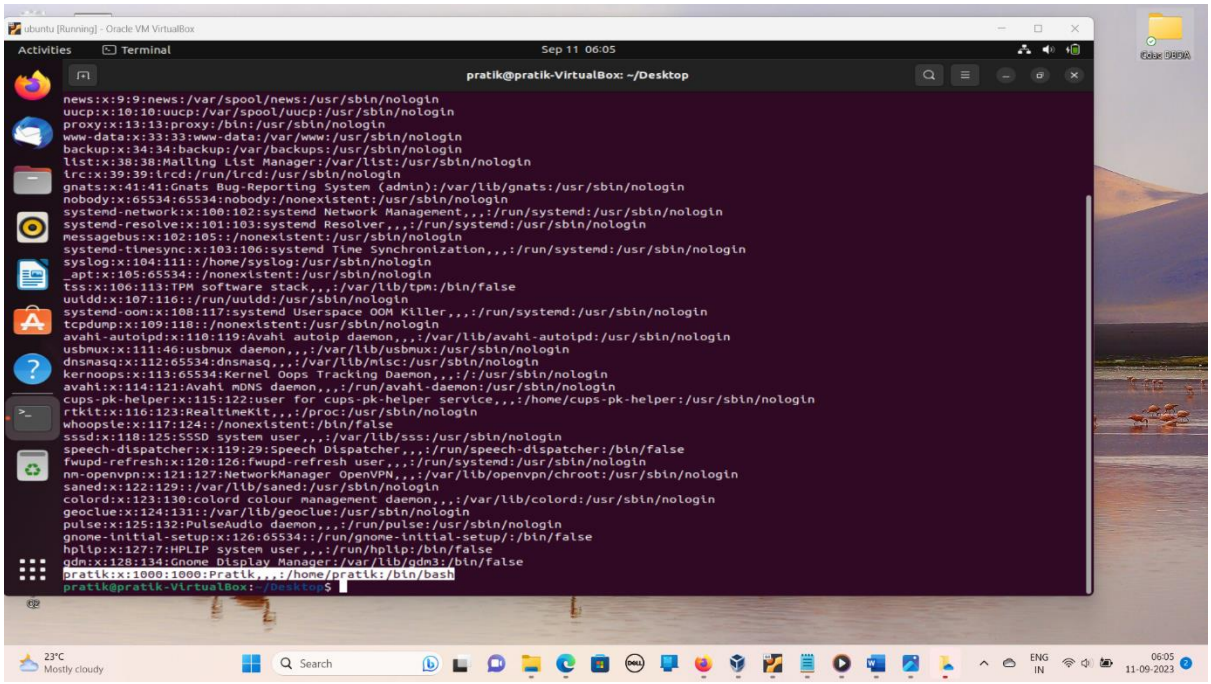
Q1)

Ans=

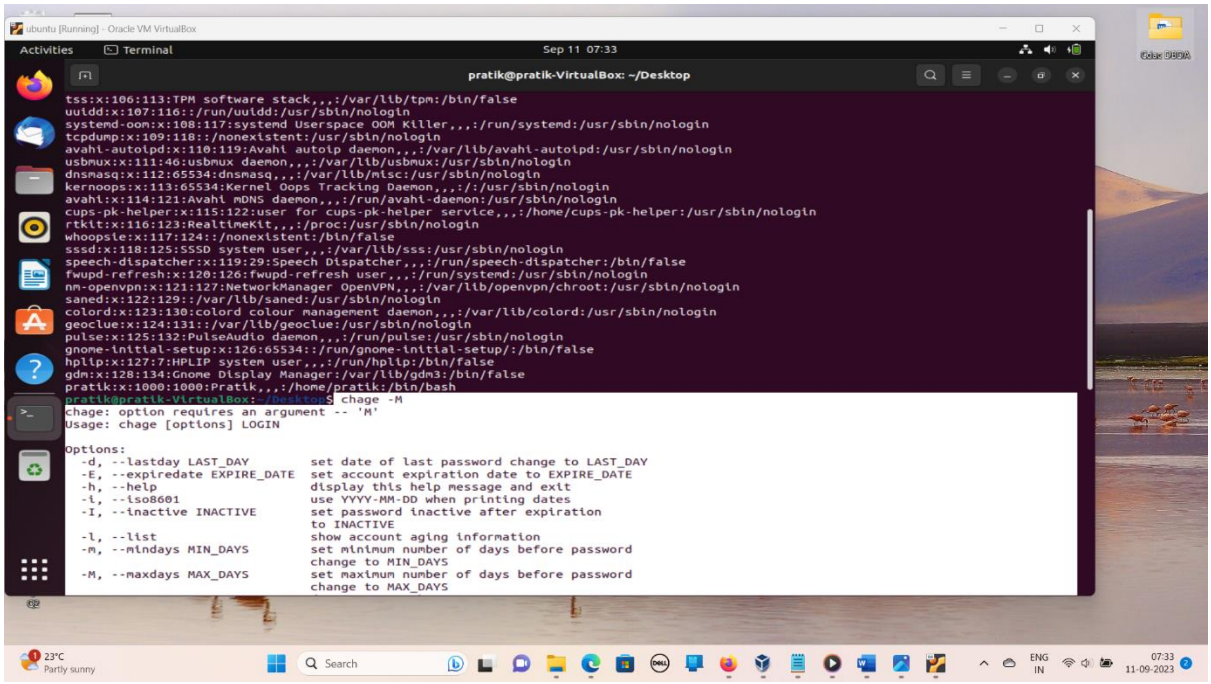


The `/etc/passwd` file is a file system in Linux operating systems. It stores essential user account information for each user on the system. Each line in the file represents several data which is following:

1) Username :- ‘pratik’ The name of the user.
2) Encrypted password :- which is denoted by ‘x’.
3) User ID (UID) :- 1000 a numerical identifier for the user.
4) GID :- 1000 a numerical identifier for the group.
5) User Info :- ‘Pratik,,,’ has additional user information.
6) Home Directory :- /home/pratik
7) Shell :- /bin/bash is the default shell for the user.

Q2)

