OPTION]... FILE1 [FILE2 [SKIP1 [SKIP2]]]**

**SKIP1 ,SKIP2 & OPTION are optional**

**and FILE1 & FILE2 refer to the filenames**

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
CC.zip  LinuxCommands.txt  Unit1  Unit1.txt  Unit2  Unit2.txt  Unit3  Unit3.txt  Unit4  Units  Unit6  index.html  scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# cat Unit3.txt
Welcome to Unit3
root@DESKTOP-G106A2F:~/Cloud/Assign1# cat Unit2.txt
Welcome to Unit2
root@DESKTOP-G106A2F:~/Cloud/Assign1# cmp Unit2.txt Unit3.txt
Unit2.txt Unit3.txt differ: byte 16, line 1
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 23. comm command —

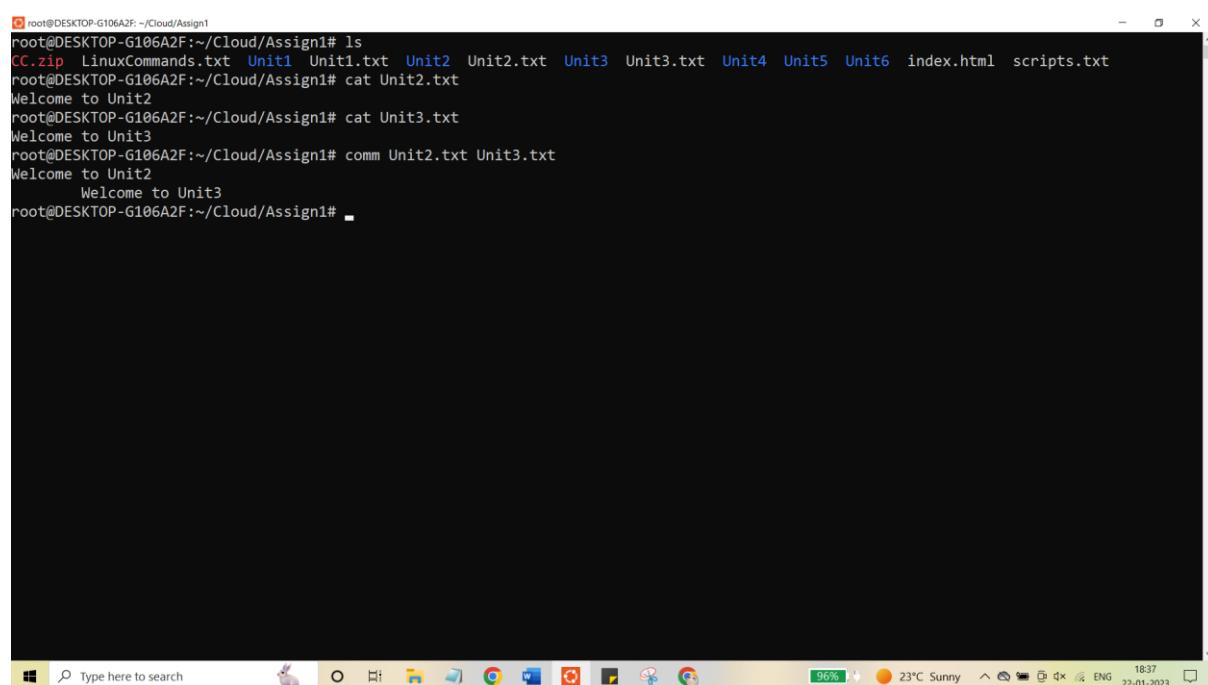
Combines the functionality of diff and cmp.

Suppose you have two lists of people and you are asked to find out the names available in one and not in the other, or even those common to both. Comm is the command that will help you to achieve this. It requires two sorted files which it compares line by line.

#### Syntax-

**\$comm [OPTION]... FILE1 FILE2**

#### Output-



The screenshot shows a Windows desktop environment with a terminal window open. The terminal window displays the following Linux command-line session:

```
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
CC.zip  LinuxCommands.txt  Unit1  Unit1.txt  Unit2  Unit2.txt  Unit3  Unit3.txt  Unit4  Unit5  Unit6  index.html  scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# cat Unit2.txt
Welcome to Unit2
root@DESKTOP-G106A2F:~/Cloud/Assign1# cat Unit3.txt
Welcome to Unit3
root@DESKTOP-G106A2F:~/Cloud/Assign1# comm Unit2.txt Unit3.txt
Unit2
    Welcome to Unit3
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

The desktop taskbar at the bottom shows various icons for applications like File Explorer, Task View, Start, Taskbar settings, and system status indicators (battery level, weather, date/time).

### 24. sort command —

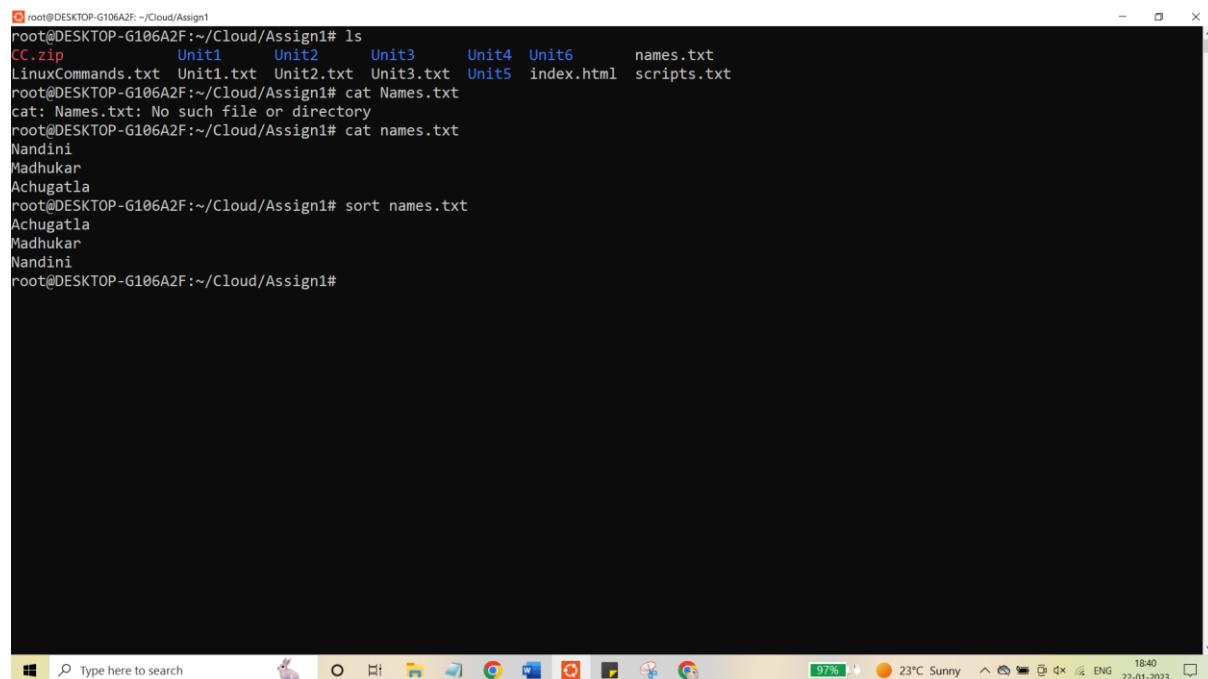
Linux command to sort the content of a file while outputting

SORT command is used to sort a file, arranging the records in a particular order. By default, the sort command sorts file assuming the contents are ASCII. Using options in the sort command can also be used to sort numerically.

#### Syntax-

```
$ sort filename.txt
```

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
CC.zip          Unit1      Unit2      Unit3      Unit4      Unit6      names.txt
LinuxCommands.txt  Unit1.txt  Unit2.txt  Unit3.txt  Unit4.txt  Unit5  index.html  scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# cat Names.txt
cat: Names.txt: No such file or directory
root@DESKTOP-G106A2F:~/Cloud/Assign1# cat names.txt
Nandini
Madhukar
Achugatla
root@DESKTOP-G106A2F:~/Cloud/Assign1# sort names.txt
Achugatla
Madhukar
Nandini
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 25. export command —

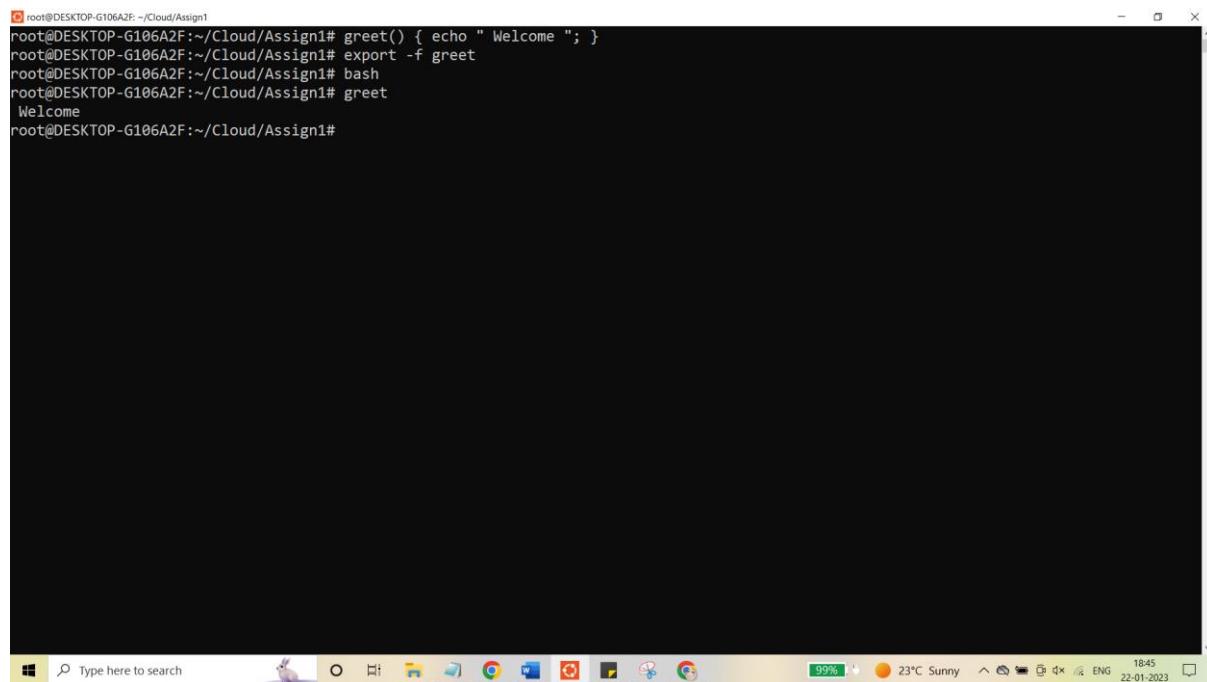
Export environment variables in Linux. `export` is bash shell BUILTINS commands, which means it is part of the shell. It marks an environment variables to be exported to child-processes.

Export is defined in POSIX as The shell shall give the `export` attribute to the variables corresponding to the specified names, which shall cause them to be in the environment of subsequently executed commands. If the name of a variable is followed by `= word`, then the value of that variable shall be set to the word.

#### Syntax-

`export [-f] [-n] [name[=value] ...]` or `export -p`

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1
root@DESKTOP-G106A2F:~/Cloud/Assign1# greet() { echo " Welcome "; }
root@DESKTOP-G106A2F:~/Cloud/Assign1# export -f greet
root@DESKTOP-G106A2F:~/Cloud/Assign1# bash
root@DESKTOP-G106A2F:~/Cloud/Assign1# greet
 Welcome
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 26. zip command —

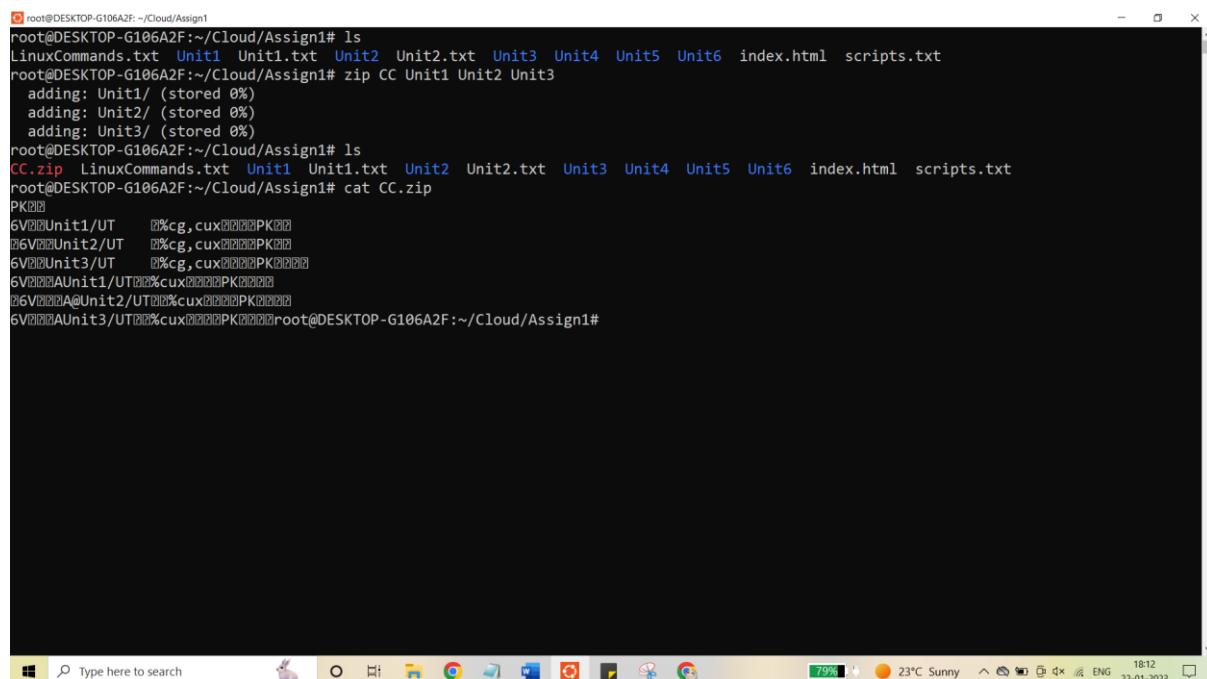
Zip files in Linux

ZIP is a compression and file packaging utility for Unix. Each file is stored in single .zip {zip-filename} file with the extension .zip.

**Syntax-**

**zip [options] zipfile files\_list**

**Output**



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
LinuxCommands.txt Unit1 Unit1.txt Unit2 Unit2.txt Unit3 Unit4 Unit5 Unit6 index.html scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# zip CC Unit1 Unit2 Unit3
    adding: Unit1/ (stored 0%)
    adding: Unit2/ (stored 0%)
    adding: Unit3/ (stored 0%)
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
CC.zip LinuxCommands.txt Unit1 Unit1.txt Unit2 Unit2.txt Unit3 Unit4 Unit5 Unit6 index.html scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# cat CC.zip
PK    
 V    Unit1/UT  %cg, cux    PK    
 V    Unit2/UT  %cg, cux    PK    
 V    Unit3/UT  %cg, cux    PK    
 V    AUUnit1/UT    cux    PK    
 V    AUUnit2/UT    cux    PK    
 V    AUUnit3/UT    cux    PK    
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 27. unzip command —

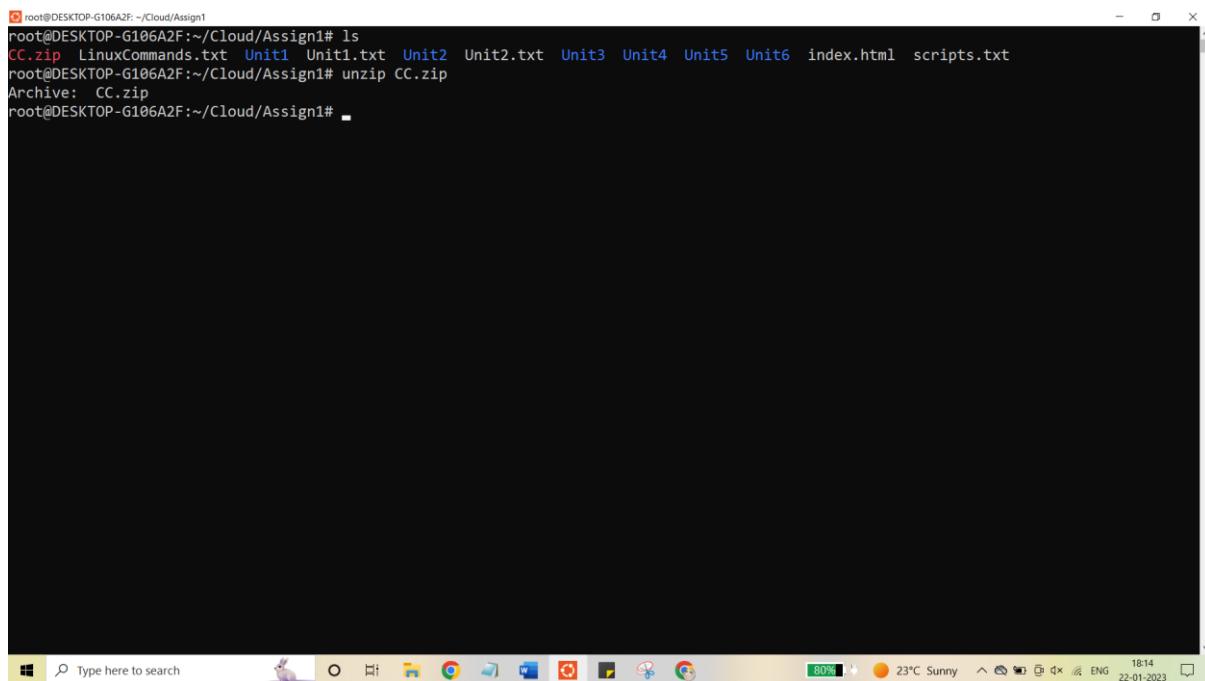
Unzip files in Linux

Unzip lists, tests, or extracts files from archives of the zip format, which are most commonly found on MS-DOS and Windows systems.

**Syntax-**

**unzip [options] zipfile files\_list**

**Output**



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
CC.zip  LinuxCommands.txt  Unit1  Unit1.txt  Unit2  Unit2.txt  Unit3  Unit4  Unit5  Unit6  index.html  scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# unzip CC.zip
Archive:  CC.zip
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 28. ssh command—

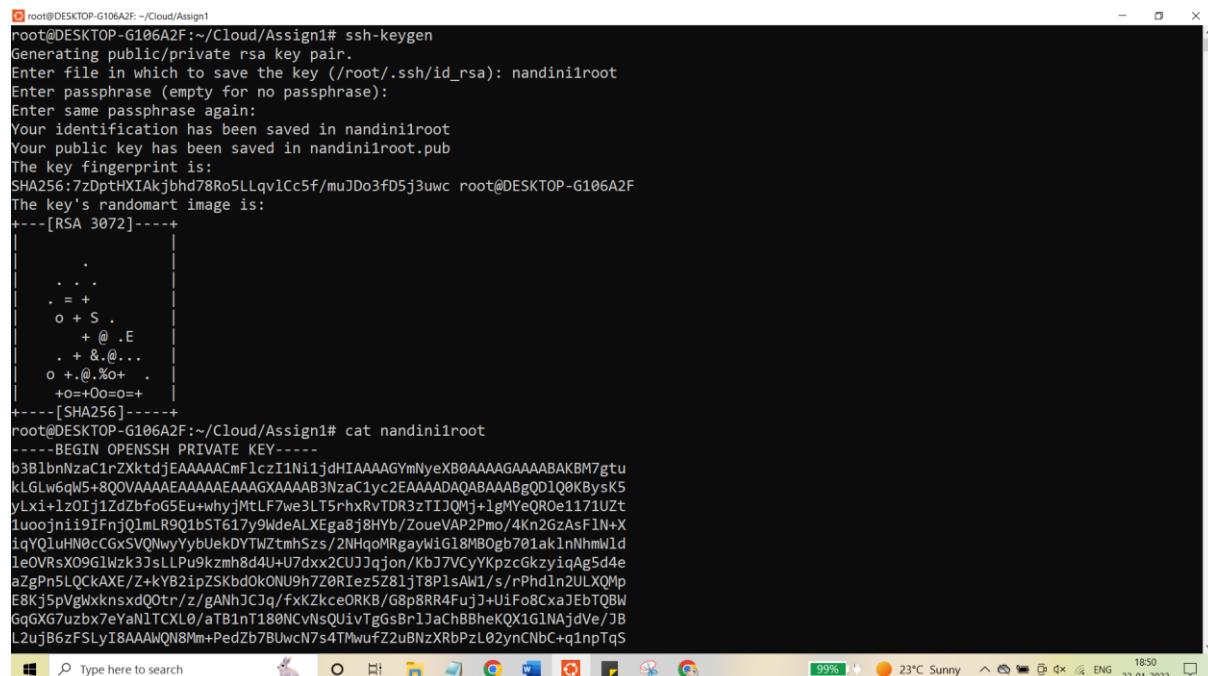
Secure Shell command in Linux.

It is a protocol used to securely connect to a remote server/system. Ssh is secure in the sense that it transfers the data in encrypted form between the host and the client. It transfers inputs from the client to the host and relays back the output. Ssh runs at TCP/IP port 22.

#### Syntax-

**ssh user\_name@host(IP/Domain\_name)**

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/root/.ssh/id_rsa): nandinirroot
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in nandinirroot
Your public key has been saved in nandinirroot.pub
The key fingerprint is:
SHA256:7zDptHXTAkjbhd78Ro5LLqv1Cc5f/muJD03fD5j3uwc root@DESKTOP-G106A2F
The key's randomart image is:
+---[RSA 3072]---+
.
.
.
.
o + S .
+ @ .E
. + &.@...
o + @.%+
+o=+o=o=+
+---[SHA256]---+
root@DESKTOP-G106A2F:~/Cloud/Assign1# cat nandinirroot
-----BEGIN OPENSSH PRIVATE KEY-----
b3BlbnNzaC1rZXktdjEAAAAACmFlczI1N11jdHIAAAAGmNyexB0AAAAGAAAABAKBM7gtu
kLGlw6qW5+8QVAAAEEAAAEEAAAAGXAAAAB3NzaC1yc2EAAAQABAAA8gQDlQ0KBysk5
yLxi+lzoIj1ZdZbfoGSEu+whyjMtf7we3LT5rhxRvTDR3zTIJQMj+lgMyeQRoe171Uzt
1uocjni9tFnjQlmLR9Q1bsT617y9wdeALXEga8j8Hyb/ZoueVAP2Pmo/4Kn2GzAsFlN-X
iqYQluHN0cCGxSVQNwyYbUekDYTWZtmhSzS/2NHqoMRgayw1g18nBg701ak1nNmWld
leOVRsX09GlNzk3jsLLPu9kzmh8d4U+U7dxz2CUJjjon/kbJ7VCyYKpzGkzyiaAg5d4e
aZgPn5LOCKAXE/Z+kV82ipZSkbd0K0NU9h7Z0RIez5Z8ljT8P1sAw1/s/rPhd1n2ULXQMp
E8Kj5pVglwxknsxdQ0tr/z/gANhJCjq/fxKZkceORKB/G8p8RR4FuJ+u1Fo8CxjaEBtQBW
GqGXG7uzbx7eYa1TCXL0/atB1nT189NCvNsQuivTggsBr1jaChBBhekQX1G1NAjdvVe/JB
L2ujB6zFSLyI8AAAQN8Mm+PedZb7BuwcN7s4TMwuFZ2uBNzXRbPzL02ynCnbC+q1npTqS
```

