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Assignment No. 1

Title: Study the essential linux commands for Cloud and DevOps.

Theory:

1. Command Name: **ls**

Command Description: The ls command is one of the most commonly used commands in daily Linux/UNIX operations. The command is used in listing contents inside a directory and is one of the few commands beginners learn from the onset.

Command Output:

```
student@student-Vostro-3470:~$ cd Documents
student@student-Vostro-3470:~/Documents$ ls
CAO  Ruthik
student@student-Vostro-3470:~/Documents$
```

```
student@student-Vostro-3470:~/Documents$ ls -l
total 8
drwxrwxr-x 2 student student 4096 Jan  5 13:46 CAO
drwxrwxr-x 2 student student 4096 Jan 17 13:26 Ruthik
student@student-Vostro-3470:~/Documents$
```

2. Command Name: **pwd**

Command Description: The pwd command writes to standard output the full path name of your current directory (from the root directory). All directories are separated by a / (slash). The root directory is represented by the first /, and the last directory named is your current directory.

Command Output:

```
student@student-Vostro-3470:~/Documents$ pwd
/home/student/Documents
student@student-Vostro-3470:~/Documents$
```

3. Command Name: **cd**

Command Description: Linux cd command is used to change the current working directory (i.e., in which the current user is working). The "cd" stands for 'change directory. ' It is one of the most frequently used commands in the Linux terminal.

Command Output:

```
student@student-Vostro-3470:~$ cd Documents
student@student-Vostro-3470:~/Documents$ cd Ruthik
student@student-Vostro-3470:~/Documents/Ruthik$
```

4. Command Name: **mkdir**

Command Description: The mkdir stands for 'make directory'. With the help of mkdir command, you can create a new directory wherever you want in your system. Just type "mkdir <dir name> ", in place of <dir name> type the name of the new directory you want to create and then press enter.

Command Output:

```
student@student-Vostro-3470:~$ mkdir Omkar
student@student-Vostro-3470:~$ mkdir Robo
student@student-Vostro-3470:~$ mkdir Hatim
student@student-Vostro-3470:~$ ls
a.out boorh booth booth.c Desktop Documents Downloads Hatim Music Omkar Pictures Public Robo snap Templates Videos
student@student-Vostro-3470:~$
```

5. Command Name: **mv**

Command Description: Use the mv command to move files and directories from one directory to another or to rename a file or directory. If you move a file or directory to a new directory without specifying a new name, it retains its original name.

Command Output:

```
student@student-Vostro-3470:~$ ls
a.out boorh booth booth.c Desktop Documents Downloads Hatim Music Omkar Pictures Public Robo snap Templates Videos
student@student-Vostro-3470:~$ mv Hatim Documents
student@student-Vostro-3470:~$ cd Documents
student@student-Vostro-3470:~/Documents$ ls
CAD Hatim Ruthik
student@student-Vostro-3470:~/Documents$
```

6. Command Name: **cp**

Command Description: You use the cp command for copying files from one location to another. This command can also copy directories (folders). [file/directory-sources] specifies the sources of the files or directories you want to copy.

Command Output:

```
student@student-Vostro-3470:~$ ls
a.out boorh booth booth.c Desktop Documents Downloads Music Omkar Pictures Public Robo snap Templates Videos
student@student-Vostro-3470:~$ cd Documents
student@student-Vostro-3470:~/Documents$ cd Ruthik
student@student-Vostro-3470:~/Documents/Ruthik$ ls
copy
student@student-Vostro-3470:~/Documents/Ruthik$ cp copy JOB
student@student-Vostro-3470:~/Documents/Ruthik$ cat copy
Ruthik
Jadhav
student@student-Vostro-3470:~/Documents/Ruthik$ cat JOB
Ruthik
Jadhav
student@student-Vostro-3470:~/Documents/Ruthik$
```

7. Command Name: **rm**

Command Description: The rm command removes the entries for a specified file, group of files, or certain select files from a list within a directory. User confirmation, read permission, and write permission are not required before a file is removed when you use the rm command.

Command Output:

```
student@student-Vostro-3470:~$ ls
a.out boorh booth booth.c Desktop Documents Downloads Music Omkar Pictures Public Robo snap Templates Videos
student@student-Vostro-3470:~$ cd Documents
student@student-Vostro-3470:~/Documents$ cd Ruthik
student@student-Vostro-3470:~/Documents/Ruthik$ ls
copy JOB
student@student-Vostro-3470:~/Documents/Ruthik$ rm JOB
student@student-Vostro-3470:~/Documents/Ruthik$ ls
copy
student@student-Vostro-3470:~/Documents/Ruthik$ cd
student@student-Vostro-3470:~$ ls
a.out boorh booth booth.c Desktop Documents Downloads Music Omkar Pictures Public Robo snap Templates Videos
student@student-Vostro-3470:~$ rm -r Robo
student@student-Vostro-3470:~$ ls
a.out boorh booth booth.c Desktop Documents Downloads Music Omkar Pictures Public snap Templates Videos
student@student-Vostro-3470:~$
```

8. Command Name: **touch**

Command Description: It doesn't stand for anything; it's not an abbreviation or initialism. It's a verb. When you touch a file, you're "putting fresh fingerprints on it", updating its last-modified date (or creating it if it did not yet exist).

Command Output:

```

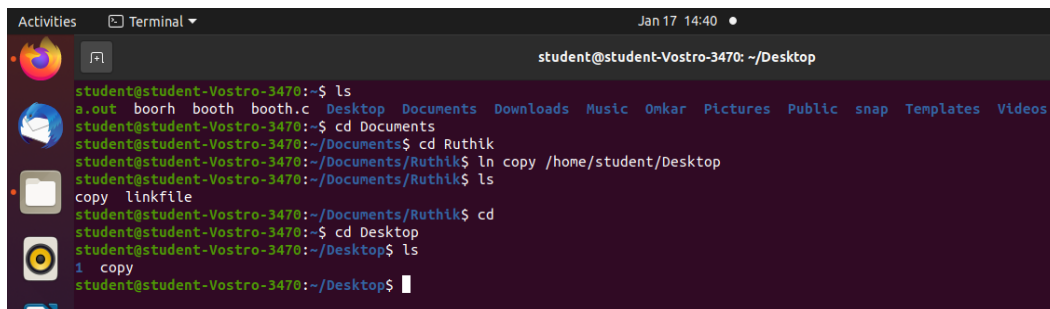
student@student-Vostro-3470:~$ ls
a.out boorh booth booth.c Desktop Documents Downloads Music Omkar Pictures Public snap Templates Videos
student@student-Vostro-3470:~$ cd Documents
student@student-Vostro-3470:~/Documents$ touch Doc1 Doc2
student@student-Vostro-3470:~/Documents$ ls
CA0 Doc1 Doc2 Hatim Ruthik
student@student-Vostro-3470:~/Documents$ ll
total 20
drwxr-xr-x  5 student student 4096 Jan 17 14:23 ./
drwxr-xr-x 18 student student 4096 Jan 17 14:20 ../
drwxrwxr-x  2 student student 4096 Jan  5 13:46 CA0/
-rw-rw-r--  1 student student   0 Jan 17 14:23 Doc1
-rw-rw-r--  1 student student   0 Jan 17 14:23 Doc2
drwxrwxr-x  2 student student 4096 Jan 17 13:52 Hatim/
drwxrwxr-x  2 student student 4096 Jan 17 14:19 Ruthik/
student@student-Vostro-3470:~/Documents$

```

9. Command Name: **ln**

Command Description: The **ln** command links the file designated in the **SourceFile** parameter to the file designated by the **TargetFile** parameter or to the same file name in another directory specified by the **TargetDirectory** parameter. By default, the **ln** command creates hard links.

