

# **LINUX COMMANDS**

Submitted By

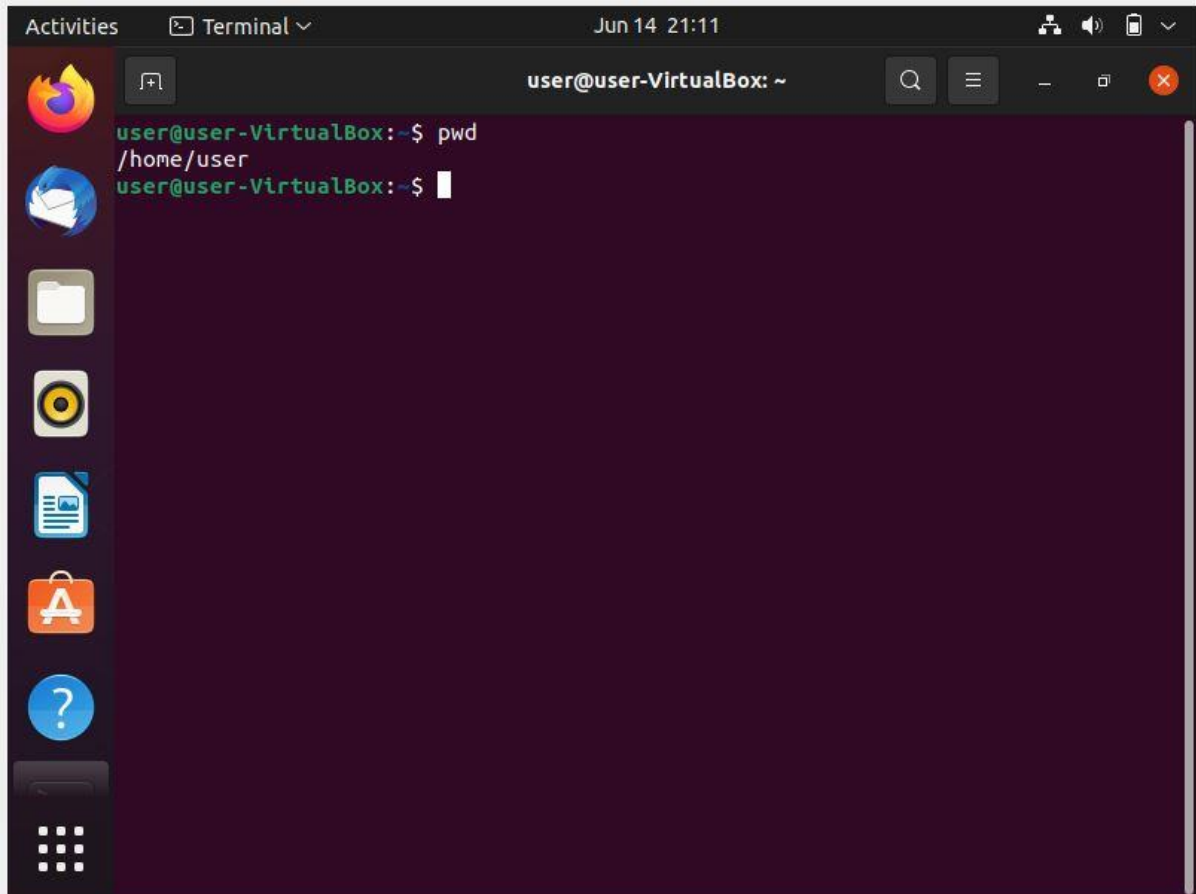
Adarsh V

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## PWD (print working directory)

Use the pwd command to find out the path of the current Working directory (folder) you're in