### 29. service command —

Linux command to start and stop services. The service command starts, stop and restart a daemon or services by calling the script. Usually all scripts are stored in /etc/init.d directory.

It runs a script in as predictable environment as possible.

#### Syntax:

service script\_name command

### 30. ps command—

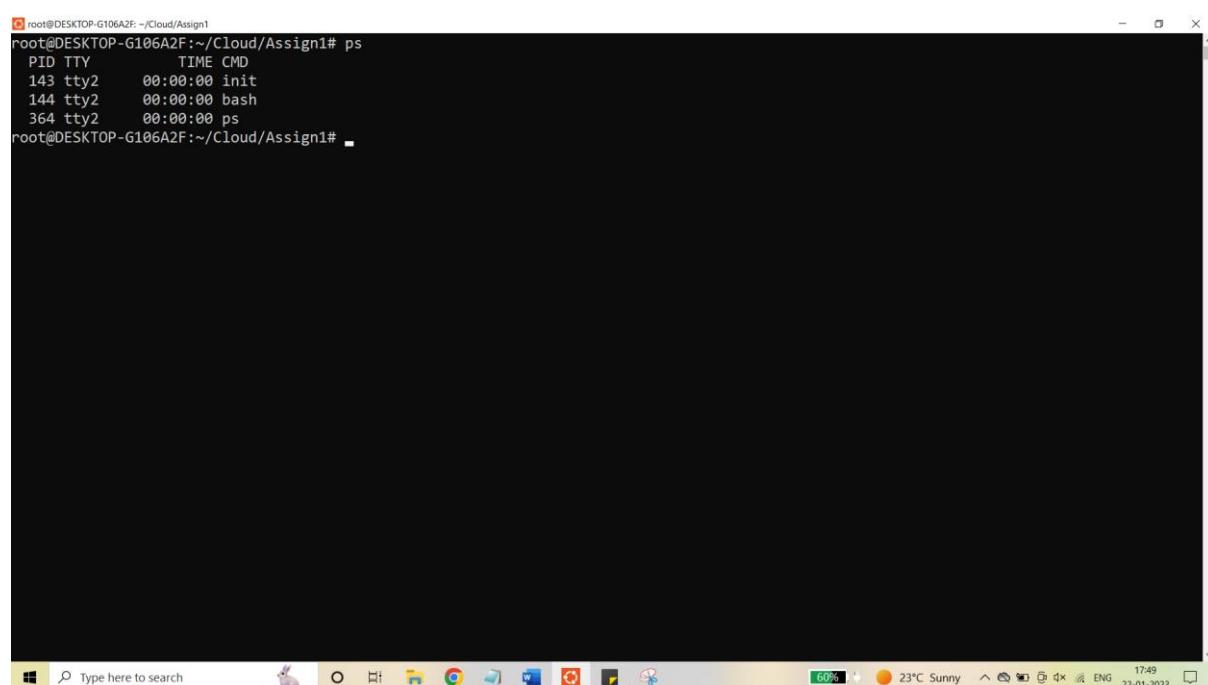
Display active processes.

You can list running processes using the ps command (ps means process status). The ps command displays your currently running processes in real-time.

#### Syntax-

\$ps

#### Output



```
root@DESKTOP-G106A2F:~/Cloud/Assign1
root@DESKTOP-G106A2F:~/Cloud/Assign1# ps
 PID TTY      TIME CMD
 143 tty2    00:00:00 init
 144 tty2    00:00:00 bash
 364 tty2    00:00:00 ps
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

The screenshot shows a Windows terminal window with a black background and white text. It displays the output of the 'ps' command, which lists three processes: 'init' (PID 143), 'bash' (PID 144), and 'ps' (PID 364), all running on 'tty2'. The terminal window has a standard Windows title bar and taskbar at the bottom. The taskbar includes icons for File Explorer, Google Chrome, and other system tools. The system tray shows battery level, network status, and date/time information.

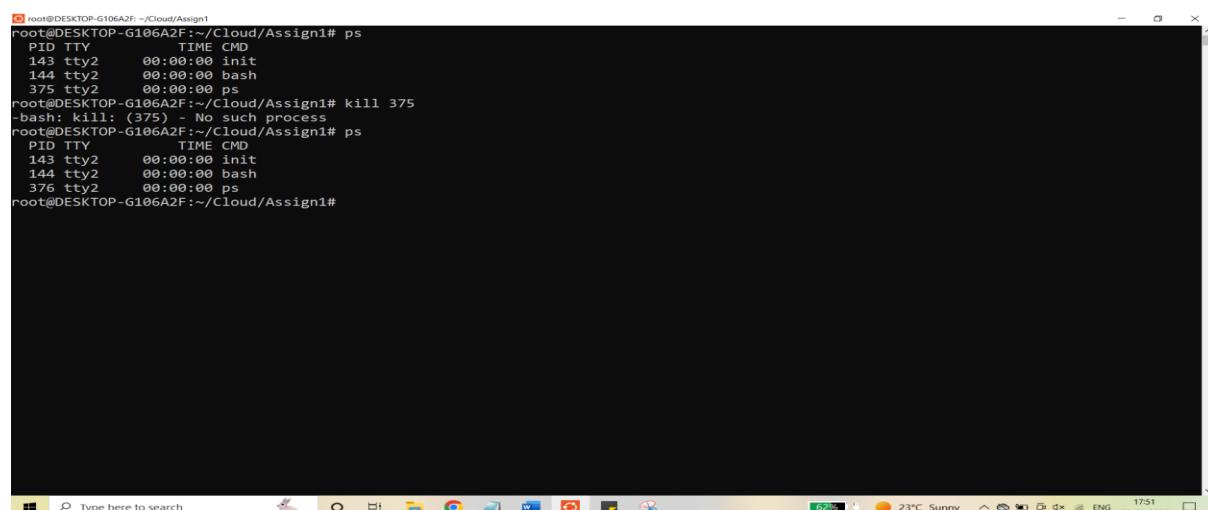
### 31. kill and killall —

Kill active processes by process ID or name. kill command in Linux (located in /bin/kill), is a built-in command which is used to terminate processes manually. kill command sends a signal to a process which terminates the process. If the user doesn't specify any signal which is to be sent along with kill command then default TERM signal is sent that terminates the process.

Killall is a tool for terminating running processes on your system based on name. In contrast, kill terminates processes based on Process ID number (PID). Kill and killall can also send specific system signals to processes.

**Syntax- \$kill -l**

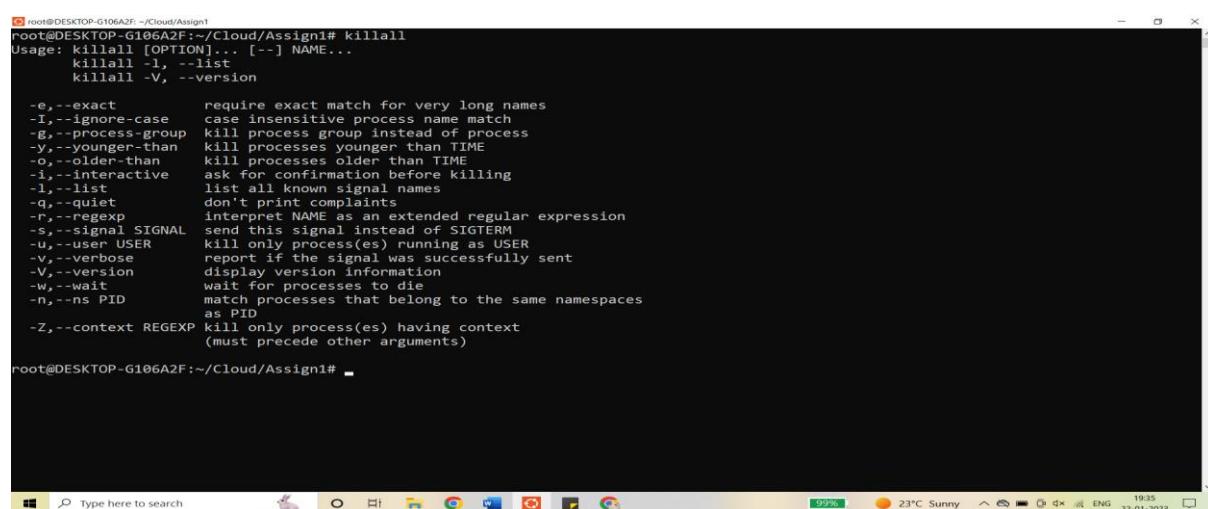
**Output-**



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# ps
 PID TTY      TIME CMD
 143 tty2    00:00:00 init
 144 tty2    00:00:00 bash
 375 tty2    00:00:00 ps
root@DESKTOP-G106A2F:~/Cloud/Assign1# kill 375
-bash: kill: (375) - No such process
root@DESKTOP-G106A2F:~/Cloud/Assign1# ps
 PID TTY      TIME CMD
 143 tty2    00:00:00 init
 144 tty2    00:00:00 bash
 376 tty2    00:00:00 ps
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

**Kill all**

**Syntax -\$ sudo killall yes**



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# killall
Usage: killall [OPTION]... [-] NAME...
      killall -l, --list
      killall -V, --version

-e,--exact          require exact match for very long names
-I,--ignore-case   case insensitive process name match
-g,--process-group kill process group instead of process
-y,--younger-than  kill processes younger than TIME
-o,--older-than    kill processes older than TIME
-i,--interactive   ask for confirmation before killing
-l,--list           list all known signal names
-q,--quiet          don't print complaints
-r,--regexp         interpret NAME as an extended regular expression
-s,--signal SIGNAL  send this signal instead of SIGTERM
-u,--user USER     kill only process(es) running as USER
-v,--verbose        report if the signal was successfully sent
-V,--version        display version information
-w,--wait           wait for processes to die
-n,--ns PID         match processes that belong to the same namespaces
                   as PID
-z,--context REGEXP kill only process(es) having context
                   (must precede other arguments)

root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 32. df command—

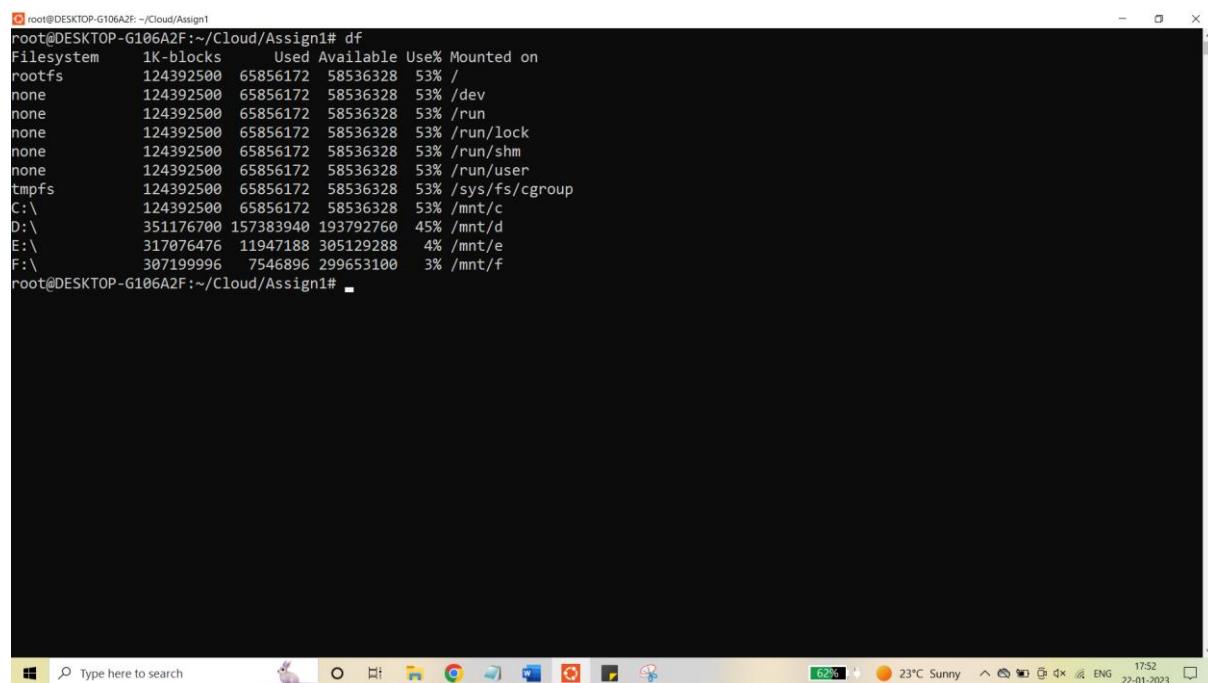
Display disk filesystem information.

The ‘df’ command stands for “disk filesystem”, it is used to get a full summary of available and used disk space usage of the file system on the Linux system.

#### Syntax-

**df [OPTION]... [FILE]...**

#### Output-



A screenshot of a Windows desktop environment showing a terminal window. The terminal window has a blue header bar with the text "root@DESKTOP-G106A2F: ~/Cloud/Assign1#". The main area of the terminal displays the output of the "df" command, which shows disk space usage for various partitions. The output is as follows:

```
root@DESKTOP-G106A2F:~/Cloud/Assign1# df
Filesystem      1K-blocks    Used Available Use% Mounted on
rootfs          124392500  65856172  58536328  53% /
none            124392500  65856172  58536328  53% /dev
none            124392500  65856172  58536328  53% /run
none            124392500  65856172  58536328  53% /run/lock
none            124392500  65856172  58536328  53% /run/shm
none            124392500  65856172  58536328  53% /run/user
tmpfs           124392500  65856172  58536328  53% /sys/fs/cgroup
C:\             124392500  65856172  58536328  53% /mnt/c
D:\             351176700 157383940 193792760  45% /mnt/d
E:\             317076476 11947188 305129288   4% /mnt/e
F:\             307199996  7546896 299653100   3% /mnt/f
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

The desktop taskbar at the bottom shows the Start button, a search bar, and several pinned icons for applications like File Explorer, Google Chrome, and others. The system tray on the right shows the date (22-01-2023), time (17:52), battery level (62%), and system status (23°C, Sunny).

### 33. mount command —

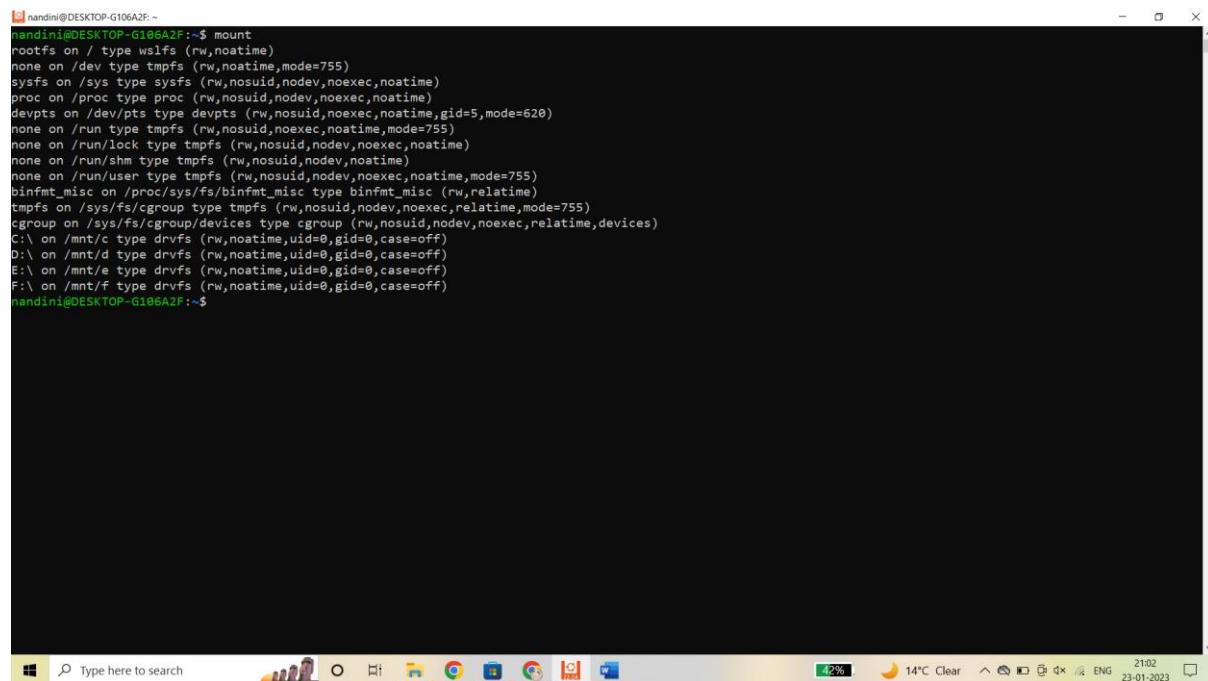
Mount file systems in Linux.

Mount command is used to mount the filesystem found on a device to big tree structure(Linux filesystem) rooted at '/'. Conversely, another command umount can be used to detach these devices from the Tree.

#### Syntax-

```
mount -t type device dir
```

#### Output-



```
nandini@DESKTOP-G106A2F:~$ mount
rootfs on / type wsif (rw,noatime)
none on /dev type tmpfs (rw,noatime,mode=755)
sysfs on /sys type sysfs (rw,nosuid,nodev,noexec,noatime)
proc on /proc type proc (rw,nosuid,nodev,noexec,noatime)
devpts on /dev/pts type devpts (rw,nosuid,noexec,noatime,gid=5,mode=620)
none on /run type tmpfs (rw,nosuid,noexec,noatime,mode=755)
none on /run/lock type tmpfs (rw,nosuid,nodev,noexec,noatime)
none on /run/shm type tmpfs (rw,nosuid,noexec,noatime)
none on /run/user type tmpfs (rw,nosuid,nodev,noexec,noatime,mode=755)
binfmt_misc on /proc/sys/fs/binfmt_misc type binfmt_misc (rw,relatime)
tmpfs on /sys/fs/cgroup type tmpfs (rw,nosuid,nodev,noexec,relatime,mode=755)
cgroup on /sys/fs/cgroup/devices type cgroup (rw,nosuid,nodev,noexec,relatime,devices)
C:\ on /mnt/c type drvfs (rw,noatime,uid=0,gid=0,case=off)
D:\ on /mnt/d type drvfs (rw,noatime,uid=0,gid=0,case=off)
E:\ on /mnt/e type drvfs (rw,noatime,uid=0,gid=0,case=off)
F:\ on /mnt/f type drvfs (rw,noatime,uid=0,gid=0,case=off)
nandini@DESKTOP-G106A2F:~$
```

### 34. chmod command —

Command to change file permissions.

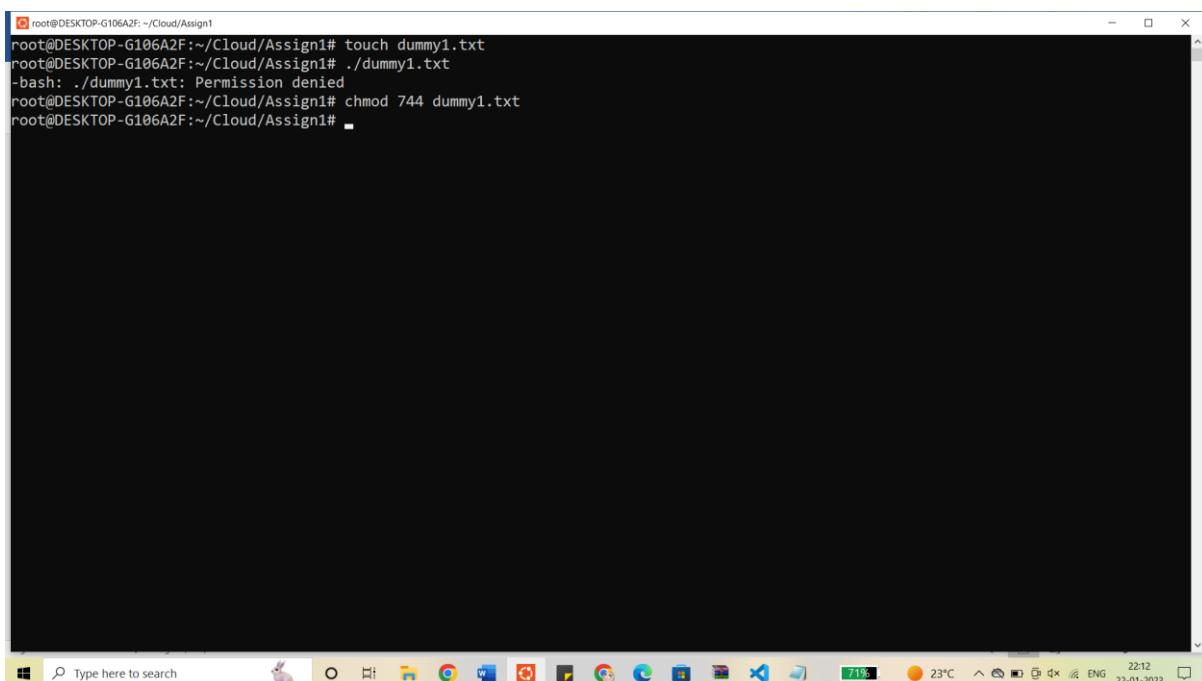
In Unix-like operating systems, the chmod command is used to change the access mode of a file.

The name is an abbreviation of change mode.

#### Syntax-

```
chmod [reference][operator][mode] file...
```

#### Output-



A screenshot of a Windows desktop environment showing a terminal window. The terminal window has a blue header bar with the text "root@DESKTOP-G106A2F:~/Cloud/Assign1". The main area of the terminal shows the following command execution:

```
root@DESKTOP-G106A2F:~/Cloud/Assign1# touch dummy1.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# ./dummy1.txt
-bash: ./dummy1.txt: Permission denied
root@DESKTOP-G106A2F:~/Cloud/Assign1# chmod 744 dummy1.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

The terminal window is positioned over a Windows taskbar at the bottom of the screen, which includes icons for File Explorer, Google Chrome, and other system tools. The desktop background is visible behind the taskbar.

### 35. chown command —

Command for granting ownership of files or folders.

The chown command allows you to change the user and/or group ownership of a given file, directory, or symbolic link. In Linux, all files are associated with an owner and a group and assigned with permission access rights for the file owner, the group members, and others. Different users in the operating system have ownership and permission to ensure that the files are secure and put restrictions on who can modify the contents of the files. In Linux there are different users who use the system:

Each user has some properties associated with them, such as a user ID and a home directory. We can add users into a group to make the process of managing users easier.

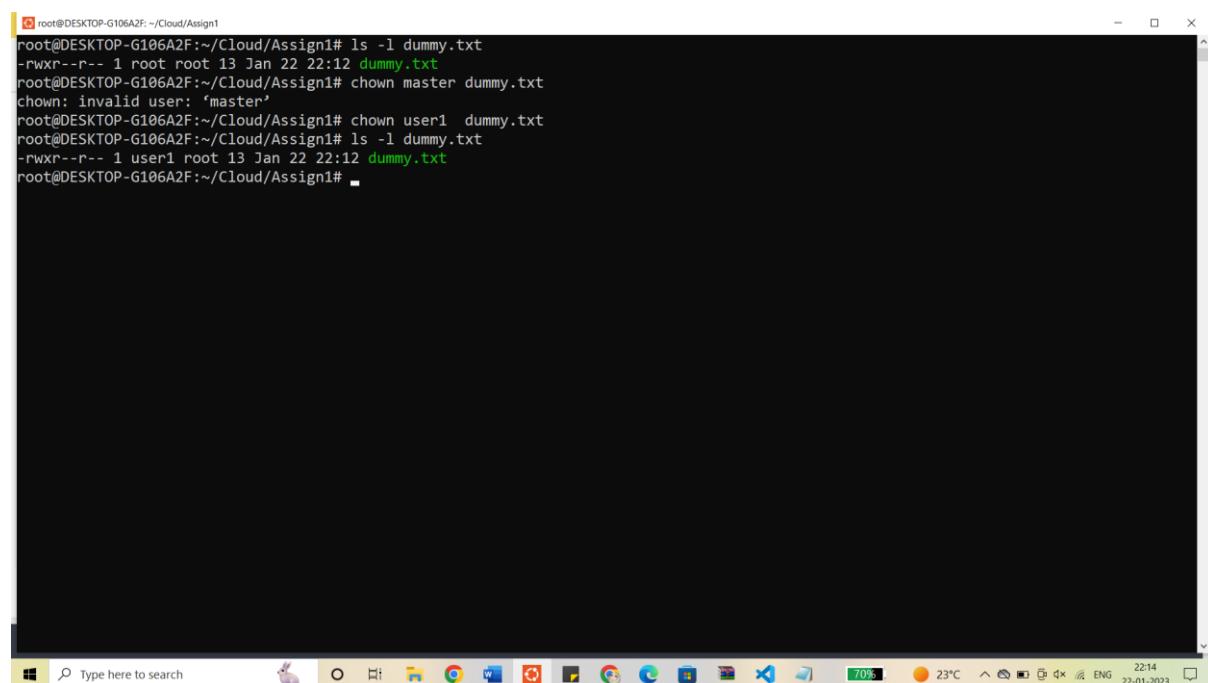
A group can have zero or more users. A specified user can be associated with a “default group”. It can also be a member of other groups on the system as well.

#### Syntax-

**Syn chown [OPTION]... [OWNER][:[GROUP]] FILE...**

**chown [OPTION]... --reference=RFILE FILE...tax-**

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls -l dummy.txt
-rwxr--r-- 1 root root 13 Jan 22 22:12 dummy.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# chown master dummy.txt
chown: invalid user: 'master'
root@DESKTOP-G106A2F:~/Cloud/Assign1# chown user1 dummy.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls -l dummy.txt
-rw-r--r-- 1 user1 root 13 Jan 22 22:12 dummy.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

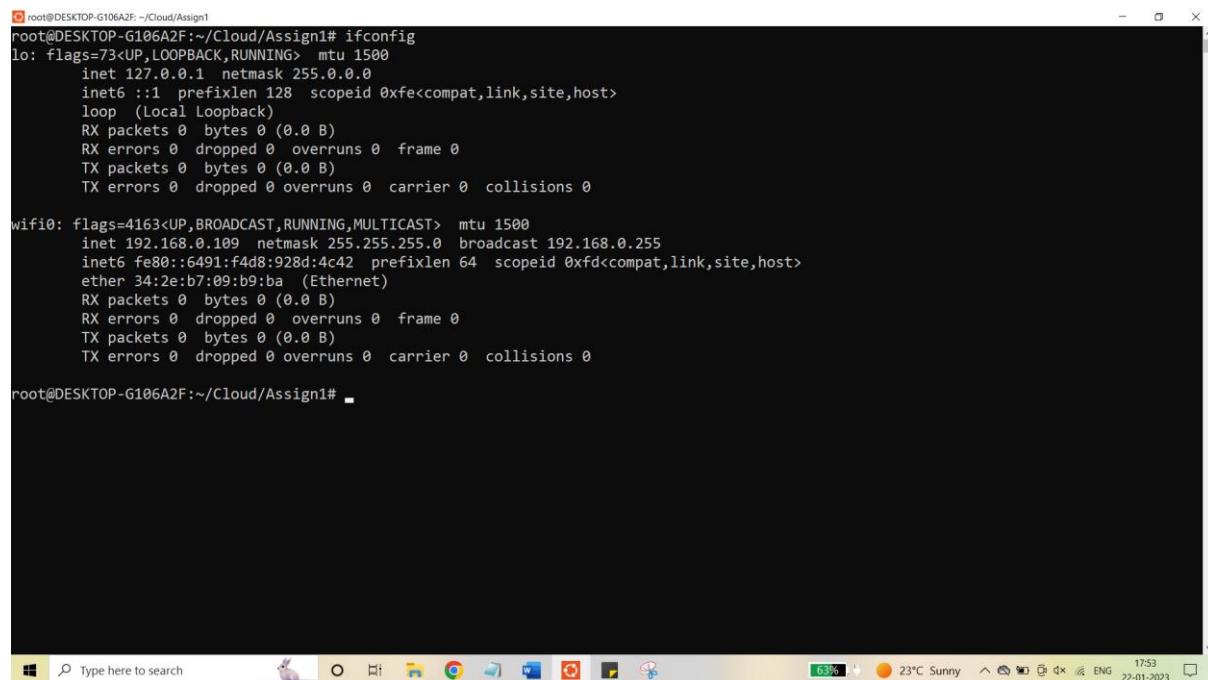
### 36. ifconfig command —

Display network interfaces and IP addresses. You can use the ifconfig command to assign an address to a network interface and to configure or display the current network interface configuration information. ifconfig(interface configuration) command is used to configure the kernel-resident network interfaces. It is used at the boot time to set up the interfaces as necessary. After that, it is usually used when needed during debugging or when you need system tuning. Also, this command is used to assign the IP address and netmask to an interface or to enable or disable a given interface.

#### Syntax-

