

## EXPERIMENT -1

**Aim:** Study of unix commands with all the instructions

## **1. Information Management**

# 1.cal

Usage : Displays the calendar for the current month.

The screenshot displays a Linux desktop environment. At the top, a panel shows 'Activities', a search bar, and the system clock 'Sat 15:57'. The desktop background is a dark, abstract image. On the left side, there is a vertical dock with icons for the Dash, Home Folder, Files, Firefox, LibreOffice Writer, and a terminal window. The terminal window is open, showing the user's prompt 'tithi@tithi-VirtualBox:~' and the command 'echo "Hetvee"', which has been executed. Below this, the user has run 'cal', displaying the calendar for December 2025. The calendar shows a grid of days from Sunday to Saturday, with the 6th of December highlighted. The user then runs 'cal 2025', which displays the full year's calendar, showing the months from January to December. The calendar for 2025 shows that January 1st is a Sunday, and the year ends on December 31st, which is a Friday. The terminal window is titled 'tithi@tithi-VirtualBox:~'.

```
Activities Terminal Sat 15:58 • tithi@tithi-VirtualBox: ~
File Edit View Search Terminal Help
26 27 28 29 30 31 23 24 25 26 27 28 23 24 25 26 27 28 29
30 31

April May June
Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa
1 2 3 4 5 1 2 3 1 2 3 4 5 6 7
6 7 8 9 10 11 12 4 5 6 7 8 9 10 8 9 10 11 12 13 14
13 14 15 16 17 18 19 11 12 13 14 15 16 17 15 16 17 18 19 20 21
20 21 22 23 24 25 26 18 19 20 21 22 23 24 22 23 24 25 26 27 28
27 28 29 30 25 26 27 28 29 30 31 29 30

July August September
Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa
1 2 3 4 5 1 2 1 2 3 4 5 6
6 7 8 9 10 11 12 3 4 5 6 7 8 9 7 8 9 10 11 12 13
13 14 15 16 17 18 19 10 11 12 13 14 15 16 14 15 16 17 18 19 20
20 21 22 23 24 25 26 17 18 19 20 21 22 23 21 22 23 24 25 26 27
27 28 29 30 31 24 25 26 27 28 29 30 28 29 30
31

October November December
Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa
1 2 3 4 1 1 2 3 4 5 6
5 6 7 8 9 10 11 2 3 4 5 6 7 8 7 8 9 10 11 12 13
12 13 14 15 16 17 18 9 10 11 12 13 14 15 14 15 16 17 18 19 20
19 20 21 22 23 24 25 16 17 18 19 20 21 22 21 22 23 24 25 26 27
26 27 28 29 30 31 23 24 25 26 27 28 29 28 29 30 31
30

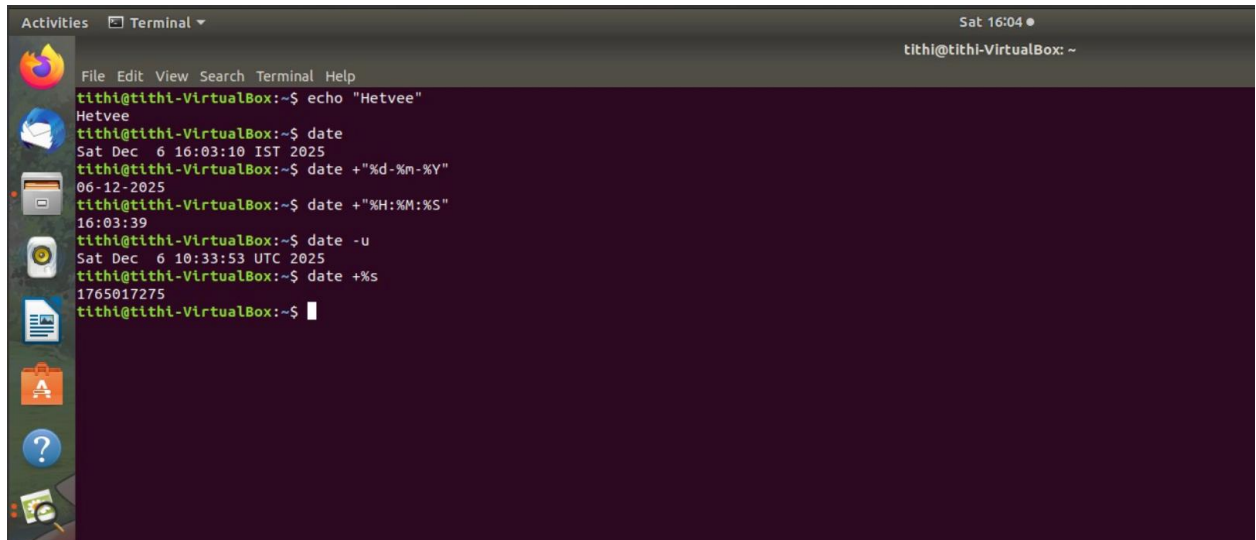
tithi@tithi-VirtualBox:~$ cal 03 2024
March 2024
Su Mo Tu We Th Fr Sa
1 2
3 4 5 6 7 8 9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30
31

tithi@tithi-VirtualBox:~$ cal -j
December 2025
Su Mo Tu We Th Fr Sa
335 336 337 338 339 340
341 342 343 344 345 346 347
348 349 350 351 352 353 354
355 356 357 358 359 360 361
362 363 364 365
```

```
tithi@tithi-VirtualBox:~$ cal -3
November 2025 December 2025 January 2026
Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa
1 1 2 3 4 5 6 1 2 3
2 3 4 5 6 7 8 7 8 9 10 11 12 13 4 5 6 7 8 9 10
9 10 11 12 13 14 15 14 15 16 17 18 19 20 11 12 13 14 15 16 17
16 17 18 19 20 21 22 21 22 23 24 25 26 27 18 19 20 21 22 23 24
23 24 25 26 27 28 29 28 29 30 31 25 26 27 28 29 30 31
30
tithi@tithi-VirtualBox:~$
```