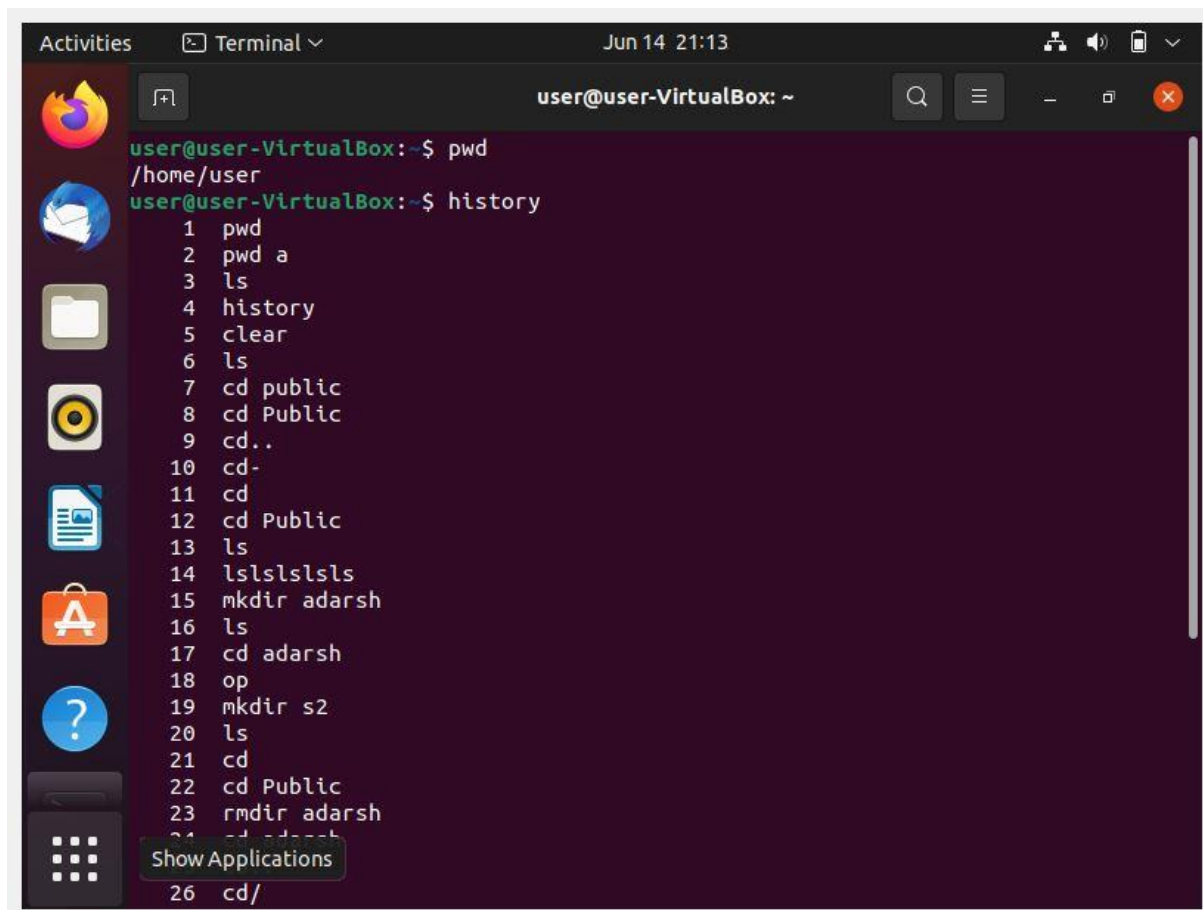
The image shows a terminal window titled "Terminal" with a dark theme. The window's title bar includes "Activities", "Terminal", and the date/time "Jun 14 21:11". The terminal prompt is "user@user-VirtualBox: ~". The user has entered the command "pwd", and the output is "/home/user". The terminal window is part of a desktop environment with a sidebar on the left containing icons for Firefox, a mail client, a file manager, a CD/DVD drive, a document, an application store, and a help icon. The terminal window itself has a search icon, a menu icon, and window control buttons (minimize, maximize, close) in the top right corner.

```
user@user-VirtualBox: ~$ pwd
/home/user
user@user-VirtualBox: ~$
```

## HISTORY

When you have been using Linux for a certain period of time, you will quickly notice that you can run hundreds of commands every day. As such, running history command is particularly useful if you want to review the commands you have entered before.