```
ifconfig [...OPTIONS] [INTERFACE]
```

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# ifconfig
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 1500
    inet 127.0.0.1 netmask 255.0.0.0
        inet6 ::1 prefixlen 128 scopeid 0xfe<compat,link,site,host>
            loop (Local Loopback)
            RX packets 0 bytes 0 (0.0 B)
            RX errors 0 dropped 0 overruns 0 frame 0
            TX packets 0 bytes 0 (0.0 B)
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

wlan0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.0.109 netmask 255.255.255.0 broadcast 192.168.0.255
        inet6 fe80::6491:f4d8:928d:4c42 prefixlen 64 scopeid 0xfd<compat,link,site,host>
            ether 34:2e:b7:09:b9:ba (Ethernet)
            RX packets 0 bytes 0 (0.0 B)
            RX errors 0 dropped 0 overruns 0 frame 0
            TX packets 0 bytes 0 (0.0 B)
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 37. traceroute command —

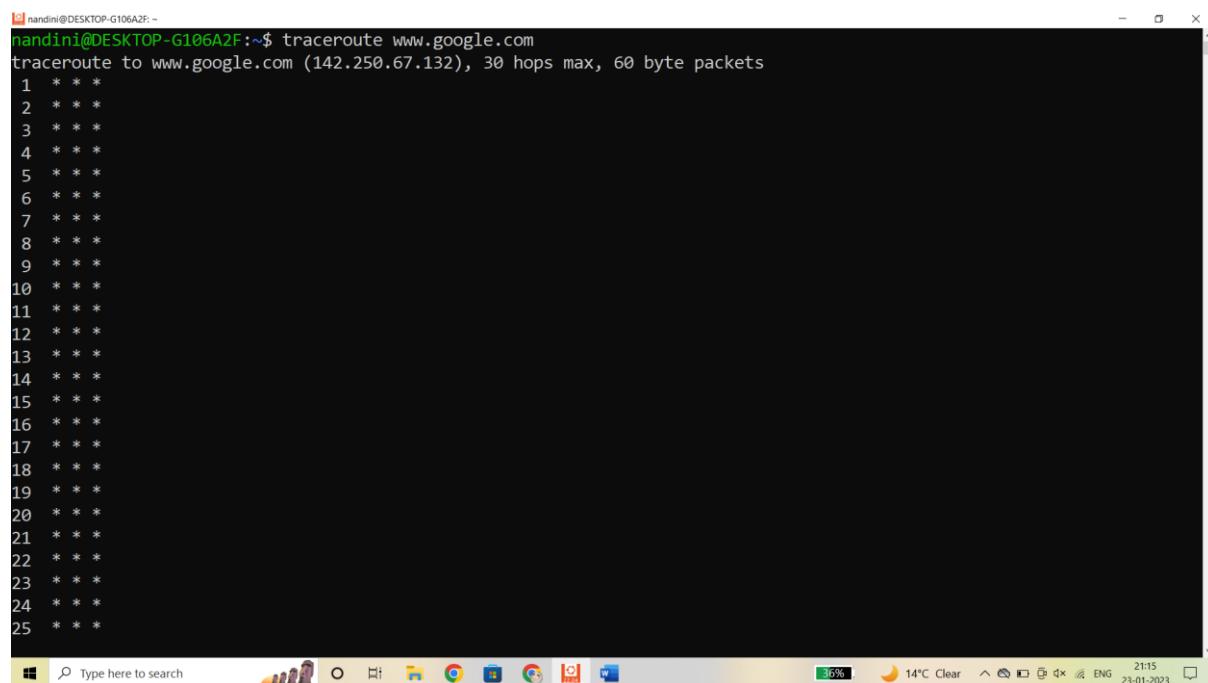
Trace all the network hops to reach the destination.

The UNIX/Linux traceroute command (tracert on a Windows computer) identifies the route a packet takes between your computer and the destination computer specified in the command.

#### Syntax-

traceroute [options] host\_Address [pathlength]

#### Output-



```
nandini@DESKTOP-G106A2F:~$ traceroute www.google.com
traceroute to www.google.com (142.250.67.132), 30 hops max, 60 byte packets
 1 * * *
 2 * * *
 3 * * *
 4 * * *
 5 * * *
 6 * * *
 7 * * *
 8 * * *
 9 * * *
10 * * *
11 * * *
12 * * *
13 * * *
14 * * *
15 * * *
16 * * *
17 * * *
18 * * *
19 * * *
20 * * *
21 * * *
22 * * *
23 * * *
24 * * *
25 * * *
```

### 38. wget command —

Direct download files from the internet.

The wget command is an internet file downloader that can download anything from files and web pages all the way through to entire websites.

#### Syntax-

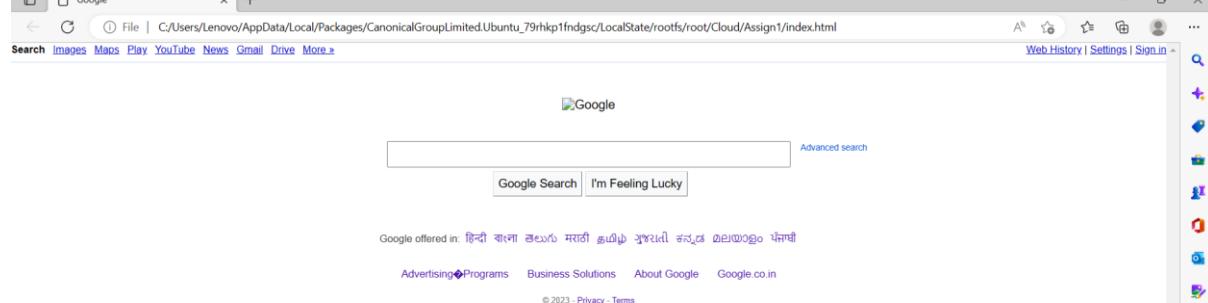
```
wget [option] [URL]
```

#### Output-

```
root@DESKTOP-G106A2F:~/Cloud/Assign1
root@DESKTOP-G106A2F:~/Cloud/Assign1# wget
wget: missing URL
Usage: wget [OPTION]... [URL]...
Try `wget --help' for more options.
root@DESKTOP-G106A2F:~/Cloud/Assign1# wget www.google.com
--2023-01-22 17:55:09--  http://www.google.com/
Resolving www.google.com (www.google.com)... 142.250.182.196, 2404:6800:4009:811::2004
Connecting to www.google.com (www.google.com)|142.250.182.196|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [text/html]
Saving to: 'index.html'

index.html          [ =>                               ]  15.94K  --.-KB/s   in 0.001s

2023-01-22 17:55:10 (21.4 MB/s) - 'index.html' saved [16318]
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```



### 39. ufw command—

Firewall command.

### 40. iptables command —

Base firewall for all other firewall utilities to interface with

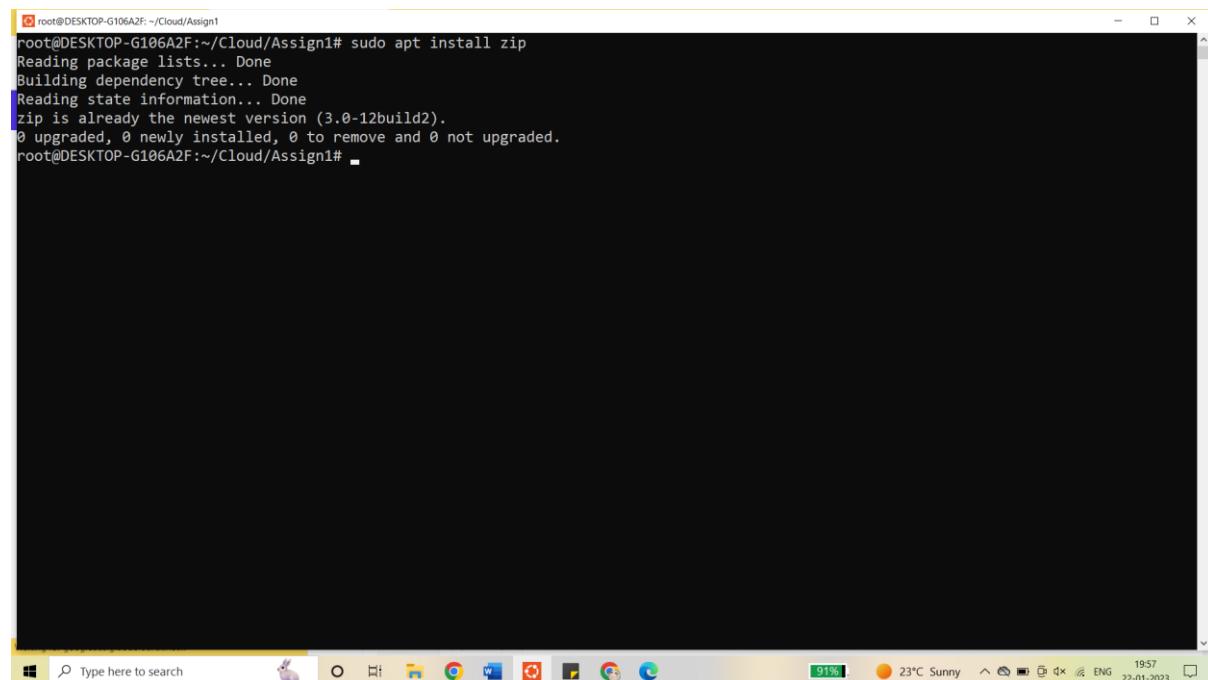
The Linux command line firewall Iptables enables system administrators to control both incoming and outgoing traffic. Iptables employ a collection of tables with chains that each contain a set of pre-configured or user-defined rules. A command-line firewall tool called iptables uses policy chains to allow or deny traffic. Iptables searches through its list of rules to find one that matches a connection that tries to establish itself on your system. In the absence of one, it falls back on the default course of action.

#### Syntax-

```
iptables --table TABLE -A/-C/-D... CHAIN rule --jump Target
```

### 41. apt, pacman, yum, rpm —

Package managers depending on the distro



A screenshot of a Windows desktop environment showing a terminal window. The terminal window has a blue header bar with the text "root@DESKTOP-G106A2F: ~/Cloud/Assign1#". The main body of the terminal shows the following command and its output:

```
root@DESKTOP-G106A2F:~/Cloud/Assign1# sudo apt install zip
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
zip is already the newest version (3.0-12build2).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

The terminal window is positioned over a taskbar at the bottom of the screen. The taskbar includes icons for File Explorer, Edge browser, and other system applications. On the right side of the taskbar, there are system status indicators: battery level (91%), weather (23°C Sunny), language (ENG), and date (22-01-2023).

### 42. sudo command —

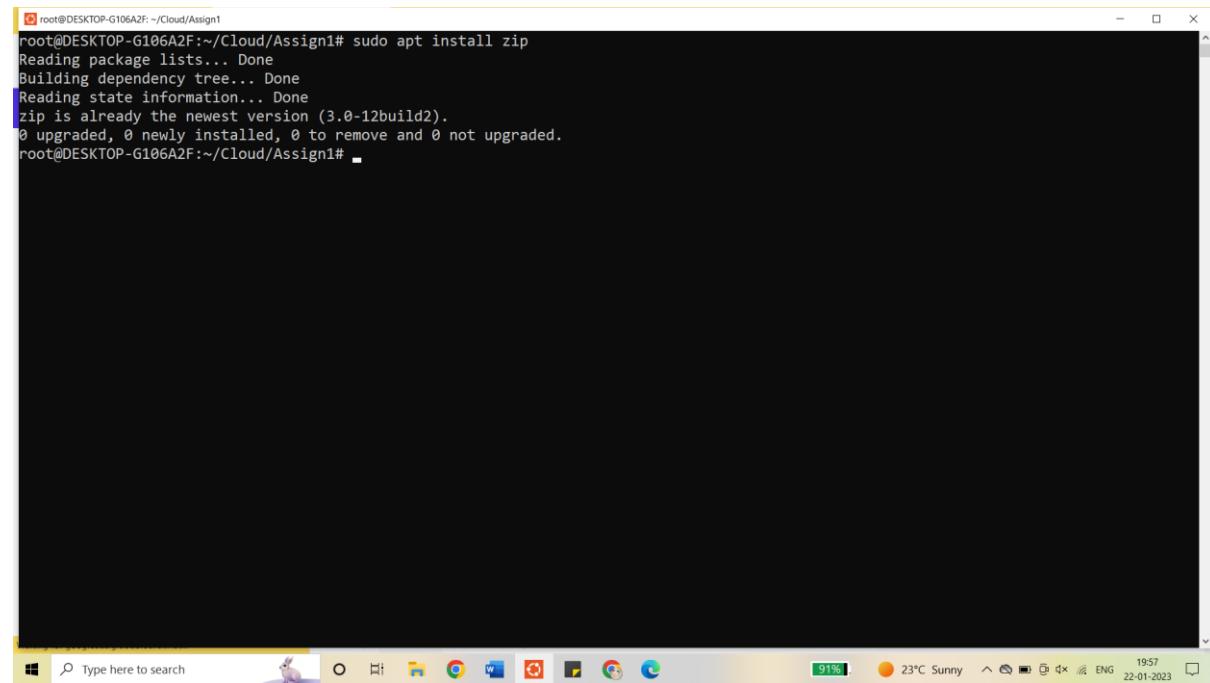
Command to escalate privileges in Linux.

Sudo is a Linux utility that allows users to run commands with the privileges of another user, when no arguments are provided, this will execute the command as the root user. If sudo is not configured correctly, this could allow attackers to escalate their privileges to root.

#### Syntax-

```
sudo -V | -h | -l | -v | -k | -K | -s | [ -H ] [ -P ] [ -S ] [ -b ] |  
[ -p prompt ] [ -c class | - ] [ -a auth_type ] [ -r role ] [ -t type ]  
[ -u username | #uid ] command sudo -V | -h | -l | -L | -v | -k | -K | -s | [ -H ] [ -P ] [ -S ] [ -b ] |  
[ -p prompt ] [ -c class | - ] [ -a auth_type ] [ -r role ] [ -t type ]  
[ -u username | #uid ] command
```

#### Output-



The screenshot shows a Windows terminal window with a black background and white text. The text is as follows:

```
root@DESKTOP-G106A2F:~/Cloud/Assign1# sudo apt install zip  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
zip is already the newest version (3.0-12build2).  
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.  
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

The window has a title bar with the text "root@DESKTOP-G106A2F:~/Cloud/Assign1". At the bottom, there is a taskbar with various icons for applications like File Explorer, Google Chrome, and others. On the right side of the screen, there is a system tray with icons for battery level (91%), weather (23°C Sunny), date (22-01-2023), and time (19:57).