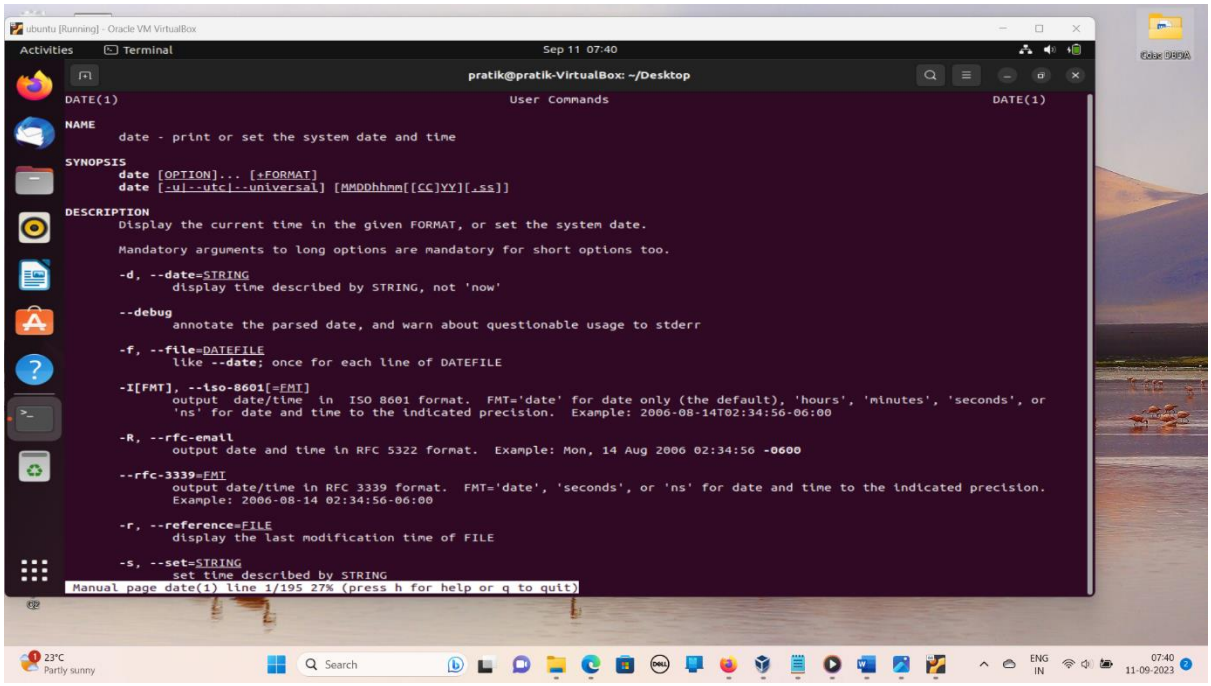
Ans=


ubuntu [Running] - Oracle VM VirtualBox
Activities
Terminal
Sep 11 07:33
pratik@pratik-VirtualBox: ~/Desktop
tss:x:106:113:TPM software stack,,,:/var/lib/tpm:/bin/false
uuidd:x:107:116::/run/uuidd:/usr/sbin/nologin
systemd-oom:x:108:117:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin
tcpdump:x:109:118::/nonexistent:/usr/sbin/nologin
avahi-autoipd:x:110:119:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
usbmux:x:111:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
kernoops:x:113:65534:Kernel Oops Tracking Daemon,,,:/:/usr/sbin/nologin
avahi:x:114:121:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin
cups-pk-helper:x:115:122:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin
rtkit:x:116:123:RealtimeKit,,,:/proc:/usr/sbin/nologin
whoopsie:x:117:124::/nonexistent:/bin/false
sssd:x:118:125:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin
speech-dispatcher:x:119:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
fwupd-refresh:x:120:126:fwupd-refresh user,,,:/run/systemd:/usr/sbin/nologin
nm-openvpn:x:121:127:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
saned:x:122:129::/var/lib/saned:/usr/sbin/nologin
colord:x:123:130:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:124:131::/var/lib/geoclue:/usr/sbin/nologin
pulse:x:125:132:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin
gnome-initial-setup:x:126:65534::/run/gnome-initial-setup/:/bin/false
hplip:x:127:7:HPLIP system user,,,:/run/hplip:/bin/false
gdm:x:128:134:Gnome Display Manager:/var/lib/gdm3:/bin/false
pratik:x:1000:1000:Pratik,,,:/home/pratik:/bin/bash
pratik@pratik-VirtualBox: ~/Desktop$ chage -M
chage: option requires an argument -- 'M'
Usage: chage [options] LOGIN
Options:
-d, --lastday LAST_DAY set date of last password change to LAST_DAY
-E, --expiredate EXPIRE_DATE set account expiration date to EXPIRE_DATE
-h, --help display this help message and exit
-i, --iso8601 use YYYY-MM-DD when printing dates
-I, --inactive INACTIVE set password inactive after expiration to INACTIVE
-l, --list show account aging information
-m, --mindays MIN_DAYS set minimum number of days before password change to MIN_DAYS
-M, --maxdays MAX_DAYS set maximum number of days before password change to MAX_DAYS
23°C
Partly sunny
Search
ENG
IN
07:33
11-09-2023

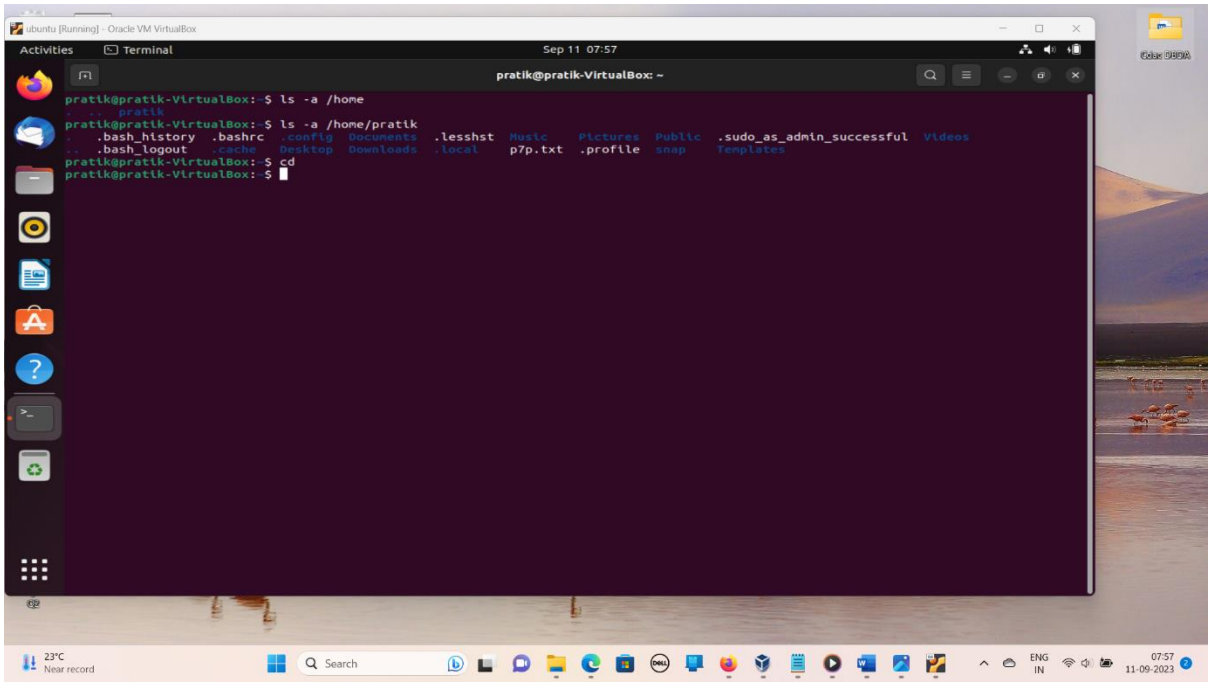
Q3)