!command number to run a command from history

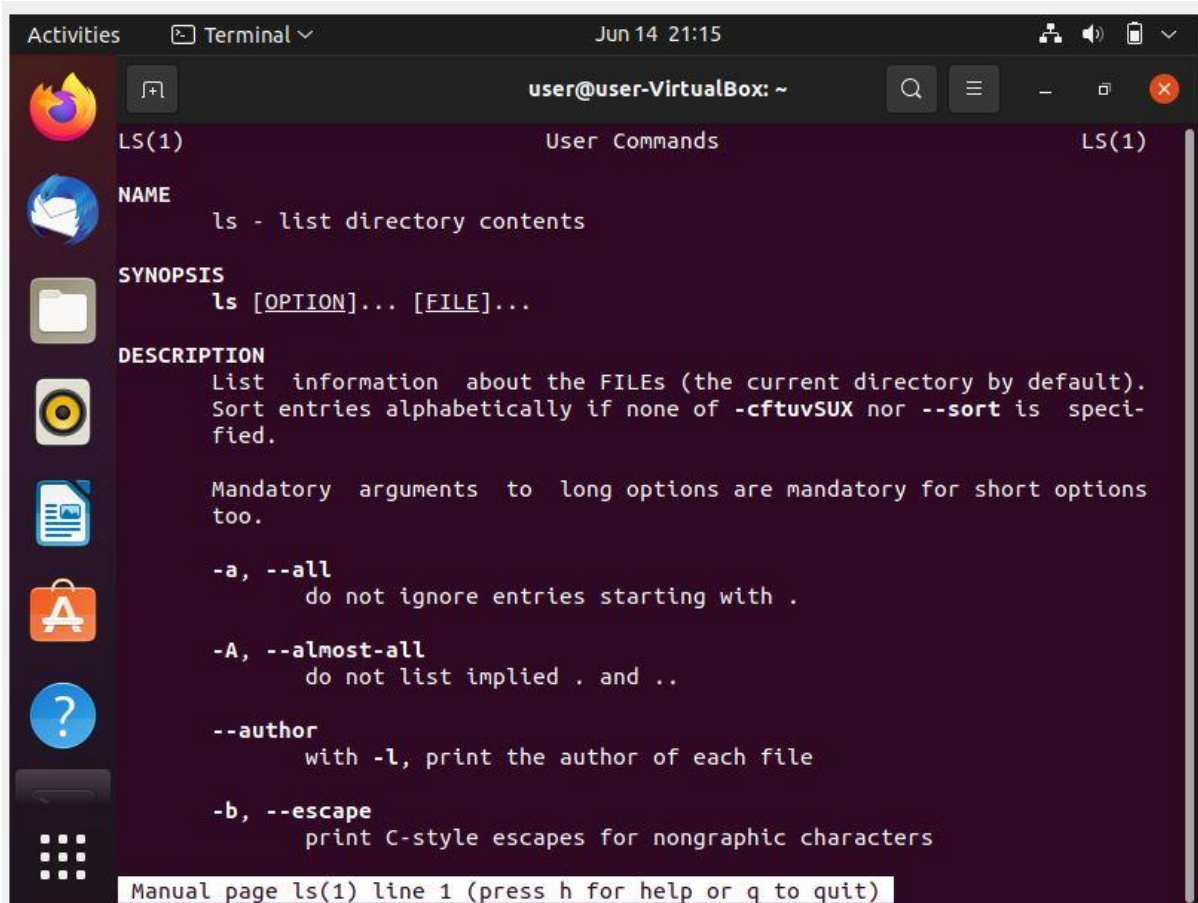


The screenshot shows a terminal window titled "user@user-VirtualBox: ~" with a dark purple background. The terminal displays the output of the `history` command, which lists 26 numbered commands. The first command is `pwd`, which outputs `/home/user`. The subsequent commands include `pwd a`, `ls`, `history`, `clear`, `ls`, `cd public`, `cd Public`, `cd..`, `cd-`, `cd`, `cd Public`, `ls`, `lslslsls`, `mkdir adarsh`, `ls`, `cd adarsh`, `op`, `mkdir s2`, `ls`, `cd`, `cd Public`, `rmdir adarsh`, and `cd/`. A "Show Applications" button is visible at the bottom left of the terminal window.

```
user@user-VirtualBox:~$ pwd
/home/user
user@user-VirtualBox:~$ history
 1  pwd
 2  pwd a
 3  ls
 4  history
 5  clear
 6  ls
 7  cd public
 8  cd Public
 9  cd..
10  cd-
11  cd
12  cd Public
13  ls
14  lslslslsls
15  mkdir adarsh
16  ls
17  cd adarsh
18  op
19  mkdir s2
20  ls
21  cd
22  cd Public
23  rmdir adarsh
24  cd adarsh
25  cd adarsh
26  cd/
```

## MAN

If we are confused about the function of certain Linux commands we can easily learn how to use them right from Linux's shell by using the man command. For instance, entering man tail will show the manual instruction of the tail command.