### 43. cal command —

View a command-line calendar

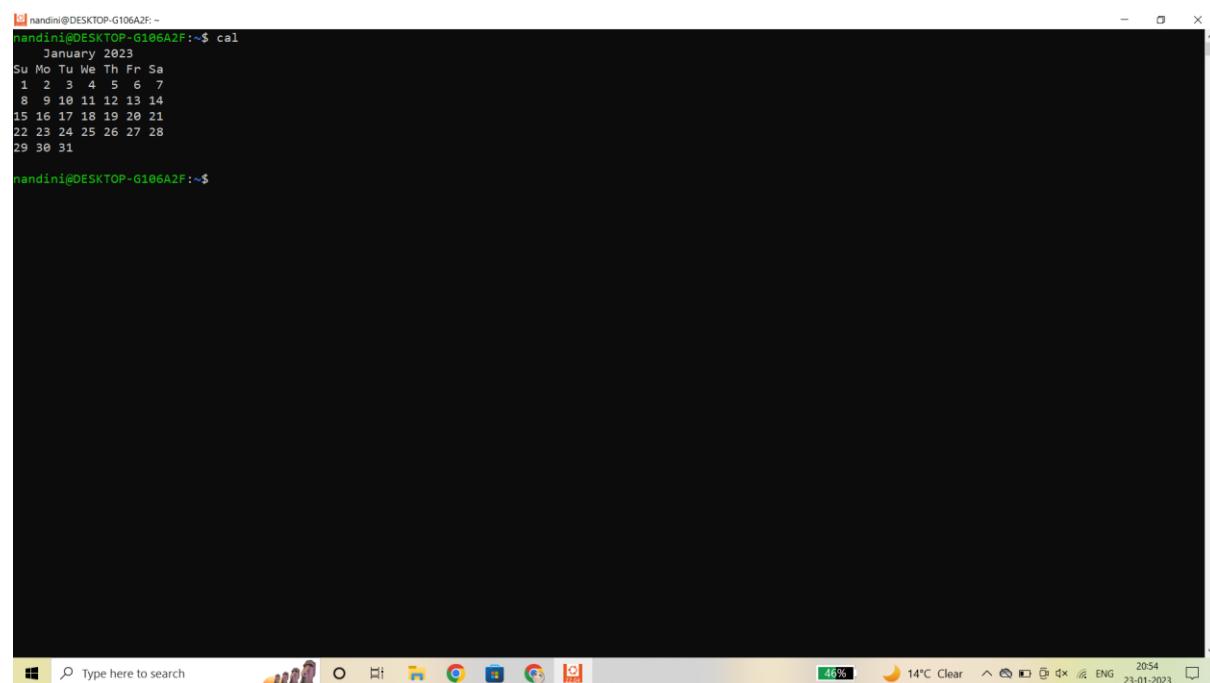
If a user wants a quick view of the calendar in the Linux terminal, cal is the command for you. By default, the cal command shows the current month calendar as output.

Cal command is a calendar command in Linux which is used to see the calendar of a specific month or a whole year.

#### Syntax-

cal [ [ month ] year]-

#### Output-



```
nandini@DESKTOP-G106A2F:~$ cal
January 2023
Su Mo Tu We Th Fr Sa
1  2  3  4  5  6  7
8  9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

nandini@DESKTOP-G106A2F:~$
```

### 44. alias command —

Create custom shortcuts for your regularly used commands

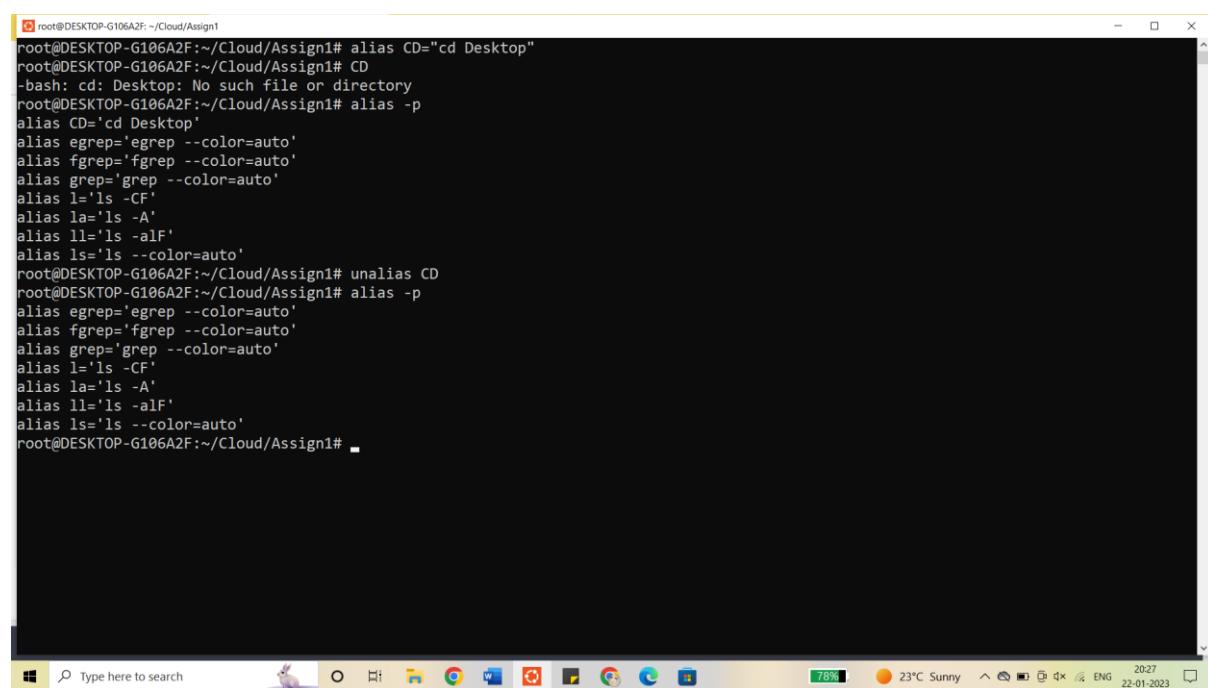
In Linux, an alias is a shortcut that references a command. An alias replaces a string that invokes a command in the Linux shell with another user-defined string.

Aliases are mostly used to replace long commands, improving efficiency and avoiding potential spelling errors. Aliases can also replace commands with additional options, making them easier to use.

#### Syntax-

```
alias [-p] [name[=value] ... ]
```

#### Output-



The screenshot shows a Windows terminal window with a black background and white text. It displays a series of Linux command-line interactions. The user is root, as indicated by the '#'. The commands shown are:

```
root@DESKTOP-G106A2F:~/Cloud/Assign1# alias CD="cd Desktop"
root@DESKTOP-G106A2F:~/Cloud/Assign1# cd: Desktop: No such file or directory
root@DESKTOP-G106A2F:~/Cloud/Assign1# alias -p
alias CD='cd Desktop'
alias egrep='egrep --color=auto'
alias fgrep='fgrep --color=auto'
alias grep='grep --color=auto'
alias l='ls -CF'
alias la='ls -A'
alias ll='ls -alF'
alias ls='ls --color=auto'
root@DESKTOP-G106A2F:~/Cloud/Assign1# unalias CD
root@DESKTOP-G106A2F:~/Cloud/Assign1# alias -p
alias egrep='egrep --color=auto'
alias fgrep='fgrep --color=auto'
alias grep='grep --color=auto'
alias l='ls -CF'
alias la='ls -A'
alias ll='ls -alF'
alias ls='ls --color=auto'
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

The terminal window has a title bar, a scroll bar on the right, and a taskbar at the bottom with various icons and system status information.

### 45. dd command —

Majorly used for creating bootable USB sticks.

dd is very powerful tool. Dd stands for Data Duplicator which is make copy using block by block from one device into another device. So we can also use dd tool for data backup and restore from one device into another device.

### 46. whereis command —

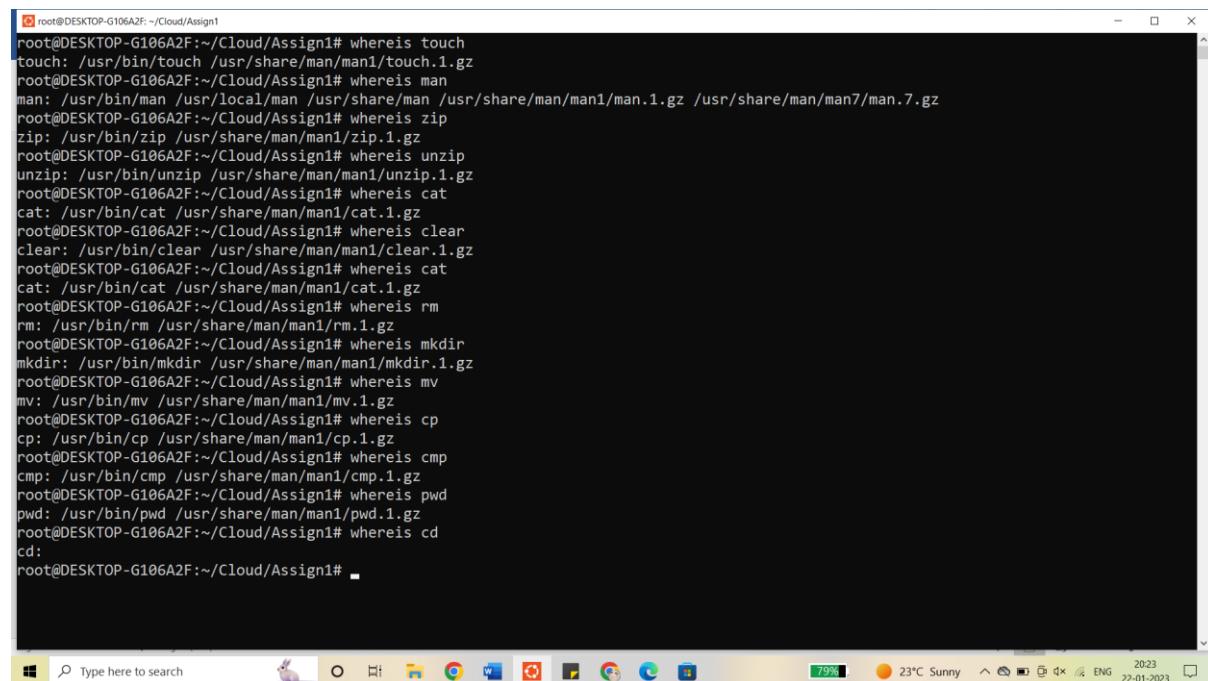
Locate the binary, source, and manual pages for a command

Whereis command is used to find the location of source/binary file of a command and manuals sections for a specified file in Linux system.

#### Syntax-

whereis [options] filename...

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# whereis touch
touch: /usr/bin/touch /usr/share/man/man1/touch.1.gz
root@DESKTOP-G106A2F:~/Cloud/Assign1# whereis man
man: /usr/bin/man /usr/local/man /usr/share/man /usr/share/man/man1/man.1.gz /usr/share/man/man7/man.7.gz
root@DESKTOP-G106A2F:~/Cloud/Assign1# whereis zip
zip: /usr/bin/zip /usr/share/man/man1/zip.1.gz
root@DESKTOP-G106A2F:~/Cloud/Assign1# whereis unzip
unzip: /usr/bin/unzip /usr/share/man/man1/unzip.1.gz
root@DESKTOP-G106A2F:~/Cloud/Assign1# whereis cat
cat: /usr/bin/cat /usr/share/man/man1/cat.1.gz
root@DESKTOP-G106A2F:~/Cloud/Assign1# whereis clear
clear: /usr/bin/clear /usr/share/man/man1/clear.1.gz
root@DESKTOP-G106A2F:~/Cloud/Assign1# whereis cat
cat: /usr/bin/cat /usr/share/man/man1/cat.1.gz
root@DESKTOP-G106A2F:~/Cloud/Assign1# whereis rm
rm: /usr/bin/rm /usr/share/man/man1/rm.1.gz
root@DESKTOP-G106A2F:~/Cloud/Assign1# whereis mkdir
mkdir: /usr/bin/mkdir /usr/share/man/man1/mkdir.1.gz
root@DESKTOP-G106A2F:~/Cloud/Assign1# whereis mv
mv: /usr/bin/mv /usr/share/man/man1/mv.1.gz
root@DESKTOP-G106A2F:~/Cloud/Assign1# whereis cp
cp: /usr/bin/cp /usr/share/man/man1/cp.1.gz
root@DESKTOP-G106A2F:~/Cloud/Assign1# whereis cmp
cmp: /usr/bin/cmp /usr/share/man/man1/cmp.1.gz
root@DESKTOP-G106A2F:~/Cloud/Assign1# whereis pwd
pwd: /usr/bin/pwd /usr/share/man/man1/pwd.1.gz
root@DESKTOP-G106A2F:~/Cloud/Assign1# whereis cd
cd:
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 47 whatis command —

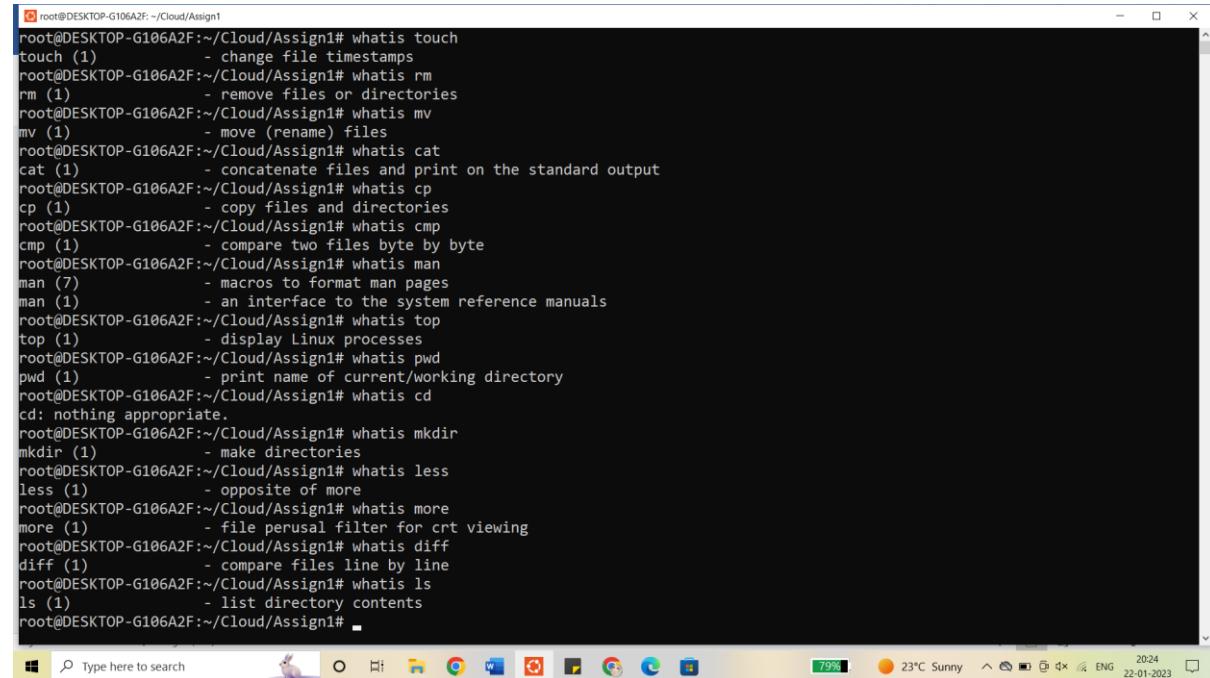
Find what a command is used for

Whatis command in Linux is used to get a one-line manual page descriptions. In Linux, each manual page has some sort of description within it. So this command search for the manual pages names and show the manual page description of the specified filename or argument.

#### Syntax:

Whatis [-dlv?V] [-r|-w] [-s list] [-m system[, ...]] [-M path] [-L locale] [-C file] name ...

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# whatis touch
touch (1)           - change file timestamps
root@DESKTOP-G106A2F:~/Cloud/Assign1# whatis rm
rm (1)             - remove files or directories
root@DESKTOP-G106A2F:~/Cloud/Assign1# whatis mv
mv (1)             - move (rename) files
root@DESKTOP-G106A2F:~/Cloud/Assign1# whatis cat
cat (1)            - concatenate files and print on the standard output
root@DESKTOP-G106A2F:~/Cloud/Assign1# whatis cp
cp (1)             - copy files and directories
root@DESKTOP-G106A2F:~/Cloud/Assign1# whatis cmp
cmp (1)            - compare two files byte by byte
root@DESKTOP-G106A2F:~/Cloud/Assign1# whatis man
man (7)            - macros to format man pages
man (1)            - an interface to the system reference manuals
root@DESKTOP-G106A2F:~/Cloud/Assign1# whatis top
top (1)            - display Linux processes
root@DESKTOP-G106A2F:~/Cloud/Assign1# whatis pwd
pwd (1)            - print name of current/working directory
root@DESKTOP-G106A2F:~/Cloud/Assign1# whatis cd
cd: nothing appropriate.
root@DESKTOP-G106A2F:~/Cloud/Assign1# whatis mkdir
mkdir (1)           - make directories
root@DESKTOP-G106A2F:~/Cloud/Assign1# whatis less
less (1)            - opposite of more
root@DESKTOP-G106A2F:~/Cloud/Assign1# whatis more
more (1)            - file perusal filter for crt viewing
root@DESKTOP-G106A2F:~/Cloud/Assign1# whatis diff
diff (1)            - compare files line by line
root@DESKTOP-G106A2F:~/Cloud/Assign1# whatis ls
ls (1)              - list directory contents
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 48. top command —

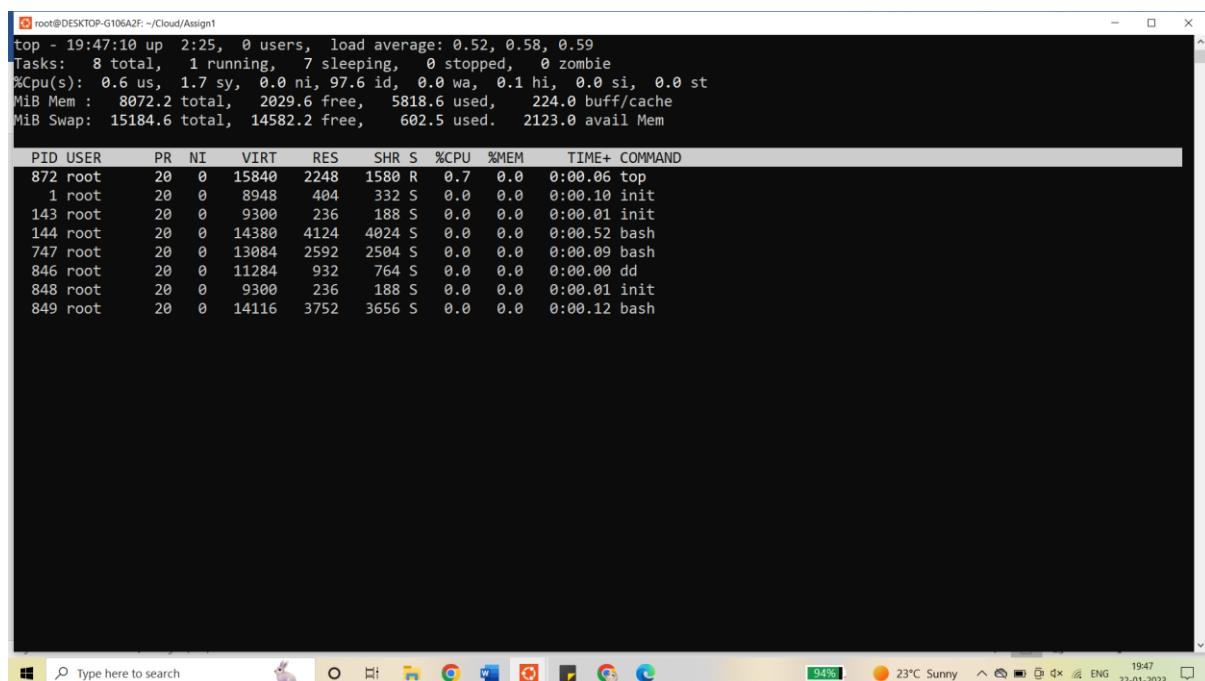
View active processes live with their system usage

The top (table of processes) command shows a real-time view of running processes in Linux and displays kernel-managed tasks. The command also provides a system information summary that shows resource utilization, including CPU and memory usage.

#### Syntax:

```
top -hv | -bcEeHiOSs1 -d secs -n max -u | U user -p pid(s) -o field -w [cols]
```

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1
top - 19:47:10 up 2:25, 0 users, load average: 0.52, 0.58, 0.59
Tasks: 8 total, 1 running, 7 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.6 us, 1.7 sy, 0.0 ni, 97.6 id, 0.0 wa, 0.1 hi, 0.0 si, 0.0 st
MiB Mem : 8072.2 total, 2029.6 free, 5818.6 used, 224.0 buff/cache
MiB Swap: 15184.6 total, 14582.2 free, 602.5 used, 2123.0 avail Mem

PID USER      PR  NI    VIRT    RES   SHR S %CPU %MEM TIME+ COMMAND
872 root      20   0  15840  2248  1580 R  0.7  0.0  0:00.06 top
  1 root      20   0   8948   404   332 S  0.0  0.0  0:00.10 init
143 root      20   0   9300   236   188 S  0.0  0.0  0:00.01 init
144 root      20   0  14380  4124  4024 S  0.0  0.0  0:00.52 bash
747 root      20   0  13084  2592  2504 S  0.0  0.0  0:00.09 bash
846 root      20   0  11284   932   764 S  0.0  0.0  0:00.00 dd
848 root      20   0   9300   236   188 S  0.0  0.0  0:00.01 init
849 root      20   0  14116  3752  3656 S  0.0  0.0  0:00.12 bash
```

### 49. useradd and usermod command —

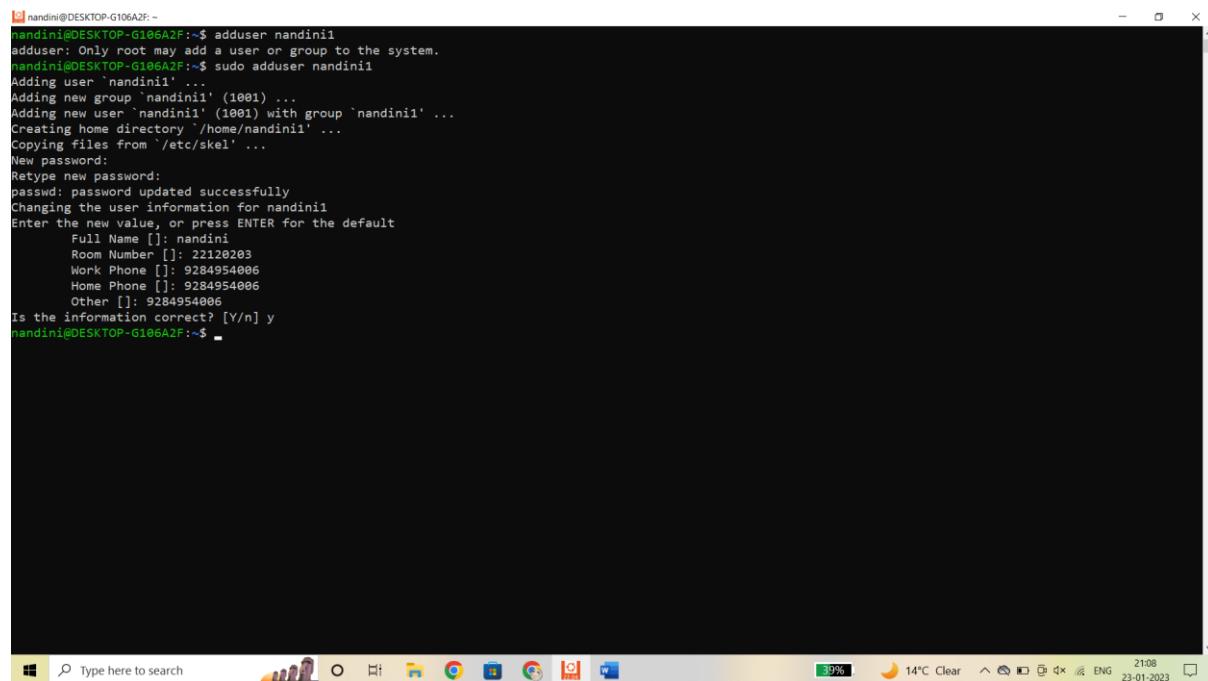
Add new user or change existing users data

Usermod command or modify user is a command in Linux that is used to change the properties of a user in Linux through the command line. After creating a user we have to sometimes change their attributes like password or login directory etc.

In Linux, a ‘useradd’ command is a low-level utility that is used for adding/creating user accounts in Linux and other Unix-like operating systems. The ‘adduser’ is much similar to the useradd command because it is just a symbolic link to it.

**Syntax-**

**Output-**



The screenshot shows a Windows desktop environment with a terminal window open. The terminal window displays the following command-line session:

```
nandini@DESKTOP-G106A2F:~$ adduser nandini1
adduser: Only root may add a user or group to the system.
nandini@DESKTOP-G106A2F:~$ sudo adduser nandini1
Adding user `nandini1' ...
Adding new group `nandini1' (1001) ...
Adding new user `nandini1' (1001) with group `nandini1' ...
Creating home directory `/home/nandini1' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for nandini1
Enter the new value, or press ENTER for the default
  Full Name []: nandini
  Room Number []: 22120203
  Work Phone []: 9284954006
  Home Phone []: 9284954006
  Other []: 9284954006
Is the information correct? [Y/n] y
nandini@DESKTOP-G106A2F:~$
```

The terminal window is positioned above a taskbar. The taskbar includes icons for File Explorer, Edge browser, Google Chrome, File Manager, Task View, and File Explorer again. On the right side of the taskbar, there are system status icons for battery level (39%), weather (14°C Clear), date (23-01-2023), and time (21:08).

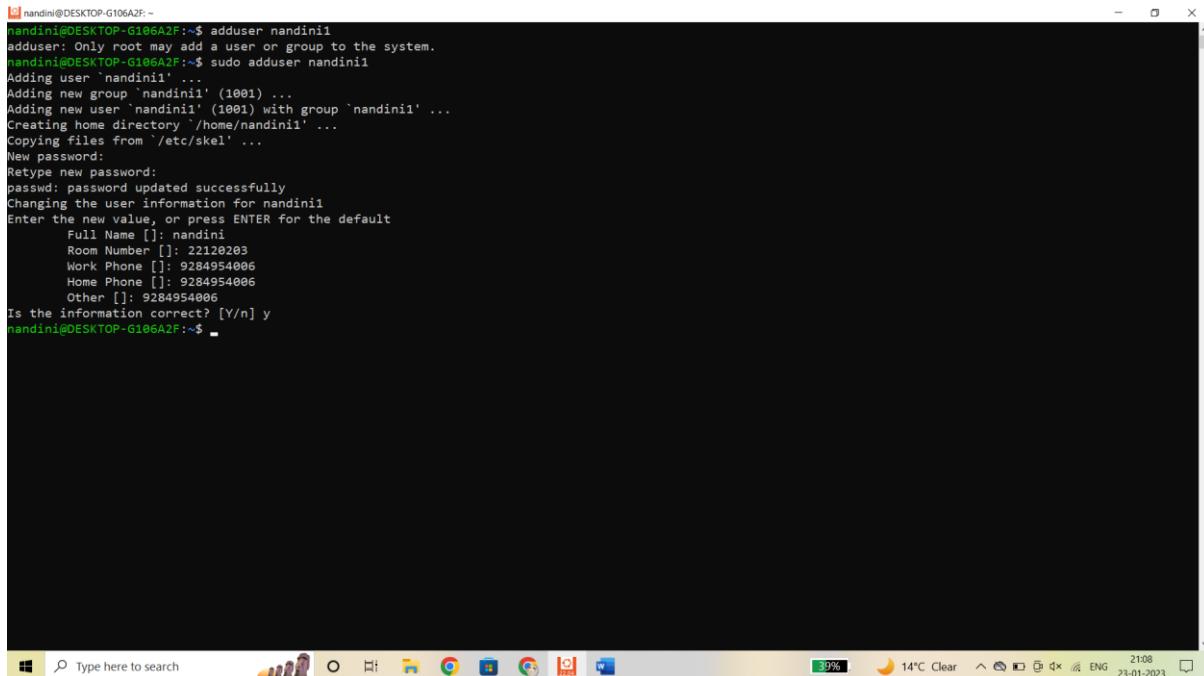
### 50. passwd command —

Create or update passwords for existing users

#### Syntax-

Passwd [ -R load\_module ] [ -f | -s -a ] [ User ]

#### Output-



```
nandini@DESKTOP-G106A2F:~$ adduser nandini1
adduser: Only root may add a user or group to the system.
nandini@DESKTOP-G106A2F:~$ sudo adduser nandini1
Adding user `nandini1' ...
Adding new group `nandini1' (1001) ...
Adding new user `nandini1' (1001) with group `nandini1' ...
Creating home directory `/home/nandini1' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for nandini1
Enter the new value, or press ENTER for the default
  Full Name []: nandini
  Room Number []: 22120203
  Work Phone []: 9284954006
  Home Phone []: 9284954006
  Other []: 9284954006
Is the information correct? [Y/n] y
nandini@DESKTOP-G106A2F:~$
```

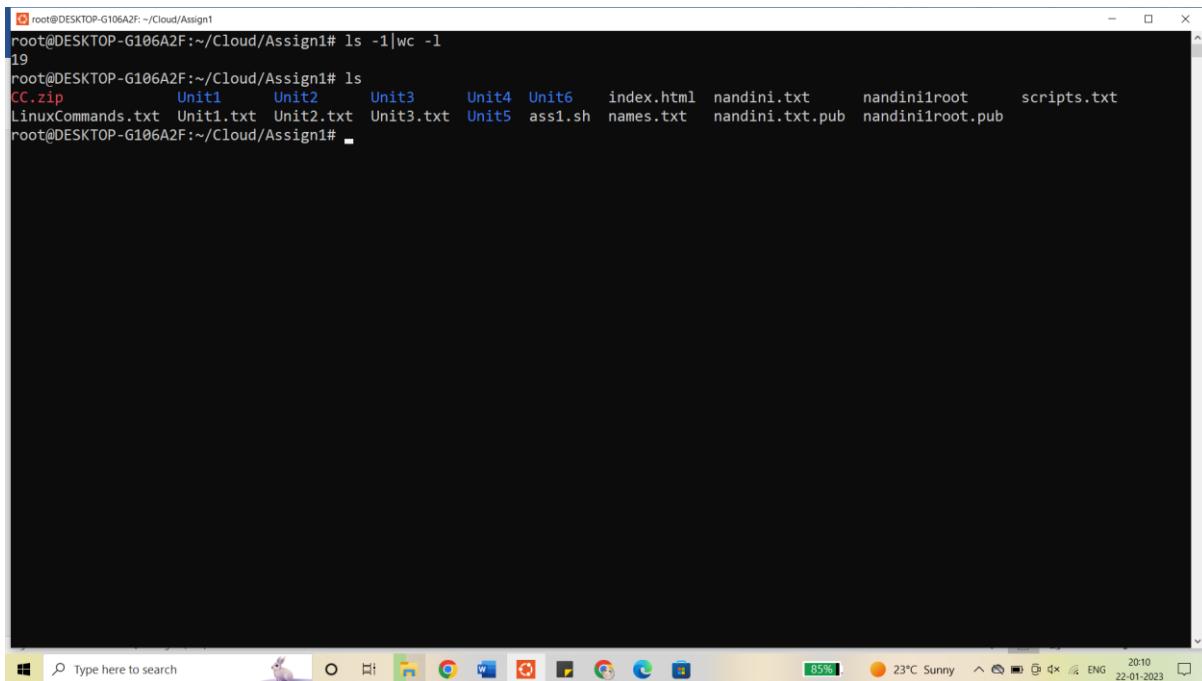
### 51. ls -1 | wc -l command —

Command to get the count of the files present into directory.