Ans=

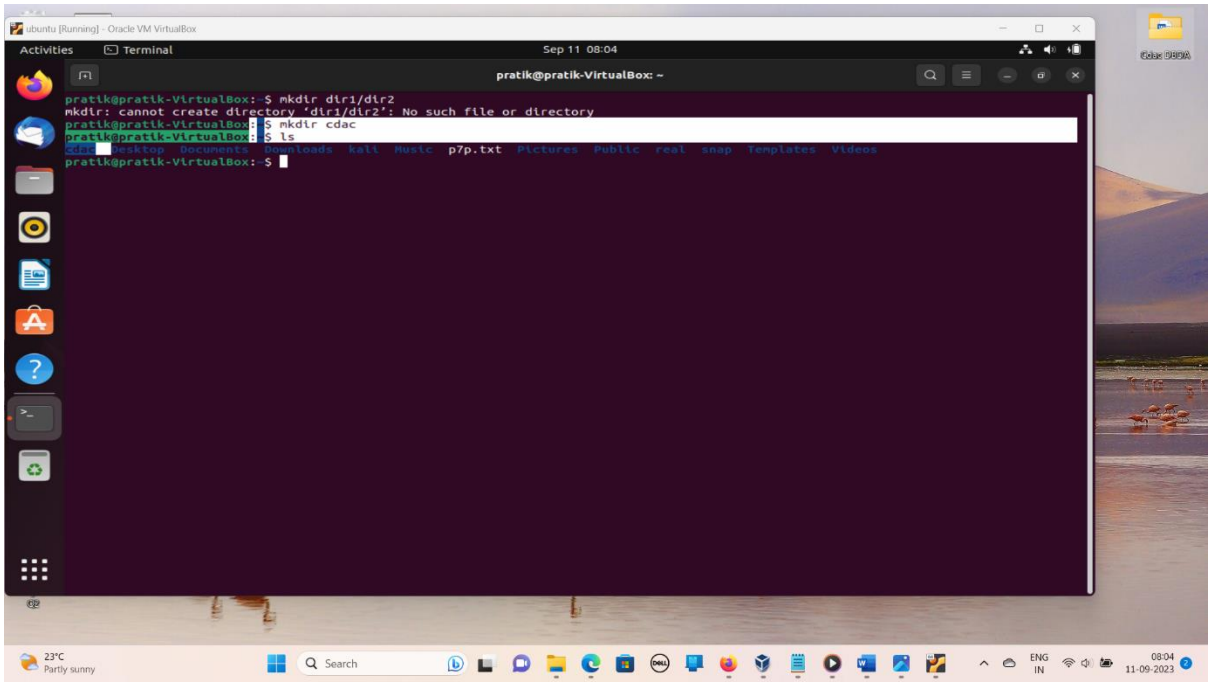
a) $man :- Displays the manual page for a specified command eg-$man date, which give detail manual of date command



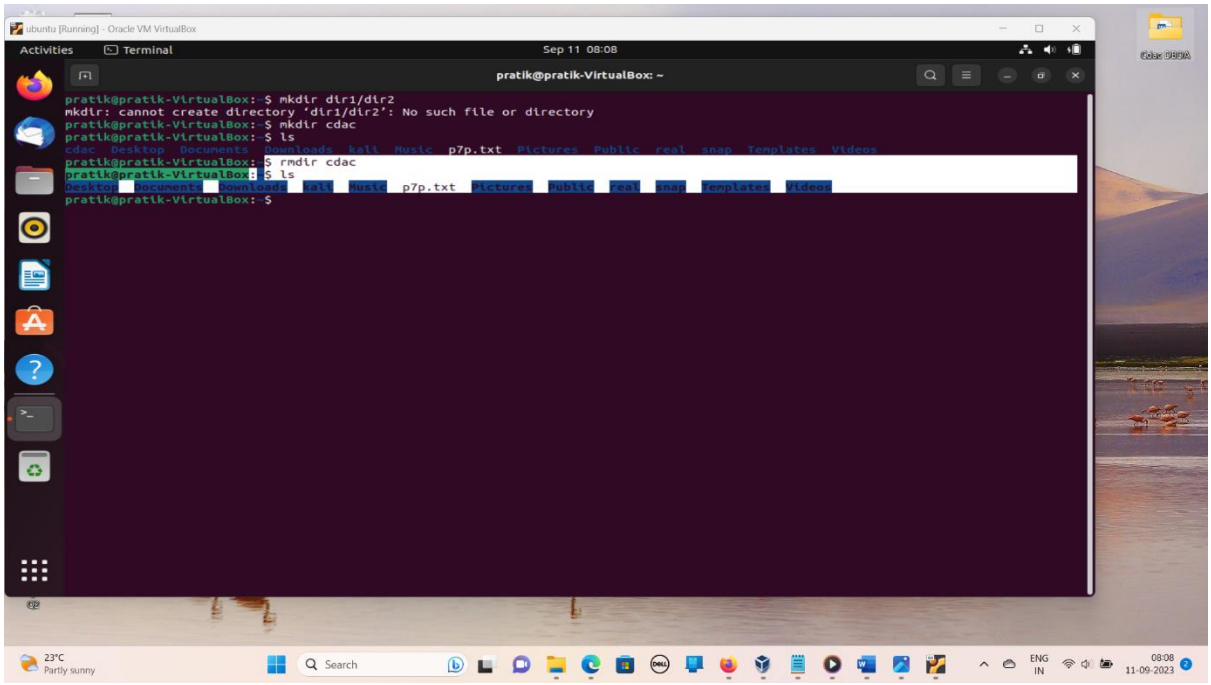
b) $cd :- Changes directory command cd which changes the current working directory.



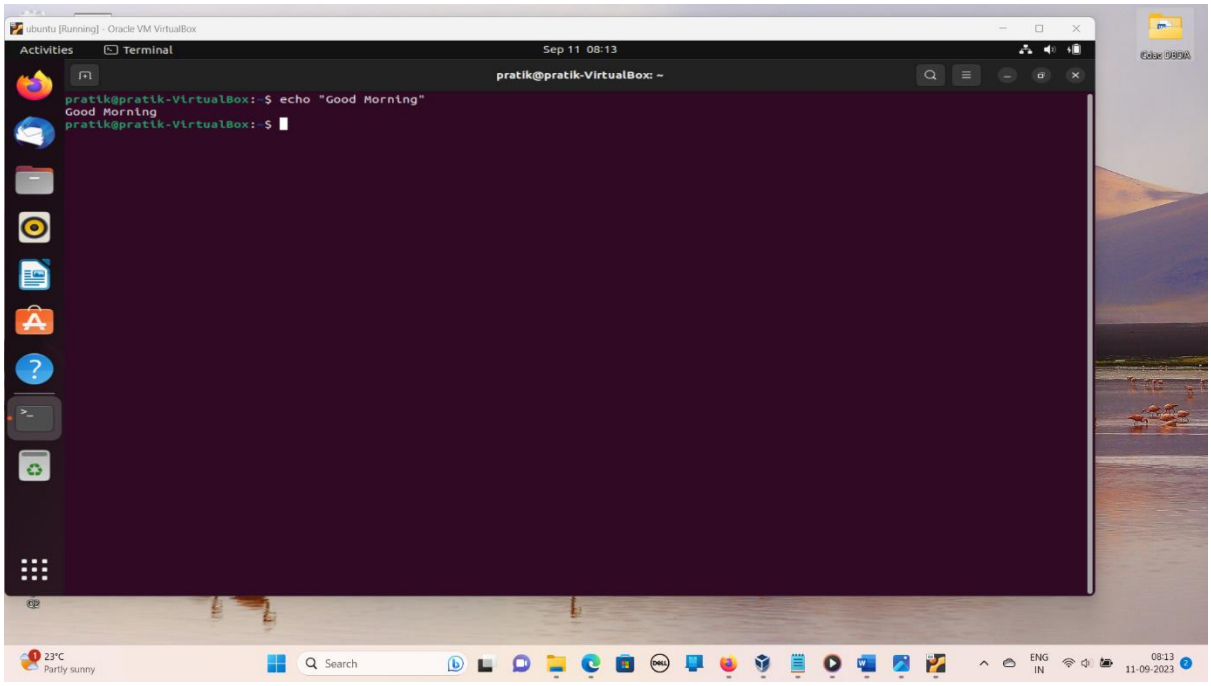
c) $ mkdi :- Creates a new directory.