The screenshot shows a Linux terminal window titled "user@user-VirtualBox: ~". The terminal displays the manual page for the 'ls' command, which is titled "LS(1) User Commands LS(1)". The manual page is divided into sections: "NAME", "SYNOPSIS", and "DESCRIPTION". The "NAME" section states "ls - list directory contents". The "SYNOPSIS" section shows the command "ls [OPTION]... [FILE]...". The "DESCRIPTION" section explains that 'ls' lists information about files and sorts them alphabetically by default. It also lists several options: -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), and -b, --escape (print C-style escapes for nongraphic characters). At the bottom of the terminal, a status bar reads "Manual page ls(1) line 1 (press h for help or q to quit)".

```
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

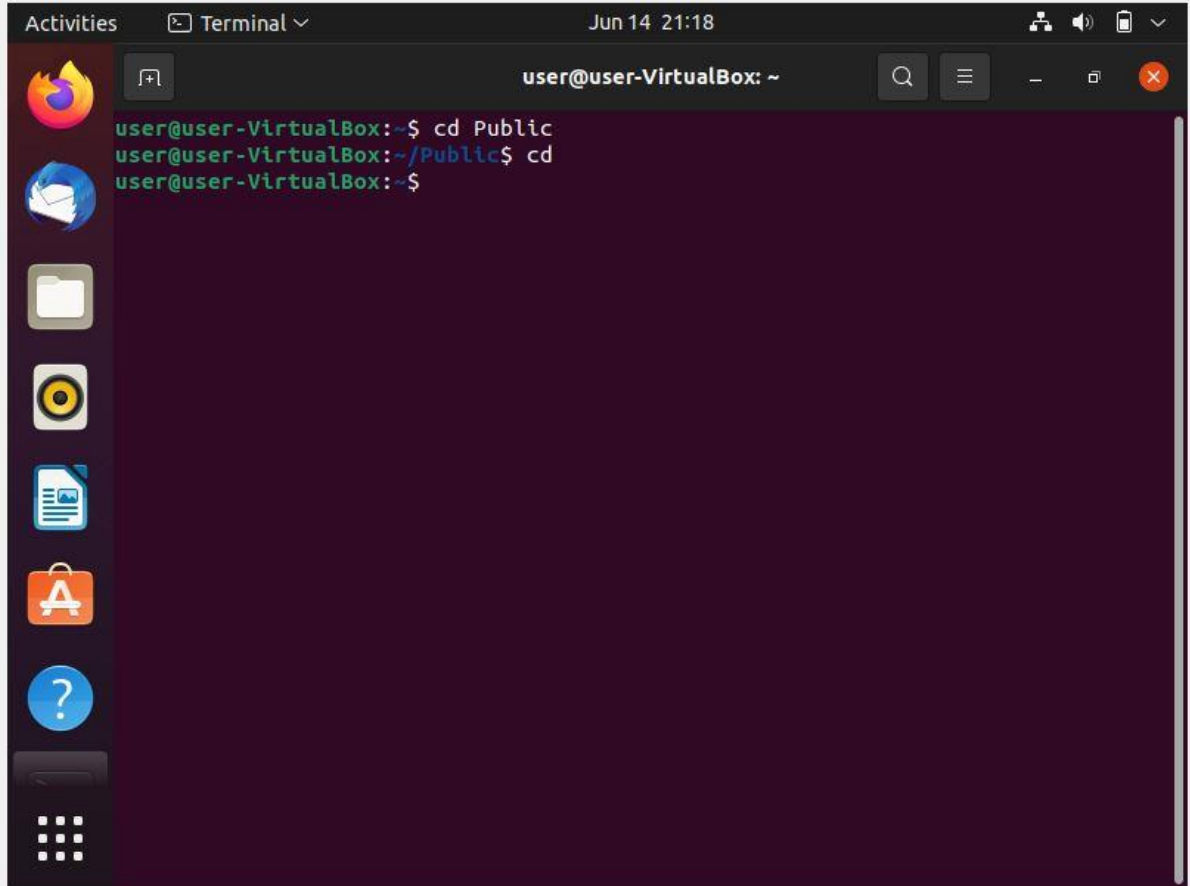
  -b, --escape
      print C-style escapes for nongraphic characters

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

## CD

To navigate through the Linux files and directories, use the `cd` It requires either the full path or the name of the directory, depending on the current working directory that you're in.

- `cd ..` (with two dots) to move one directory up
- `cd` to go straight to the home folder
- `cd-` (with a hyphen) to move to your previous directory

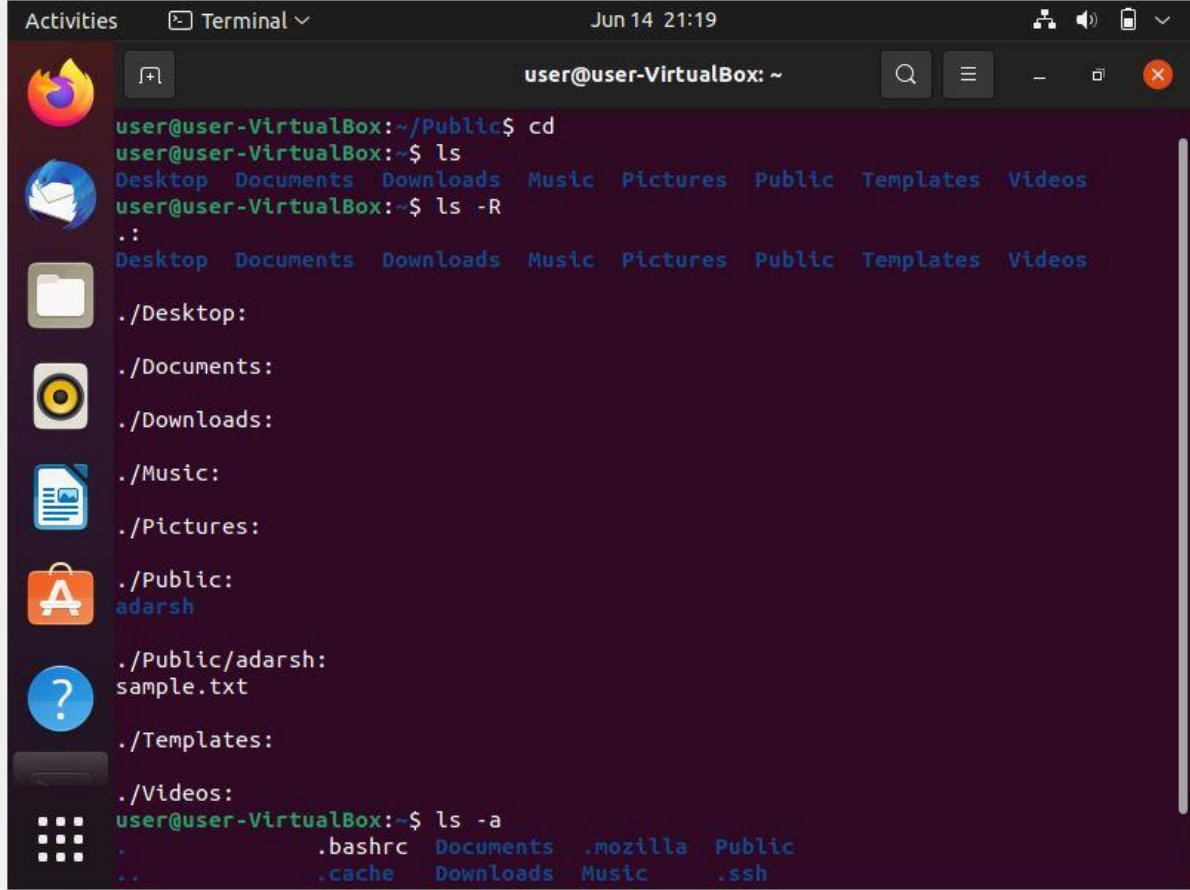
A screenshot of a Linux terminal window. The window title bar shows 'Activities', 'Terminal', and the date 'Jun 14 21:18'. The terminal prompt is 'user@user-VirtualBox: ~'. The user has entered the command 'cd Public', and the prompt has changed to 'user@user-VirtualBox:~/Public\$'. The user has then entered 'cd', and the prompt has changed back to 'user@user-VirtualBox:~\$'. The terminal window has a dark purple background and a sidebar on the left with various application icons.