#### Syntax-

```
ls -1 | wc -l
```

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls -1|wc -l
19
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
CC.zip      Unit1      Unit2      Unit3      Unit4      Unit6      index.html    nandini.txt      nandiniroot      scripts.txt
LinuxCommands.txt  Unit1.txt  Unit2.txt  Unit3.txt  Unit4.txt  Unit6.txt  ass1.sh  names.txt  nandini.txt.pub  nandiniroot.pub
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 52 kill command -

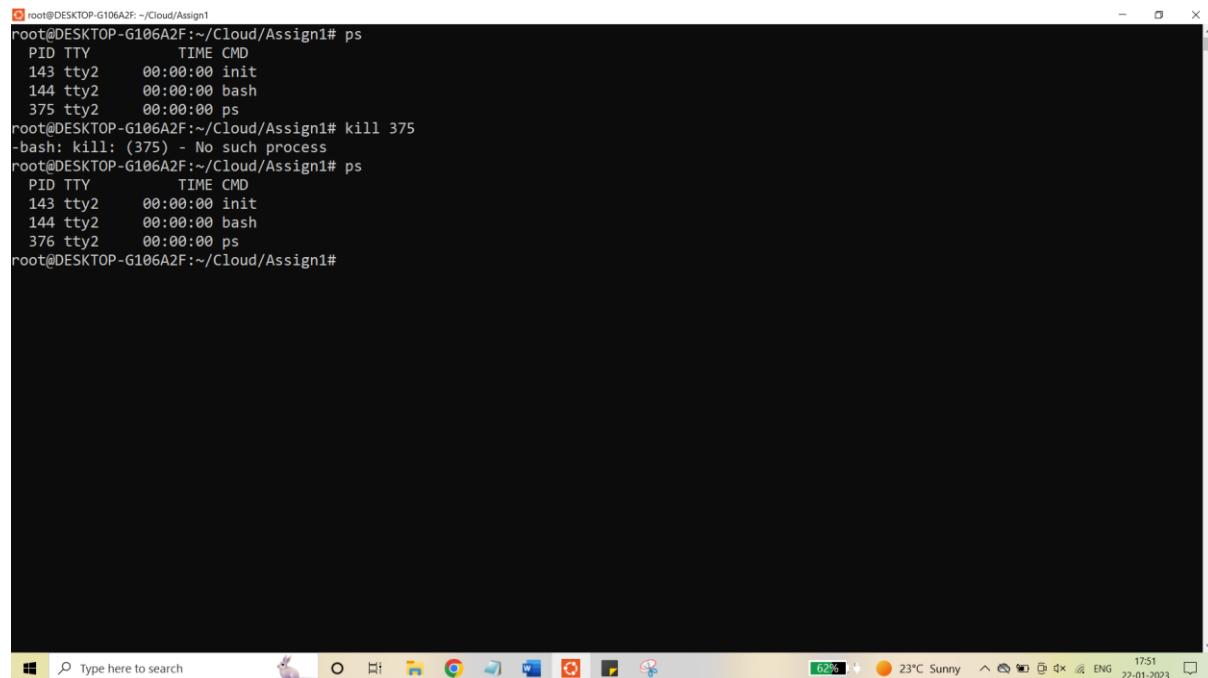
Command to kill the process (PID).

The kill command sends a signal (by default, the SIGTERM signal) to a running process. This default action normally stops processes. If you want to stop a process, specify the process ID (PID) in the ProcessID variable.

#### Syntax-

\$kill -l

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1
root@DESKTOP-G106A2F:~/Cloud/Assign1# ps
 PID TTY      TIME CMD
 143 tty2    00:00:00 init
 144 tty2    00:00:00 bash
 375 tty2    00:00:00 ps
root@DESKTOP-G106A2F:~/Cloud/Assign1# kill 375
-bash: kill: (375) - No such process
root@DESKTOP-G106A2F:~/Cloud/Assign1# ps
 PID TTY      TIME CMD
 143 tty2    00:00:00 init
 144 tty2    00:00:00 bash
 376 tty2    00:00:00 ps
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 53. w command -

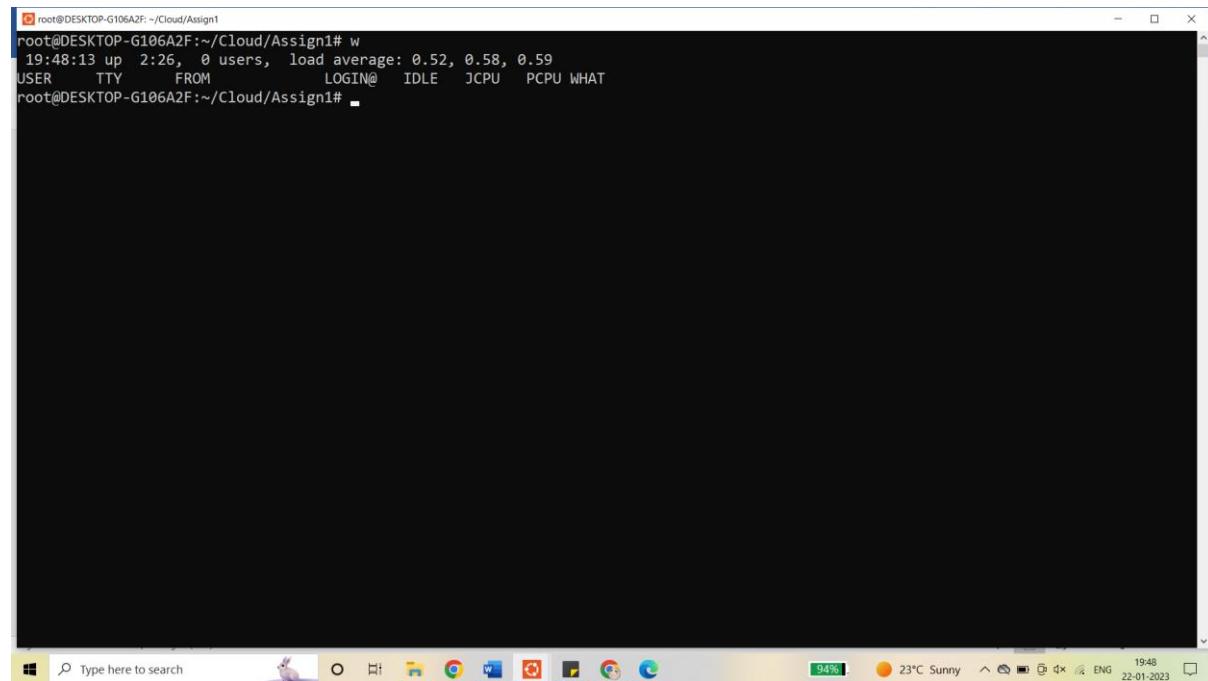
To check how many users logged into the linux.

w command in Linux is used to show who is logged on and what they are doing. This command shows the information about the users currently on the machine and their processes. The header shows, in this order, the current time, how long the system has been running, how many users are currently logged on, and the system load averages for the past 1, 5, and 15 minutes. The following entries are displayed for each user: login name, the tty name, the remote host, login time, idle time, JCPU, PCPU, and the command line of their current process. The JCPU time is the time used by all processes attached to the tty. It does not include past background jobs but does include currently running background jobs. The PCPU time is the time used by the current process, named in the “what” field.

#### Syntax:

**w [options] user [...]**

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# w
19:48:13 up 2:26, 0 users,  load average: 0.52, 0.58, 0.59
USER     TTY      FROM      LOGIN@    IDLE    JCPU   PCPU WHAT
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

The screenshot shows a Windows terminal window with a black background. At the top, it displays the command 'root@DESKTOP-G106A2F:~/Cloud/Assign1# w'. Below this, the output of the 'w' command is shown, including the system status (19:48:13 up 2:26, 0 users, load average: 0.52, 0.58, 0.59) and a header for user information (USER, TTY, FROM, LOGIN@, IDLE, JCPU, PCPU, WHAT). The 'root' user is listed with an empty terminal ('~'). The bottom of the window shows the Windows taskbar with various icons and system status indicators like battery level (94%), weather (23°C Sunny), date (22-01-2023), and time (19:48).

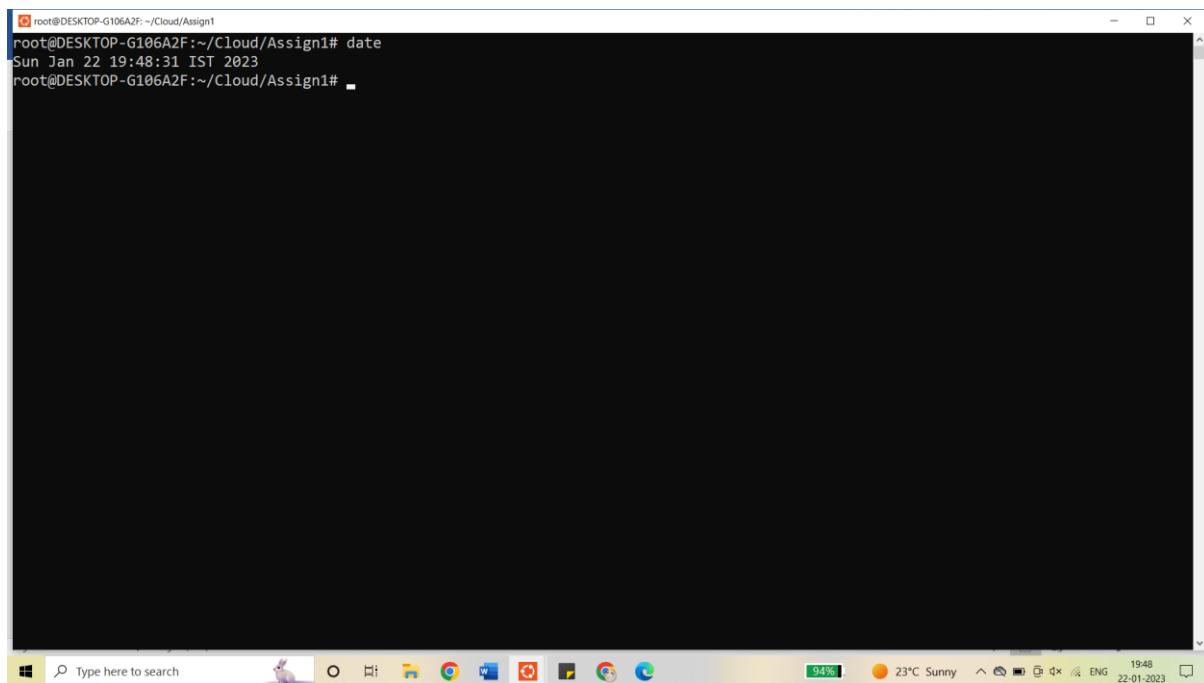
### 54. date command --

It is used to check the current date, time in linux date command is used to display the system date and time. date command is also used to set date and time of the system. By default the date command displays the date in the time zone on which unix/linux operating system is configured. You must be the super-user (root) to change the date and time.

#### Syntax:

```
date [OPTION]... [+FORMAT]  
date [-u|--utc|--universal] [MMDDhhmm[[CC]YY][.ss]]
```

#### Output-



A screenshot of a Windows desktop environment showing a terminal window. The terminal window has a blue header bar with white text. The text inside the window is as follows:

```
root@DESKTOP-G106A2F:~/Cloud/Assign1# date  
Sun Jan 22 19:48:31 IST 2023  
root@DESKTOP-G106A2F:~/Cloud/Assign1# ■
```

The terminal window is positioned over a desktop background featuring a yellow and green abstract design. At the bottom of the screen, there is a taskbar with several icons for common applications like File Explorer, Google Chrome, and Microsoft Edge. On the far right of the taskbar, there are system status indicators including battery level (94%), weather (23°C Sunny), language (ENG), and date/time (19:48 22-01-2023).

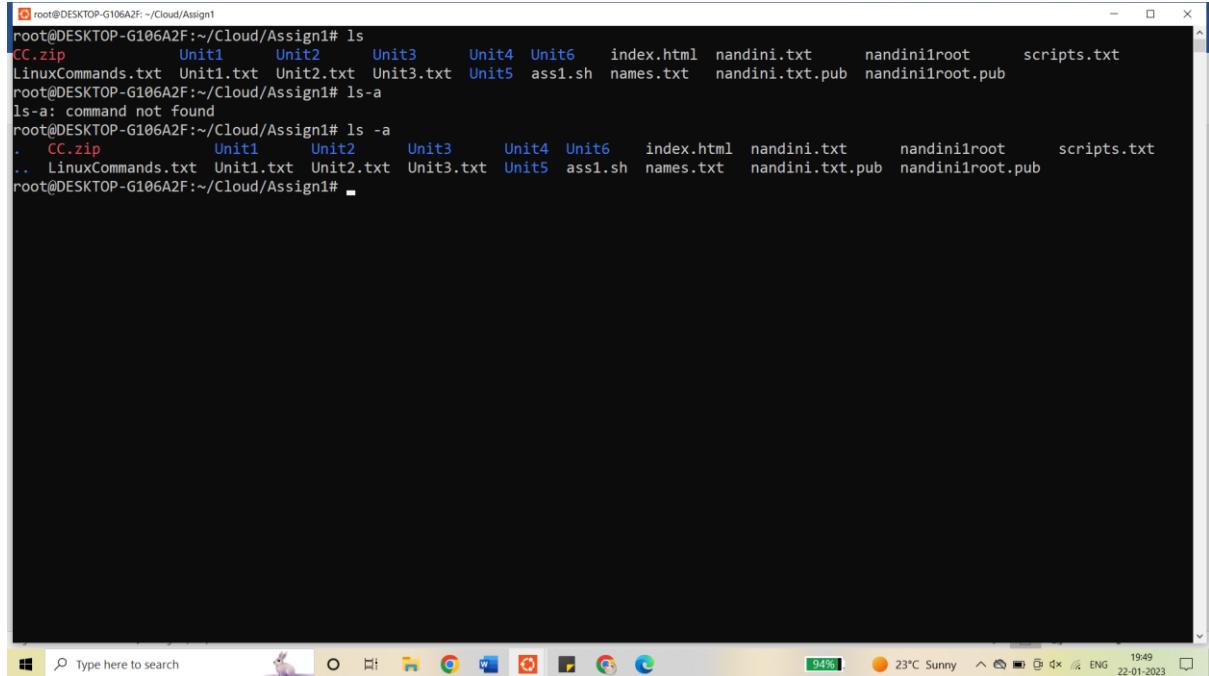
### 56 ls -a command –

List the hidden files in directory (hidden files are denoted as ..)