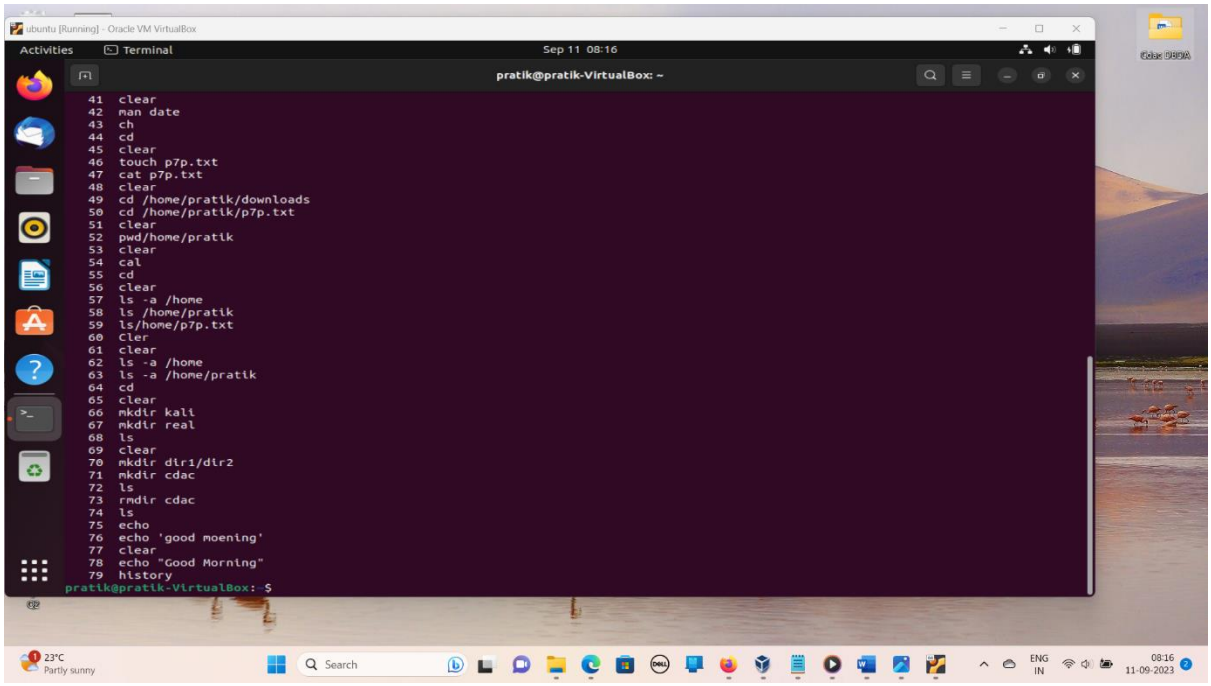
d) $ rmdir :-



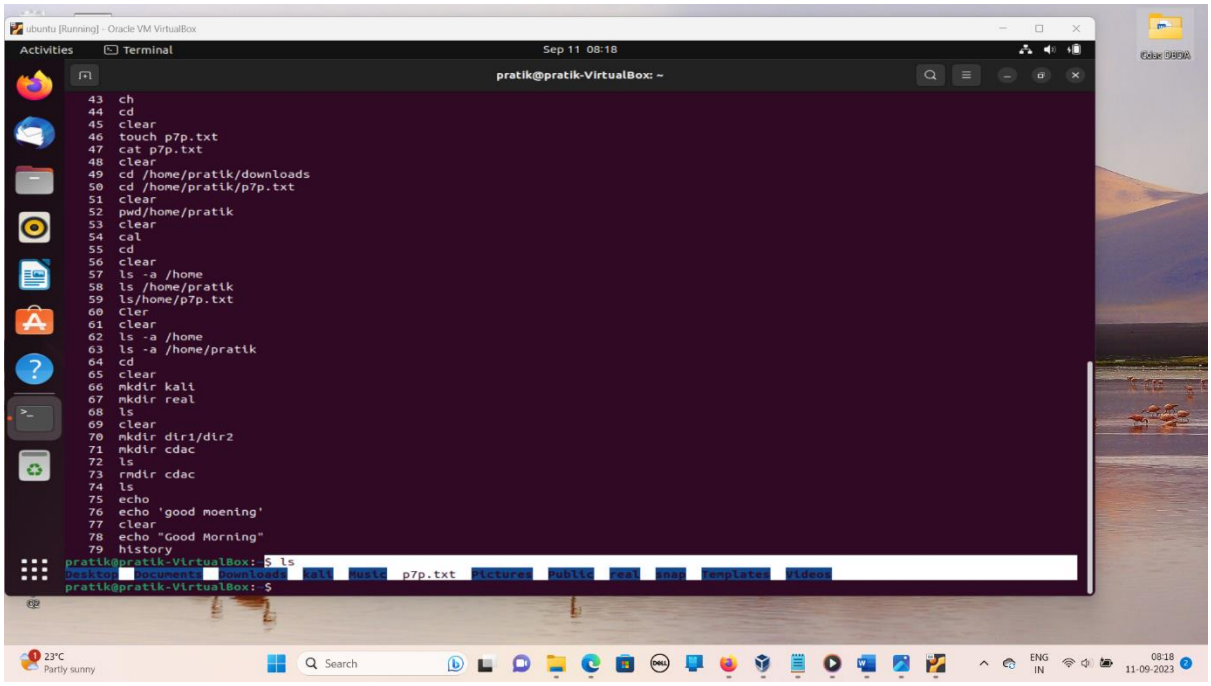
e) $ echo :- Prints a message



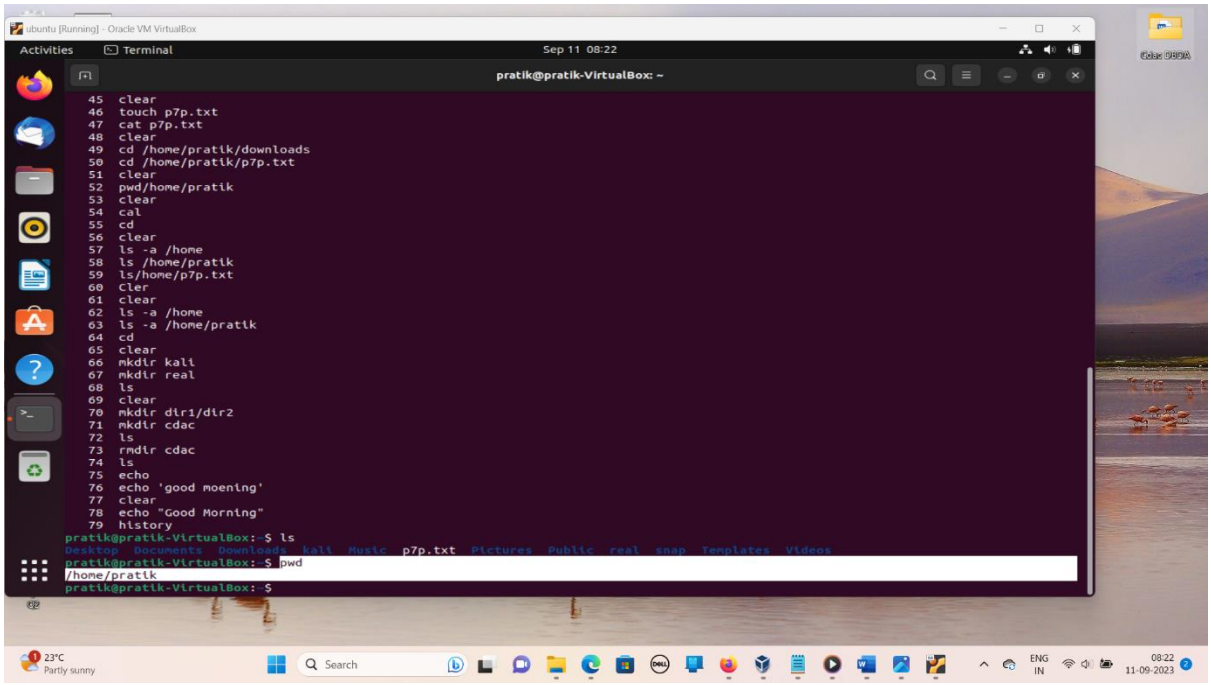
f) $ history :- Displays a list of previously executed commands.