## 2.date

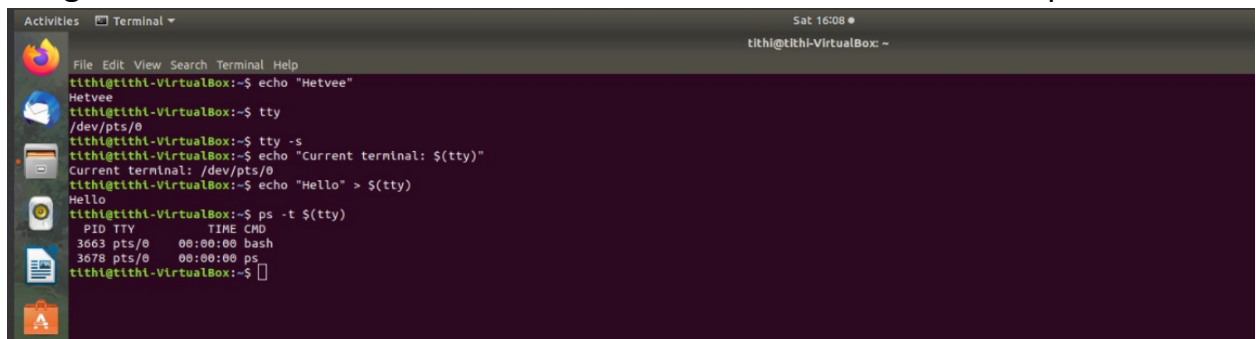
Usage : Shows the current system date and time.

A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Sat 16:04, tithi@tithi-VirtualBox: ~). The terminal shows the following commands and output:

```
tithi@tithi-VirtualBox:~$ echo "Hetvee"
Hetvee
tithi@tithi-VirtualBox:~$ date
Sat Dec 6 16:03:10 IST 2025
tithi@tithi-VirtualBox:~$ date +"%d-%m-%Y"
06-12-2025
tithi@tithi-VirtualBox:~$ date +"%H:%M:%S"
16:03:39
tithi@tithi-VirtualBox:~$ date -u
Sat Dec 6 10:33:53 UTC 2025
tithi@tithi-VirtualBox:~$ date +%s
1765017275
tithi@tithi-VirtualBox:~$
```

## 3.tty

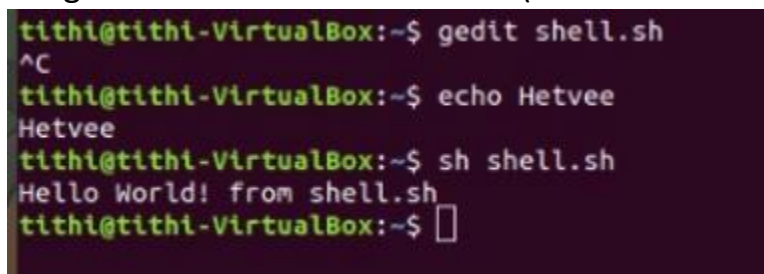
Usage : Prints the file name of the terminal connected to standard input.

A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Sat 16:08, tithi@tithi-VirtualBox: ~). The terminal shows the following commands and output:

```
tithi@tithi-VirtualBox:~$ echo "Hetvee"
Hetvee
tithi@tithi-VirtualBox:~$ tty
/dev/pts/0
tithi@tithi-VirtualBox:~$ tty -s
tithi@tithi-VirtualBox:~$ echo "Current terminal: $(tty)"
Current terminal: /dev/pts/0
tithi@tithi-VirtualBox:~$ echo "Hello" > $(tty)
Hello
tithi@tithi-VirtualBox:~$ ps -t $(tty)
PID TTY          TIME CMD
3663 pts/0      00:00:00 bash
3678 pts/0      00:00:00 ps
tithi@tithi-VirtualBox:~$
```

## 4.sh

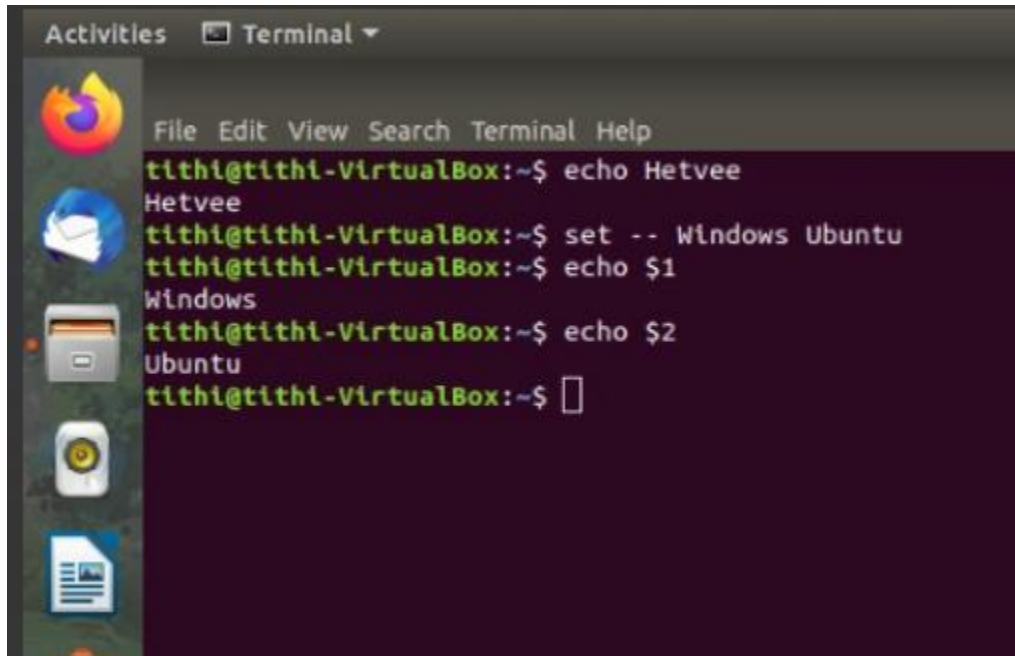
Usage : Starts a new Bourne shell (command interpreter).