```
user@user-VirtualBox:~$ cd Public
user@user-VirtualBox:~/Public$ cd
user@user-VirtualBox:~$
```

## LS

The `ls` command is used to view the contents of a directory. By default, this command will display the contents of your current working directory.

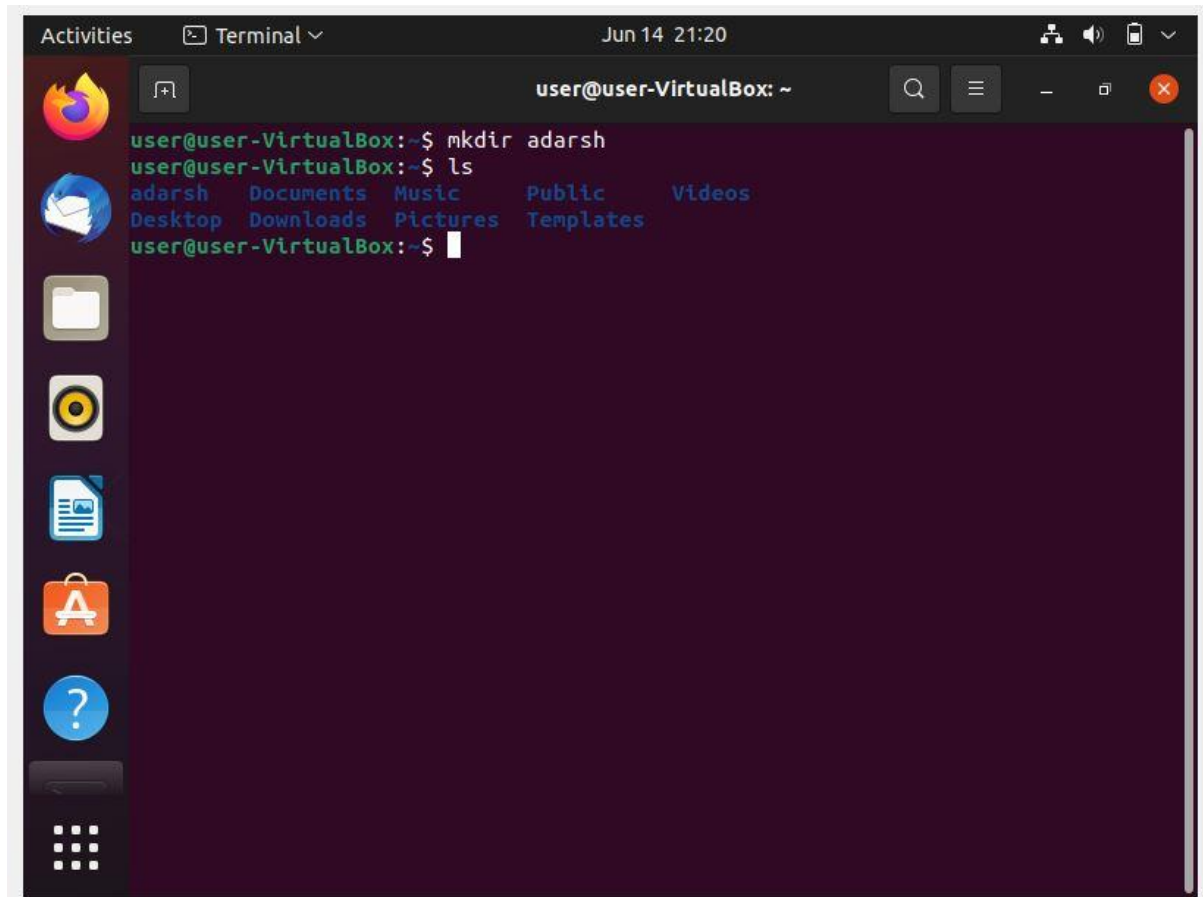
- `ls -R` will list all the files in the sub-directories as well
- `ls -l` – long listing
- `ls -a` will show the hidden files
- `ls -al` will list the files and directories with detailed information like the permissions, size, owner, etc.
- `ls -t` lists files sorted in the order of “last modified”.
- `ls -r` option will reverse the natural sorting order. Usually used in combination with other switches such as `ls -tr`. This will reverse the time-wise listing.