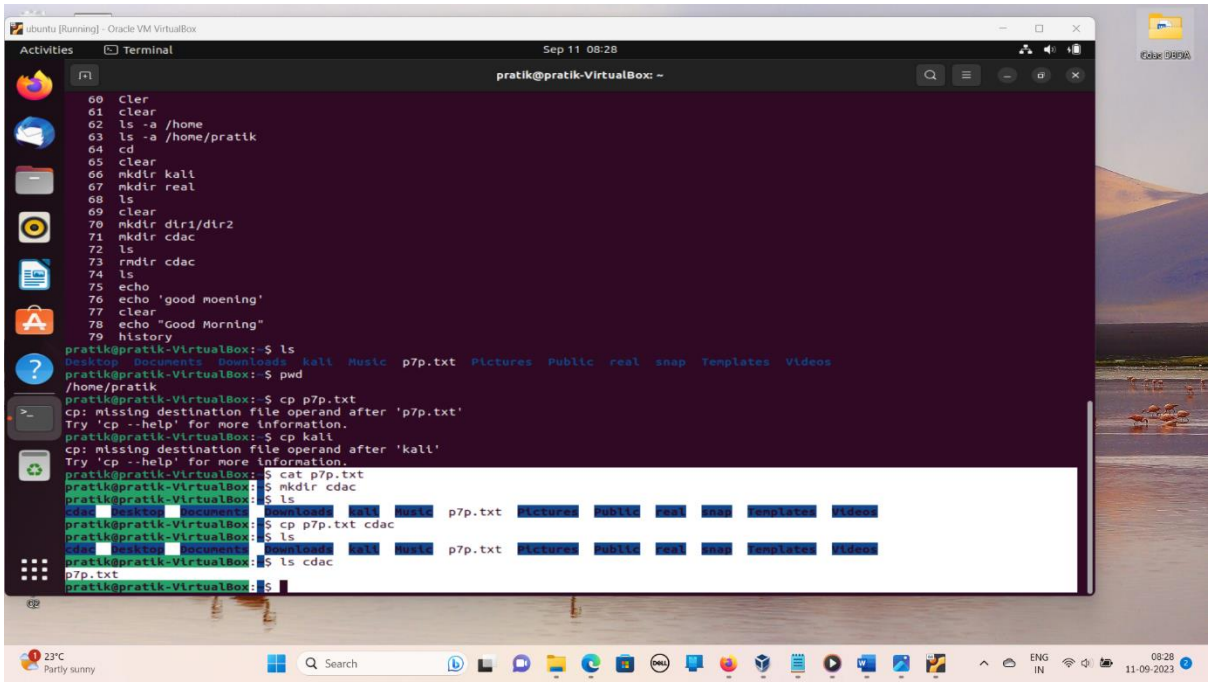
g) $ ls :- Lists files and directories in the system.



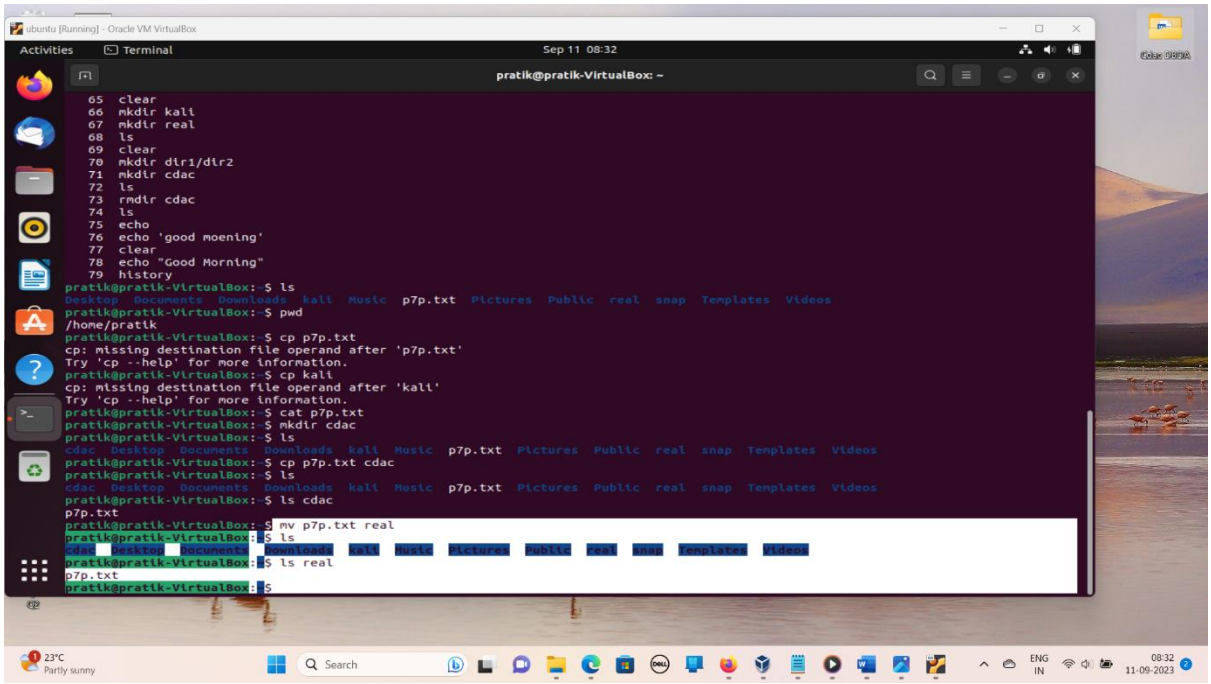
h) $ pwd :- Prints the current working directory.