A terminal window showing the following commands and output:

```
tithi@tithi-VirtualBox:~$ gedit shell.sh
^C
tithi@tithi-VirtualBox:~$ echo Hetvee
Hetvee
tithi@tithi-VirtualBox:~$ sh shell.sh
Hello World! from shell.sh
tithi@tithi-VirtualBox:~$
```

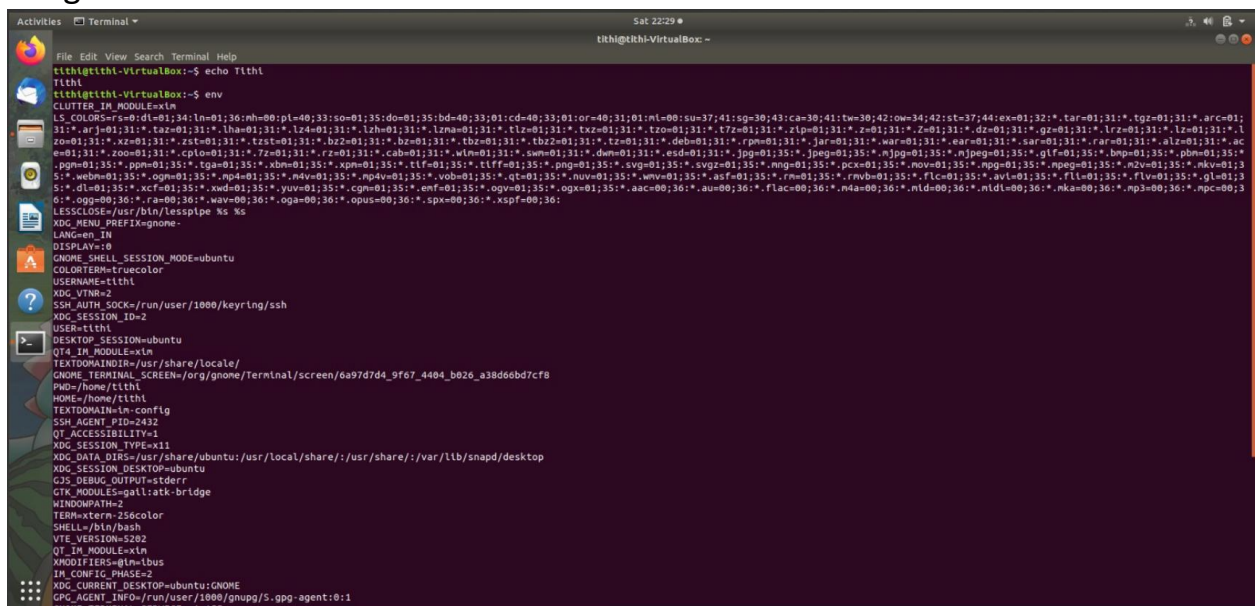
## 5.set

Usage : Displays or sets shell variables and options.



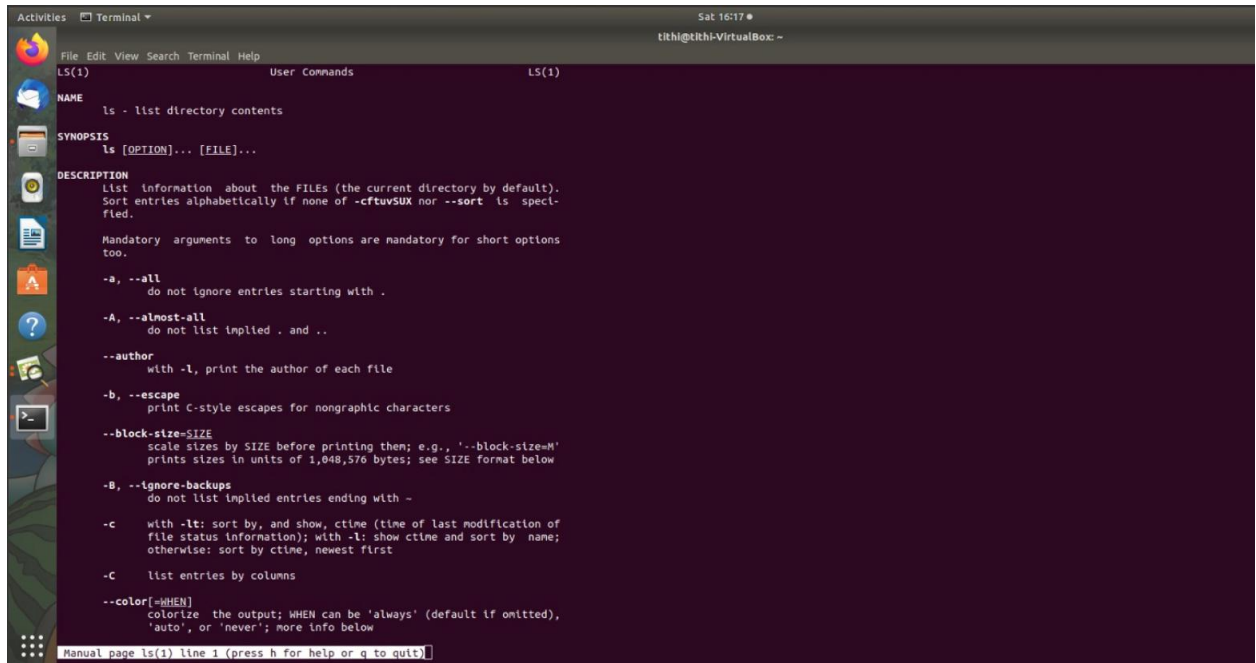
## 6.env

Usage : Shows or runs a command in a modified environment.