#### Syntax-

ls -a

#### Output-



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
CC.zip      Unit1      Unit2      Unit3      Unit4      Unit6      index.html  nandini.txt      nandinilroot      scripts.txt
LinuxCommands.txt  Unit1.txt  Unit2.txt  Unit3.txt  Unit5  ass1.sh  names.txt  nandini.txt.pub  nandinilroot.pub
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls-a
ls-a: command not found
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls -a
. CC.zip      Unit1      Unit2      Unit3      Unit4      Unit6      index.html  nandini.txt      nandinilroot      scripts.txt
.. LinuxCommands.txt  Unit1.txt  Unit2.txt  Unit3.txt  Unit5  ass1.sh  names.txt  nandini.txt.pub  nandinilroot.pub
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

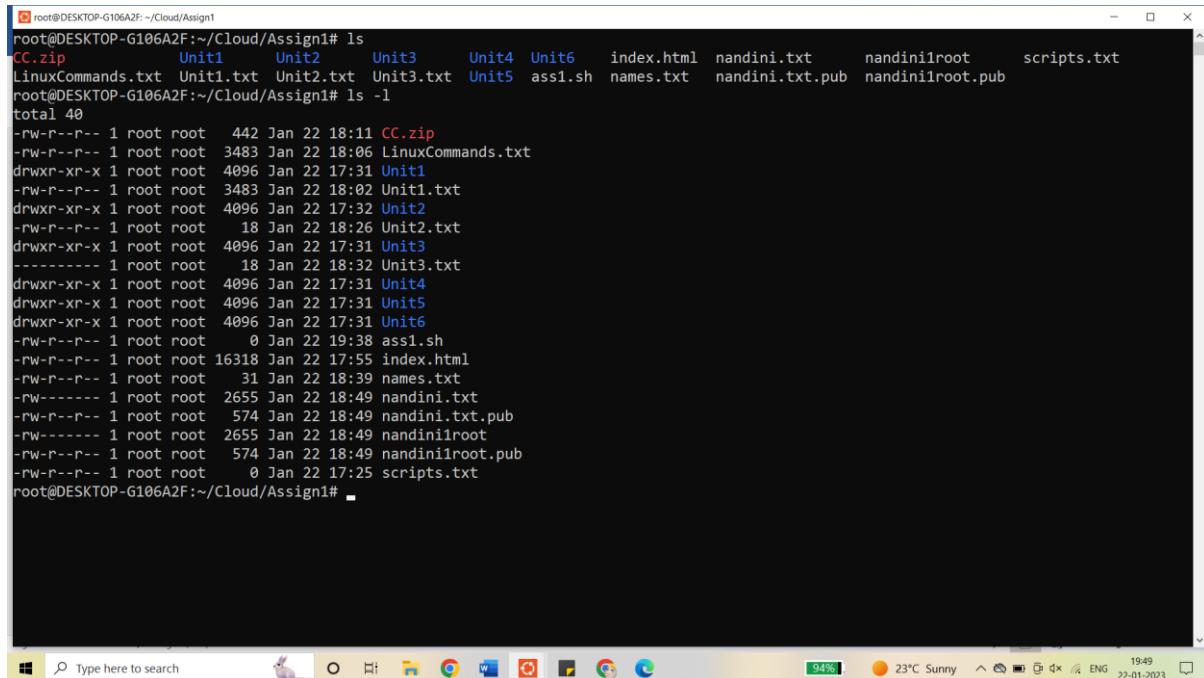
### 57.ls -l command --

Use to check the permissions on all the files

#### Syntax-

ls-l

#### Output-



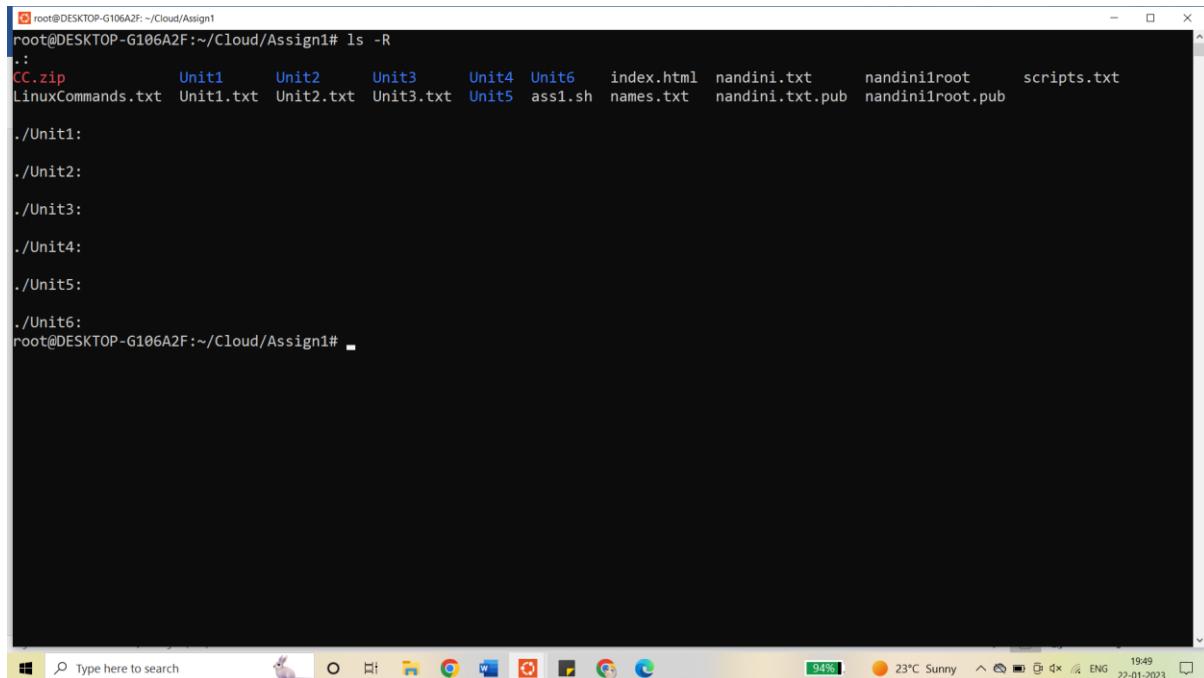
```
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
CC.zip      Unit1     Unit2     Unit3     Unit4     Unit5     index.html    nandini.txt    nandinilroot    scripts.txt
LinuxCommands.txt  Unit1.txt  Unit2.txt  Unit3.txt  Unit4.txt  ass1.sh  names.txt  nandini.txt.pub  nandinilroot.pub
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls -l
total 40
-rw-r--r-- 1 root root  442 Jan 22 18:11 CC.zip
-rw-r--r-- 1 root root 3483 Jan 22 18:06 LinuxCommands.txt
drwxr-xr-x 1 root root 4096 Jan 22 17:31 Unit1
-rw-r--r-- 1 root root 3483 Jan 22 18:02 Unit1.txt
drwxr-xr-x 1 root root 4096 Jan 22 17:32 Unit2
-rw-r--r-- 1 root root  18 Jan 22 18:26 Unit2.txt
drwxr-xr-x 1 root root 4096 Jan 22 17:31 Unit3
----- 1 root root   18 Jan 22 18:32 Unit3.txt
drwxr-xr-x 1 root root 4096 Jan 22 17:31 Unit4
drwxr-xr-x 1 root root 4096 Jan 22 17:31 Unit5
drwxr-xr-x 1 root root 4096 Jan 22 17:31 Unit6
-rw-r--r-- 1 root root    0 Jan 22 19:38 ass1.sh
-rw-r--r-- 1 root root 16318 Jan 22 17:55 index.html
-rw-r--r-- 1 root root   31 Jan 22 18:39 names.txt
-rw----- 1 root root 2655 Jan 22 18:49 nandini.txt
-rw-r--r-- 1 root root  574 Jan 22 18:49 nandini.txt.pub
-rw----- 1 root root 2655 Jan 22 18:49 nandinilroot
-rw-r--r-- 1 root root  574 Jan 22 18:49 nandinilroot.pub
-rw-r--r-- 1 root root    0 Jan 22 17:25 scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

### 58. ls -R command –

Used to list information about files and directories within the file system.

**Syntax- ls-r**

**Output-**



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls -R
.:
CC.zip      Unit1      Unit2      Unit3      Unit4      Unit5      index.html    nandini.txt      nandiniroot      scripts.txt
LinuxCommands.txt  Unit1.txt  Unit2.txt  Unit3.txt  Unit4.txt  Unit5.txt  ass1.sh  names.txt  nandini.txt.pub  nandiniroot.pub

./Unit1:
./Unit2:
./Unit3:
./Unit4:
./Unit5:
./Unit6:
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

The screenshot shows a Windows terminal window with a blue header bar. The terminal displays the command 'ls -R' being run in a directory named 'Assign1'. The output lists several files and sub-directories. At the bottom of the terminal, there is a taskbar with icons for various applications like File Explorer, Google Chrome, and Microsoft Edge. The system tray shows battery level (94%), weather (23°C Sunny), language (ENG), date (22-01-2023), and time (19:49).

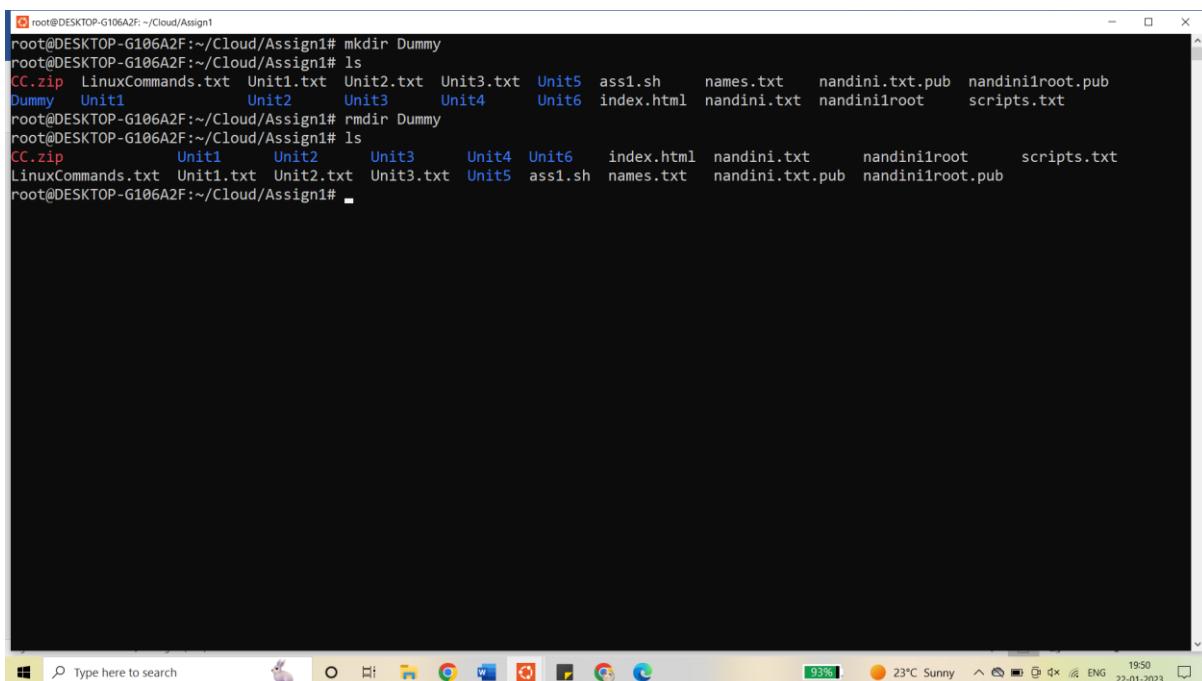
### 59 rm-command –

It is used to remove directory with the files

**Syntax-**

**rmkdir <dir\_name>**

**Output-**



```
root@DESKTOP-G106A2F:~/Cloud/Assign1# mkdir Dummy
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
CC.zip LinuxCommands.txt Unit1.txt Unit2.txt Unit3.txt Unit4.txt Unit5.txt ass1.sh names.txt nandini.txt.pub nandinilroot.pub
Dummy Unit1 Unit2 Unit3 Unit4 Unit5 index.html nandini.txt nandinilroot scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# rmmdir Dummy
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
CC.zip Unit1 Unit2 Unit3 Unit4 Unit5 index.html nandini.txt nandinilroot scripts.txt
LinuxCommands.txt Unit1.txt Unit2.txt Unit3.txt Unit5 ass1.sh names.txt nandini.txt.pub nandinilroot.pub
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

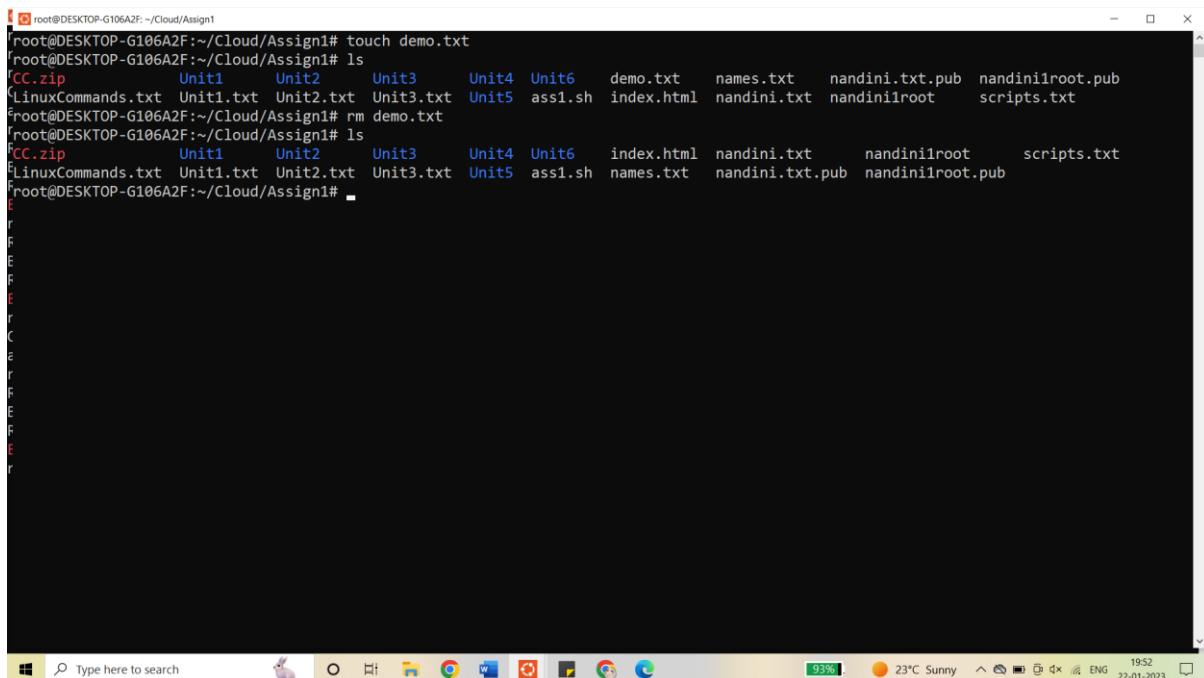
### 60. rm Command –

Used to remove file

**Syntax-**

rm <file\_name>

**Output-**



The screenshot shows a Windows desktop environment with a terminal window open. The terminal window has a blue header bar with the text 'root@DESKTOP-G106A2F:~/Cloud/Assign1'. The main area of the terminal shows the following command history:

```
root@DESKTOP-G106A2F:~/Cloud/Assign1# touch demo.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
'CC.zip'      Unit1      Unit2      Unit3      Unit4      Unit6      demo.txt      names.txt      nandini.txt.pub      nandini1root.pub
'LinuxCommands.txt'  Unit1.txt  Unit2.txt  Unit3.txt  Unit5      ass1.sh      index.html      nandini.txt      nandini1root      scripts.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# rm demo.txt
root@DESKTOP-G106A2F:~/Cloud/Assign1# ls
'CC.zip'      Unit1      Unit2      Unit3      Unit4      Unit6      index.html      nandini.txt      nandini1root      scripts.txt
'LinuxCommands.txt'  Unit1.txt  Unit2.txt  Unit3.txt  Unit5      ass1.sh      names.txt      nandini.txt.pub      nandini1root.pub
root@DESKTOP-G106A2F:~/Cloud/Assign1#
```

Below the terminal window, the Windows taskbar is visible, showing icons for File Explorer, Task View, Start, Taskbar settings, and several pinned applications. The system tray displays battery level (93%), weather (23°C, Sunny), date (22-01-2023), and time (19:52).