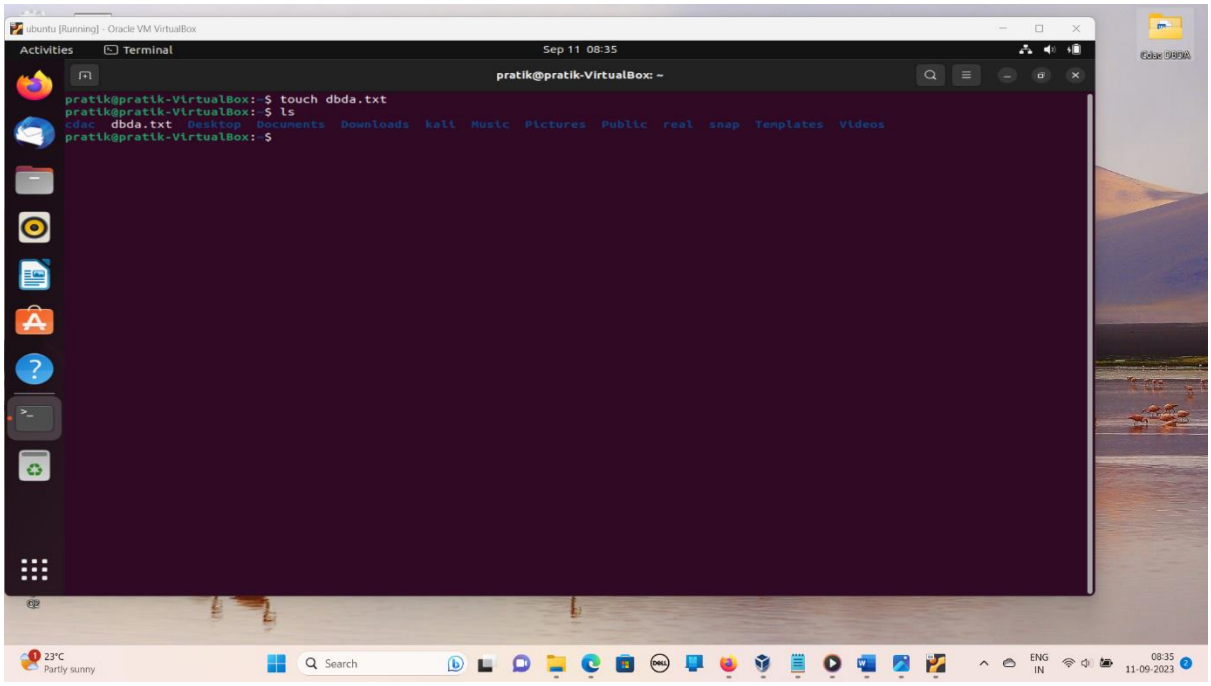
i) $ cp :- Copies files.



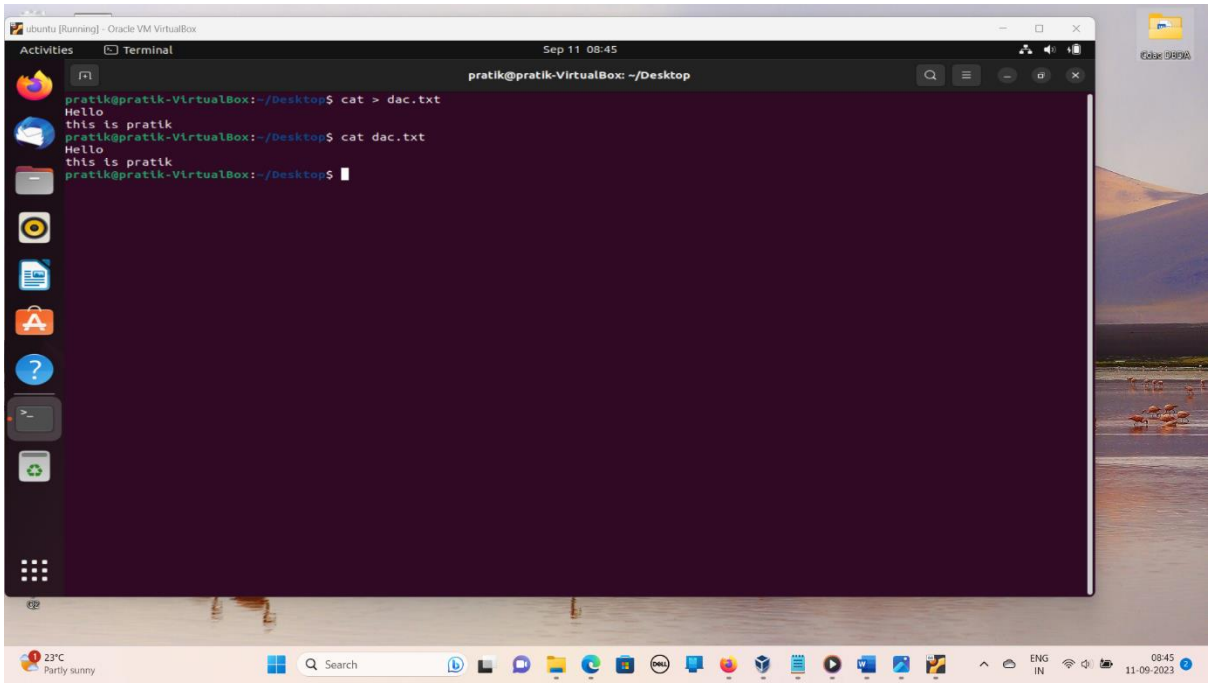
j) $ mv :- Moves files.