## 7.man

Usage : Displays the manual page for a command.



The screenshot shows a terminal window with the manual page for the 'ls' command. The window title is 'Activities Terminal' and the user is 'tithi@tithi-VirtualBox: ~'. The manual page is titled 'LS(1)' and includes sections for NAME, SYNOPSIS, and DESCRIPTION. The DESCRIPTION section explains that 'ls' lists information about files in the current directory by default, sorted alphabetically. It lists various options: -a (list all files, including hidden ones), -A (list all files except implied . and ..), --author (show author of each file), -b (use C-style escapes for non-graphic characters), --block-size=SIZE (scale sizes by SIZE), -B (do not list implied entries ending with ~), -c (sort by ctime), -C (list entries by columns), and --color[=WHEN] (colorize the output). The bottom of the window shows a prompt 'Manual page ls(1) line 1 (press h for help or q to quit)'.

```
Activities Terminal Sat 16:17
tithi@tithi-VirtualBox: ~

LS(1) User Commands LS(1)

NAME
ls - list directory contents

SYNOPSIS
ls [OPTION]... [FILE]...

DESCRIPTION
List information about the FILES (the current directory by default).
Sort entries alphabetically if none of -cftuvSUX nor --sort is speci-
fied.

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

-a, --all
do not ignore entries starting with .

-A, --almost-all
do not list implied . and ..

--author
with -l, print the author of each file

-b, --escape
print C-style escapes for nongraphic characters

--block-size=SIZE
scale sizes by SIZE before printing them; e.g., '--block-size=M'
prints sizes in units of 1,048,576 bytes; see SIZE format below

-B, --ignore-backups
do not list implied entries ending with ~

-c
with -lt: sort by, and show, ctime (time of last modification of
file status information); with -l: show ctime and sort by name;
otherwise: sort by ctime, newest first

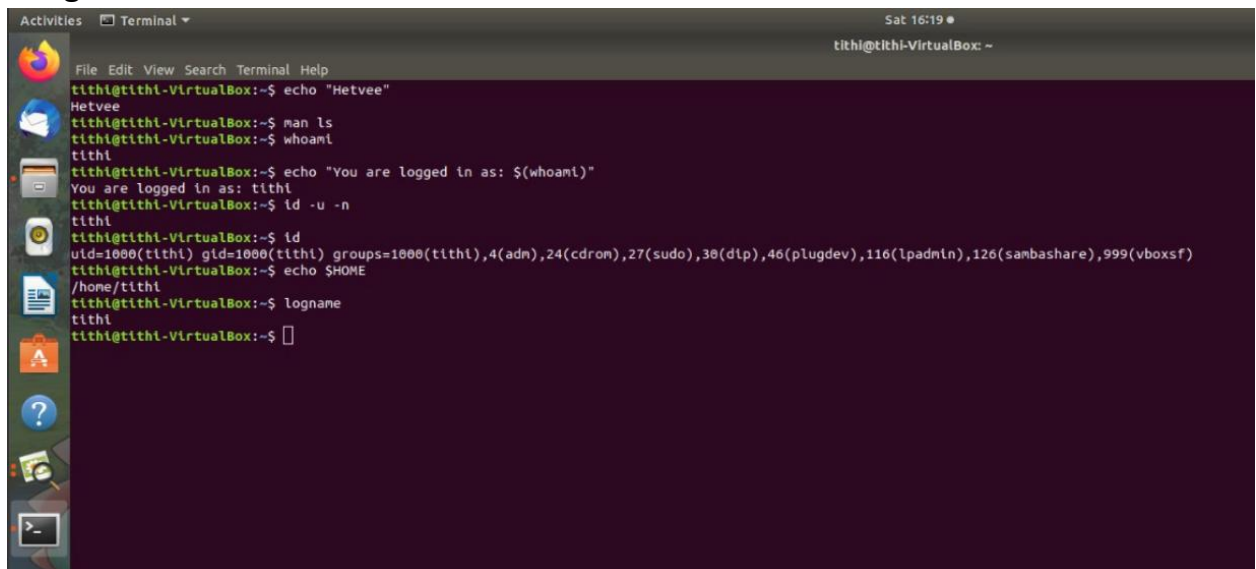
-C
list entries by columns

--color[=WHEN]
colorize the output; WHEN can be 'always' (default if omitted),
'auto', or 'never'; more info below

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

## 8.whoami

Usage : Prints the username of the current user.



The screenshot shows a terminal window with the user 'tithi@tithi-VirtualBox: ~'. The user has entered several commands: 'echo "Hetvee"', 'man ls', 'whoami', 'echo "You are logged in as: \$(whoami)"', 'id -u -n', 'id', 'echo \$HOME', and 'logname'. The output of 'whoami' is 'tithi'. The output of 'id' shows the user's identity and group memberships: 'uid=1000(tithi) gid=1000(tithi) groups=1000(tithi),4(adm),24(cdrom),27(sudo),30(dip),46(plugdev),116(lpadmin),126(sambashare),999(vboxsf)'. The output of 'echo \$HOME' is '/home/tithi'. The output of 'logname' is 'tithi'.