Command Output:



```

Activities  Terminal  Jan 17 14:40
student@student-Vostro-3470: ~/Desktop

student@student-Vostro-3470:~$ ls
a.out boorh booth booth.c Desktop Documents Downloads Music Omkar Pictures Public snap Templates Videos
student@student-Vostro-3470:~$ cd Documents
student@student-Vostro-3470:~/Documents$ cd Ruthik
student@student-Vostro-3470:~/Documents/Ruthik$ ln copy /home/student/Desktop
student@student-Vostro-3470:~/Documents/Ruthik$ ls
copy linkfile
student@student-Vostro-3470:~/Documents/Ruthik$ cd
student@student-Vostro-3470:~$ cd Desktop
student@student-Vostro-3470:~/Desktop$ ls
1 copy
student@student-Vostro-3470:~/Desktop$

```

10. Command Name: **cat**

Command Description: **Cat**(concatenate) command is very frequently used in Linux. It reads data from the file and gives their content as output. It helps us to create, view, and concatenate files.

Command Output:

```

student@student-Vostro-3470:~/Documents/Ruthik$ ls
copy linkfile
student@student-Vostro-3470:~/Documents/Ruthik$ cat copy
Ruthik
Jadhav
student@student-Vostro-3470:~/Documents/Ruthik$ cat linkfile
Ruthik
Jadhav
student@student-Vostro-3470:~/Documents/Ruthik$

```

11. Command Name: **clear**

Command Description: Clear Terminal via Ctrl+L / Ctrl+Shift+K Shortcut

An alternative in some terminal emulators is Ctrl + Shift + K . The command provides the same output as Ctrl + L.

Command Output:

```
student@student-Vostro-3470:~/Documents/Ruthik$ ls
copy  linkfile
student@student-Vostro-3470:~/Documents/Ruthik$ cat copy
Ruthik
Jadhav
student@student-Vostro-3470:~/Documents/Ruthik$ cat linkfile
Ruthik
Jadhav
student@student-Vostro-3470:~/Documents/Ruthik$ clear
```

```
student@student-Vostro-3470:~/Documents/Ruthik$
```

12. Command Name: **echo**

Command Description: echo command in linux is used to display lines of text/string that are passed as an argument . This is a built-in command that is mostly used in shell scripts and batch files to output status text to the screen or a file.

Command Output:

```
student@student-Vostro-3470:~/Documents/Ruthik$ echo "Ruthik Jadhav"
Ruthik Jadhav
student@student-Vostro-3470:~/Documents/Ruthik$
```

13. Command Name: **less**

Command Description: 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.

Command Output:

```
student@student-Vostro-3470:~$ ls
a.out  boorh  booth  booth.c  Desktop  Documents  Downloads  Music  Onkar  Pictures  Public  snap  Templates  Videos
student@student-Vostro-3470:~$ cd Documents
student@student-Vostro-3470:~/Documents$ cd Ruthik
student@student-Vostro-3470:~/Documents/Ruthik$ less work
```

```
student@student-Vostro-3470: ~/Documents/Ruthik

A symbolic link, also known as a symlink or soft link, is a special type of file that points to another file or directory.

In this guide, we will cover how to use the ln command to create symbolic links.
Links Types

There are two types of links in Linux/UNIX systems:

    Hard links. You can think a hard link as an additional name for an existing file. Hard links are associating two or more file names with the same inode. You can create one or more hard links for a single file. Hard links cannot be created for directories and files on a different filesystem or partition.
    Soft links. A soft link is something like a shortcut in Windows. It is an indirect pointer to a file or directory. Unlike a hard link, a symbolic link can point to a file or a directory on a different filesystem or partition.

How to Use the ln Command

ln is a command-line utility for creating links between files. By default, the ln command creates hard links. To create a symbolic link, use the -s (--symbolic) option.

The ln command syntax for creating symbolic links is as follows:

ln -s [OPTIONS] FILE LINK

    If both the FILE and LINK are given, ln will create a link from the file specified as the first argument (FILE) to the file specified as the second argument (LINK).
    If only one file is given as an argument or the second argument is a dot (.), ln will create a link to that file in the current working directory. The name of the symlink will be the same as the name of the file it points to.

By default, on success, ln doesn't produce any output and returns zero.
Creating Symlink To a File

To create a symbolic link to a given file, open your terminal and type:

ln -s source_file symbolic_link

Replace source_file with the name of the existing file for which you want to create the symbolic link and symbolic_link with the name of the symbolic link.

- |
```

```
student@student-Vostro-3470: ~/Documents/Ruthik

lrwxrwxrwx 1 linuxize users 4 Nov 2 23:03 my_link.txt -> my_file.txt

The l character is a file type flag that represents a symbolic link. The -> symbol shows the file the symlink points to.
Creating Symlinks To a Directory

The command for creating a symbolic link to a directory is the same as when creating a symbolic link to a file. Specify the directory name as the first parameter and the symlink as the second parameter.

For example, if you want to create a symbolic link from the /mnt/my_drive/movies directory to the ~/my_movies directory you would run:

ln -s /mnt/my_drive/movies ~/my_movies

Overwriting Symlinks

If you try to create a symbolic link that already exists, the ln command will print an error message.

ln -s my_file.txt my_link.txt
ln: failed to create symbolic link 'my_link.txt': File exists

To overwrite the destination path of the symlink, use the -f (--force) option.

ln -sf my_file.txt my_link.txt

Removing Symlinks

To delete/remove symbolic links use either the unlink or rm command.

The syntax of the unlink is very simple:

unlink symlink_to_remove

Removing a symbolic link using the rm command is the same as when removing a file:

rm symlink_to_remove

No matter which command you use, when removing a symbolic link not append the / trailing slash at the end of its name.
(END)
```


14. Command Name: **man**

Command Description: man command in Linux is used to display the user manual of any command that we can run on the terminal. It provides a detailed view of the command which includes NAME, SYNOPSIS, DESCRIPTION,

OPTIONS, EXIT STATUS, RETURN VALUES, ERRORS, FILES, VERSIONS, EXAMPLES, AUTHORS and SEE ALSO.