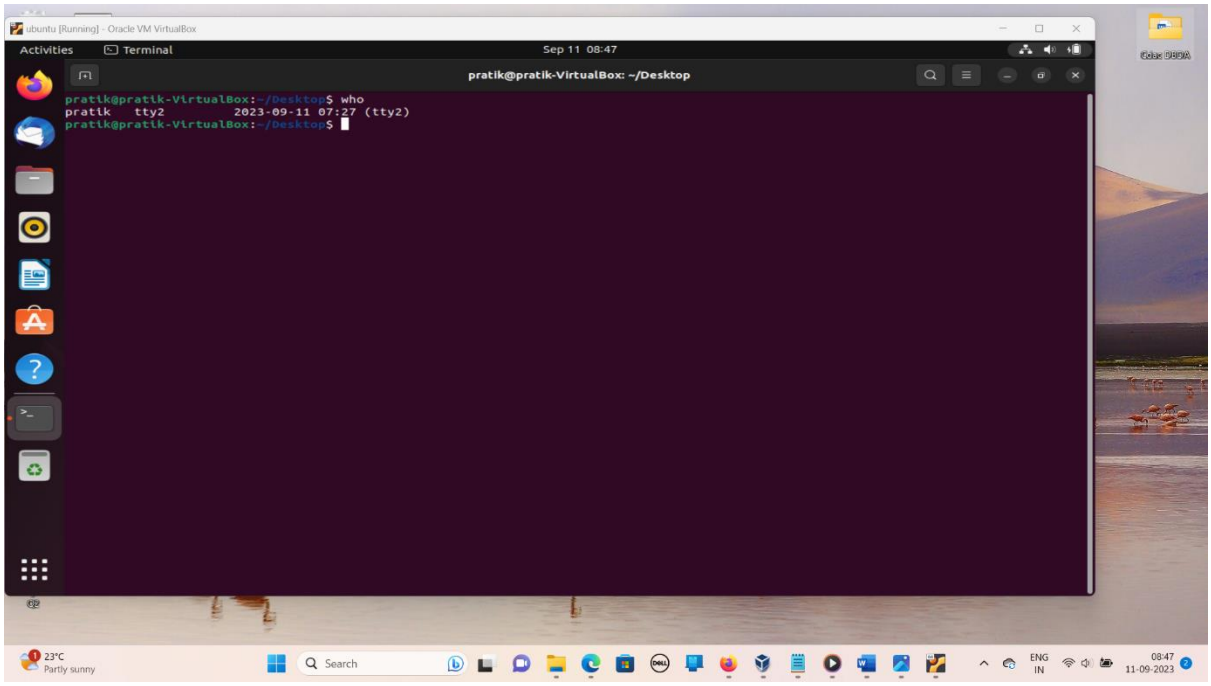
K) $ touch:_ Creates an empty file



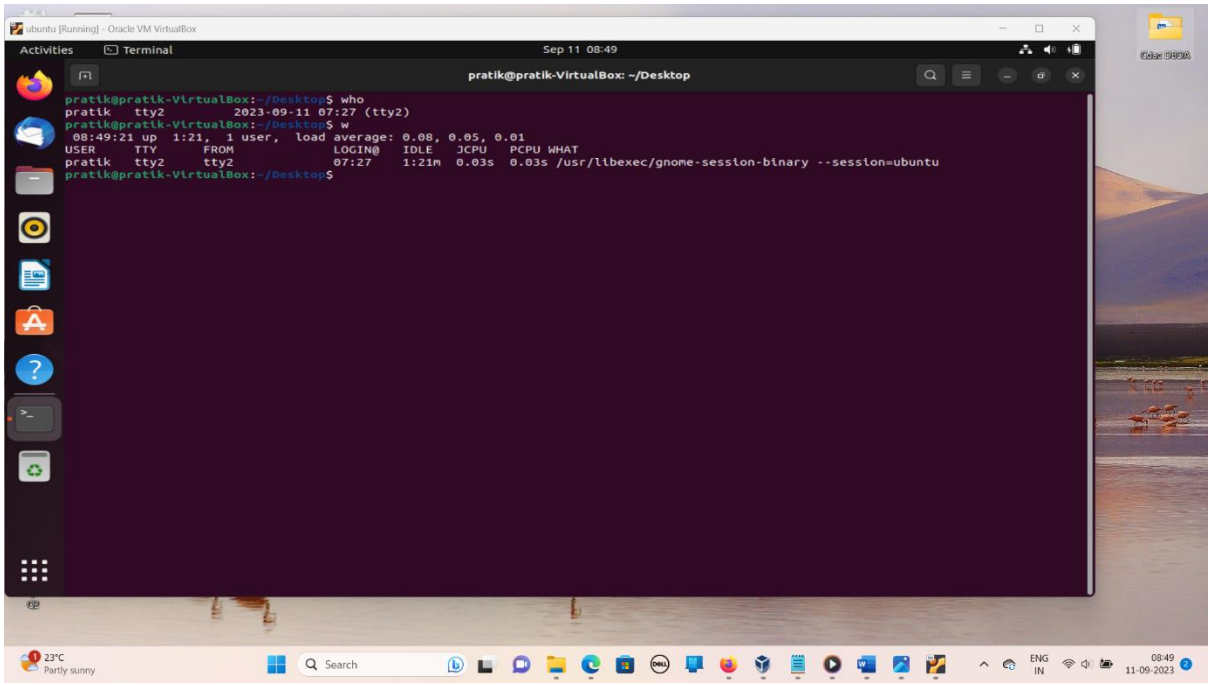
l) $ cat :- displays the content of files



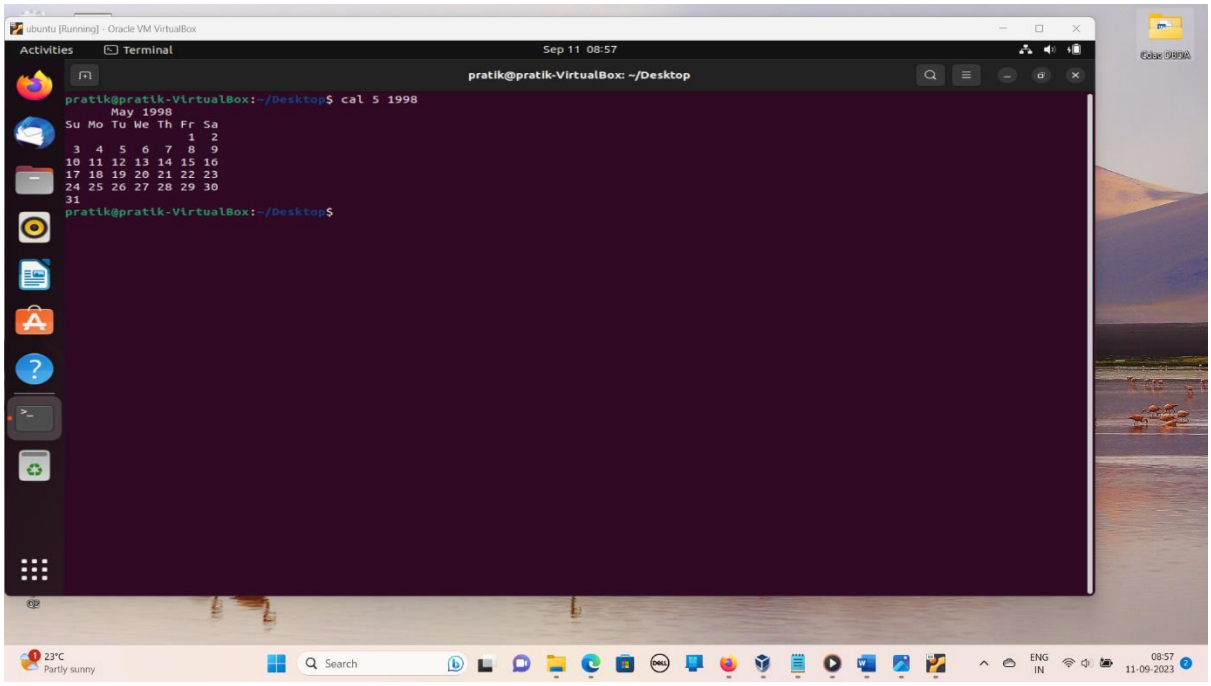
m) $ who :- Displays about currently logged in users.