```
Activities Terminal Sat 16:19
tithi@tithi-VirtualBox: ~

tithi@tithi-VirtualBox:~$ echo "Hetvee"
Hetvee
tithi@tithi-VirtualBox:~$ man ls
tithi@tithi-VirtualBox:~$ whoami
tithi
tithi@tithi-VirtualBox:~$ echo "You are logged in as: $(whoami)"
You are logged in as: tithi
tithi@tithi-VirtualBox:~$ id -u -n
tithi
tithi@tithi-VirtualBox:~$ id
uid=1000(tithi) gid=1000(tithi) groups=1000(tithi),4(adm),24(cdrom),27(sudo),30(dip),46(plugdev),116(lpadmin),126(sambashare),999(vboxsf)
tithi@tithi-VirtualBox:~$ echo $HOME
/home/tithi
tithi@tithi-VirtualBox:~$ logname
tithi
tithi@tithi-VirtualBox:~$
```

## 2.Utility commands

- **wc** – Counts lines, words, and characters in a file.
- **echo** – Prints text or variables to the terminal.



- **tail** – Displays the last part (usually last 10 lines) of a file.
- **less** – Opens a file for paged viewing with forward/backward navigation.
- **more** – Displays a file page by page (forward navigation only).
- **sort** – Sorts lines of text files alphabetically or numerically.
- **grep** – Searches for matching patterns in files.
- **cmp** – Compares two files byte by byte.
- **comm** – Compares two sorted files line by line and shows common/different lines.
- **bc** – Opens an arbitrary-precision command-line calculator.

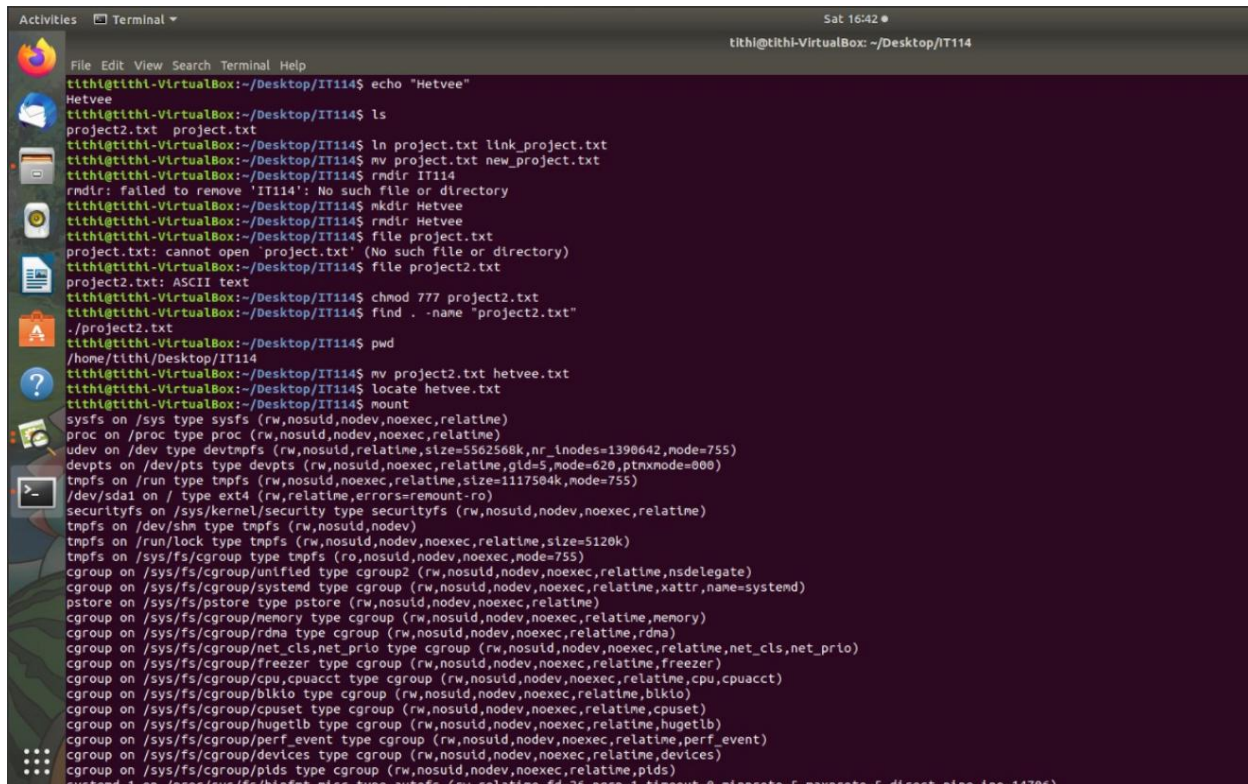
The screenshot shows a terminal window titled "Terminal" with a menu bar (File, Edit, View, Search, Terminal, Help). The user is logged in as "tithi" on a system named "tithi-VirtualBox". The terminal output shows the following sequence of commands and their results:

```
tithi@tithi-VirtualBox:~/Desktop/IT114$ echo "Hetvee"
Hetvee
tithi@tithi-VirtualBox:~/Desktop/IT114$ echo "This is sample data file" > project.txt
tithi@tithi-VirtualBox:~/Desktop/IT114$ wc project.txt
 1  5 25 project.txt
tithi@tithi-VirtualBox:~/Desktop/IT114$ echo "Hello World"
Hello World
tithi@tithi-VirtualBox:~/Desktop/IT114$ tail project.txt
This is sample data file
tithi@tithi-VirtualBox:~/Desktop/IT114$ less project.txt
tithi@tithi-VirtualBox:~/Desktop/IT114$ more project.txt
This is sample data file
tithi@tithi-VirtualBox:~/Desktop/IT114$ sort project.txt
This is sample data file
tithi@tithi-VirtualBox:~/Desktop/IT114$ grep "sample" project.txt
This is sample data file
tithi@tithi-VirtualBox:~/Desktop/IT114$ echo "another file" > project2.txt
tithi@tithi-VirtualBox:~/Desktop/IT114$ cmp project.txt project2.txt
project.txt project2.txt differ: byte 1, line 1
tithi@tithi-VirtualBox:~/Desktop/IT114$ bc
bc 1.07.1
Copyright 1991-1994, 1997, 1998, 2000, 2004, 2006, 2008, 2012-2017 Free Software Foundation, Inc.
This is free software with ABSOLUTELY NO WARRANTY.
For details type 'warranty'.
5 + 3
8
quit
tithi@tithi-VirtualBox:~/Desktop/IT114$
```

### 3.File System

- **ls** – Lists files and directories in the current location.
- **ln** – Creates hard or symbolic links to files.
- **rn (rename)** – Renames a file or directory (non-standard; available in some shells).
- **rmdir** – Removes an empty directory.
- **mkdir** – Creates a new directory.

- **file** – Identifies the type of a given file.
- **chmod** – Changes file or directory permissions.
- **find** – Searches for files and directories based on conditions.
- **pwd** – Prints the current working directory path.
- **mv** – Moves or renames files and directories.
- **locate** – Quickly finds files by name using a prebuilt database.
- **mount** – Attaches a filesystem to the system's directory tree.



```

tithi@tithi-VirtualBox: ~/Desktop/IT114
tithi@tithi-VirtualBox:~/Desktop/IT114$ echo "Hetvee"
Hetvee
tithi@tithi-VirtualBox:~/Desktop/IT114$ ls
project2.txt  project.txt
tithi@tithi-VirtualBox:~/Desktop/IT114$ ln project.txt link_project.txt
tithi@tithi-VirtualBox:~/Desktop/IT114$ mv project.txt new_project.txt
tithi@tithi-VirtualBox:~/Desktop/IT114$ rmdir IT114
rmdir: failed to remove 'IT114': No such file or directory
tithi@tithi-VirtualBox:~/Desktop/IT114$ mkdir Hetvee
tithi@tithi-VirtualBox:~/Desktop/IT114$ rmdir Hetvee
tithi@tithi-VirtualBox:~/Desktop/IT114$ file project.txt
project.txt: cannot open 'project.txt' (No such file or directory)
tithi@tithi-VirtualBox:~/Desktop/IT114$ file project2.txt
project2.txt: ASCII text
tithi@tithi-VirtualBox:~/Desktop/IT114$ chmod 777 project2.txt
tithi@tithi-VirtualBox:~/Desktop/IT114$ find . -name "project2.txt"
./project2.txt
tithi@tithi-VirtualBox:~/Desktop/IT114$ pwd
/home/tithi/Desktop/IT114
tithi@tithi-VirtualBox:~/Desktop/IT114$ mv project2.txt hetvee.txt
tithi@tithi-VirtualBox:~/Desktop/IT114$ locate hetvee.txt
tithi@tithi-VirtualBox:~/Desktop/IT114$ mount
sysfs on /sys type sysfs (rw,nosuid,nodev,noexec,relatime)
proc on /proc type proc (rw,nosuid,nodev,noexec,relatime)
udev on /dev type devtmpfs (rw,nosuid,relatime,size=5562568k,nr_inodes=1390642,mode=755)
devpts on /dev/pts type devpts (rw,nosuid,noexec,relatime,gid=5,mode=620,ptmxmode=000)
tmpfs on /run type tmpfs (rw,nosuid,noexec,relatime,size=1117504k,mode=755)
/dev/sda1 on / type ext4 (rw,relatime,errors=remount-ro)
securityfs on /sys/kernel/security type securityfs (rw,nosuid,nodev,noexec,relatime)
tmpfs on /dev/shm type tmpfs (rw,nosuid,nodev)
tmpfs on /run/lock type tmpfs (rw,nosuid,nodev,noexec,relatime,size=5120k)
tmpfs on /sys/fs/cgroup type tmpfs (ro,nosuid,nodev,noexec,mode=755)
cgroup on /sys/fs/cgroup/unified type cgroup2 (rw,nosuid,nodev,noexec,relatime,nsdelegate)
cgroup on /sys/fs/cgroup/systemd type cgroup (rw,nosuid,nodev,noexec,relatime,xattr,name=systemd)
pstore on /sys/fs/pstore type pstore (rw,nosuid,nodev,noexec,relatime)
cgroup on /sys/fs/cgroup/memory type cgroup (rw,nosuid,nodev,noexec,relatime,memory)
cgroup on /sys/fs/cgroup/rtnetlink type cgroup (rw,nosuid,nodev,noexec,relatime,rtnetlink)
cgroup on /sys/fs/cgroup/net_cls,net_prio type cgroup (rw,nosuid,nodev,noexec,relatime,net_cls,net_prio)
cgroup on /sys/fs/cgroup/freezer type cgroup (rw,nosuid,nodev,noexec,relatime,freezer)
cgroup on /sys/fs/cgroup/cpu,cpuacct type cgroup (rw,nosuid,nodev,noexec,relatime,cpu,cpuacct)
cgroup on /sys/fs/cgroup/blkio type cgroup (rw,nosuid,nodev,noexec,relatime,blkio)
cgroup on /sys/fs/cgroup/cpuset type cgroup (rw,nosuid,nodev,noexec,relatime,cpuset)
cgroup on /sys/fs/cgroup/hugetlb type cgroup (rw,nosuid,nodev,noexec,relatime,hugetlb)
cgroup on /sys/fs/cgroup/perf_event type cgroup (rw,nosuid,nodev,noexec,relatime,perf_event)
cgroup on /sys/fs/cgroup/devices type cgroup (rw,nosuid,nodev,noexec,relatime,devices)
cgroup on /sys/fs/cgroup/pids type cgroup (rw,nosuid,nodev,noexec,relatime,pids)
cgroup on /sys/fs/cgroup/rttime type rttime (rw,relatime,fds=26,nr=1,timeout=0,minprots=5,maxprots=5,direct,nice=100,rt=1700)

```