```
user@user-VirtualBox: ~  
user@user-VirtualBox:~/Public$ cd  
user@user-VirtualBox:~$ ls  
Desktop Documents Downloads Music Pictures Public Templates Videos  
user@user-VirtualBox:~$ ls -R  
.:  
Desktop Documents Downloads Music Pictures Public Templates Videos  
./Desktop:  
./Documents:  
./Downloads:  
./Music:  
./Pictures:  
./Public:  
adarsh  
./Public/adarsh:  
sample.txt  
./Templates:  
./Videos:  
user@user-VirtualBox:~$ ls -la  
-rw-rw-r-- 1 user user 4096 Jun 14 21:19 .bashrc  
-rw-rw-r-- 1 user user 4096 Jun 14 21:19 .cache  
-rw-rw-r-- 1 user user 4096 Jun 14 21:19 .mozilla  
-rw-rw-r-- 1 user user 4096 Jun 14 21:19 .ssh  
-rw-rw-r-- 1 user user 4096 Jun 14 21:19 .sshrc  
-rw-rw-r-- 1 user user 4096 Jun 14 21:19 .sshrc
```

## MKDIR

Use mkdir command to make a new directory .To generate a new directory inside another directory, use this Linux basic command.



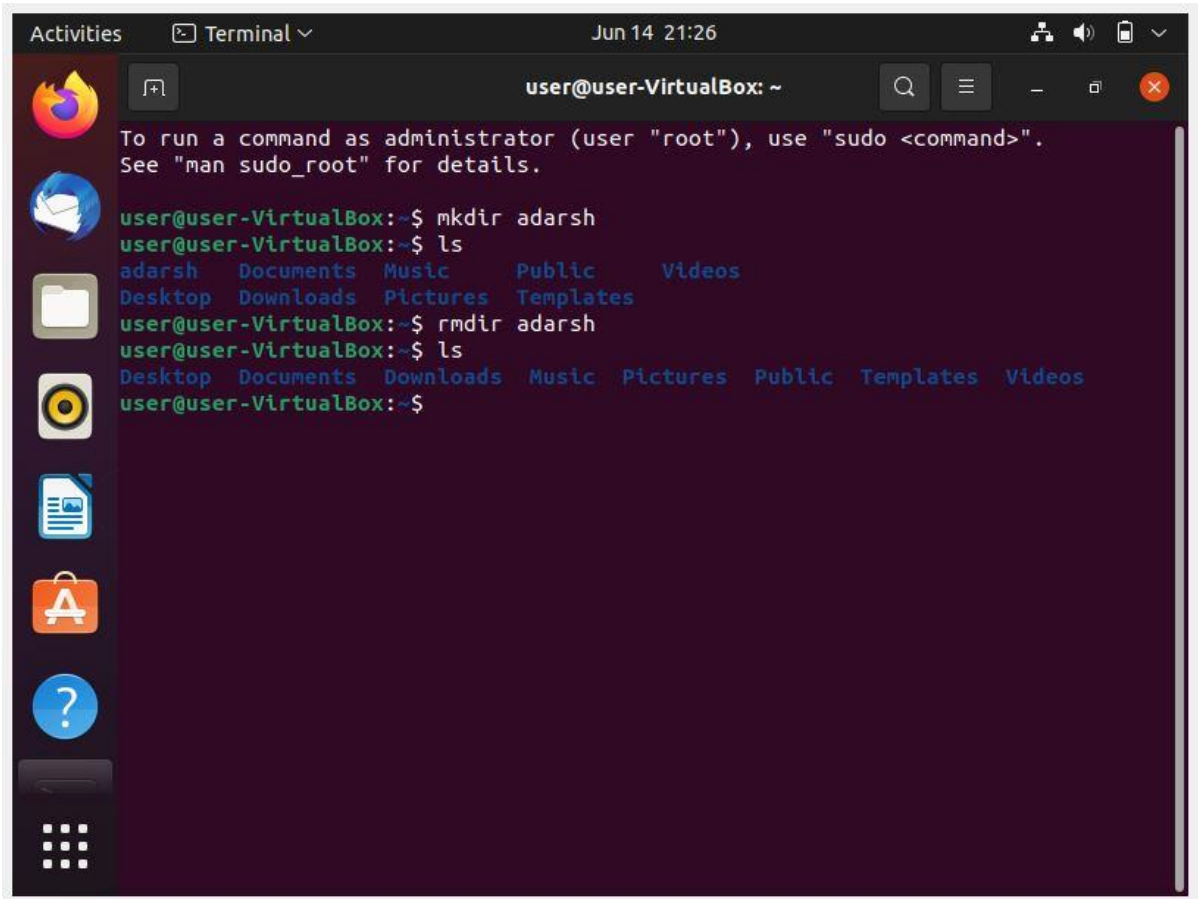
The screenshot shows a terminal window titled "user@user-VirtualBox: ~" with a dark purple background. The terminal displays the following commands and output:

```
user@user-VirtualBox:~$ mkdir adarsh
user@user-VirtualBox:~$ ls
adarsh  Documents  Music      Public      Videos
Desktop Downloads  Pictures   Templates
```

The terminal window is part of a desktop environment with a sidebar on the left containing icons for Firefox, a file manager, a music player, a document viewer, an application store, and a help icon. The top of the window shows the "Activities" menu, a "Terminal" dropdown, the date and time "Jun 14 21:20", and system status icons for network, volume, and battery.

## RMDIR

If you need to delete a directory, use the `rmdir` command. However, `rmdir` only allows you to delete empty directories.

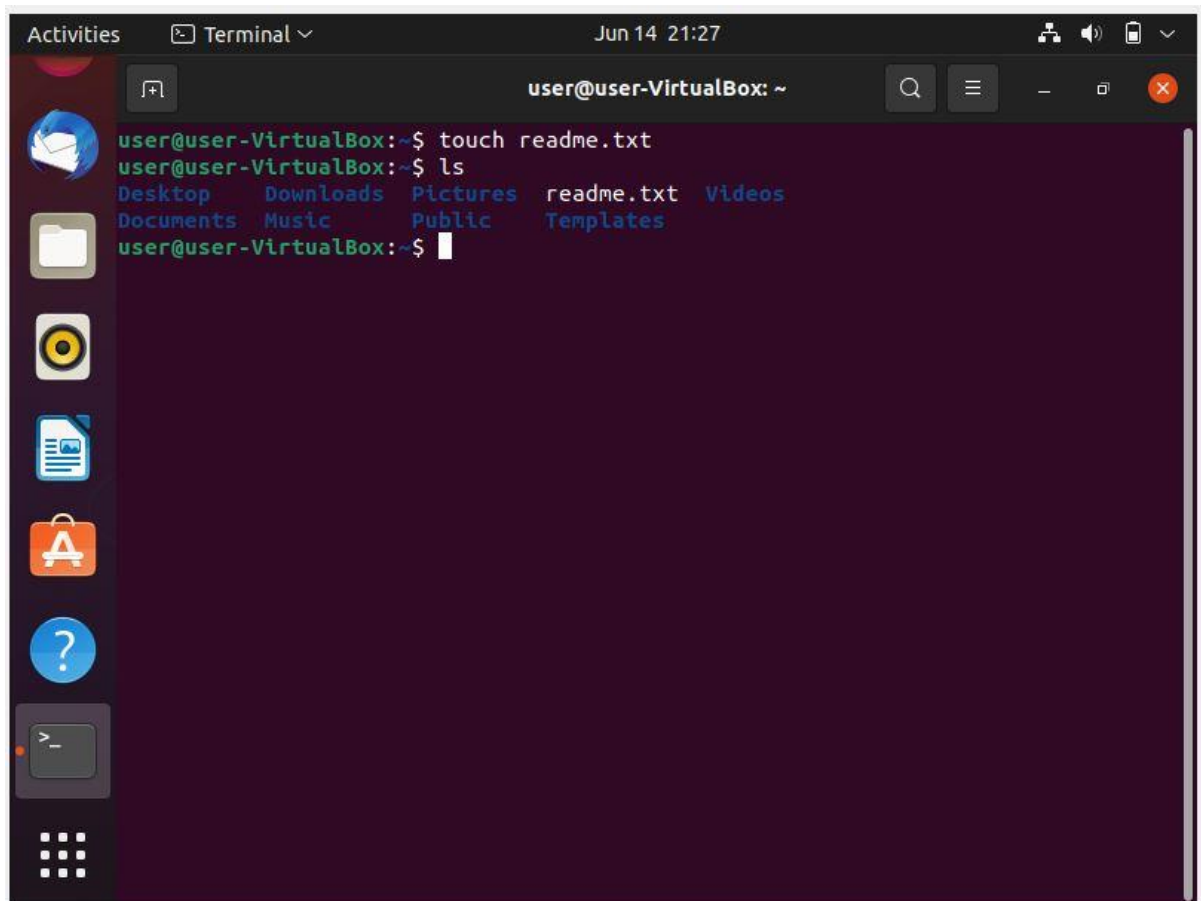