Command Output:

```
student@student-Vostro-3470:~/Documents/Ruthik$ man man
student@student-Vostro-3470:~/Documents/Ruthik$
```



```
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)
  8 System administration commands (usually only for root)
  9 Kernel routines [Non standard]

  A manual page consists of several sections.

  Conventional section names include NAME, SYNOPSIS, CONFIGURATION, DESCRIPTION, OPTIONS, EXIT STATUS, RETURN VALUE, ERRORS, ENVIRONMENT, FILES, VERSIONS, CONFORMING TO, NOTES, BUGS, EXAMPLE, AUTHORS, and SEE ALSO.

  The following conventions apply to the SYNOPSIS section and can be used as a guide in other sections.
  Manual page man(1) line 1/501 7% (press h for help or q to quit)
```

15.Command Name: **uname**

Command Description: To display system information, use the uname command. Displays the operating system name as well as the system node name, operating system release, operating system version, hardware name, and processor type.

Command Output:

```
student@student-Vostro-3470:~/Documents/Ruthik$ uname
Linux
student@student-Vostro-3470:~/Documents/Ruthik$
```

16.Command Name: **whoami**

Command Description: The whoami command allows Linux users to see the currently logged-in user. The output displays the username of the effective user in

the current shell. Additionally, whoami is useful in bash scripting to show who is running the script.

Command Output:

```
student@student-Vostro-3470:~/Documents/Ruthik$ whoami
student
student@student-Vostro-3470:~/Documents/Ruthik$
```

17.Command Name: **tar**

Command Description: The Linux ‘tar’ stands for tape archive, is used to create Archive and extract the Archive files. tar command in Linux is one of the important commands which provides archiving functionality in Linux. We can use Linux tar command to create compressed or uncompressed Archive files and also maintain and modify them.

Command Output:

```
student@student-Vostro-3470:~/Documents/Ruthik$ tar cvf file.tar *
copy
linkfile
work
student@student-Vostro-3470:~/Documents/Ruthik$ ls
copy  file.tar  linkfile  work
student@student-Vostro-3470:~/Documents/Ruthik$
```

18.Command Name: **grep**

Command Description: In Linux and Unix Systems Grep, short for “global regular expression print”, is a command used in searching and matching text files contained in the regular expressions.

Command Output:

```
student@student-Vostro-3470:~/Documents/Ruthik$ grep -i "Ruthik" copy
Ruthik
student@student-Vostro-3470:~/Documents/Ruthik$
```

19.Command Name: **head**

Command Description:The Linux head command prints the first lines of one or more files (or piped data) to standard output. By default, it shows the first 10

lines. However, head provides several arguments you can use to modify the output.

Command Output:

```
student@student-Vostro-3470:~/Documents/Ruthik$ head copy
Ruthik
Jadhav
student@student-Vostro-3470:~/Documents/Ruthik$
```

20. Command Name: **tail**

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

Command Output:

```
student@student-Vostro-3470:~/Documents/Ruthik$ tail linkfile
T
H
I
K
J
A
D
H
A
V
student@student-Vostro-3470:~/Documents/Ruthik$
```

21. Command Name: **diff**

Command Description: diff is a command-line utility that allows you to compare two files line by line. It can also compare the contents of directories. The diff command is most commonly used to create a patch containing the differences between one or more files that can be applied using the patch command. diff stands for difference. This command is used to display the differences in the files by comparing the files line by line. Unlike its fellow members, cmp and comm, it tells us which lines in one file have to be changed to make the two files identical.

Command Output:

```

(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ cat Copy
Ruthik
Jadhav
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ cat Filelink
R
U
T
H
I
K
J
A
D
H
A
V

(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ diff Copy Filelink
1,2c1,13
< Ruthik
< Jadhav
---
> R
> U
> T
> H
> I
> K
> J
> A
> D
> H
> A
> V
>
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ █

```

22. Command Name: **cmp**

Command Description: The cmp command compares files designated by the File1 and File2 parameters and writes the results to standard output. If you specify a - (minus sign) for either the File1 or File2 parameter, the cmp command reads standard input for that file. Only one file can be read from standard input.

Command Output:

```

(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ cmp Copy Filelink
Copy Filelink differ: byte 2, line 1
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ █

```

23. Command Name: **comm**

Command Description: The comm command is a simple Linux utility for comparing files with focus on the common content. The command compares two sorted files line by line and displays results in three columns. The following

guide will explain how to use the Linux comm command with examples. A system running Linux.

Command Output:

```
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ cat Copy
Ruthik
Sarathak
Vishnu
Shubham
Akash
Yashraj
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ cat Filelink
Ruthik
Omakr
Vishnu
Shubham
Yashraj
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ comm Copy Filelink
      Ruthik
Omakr
Sarathak
      Vishnu
comm: file 1 is not in sorted order
comm: file 2 is not in sorted order
      Shubham
Akash
      Yashraj
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$
```

24. Command Name: **sort**

Command Description: The sort command is used in Linux to print the output of a file in given order. This command processes your data (the content of the file or output of any command) and reorders it in the specified way, which helps us to read the data efficiently.

Command Output:

```
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ cat Copy
19 Ruthik
24 Sarathak
18 Vishnu
32 Shubham
26 Akash
32 Yashraj
28 Shivam
23 Amit
31 Gaurav
20 Deepak
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ sort Copy
18 Vishnu
19 Ruthik
20 Deepak
23 Amit
24 Sarathak
26 Akash
28 Shivam
31 Gaurav
32 Shubham
32 Yashraj
```

25. Command Name: **export**

Command Description: Export is a built-in command of the Bash shell. It is used to mark variables and functions to be passed to child processes. Basically, a variable will be included in child process environments without affecting other environments.

Command Output:

```
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ export
declare -x COLORTERM="truecolor"
declare -x CONDA_DEFAULT_ENV="base"
declare -x CONDA_EXE="/home/student/anaconda3/bin/conda"
declare -x CONDA_PREFIX="/home/student/anaconda3"
declare -x CONDA_PROMPT_MODIFIER="(base) "
declare -x CONDA_PYTHON_EXE="/home/student/anaconda3/bin/python"
declare -x CONDA_SHLVL="1"
declare -x DBUS_SESSION_BUS_ADDRESS="unix:path=/run/user/1000/bus"
declare -x DESKTOP_SESSION="ubuntu"
declare -x DISPLAY=":0"
declare -x GDMSESSION="ubuntu"
declare -x GJS_DEBUG_OUTPUT="stderr"
declare -x GJS_DEBUG_TOPICS="JS ERROR;JS LOG"
declare -x GNOME_DESKTOP_SESSION_ID="this-is-deprecated"
declare -x GNOME_SHELL_SESSION_MODE="ubuntu"
declare -x GNOME_TERMINAL_SCREEN="/org/gnome/Terminal/screen/851a7559_1305_43ce_b09b_27c0a37d2e34"
declare -x GNOME_TERMINAL_SERVICE=":1.146"
declare -x GPG_AGENT_INFO="/run/user/1000/gnupg/S.gpg-agent:0:1"
declare -x GTK_MODULES="gail:atk-bridge"
declare -x HOME="/home/student"
declare -x IM_CONFIG_PHASE="1"
declare -x INVOCATION_ID="e301ab6ffda443c8a0e54cd8c50ecffd"
declare -x JOURNAL_STREAM="8:35842"
declare -x LANG="en IN"
declare -x LANGUAGE="en IN:en"
declare -x LESSCLOSE="/usr/bin/lesspipe %s %s"
declare -x LESSOPEN="| /usr/bin/lesspipe %s"
declare -x LOGNAME="student"
```

26. Command Name: **zip**

Command Description: The zip command is a command-line tool in Linux that allows us to create an archive of files and directories. Besides that, it also provides a multitude of functionalities for manipulating an archive. ZIP is a compression and file packaging utility for Unix. Each file is stored in a single .zip { .zip-filename } file with the extension .zip.

zip is used to compress the files to reduce file size and also used as file package utility. zip is available in many operating systems like unix, linux, windows etc.