```
Activities Terminal Sat 16:43
tithi@tithi-VirtualBox: ~/Desktop/IT114

cgroup on /sys/fs/cgroup/freezer type cgroup (rw,nosuid,nodev,noexec,relatime,freezer)
cgroup on /sys/fs/cgroup/cpu,cpusacct type cgroup (rw,nosuid,nodev,noexec,relatime,cpu,cpusacct)
cgroup on /sys/fs/cgroup/bklkio type cgroup (rw,nosuid,nodev,noexec,relatime,bklkio)
cgroup on /sys/fs/cgroup/cpuset type cgroup (rw,nosuid,nodev,noexec,relatime,cpuset)
cgroup on /sys/fs/cgroup/hugetlb type cgroup (rw,nosuid,nodev,noexec,relatime,hugetlb)
cgroup on /sys/fs/cgroup/perf_event type cgroup (rw,nosuid,nodev,noexec,relatime,perf_event)
cgroup on /sys/fs/cgroup/devices type cgroup (rw,nosuid,nodev,noexec,relatime,devices)
cgroup on /sys/fs/cgroup/pids type cgroup (rw,nosuid,nodev,noexec,relatime,pids)
systemd-1 on /proc/sys/fs/binfmt_misc type autofs (rw,relatime,fd=26,pgrp=1,timeout=0,mntproto=5,naxproto=5,direct,pipe_ino=14706)
hugetlbfs on /dev/hugepages type hugetlbfs (rw,relatime,pagesize=2M)
queue on /dev/queue type queue (rw,relatime)
debugfs on /sys/kernel/debug type debugfs (rw,relatime)
configfs on /sys/kernel/config type configfs (rw,relatime)
fusectl on /sys/fs/fuse/connections type fusectl (rw,relatime)
/var/lib/snapd/snaps/gtk-common-themes.1535.snap on /snap/gtk-common-themes/1535 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/gnome-42-2204.141.snap on /snap/gnome-42-2204/141 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/snapd.25577.snap on /snap/snapd/25577 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/gnome-calculator.955.snap on /snap/gnome-calculator/955 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/gnome-3-34-1804.93.snap on /snap/gnome-3-34-1804/93 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/core22.2163.snap on /snap/core22/2163 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/gnome-3-34-1804.72.snap on /snap/gnome-3-34-1804/72 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/gnome-system-monitor.193.snap on /snap/gnome-system-monitor/193 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/gnome-characters.795.snap on /snap/gnome-characters/795 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/bare.5.snap on /snap/bare/5 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/gnome-calculator.972.snap on /snap/gnome-calculator/972 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/gnome-characters.805.snap on /snap/gnome-characters/805 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/gnome-system-monitor.186.snap on /snap/gnome-system-monitor/186 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/core18.2812.snap on /snap/core18/2812 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/gnome-3-38-2004.70.snap on /snap/gnome-3-38-2004/70 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/core20.1081.snap on /snap/core20/1081 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/gnome-logs.121.snap on /snap/gnome-logs/121 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/gtk-common-themes.1515.snap on /snap/gtk-common-themes/1515 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/snapd.20290.snap on /snap/snapd/20290 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/core22.2015.snap on /snap/core22/2015 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/gnome-logs.129.snap on /snap/gnome-logs/129 type squashfs (ro,nodev,relatime,x-gdu.hide)
binfmt_misc on /proc/sys/fs/binfmt_misc type binfmt_misc (rw,relatime)
/var/lib/snapd/snaps/core24.1225.snap on /snap/core24/1225 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/core18.2128.snap on /snap/core18/2128 type squashfs (ro,nodev,relatime,x-gdu.hide)
/var/lib/snapd/snaps/core22.1033.snap on /snap/core22/1033 type squashfs (ro,nodev,relatime,x-gdu.hide)
/gallery on /media/ist/gallery type vboxsf (rw,nodev,relatime,iocharset=utf8,uid=0,gid=999,dmode=0770,fmode=0770,tag=VBoxAutomounter)
tmpfs on /run/user/121 type tmpfs (rw,nosuid,nodev,relatime,size=1117500k,node=700,uid=121,gid=125)
tmpfs on /run/user/1000 type tmpfs (rw,nosuid,nodev,relatime,size=1117500k,node=700,uid=1000,gid=1000)
gvfsd-fuse on /run/user/1000/gvfs type fuse.gvfsd-fuse (rw,nosuid,nodev,relatime,user_id=1000,group_id=1000)
/dev/sr0 on /media/tithi/VBox_GaC_7.2.4 type iso9660 (ro,nosuid,nodev,relatime,nojoliet,check=s,nap=n,blocksiz=2048,uid=1000,gid=1000,dmode=500,fmode=400,iocharset=utf8,uhelper=udisks2)
tithi@tithi-VirtualBox:~/Desktop/IT114
```

## 4. Process Management

**ps** – Displays currently running processes for the current user or system.

**kill** – Sends a signal (usually terminate) to a running process using its PID.

