# PRACTICAL NO: 1

# AIM: Demonstration of Basic Linux commands.

**Command shell:** A program that interprets commands is Command shell.

**Shell Script:** Allows a user to execute commands by typing them manually at a terminal, or automatically in programs called shell scripts.

A shell is not an operating system. It is a way to interface with the operating system and run Commands.

## BASH (Bourne Again Shell)

* Bash is a shell written as a free replacement to the standard Bourne Shell (/bin/sh) originally written by Steve Bourne for UNIX systems.
* It has all of the features of the original Bourne Shell, plus additions that make it easier to program with and use from the command line.
* Since it is Free Software, it has been adopted as the default shell on most Linux systems.

## BASIC LINUX COMMANDS:

1. **pwd : Print Working Directory DESCRIPTION:**

pwd prints the full [pathname](https://www.computerhope.com/jargon/p/path.htm) of the current working [directory](https://www.computerhope.com/jargon/d/director.htm).

## SYNTAX:

pwd

## EXAMPLE:

$ pwd

/home/directory\_name

## cd: Change Directory DESCRIPTION:

It allows you to change your [working directory.](https://www.computerhope.com/jargon/c/currentd.htm) You use it to move around within the [hierarchy](https://www.computerhope.com/jargon/h/hierfile.htm) of your [file system](https://www.computerhope.com/jargon/f/filesyst.htm).

## SYNTAX:

cd directory\_name

## EXAMPLE:

To change into “work directory” in “documents” need to write as follows.

Input: $ cd /documents/work

## cd ..

**DESCRIPTION:**

Move up one directory.

## SYNTAX:

cd ..

## EXAMPLE:

If you are in work directory and want to go to documents then write cd ..

You will end up in /documents.

## ls : list all the files and directories DESCRIPTION:

List all files and folders in the current directory in the column format.

## SYNTAX:

ls [options]

**EXAMPLE**: Using various options

* + Lists the total files in the directory and subdirectories, the names of the files in the current directory, their permissions, the number of subdirectories in directories listed, the size of the file, and the date of last modification.

ls -l

* + List all files including hidden files

ls -a

## cat DESCRIPTION:

cat stands for "catenate". It reads [data](https://www.computerhope.com/jargon/d/data.htm) from [files,](https://www.computerhope.com/jargon/f/file.htm) and outputs their contents. It is the simplest way to display the contents of a file at the [command line.](https://www.computerhope.com/jargon/c/commandi.htm)

## SYNTAX:

cat filename

## EXAMPLES:

* + Print the contents of files mytext.txt and yourtext.txt cat mytext.txt yourtext.txt
  + Print the cpu information using cat command cat /proc/cpuinfo
  + Print the memory information using cat command

cat /proc/meminfo

## head DESCRIPTION:

head, by default, [prints](https://www.computerhope.com/jargon/p/print.htm) the first 10 lines of each FILE to standard output. With more than one FILE, it precedes each set of output with a header identifying the [file name.](https://www.computerhope.com/jargon/f/filename.htm)

If no FILE is specified, or when FILE is specified as a dash ("-"), head reads from [standard input.](https://www.computerhope.com/jargon/s/stdin.htm)

## SYNTAX:

head [option]…[file/directory]

## EXAMPLE:

Display the first ten lines of myfile.txt.

head myfile.txt

## tail

**DESCRIPTION:**

tail is a command which prints the last few number of lines (10 lines by default) of a certain file, then terminates.

## SYNTAX:

tail [option]…[file/directory]

## EXAMPLE:

Output the last 100 lines of the file myfile.txt. tail myfile.txt -n 100

1. **mv :** Moving (and Renaming) Files

## DESCRIPTION:

The *mv* command lets you move a file from one directory location to another. It also lets you rename a file (there is no separate *rename* command).

## SYNTAX:

mv [option] source directory

## EXAMPLE:

* + Moves the file myfile.txt to the directory destination-directory. mv myfile.txt destination\_directory
  + Move the file myfile.txt into the parent directory.

mv myfile.txt ../

* + In this case, if JOE1\_expenses does not exist, it will be created with the exact content ofjoe\_expenses, and joe\_expenses will disappear.

If JOE1\_expenses already exists, its content will be replaced with that of joe\_expenses (and joe\_expenses will still disappear).

mv joe\_expenses JOE1\_expenses

## mkdir : Make Directory DESCRIPTION:

If the specified directory does not already exist, mkdir creates it. More than one directory may be specified when calling mkdir.

## SYNTAX:

mkdir [option] directory

## EXAMPLE:

Create a directory named work. mkdir work

## cp : Copy Files DESCRIPTION:

The cp command is used to make copy of files and directories.

## SYNTAX:

cp [option] source directory

## EXAMPLE:

Creates a copy of the file in the currently [working directory](https://www.computerhope.com/jargon/c/currentd.htm) named origfile. The copy will be named newfile, and will be located in the working directory.

cp origfile newfile

## rmdir : Romove Directory DESCRIPTION:

The rmdir command is used to remove a directory that contains other files or directories.

## SYNTAX:

rm directory\_name

## EXAMPLE:

Delete mydir directory along with all files and directories within that directory. Here, -r is for recursive and –f is for forcefully.

rmdir -rf mydir

## gedit DESCRIPTION:

The gedit command is used to create and open a file.

## SYNTAX:

gedit filename.txt

## EXAMPLE:

To create a file named abc.sh gedit abc.sh

## man DESCRIPTION:

Displays on online manual page or manpage.

## SYNTAX:

man command

## EXAMPLE:

To learn about listing files man ls

## echo DESCRIPTION:

Display text on the screen.

## SYNTAX:

echo yourtext

## EXAMPLE:

Print Hello World on the screen echo “Hello World”

## clear DESCRIPTION:

Used to clear the screen

## SYNTAX:

clear

## EXAMPLE:

Clear the entire screen

clear

## whoami DESCRIPTION:

whoami prints the effective user ID. This command prints the [username](https://www.computerhope.com/jargon/u/username.htm) associated with the current effective user ID.

## SYNTAX:

whoami [option]

## EXAMPLE:

Display the name of the user who runs the command. whoami

## wc DESCRIPTION:

wc (word count) command, can return the number of lines, words, and characters in a file.

## SYNTAX:

wc [option]… [file]…

## EXAMPLE:

* + Print the byte counts of file myfile.txt wc -c myfile.txt
  + Print the line counts of file myfile.txt

wc -l myfile.txt

* + Print the word counts of file myfile.txt wc -w myfile.txt

## grep

**DESCRIPTION:**

grep command uses a search term to look through a file.

## SYNTAX:

grep [option]… Pattern [file]…

## EXAMPLE:

Search the word Hello in file named myfile.txt grep “Hello” myfile.txt

## free DESCRIPTION:

Display RAM details in Linux machine.

## SYNTAX:

free

## EXAMPLE:

To display the RAM details in Linux machine need to write following command. free

## pipe ( | ) DESCRIPTION:

Pipe command is used to send output of one program as a input to another. Pipes “|” help combine 2 or more commands.

## SYNTAX:

Command 1 | command 2

## EXAMPLE:

Display lines of input files containing “Aug” and send to standard output ls -l | grep “Aug”