Command Output:

```
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ zip
Copyright (c) 1990-2008 Info-ZIP - Type 'zip "-L"' for software license.
Zip 3.0 (July 5th 2008). Usage:
zip [-options] [-b path] [-t mmdyyy] [-n suffixes] [zipfile list] [-xi list]
The default action is to add or replace zipfile entries from list, which
can include the special name - to compress standard input.
If zipfile and list are omitted, zip compresses stdin to stdout.
-f freshen: only changed files -u update: only changed or new files
-d delete entries in zipfile -m move into zipfile (delete OS files)
-r recurse into directories -j junk (don't record) directory names
-0 store only -l convert LF to CR LF (-ll CR LF to LF)
-1 compress faster -9 compress better
-q quiet operation -v verbose operation/print version info
-c add one-line comments -z add zipfile comment
-@ read names from stdin -o make zipfile as old as latest entry
-x exclude the following names -i include only the following names
-F fix zipfile (-FF try harder) -D do not add directory entries
-A adjust self-extracting exe -J junk zipfile prefix (unzipsfx)
-T test zipfile integrity -X eXclude eXtra file attributes
-y store symbolic links as the link instead of the referenced file
-e encrypt -n don't compress these suffixes
-h2 show more help
```

27. Command Name: **unzip**

Command Description: unzip lists, tests, or extracts files from archives of the zip format, which are most commonly found on MS-DOS and Windows systems. The default behavior (with no options) is to extract into the current directory (and possibly the subdirectories below it) all files from the specified zip archive.

Command Output:

```
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ unzip
UnZip 6.00 of 20 April 2009, by Debian. Original by Info-ZIP.

Usage: unzip [-Z] [-opts[modifiers]] file[.zip] [list] [-x xlist] [-d exdir]
Default action is to extract files in list, except those in xlist, to exdir;
file[.zip] may be a wildcard. -Z => ZipInfo mode ("unzip -Z" for usage).

-p extract files to pipe, no messages -l list files (short format)
-f freshen existing files, create none -t test compressed archive data
-u update files, create if necessary -z display archive comment only
-v list verbosely/show version info -T timestamp archive to latest
-x exclude files that follow (in xlist) -d extract files into exdir

modifiers:
-n never overwrite existing files -q quiet mode (-qq => quieter)
-o overwrite files WITHOUT prompting -a auto-convert any text files
-j junk paths (do not make directories) -aa treat ALL files as text
-U use escapes for all non-ASCII Unicode -UU ignore any Unicode fields
-C match filenames case-insensitively -L make (some) names lowercase
-X restore UID/GID info -V retain VMS version numbers
-k keep setuid/setgid/tacky permissions -M pipe through "more" pager
-O CHARSET specify a character encoding for DOS, Windows and OS/2 archives
-I CHARSET specify a character encoding for UNIX and other archives

See "unzip -hh" or unzip.txt for more help. Examples:
unzip datal -x joe => extract all files except joe from zipfile datal.zip
unzip -p foo | more => send contents of foo.zip via pipe into program more
unzip -fo foo ReadMe => quietly replace existing ReadMe if archive file newer
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ █
```

28. Command Name: **ssh**

Command Description: The ssh command provides a secure encrypted connection between two hosts over an insecure network. This connection can also be used for terminal access, file transfers, and for tunneling other applications. Graphical X11 applications can also be run securely over SSH from a remote location.

Command Output:

```
(base) student@student-HP-280-G3-SFF-Business-PC:~$ cd Documents
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents$ cd Ruthik
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ ssh -v
usage: ssh [-46AaCfGgKkMNnqsTtVvXxYy] [-B bind_interface]
          [-b bind_address] [-c cipher_spec] [-D [bind_address:]port]
          [-E log_file] [-e escape_char] [-F configfile] [-I pkcs11]
          [-i identity_file] [-J [user@]host[:port]] [-L address]
          [-l login_name] [-m mac_spec] [-O ctl_cmd] [-o option] [-p port]
          [-Q query_option] [-R address] [-S ctl_path] [-W host:port]
          [-w local_tun[:remote_tun]] destination [command]
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/student/.ssh/id_rsa): raju
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in raju
Your public key has been saved in raju.pub
The key fingerprint is:
SHA256:3PSWTg72vzLJBQs4ntyhT2lzmRljH+xpYWgHIQJHjKM student@student-HP-280-G3-SFF-Business-PC
The key's randomart image is:
+---[RSA 3072]---+
|      .+= . . .      |
|      0... . .      |
|      . . . . +      |
|    E .ooo.B.*      |
|    oS=+*=& +      |
|    =.*B* *      |
|      + +++      |
|      . =.      |
|      oo.      |
+---[SHA256]---+
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$
```

29. Command Name: **service**

Command Description: The service command starts, stops and restarts 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 an environment as possible. The service command is used for running these init scripts from the terminal. SystemD, on the other hand, is a recent initialization system that aims to replace SysVInit.

Command Output:

```
student@student-HP-280-G3-SFF-Business-PC: ~/Documents/Ruthik
(base) student@student-HP-280-G3-SFF-Business-PC:~$ cd Documents
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents$ cd Ruthik
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ service --status-all
[ + ] acpid
[ - ] alsa-utils
[ - ] anacron
[ + ] apparmor
[ + ] apport
[ + ] avahi-daemon
[ - ] bluetooth
[ - ] console-setup.sh
[ + ] cron
[ + ] cups
[ + ] cups-browsed
[ + ] dbus
[ + ] gdm3
[ - ] grub-common
[ - ] hwclock.sh
[ + ] irqbalance
[ + ] kerneloops
[ - ] keyboard-setup.sh
[ + ] kmod
[ + ] network-manager
[ + ] openvpn
[ - ] plymouth
[ - ] plymouth-log
[ - ] pppd-dns
[ + ] procps
[ - ] pulseaudio-enable-autospawn
[ - ] rsync
[ + ] rsyslog
[ - ] saned
[ - ] speech-dispatcher
[ - ] spice-vdagent
[ + ] udev
[ + ] ufw
[ + ] unattended-upgrades
[ - ] uuid
[ + ] whoopsie
[ - ] x11-common
```

30. Command Name: **ps**

Command Description: The `ps` command is used to view currently running processes on the system. It helps us to determine which process is doing what in our system, how much memory it is using, how much CPU space it occupies, user ID, command name, etc .