```
Activities Terminal Sat 22:49
tithi@tithi-VirtualBox: ~

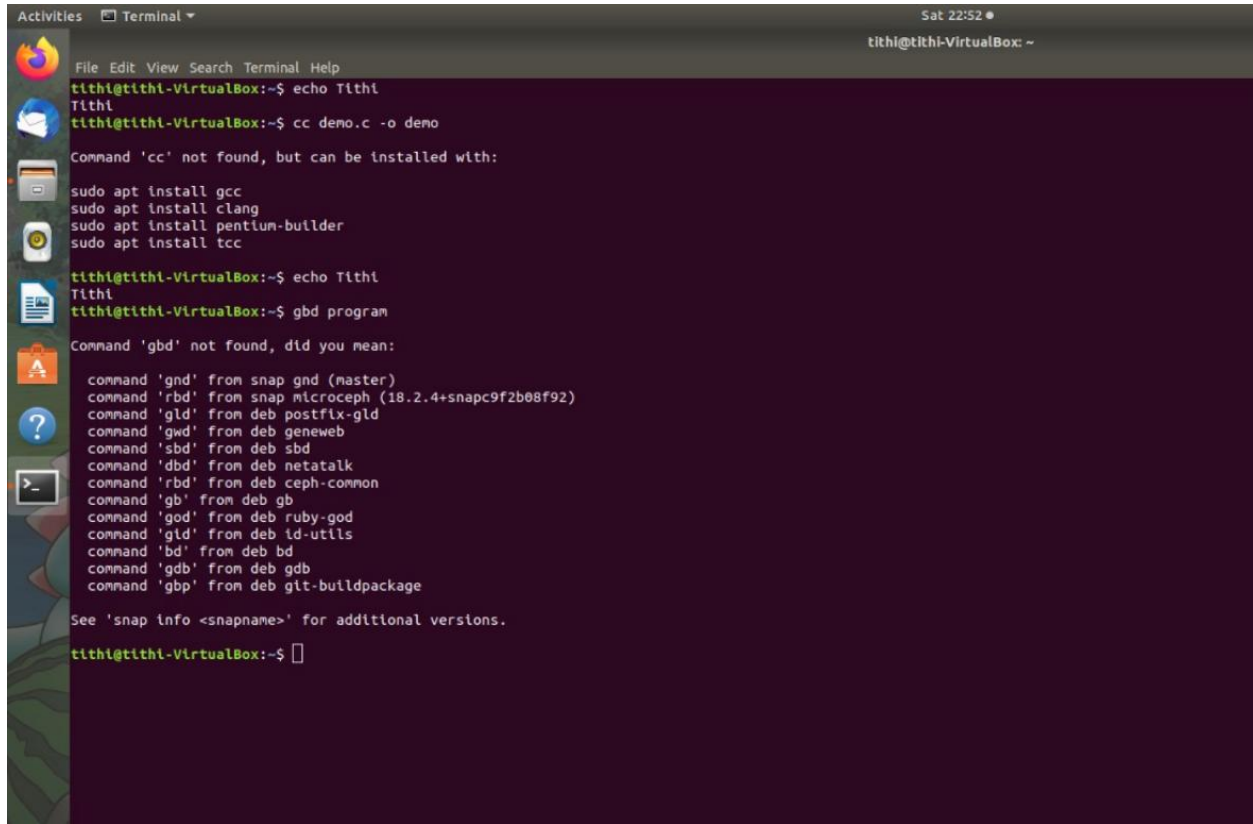
tithi@tithi-VirtualBox:~$ echo Tithi
Tithi
tithi@tithi-VirtualBox:~$ ps
  PID TTY          TIME CMD
 5340 pts/0    00:00:00 bash
 5833 pts/0    00:00:00 ps
tithi@tithi-VirtualBox:~$ echo Hetvee
Hetvee
tithi@tithi-VirtualBox:~$ ps
  PID TTY          TIME CMD
 5340 pts/0    00:00:00 bash
 5834 pts/0    00:00:00 ps
tithi@tithi-VirtualBox:~$ echo Tithi
Tithi
tithi@tithi-VirtualBox:~$ kill 1234
bash: kill: (1234) - No such process
tithi@tithi-VirtualBox:~$ echo Tithi
Tithi
tithi@tithi-VirtualBox:~$ kill PID
bash: kill: PID: arguments must be process or job IDs
tithi@tithi-VirtualBox:~$ echo Hetvee
Hetvee
tithi@tithi-VirtualBox:~$ kill 1234
bash: kill: (1234) - No such process
tithi@tithi-VirtualBox:~$ echo Tithi
Tithi
tithi@tithi-VirtualBox:~$
```



## 5.Compile and Debug

**cc** – Compiles C source files into an executable (default system C compiler).

**gdb** – Debugger used to run, inspect, and control program execution step-by-step.



```
tithi@tithi-VirtualBox:~$ echo Tithi
Tithi
tithi@tithi-VirtualBox:~$ cc demo.c -o demo
Command 'cc' not found, but can be installed with:
sudo apt install gcc
sudo apt install clang
sudo apt install pentium-builder
sudo apt install tcc
tithi@tithi-VirtualBox:~$ echo Tithi
Tithi
tithi@tithi-VirtualBox:~$ gdb program
Command 'gdb' not found, did you mean:
command 'gnd' from snap gnd (master)
command 'rbd' from snap microceph (18.2.4+snappc9f2b08f92)
command 'gld' from deb postflx-gld
command 'gwd' from deb geneweb
command 'sbd' from deb sbd
command 'dbd' from deb netatalk
command 'rbd' from deb ceph-common
command 'gb' from deb gb
command 'god' from deb ruby-god
command 'gld' from deb id-utils
command 'bd' from deb bd
command 'gdb' from deb gdb
command 'gbp' from deb git-buildpackage
See 'snap info <snapname>' for additional versions.
tithi@tithi-VirtualBox:~$
```

## 6.Editors

**gedit** – Opens a simple graphical text editor for creating or editing files.

**vi** – Opens a terminal-based text editor for viewing and editing files.



```
tithi@tithi-VirtualBox:~$ echo "Hetvee"
Hetvee
tithi@tithi-VirtualBox:~$ gedit project.txt
tithi@tithi-VirtualBox:~$ vi project.txt
tithi@tithi-VirtualBox:~$
```

```
This is sample data file  
project.txt (END)
```