```
Activities  Terminal Jun 14 21:26 user@user-VirtualBox: ~  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
user@user-VirtualBox:~$ mkdir adarsh  
user@user-VirtualBox:~$ ls  
adarsh  Documents  Music      Public      Videos  
Desktop Downloads Pictures  Templates  
user@user-VirtualBox:~$ rmdir adarsh  
user@user-VirtualBox:~$ ls  
Desktop Documents Downloads Music Pictures Public Templates Videos  
user@user-VirtualBox:~$
```



## TOUCH

The touch command allows you to create a blank new file through the Linux command line.



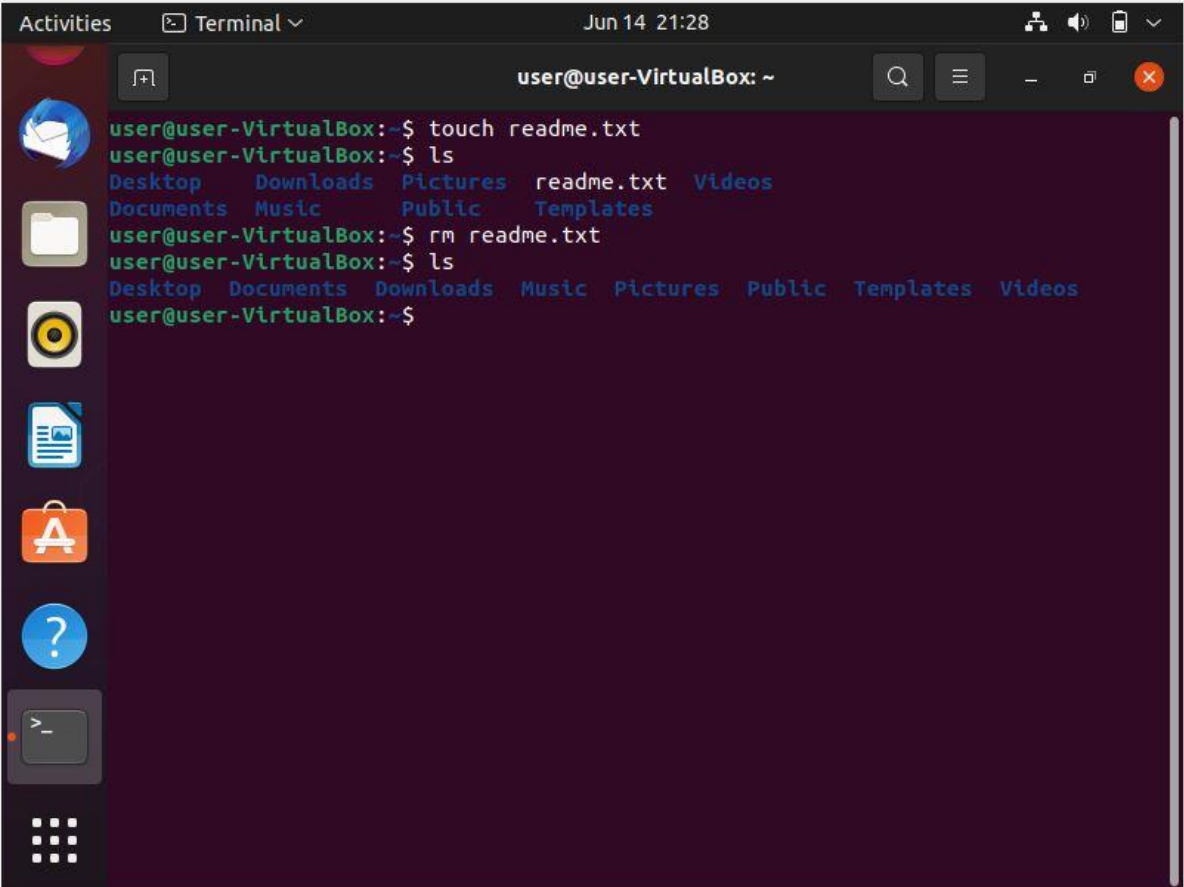
The screenshot shows a terminal window titled "user@user-VirtualBox: ~" with a dark purple background. The terminal displays the following commands and output:

```
user@user-VirtualBox:~$ touch readme.txt
user@user-VirtualBox:~$ ls
Desktop  Downloads  Pictures  readme.txt  Videos
Documents Music      Public   Templates
user@user-VirtualBox:~$
```

The terminal window is part of a desktop environment, with a sidebar on the left containing icons for various applications and a top bar showing the date and time as "Jun 14 21:27".

## RM

The `rm` command is used to delete directories and the contents within them. If you only want to delete the directory — as an alternative to `rmdir` — use `rm -r`. To remove a file use `rm filename`

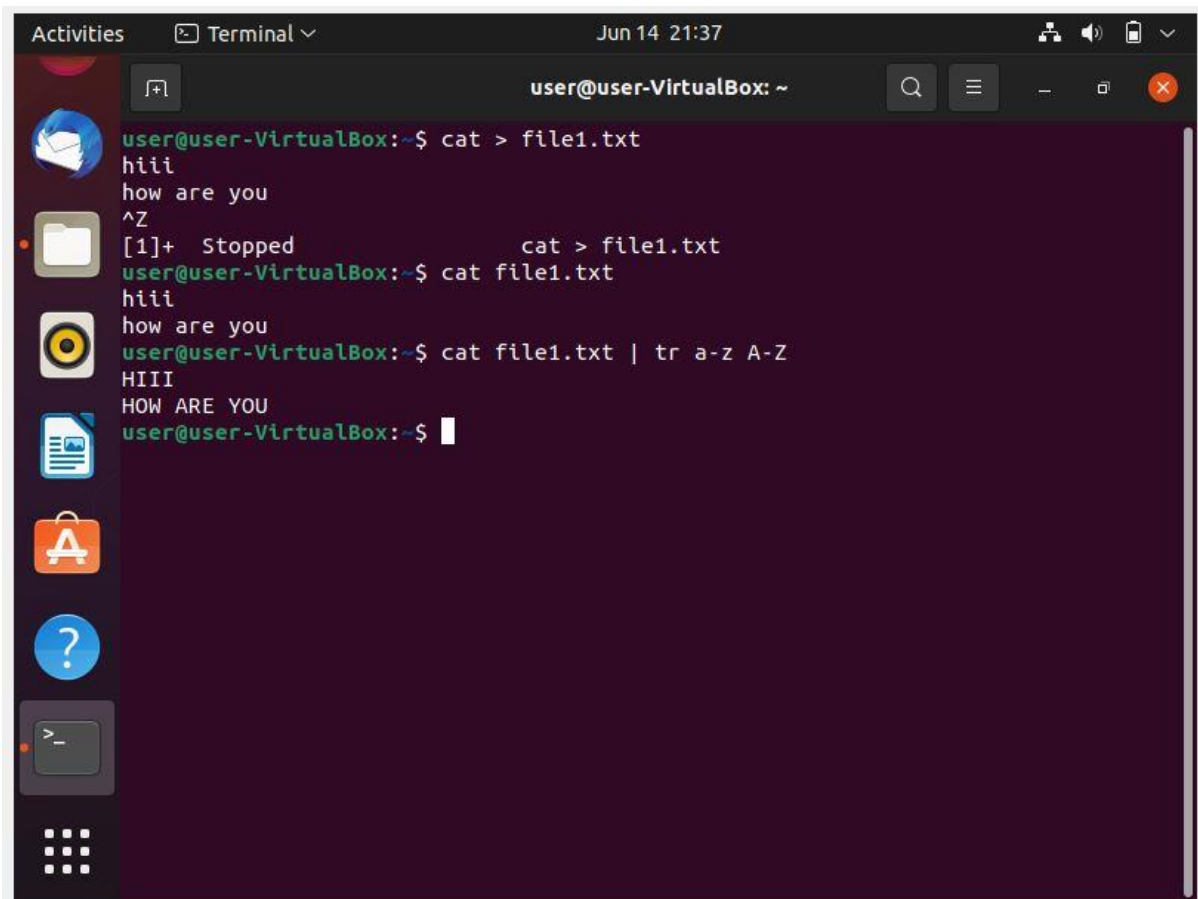


```
Activities  Terminal Jun 14 21:28
user@user-VirtualBox: ~
user@user-VirtualBox:~$ touch readme.txt
user@user-VirtualBox:~$ ls
Desktop  Downloads  Pictures  readme.txt  Videos
Documents Music      Public   Templates
user@user-VirtualBox:~$ rm readme.txt
user@user-VirtualBox:~$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos
user@user-VirtualBox:~$
```

# CAT

cat (short for concatenate) is one of the most frequently used commands in Linux. It is used to list the contents of a file on the standard output. To run this command, type cat followed by the file's name and its extension. For instance: cat file1.txt.

- ❖ cat > filename creates a new file
- ❖ cat filename1 filename2>filename3 joins two files (1 and 2) and stores the output of them in a new file (3) to convert a file to upper or lower case use, cat filename | tr a-z A-Z >file1.txt
- ❖ cat >>myfile insert data to a file



The screenshot shows a terminal window titled "Terminal" with a timestamp of "Jun 14 21:37". The prompt is "user@user-VirtualBox: ~". The user enters the command "cat > file1.txt" and types "hiii", "how are you", and "^Z". The terminal shows "[1]+ Stopped cat > file1.txt". The user then enters "cat file1.txt" and the output is "hiii", "how are you". Next, the user enters "cat file1.txt | tr a-z A-Z" and the output is "HIII", "HOW ARE YOU". The terminal prompt is now "user@user-VirtualBox:~\$".

```
user@user-VirtualBox:~$ cat > file1.txt
hiii
how are you
^Z
[1]+  Stopped                  cat > file1.txt
user@user-VirtualBox:~$ cat file1.txt
hiii
how are you
user@user-VirtualBox:~$ cat file1.txt | tr a-z A-Z
HIII
HOW ARE YOU
user@user-VirtualBox:~$
```