Command Output:

```
student@student-HP-280-G3-SFF-Business-PC: ~/Documents/Ruthik
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ ps
  PID TTY          TIME CMD
 5062 pts/0    00:00:00 bash
 6375 pts/0    00:00:00 ps
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ ps aux
USER        PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root         1   0.0  0.2 170168 11328 ?        Ss   12:59   0:02 /sbin/init splash
root         2   0.0  0.0      0     0 ?        S    12:59   0:00 [kthreadd]
root         3   0.0  0.0      0     0 ?        I<   12:59   0:00 [rcu_gp]
root         4   0.0  0.0      0     0 ?        I<   12:59   0:00 [rcu_par_gp]
root         5   0.0  0.0      0     0 ?        I<   12:59   0:00 [slub_flushwq]
root         6   0.0  0.0      0     0 ?        I<   12:59   0:00 [netns]
root         8   0.0  0.0      0     0 ?        I<   12:59   0:00 [kworker/0:0H-events_highpri]
root        10   0.0  0.0      0     0 ?        I<   12:59   0:00 [mm_percpu_wq]
root        11   0.0  0.0      0     0 ?        S    12:59   0:00 [rcu_tasks_rude ]
root        12   0.0  0.0      0     0 ?        S    12:59   0:00 [rcu_tasks_trace]
root        13   0.0  0.0      0     0 ?        S    12:59   0:00 [ksoftirqd/0]
root        14   0.0  0.0      0     0 ?        I    12:59   0:02 [rcu_sched]
root        15   0.0  0.0      0     0 ?        S    12:59   0:00 [migration/0]
root        16   0.0  0.0      0     0 ?        S    12:59   0:00 [idle_inject/0]
root        18   0.0  0.0      0     0 ?        S    12:59   0:00 [cpuhp/0]
root        19   0.0  0.0      0     0 ?        S    12:59   0:00 [cpuhp/1]
root        20   0.0  0.0      0     0 ?        S    12:59   0:00 [idle_inject/1]
root        21   0.0  0.0      0     0 ?        S    12:59   0:00 [migration/1]
root        22   0.0  0.0      0     0 ?        S    12:59   0:07 [ksoftirqd/1]
root        24   0.0  0.0      0     0 ?        I<   12:59   0:00 [kworker/1:0H-events_highpri]
root        25   0.0  0.0      0     0 ?        S    12:59   0:00 [cpuhp/2]
root        26   0.0  0.0      0     0 ?        S    12:59   0:00 [idle_inject/2]
root        27   0.0  0.0      0     0 ?        S    12:59   0:00 [migration/2]
root        28   0.0  0.0      0     0 ?        S    12:59   0:00 [ksoftirqd/2]
root        30   0.0  0.0      0     0 ?        I<   12:59   0:00 [kworker/2:0H-events_highpri]
root        31   0.0  0.0      0     0 ?        S    12:59   0:00 [cpuhp/3]
root        32   0.0  0.0      0     0 ?        S    12:59   0:00 [idle_inject/3]
root        33   0.0  0.0      0     0 ?        S    12:59   0:00 [migration/3]
root        34   0.0  0.0      0     0 ?        S    12:59   0:00 [ksoftirqd/3]
root        36   0.0  0.0      0     0 ?        I<   12:59   0:00 [kworker/3:0H-events_highpri]
root        37   0.0  0.0      0     0 ?        S    12:59   0:00 [kdevtmpfs]
root        38   0.0  0.0      0     0 ?        I<   12:59   0:00 [inet_frag_wq]
root        39   0.0  0.0      0     0 ?        S    12:59   0:00 [kauditd]
root        40   0.0  0.0      0     0 ?        S    12:59   0:00 [khungtaskd]
root        41   0.0  0.0      0     0 ?        S    12:59   0:00 [oom_reaper]
```


31. Command Name: **kill** and **killall**

Command Description: The kill command sends a signal to a process. This can terminate a process (the default), interrupt it, suspend it, crash it, and so on. You must own the process, or be the superuser, to affect it. killall [-Z, -context pattern]: It will kill only those processes that have security context. [-e, -exact]: This argument checks for the exact match in the case of very long names. [-g, -process-group]: It will kill the entire process group to which the process belongs.

Command Output:

```
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ kill -l
1) SIGHUP      2) SIGINT      3) SIGQUIT     4) SIGILL      5) SIGTRAP
6) SIGABRT     7) SIGBUS     8) SIGFPE     9) SIGKILL     10) SIGUSR1
11) SIGSEGV    12) SIGUSR2    13) SIGPIPE    14) SIGALRM     15) SIGTERM
16) SIGSTKFLT  17) SIGCHLD    18) SIGCONT    19) SIGSTOP     20) SIGTSTP
21) SIGTTIN    22) SIGTTOU    23) SIGURG     24) SIGXCPU     25) SIGXFSZ
26) SIGVTALRM  27) SIGPROF    28) SIGWINCH   29) SIGIO        30) SIGPWR
31) SIGSYS     34) SIGRTMIN   35) SIGRTMIN+1 36) SIGRTMIN+2 37) SIGRTMIN+3
38) SIGRTMIN+4 39) SIGRTMIN+5 40) SIGRTMIN+6 41) SIGRTMIN+7 42) SIGRTMIN+8
43) SIGRTMIN+9 44) SIGRTMIN+10 45) SIGRTMIN+11 46) SIGRTMIN+12 47) SIGRTMIN+13
48) SIGRTMIN+14 49) SIGRTMIN+15 50) SIGRTMAX-14 51) SIGRTMAX-13 52) SIGRTMAX-12
53) SIGRTMAX-11 54) SIGRTMAX-10 55) SIGRTMAX-9 56) SIGRTMAX-8 57) SIGRTMAX-7
58) SIGRTMAX-6 59) SIGRTMAX-5 60) SIGRTMAX-4 61) SIGRTMAX-3 62) SIGRTMAX-2
63) SIGRTMAX-1 64) SIGRTMAX

(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ ps
  PID TTY          TIME CMD
  5062 pts/0    00:00:00 bash
  6600 pts/0    00:00:00 ps

(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ kill 6600
bash: kill: (6600) - No such process

(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ killall -l
HUP INT QUIT ILL TRAP ABRT BUS FPE KILL USR1 SEGV USR2 PIPE ALRM TERM STKFLT
CHLD CONT STOP TSTP TTIN TTOU URG XCPU XFSZ VTALRM PROF WINCH POLL PWR SYS

(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$
```

32. Command Name: **df**

Command Description: Two related commands that every system administrator runs frequently are df and du. While du reports files' and directories' disk usage, df reports how much disk space your filesystem is using. The df command displays the amount of disk space available on the filesystem with each file name's argument.