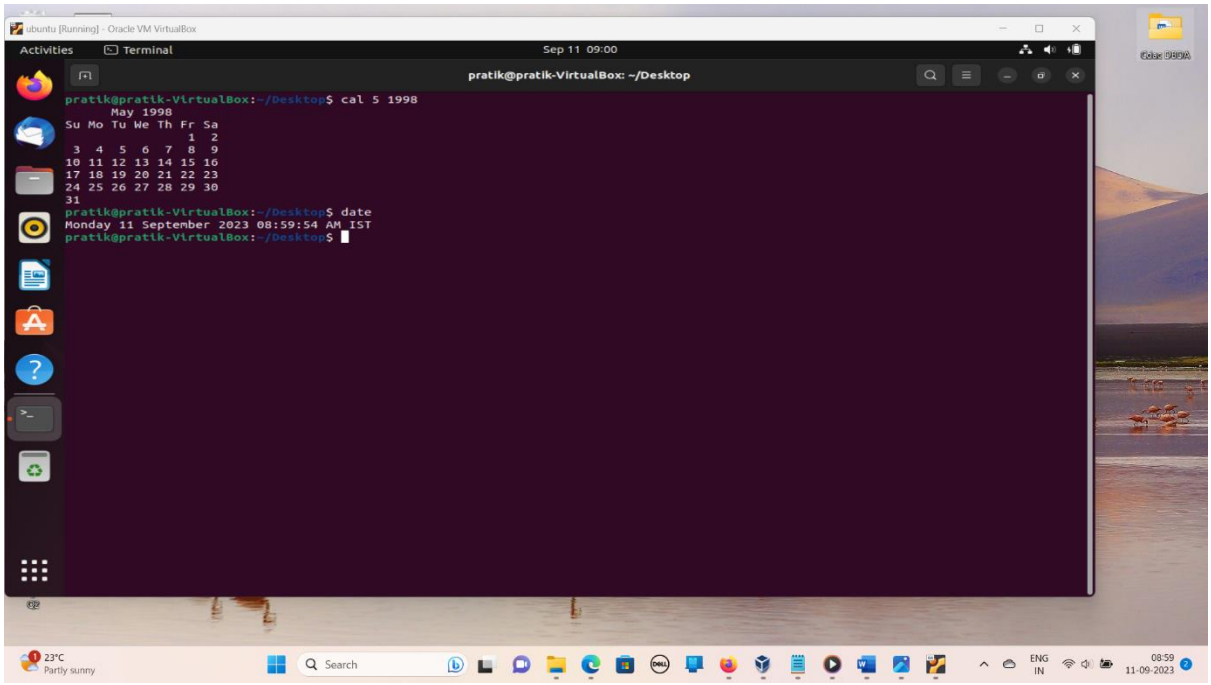
n) $ w :- Provides information users and their activities.



o) $ cal :- Displays a calendar for a specific month or year.

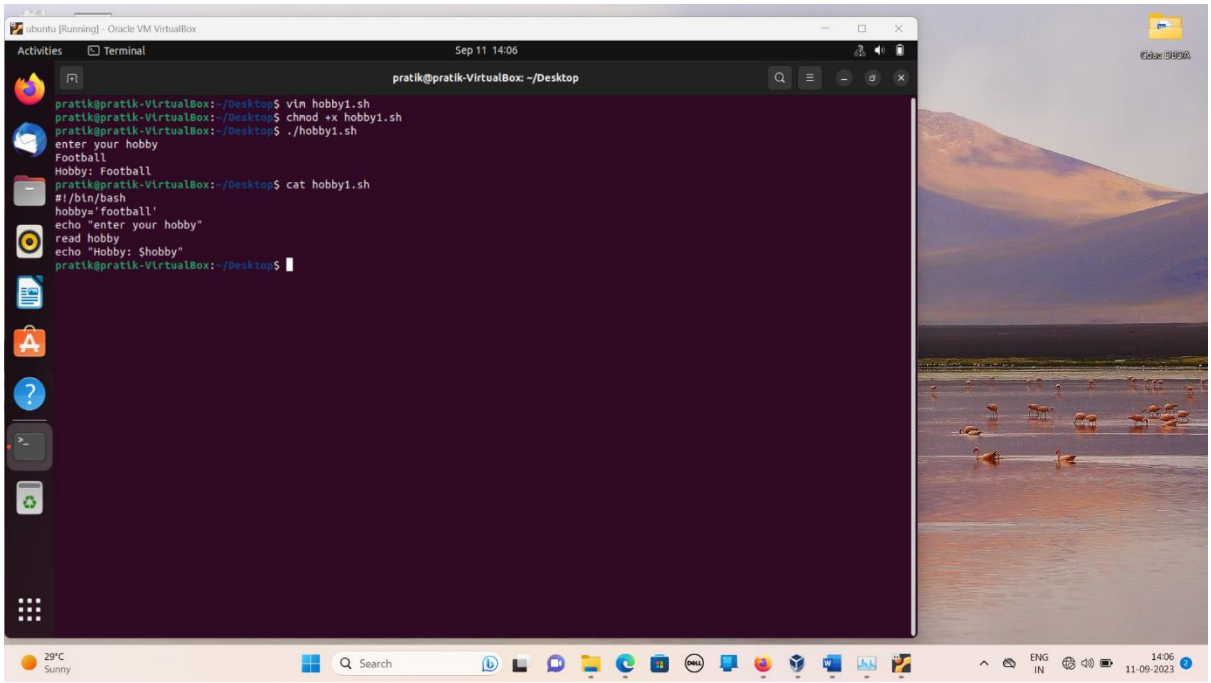


p) $ date :- It displays current date and time



Q4)

Ans=


ubuntu [Running] - Oracle VM VirtualBox
Activities
Terminal
Sep 11 14:06
pratik@pratik-VirtualBox: ~/Desktop
pratik@pratik-VirtualBox:~/Desktop$ vim hobby1.sh
pratik@pratik-VirtualBox:~/Desktop$ chmod +x hobby1.sh
pratik@pratik-VirtualBox:~/Desktop$ ./hobby1.sh
enter your hobby
Football
Hobby: Football
pratik@pratik-VirtualBox:~/Desktop$ cat hobby1.sh
#!/bin/bash
hobby='football'
echo "enter your hobby"
read hobby
echo "Hobby: $hobby"
pratik@pratik-VirtualBox:~/Desktop$
29°C
Sunny
Search
ENG
IN
14:06
11-09-2023

Q5)

Ans= **1) Root Directory (/):** The top level directory in the Linux file system hierarchy. Everything in the file system is located under this directory. The root directory is represented by a forward slash (/). For example, /home,

2) **Folders or directories:** Directories themselves are also files in the file system, but they serve as containers for organizing data.

3) Files: Files represent data, programs, and documents. They are stored within directories. File also contain paths which are,

a) Absolute path- specify the full path to a file

b) Relative path- Start from the current working directory and specify a path relative to that location

4) Permissions: file permission system to control who can access and manipulate files and directories. Permissions are assigned to users, groups, and others, and they determine whether a user can read, write, or execute a file.

5) Symbolic Links:- They provide a flexible way to reference and access files and directories without copying or moving them physically.

6) Mount Points:- When a device is mounted, its contents become accessible as if they were part of the file system hierarchy.

7) Special Files:- In Linux, everything is treated as a file, including hardware devices, system information, and communication channels.