Command Output:


```
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$ df
Filesystem      1K-blocks      Used Available Use% Mounted on
udev            1898936         0    1898936  0% /dev
tmpfs           387488         1848    385640   1% /run
/dev/sda5       959785008 19669236 891287612  3% /
tmpfs           1937424         0    1937424  0% /dev/shm
tmpfs           5120           4        516   1% /run/lock
tmpfs           1937424         0    1937424  0% /sys/fs/cgroup
/dev/loop1       128           128         0 100% /snap/bare/5
/dev/loop0       56960         56960         0 100% /snap/core18/2566
/dev/loop4       64768         64768         0 100% /snap/core20/1695
/dev/loop13      47104         47104         0 100% /snap/snap-store/599
/dev/loop6       64768         64768         0 100% /snap/core20/1634
/dev/loop14      49152         49152         0 100% /snap/snapd/17029
/dev/loop10      56960         56960         0 100% /snap/core18/2620
/dev/loop2       224256         224256         0 100% /snap/gnome-3-34-1804/66
/dev/loop3       224256         224256         0 100% /snap/gnome-3-34-1804/77
/dev/loop7       66432         66432         0 100% /snap/gtk-common-themes/1514
/dev/loop11      93952         93952         0 100% /snap/gtk-common-themes/1535
/dev/loop15      49152         49152         0 100% /snap/snapd/17336
/dev/loop12      55552         55552         0 100% /snap/snap-store/558
/dev/loop8       604416         604416         0 100% /snap/pycharm-community/310
/dev/loop9       354688         354688         0 100% /snap/gnome-3-38-2004/115
/dev/loop5       354688         354688         0 100% /snap/gnome-3-38-2004/119
/dev/sda1        523248         4        523244   1% /boot/efi
tmpfs           387484         60    387424   1% /run/user/1000
(base) student@student-HP-280-G3-SFF-Business-PC:~/Documents/Ruthik$
```

33. Command Name: **mount**

Command Description: The mount command allows users to mount, i.e., attach additional child file systems to a particular mount point on the currently accessible file system. The command passes the mount instructions to the kernel, which completes the operation.

Command Output:

```
tecmin@tecmin:~$ sudo mkdir /mnt/tecmin
tecmin@tecmin:~$
tecmin@tecmin:~$ sudo sshfs -o allow_other tecmin@192.168.0.102:/home/tecmin /mnt/tec
tecmin@192.168.0.102's password:
tecmin@tecmin:~$
tecmin@tecmin:~$ cd /mnt/tecmin/
tecmin@tecmin:/mnt/tecmin$
tecmin@tecmin:/mnt/tecmin$ ls
Desktop      jdz          Original Virtual Machines  Ravi-Songs  testing
Documents    Music        Pictures                  TecMint.com  text
Downloads    Ols Classy Songs - Ravi Fav Public              Templates    Videos
tecmin@tecmin:/mnt/tecmin$ df -h
Filesystem      Type      Size  Used Avail Use% Mounted on
udev            devtmpfs  730M   0    730M   0% /dev
tmpfs           tmpfs     150M   4.9M  145M   4% /run
/dev/sda1       ext4      31G   5.5G   24G   19% /
tmpfs           tmpfs     749M  216K   748M   1% /dev/shm
tmpfs           tmpfs     5.0M   4.0K   5.0M   1% /run/lock
tmpfs           tmpfs     749M   0    749M   0% /sys/fs/cgroup
tmpfs           tmpfs     150M   44K   150M   1% /run/user/1000
tecmin@192.168.0.102:/home/tecmin fuse.sshfs 324G   55G   253G  18% /mnt/tecmin
tecmin@tecmin:/mnt/tecmin$
```

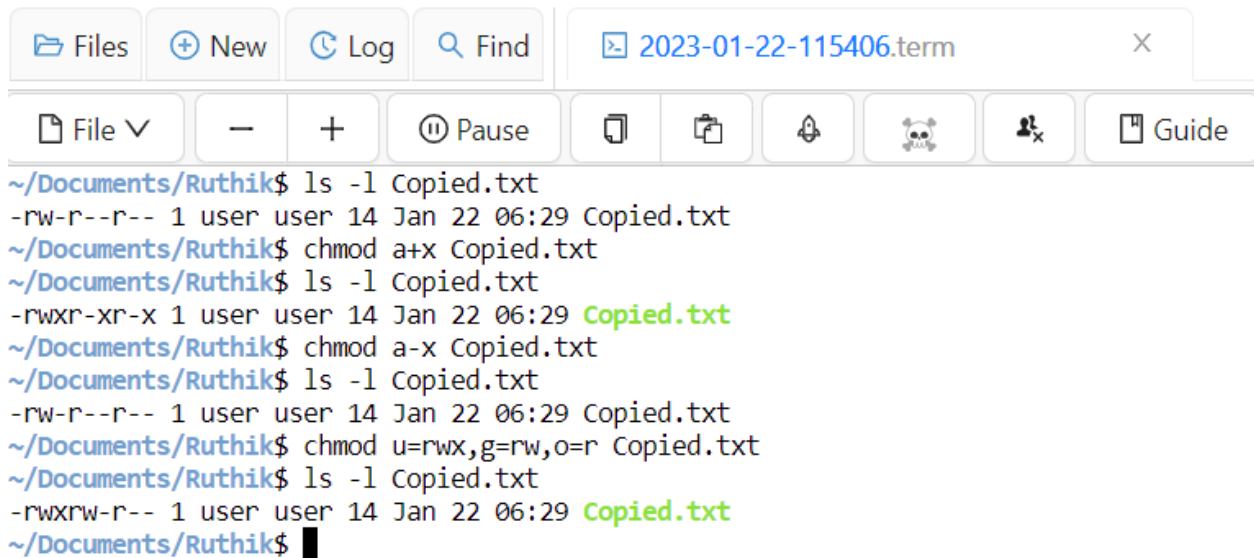
Annotations:

- create mount point**: Points to the command `mkdir /mnt/tecmin`.
- Mount Remote Filesystem**: Points to the command `sshfs -o allow_other tecmin@192.168.0.102:/home/tecmin /mnt/tec`.
- Remote Filesystem Listing**: Points to the `ls` command output.
- Remote Mounted Filesystem**: Points to the `df -h` output line for the mounted filesystem.

34.Command Name: **chmod**

Command Description: In Unix and Unix-like operating systems, chmod is the command and system call used to change the access permissions and the special mode flags of file system objects. Collectively these were originally called its modes, and the name chmod was chosen as an abbreviation of change mode.

Command Output:

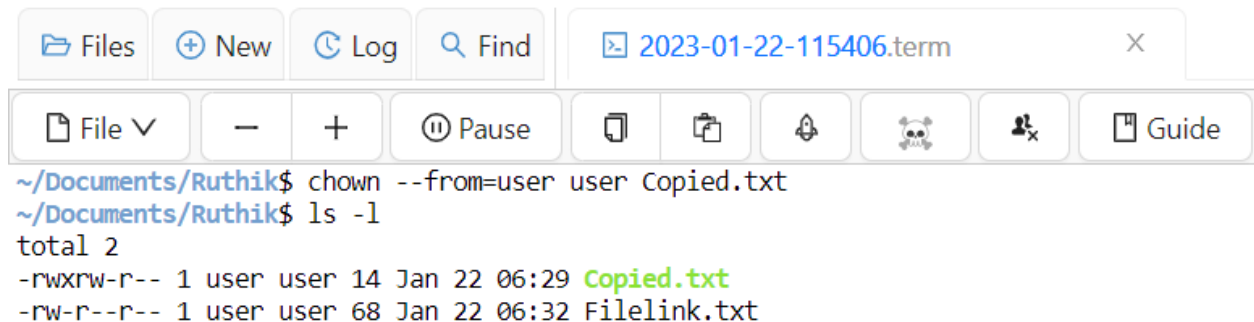
A terminal window titled '2023-01-22-115406.term' with a toolbar at the top containing icons for Files, New, Log, Find, File, and Guide. The terminal shows the following commands and output:

```
~/Documents/Ruthik$ ls -l Copied.txt
-rw-r--r-- 1 user user 14 Jan 22 06:29 Copied.txt
~/Documents/Ruthik$ chmod a+x Copied.txt
~/Documents/Ruthik$ ls -l Copied.txt
-rwxr-xr-x 1 user user 14 Jan 22 06:29 Copied.txt
~/Documents/Ruthik$ chmod a-x Copied.txt
~/Documents/Ruthik$ ls -l Copied.txt
-rw-r--r-- 1 user user 14 Jan 22 06:29 Copied.txt
~/Documents/Ruthik$ chmod u=rwx,g=rw,o=r Copied.txt
~/Documents/Ruthik$ ls -l Copied.txt
-rwxrw-r-- 1 user user 14 Jan 22 06:29 Copied.txt
~/Documents/Ruthik$
```

35.Command Name: **chown**

Command Description: The chown command changes the owner of the file or directory specified by the File or Directory parameter to the user specified by the Owner parameter. The value of the Owner parameter can be a user name from the user database or a numeric user ID. Optionally, a group can also be specified.

Command Output:

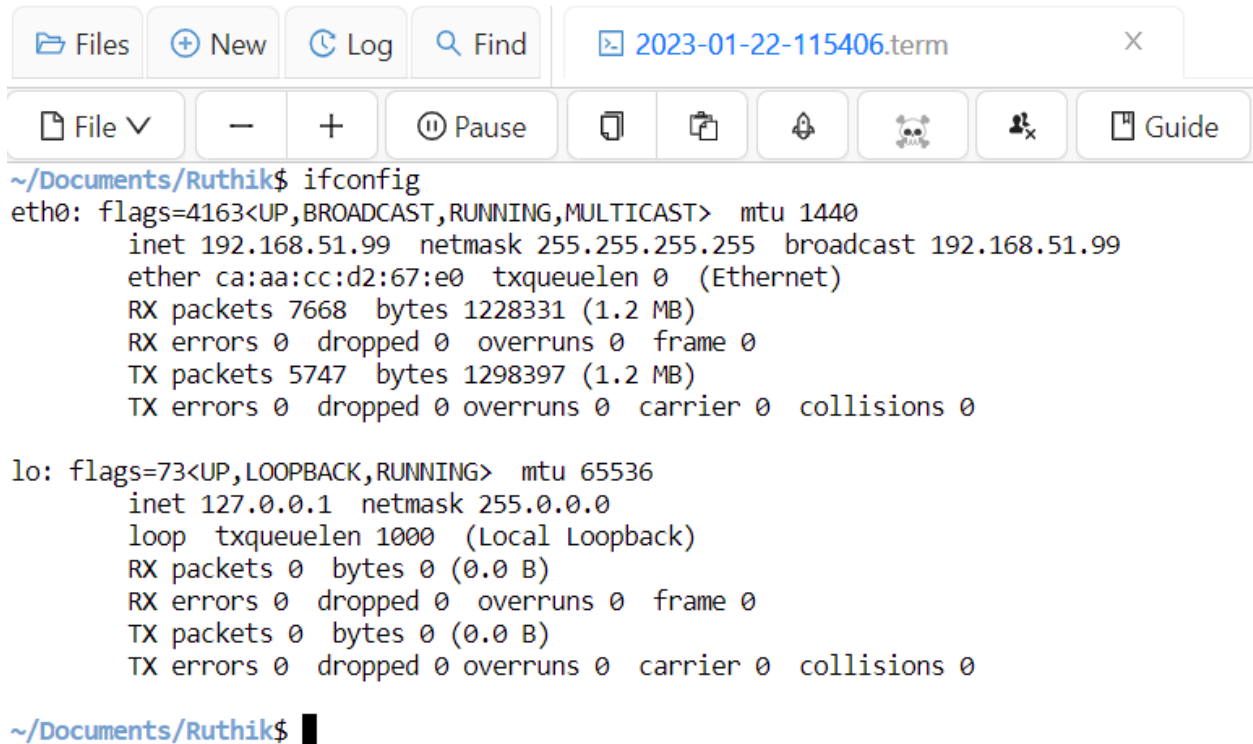
A terminal window titled '2023-01-22-115406.term' with a toolbar at the top containing icons for Files, New, Log, Find, File, and Guide. The terminal shows the following commands and output:

```
~/Documents/Ruthik$ chown --from=user user Copied.txt
~/Documents/Ruthik$ ls -l
total 2
-rwxrw-r-- 1 user user 14 Jan 22 06:29 Copied.txt
-rw-r--r-- 1 user user 68 Jan 22 06:32 Filelink.txt
```

36.Command Name: **ifconfig**

Command Description: Ifconfig is used to configure the kernel-resident network interfaces. It is used at boot time to set up interfaces as necessary. After that, it is usually only needed when debugging or when system tuning is needed. If no arguments are given, ifconfig displays the status of the currently active interfaces.

Command Output:



```
~/Documents/Ruthik$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1440
    inet 192.168.51.99 netmask 255.255.255.255 broadcast 192.168.51.99
    ether ca:aa:cc:d2:67:e0 txqueuelen 0 (Ethernet)
    RX packets 7668 bytes 1228331 (1.2 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 5747 bytes 1298397 (1.2 MB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    loop txqueuelen 1000 (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

~/Documents/Ruthik$
```

37. Command Name: **tracert**

Command Description: The tracert command (in Windows) or traceroute command (in Linux or Mac) is a network analysis tool that can be used to know the path a packet goes through or follows from the source to destination.

In computing, traceroute and tracert are computer network diagnostic commands for displaying possible routes and measuring transit delays of packets across an Internet Protocol network.

To Run Traceroute, Follow the Steps Below:

Type cmd and then click OK. Type tracert, the IP address or website name and then click Enter.

Command Output:

```
Files New Log Find 2023-01-22-115406.term X
File v - + Pause [Icons] Guide Help ~/Documents/Ruthik
~/Documents/Ruthik$ traceroute google.com
traceroute to google.com (142.251.162.139), 30 hops max, 60 byte packets
 1 kucalc-prod3-node-pknj.c.sage-math-inc.internal (10.240.0.143) 0.042 ms 0.013 ms 0.010 ms
 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 * * *
~/Documents/Ruthik$
```

38.Command Name: **wget**

Command Description: Command wget stands for web get. The wget is a free non-interactive file downloader command. Non-interactive means it can work in the background when the user is not logged in. This allows the user to get disconnected with the system while wget finishes its work.

Command Output:

```
(base) student@student-HP:~/Documents/Ruthik$ wget http://example.com/sample.php
--2023-01-23 16:08:23-- http://example.com/sample.php
Resolving example.com (example.com)... 93.184.216.34, 2606:2800:220:1:248:1893:25c8:1946
Connecting to example.com (example.com)|93.184.216.34|:80... connected.
HTTP request sent, awaiting response... 404 Not Found
2023-01-23 16:08:24 ERROR 404: Not Found.

(base) student@student-HP:~/Documents/Ruthik$
```

39.Command Name: **ufw**

Command Description: The Uncomplicated Firewall (ufw) is a frontend for iptables and is particularly well-suited for host-based firewalls. ufw provides a

framework for managing netfilter, as well as a command-line interface for manipulating the firewall.

Command Output:

```
(base) student@student-HP:~/Documents/Ruthik$ sudo ufw status
[sudo] password for student:
Status: inactive
(base) student@student-HP:~/Documents/Ruthik$ sudo ufw enable
Firewall is active and enabled on system startup
(base) student@student-HP:~/Documents/Ruthik$ sudo ufw status
Status: active
(base) student@student-HP:~/Documents/Ruthik$
```

40. Command Name: **iptables**

Command Description: The iptables command is a powerful interface for your local Linux firewall. It provides thousands of network traffic management options through a simple syntax.

Command Output:

```
(base) student@student-HP:~/Documents/Ruthik$ sudo iptables -L --line-number
Chain INPUT (policy ACCEPT)
num  target                prot opt source                destination
1    ufw-before-logging-input  all  --  anywhere                anywhere
2    ufw-before-input        all  --  anywhere                anywhere
3    ufw-after-input         all  --  anywhere                anywhere
4    ufw-after-logging-input  all  --  anywhere                anywhere
5    ufw-reject-input        all  --  anywhere                anywhere
6    ufw-track-input         all  --  anywhere                anywhere

Chain FORWARD (policy ACCEPT)
num  target                prot opt source                destination
1    ufw-before-logging-forward all  --  anywhere                anywhere
2    ufw-before-forward      all  --  anywhere                anywhere
3    ufw-after-forward       all  --  anywhere                anywhere
4    ufw-after-logging-forward all  --  anywhere                anywhere
5    ufw-reject-forward      all  --  anywhere                anywhere
6    ufw-track-forward       all  --  anywhere                anywhere

Chain OUTPUT (policy ACCEPT)
num  target                prot opt source                destination
1    ufw-before-logging-output all  --  anywhere                anywhere
2    ufw-before-output       all  --  anywhere                anywhere
3    ufw-after-output        all  --  anywhere                anywhere
4    ufw-after-logging-output all  --  anywhere                anywhere
5    ufw-reject-output       all  --  anywhere                anywhere
6    ufw-track-output        all  --  anywhere                anywhere

Chain ufw-after-forward (1 references)
num  target                prot opt source                destination

Chain ufw-after-input (1 references)
num  target                prot opt source                destination

Chain ufw-after-logging-forward (1 references)
num  target                prot opt source                destination

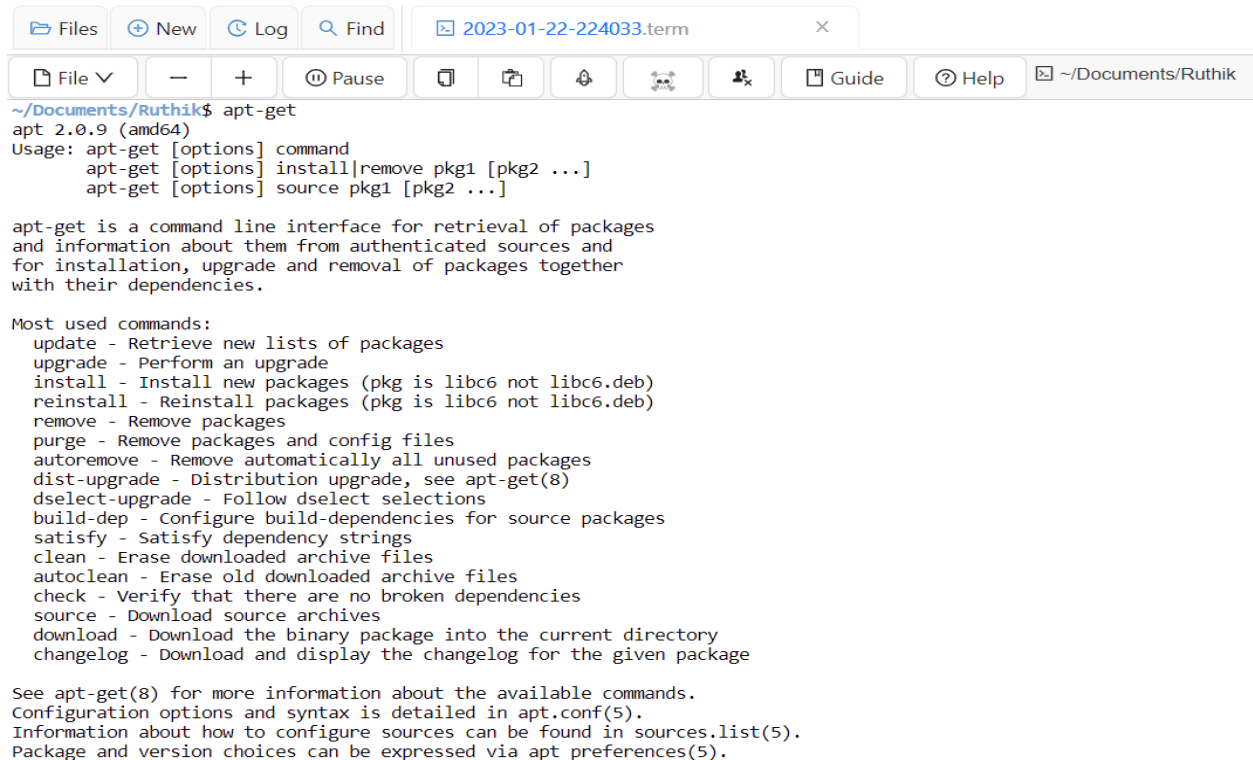
Chain ufw-after-logging-input (1 references)
num  target                prot opt source                destination

Chain ufw-after-logging-output (1 references)
num  target                prot opt source                destination
```

41. Command Name: **apt**

Command Description: Advanced Package Tool, more commonly known as APT, is a collection of tools used to install, update, remove, and otherwise manage software packages on Debian and its derivative operating systems, including Ubuntu and Linux Mint.

Command Output:



```
~/Documents/Ruthik$ apt-get
apt 2.0.9 (amd64)
Usage: apt-get [options] command
       apt-get [options] install|remove pkg1 [pkg2 ...]
       apt-get [options] source pkg1 [pkg2 ...]

apt-get is a command line interface for retrieval of packages
and information about them from authenticated sources and
for installation, upgrade and removal of packages together
with their dependencies.

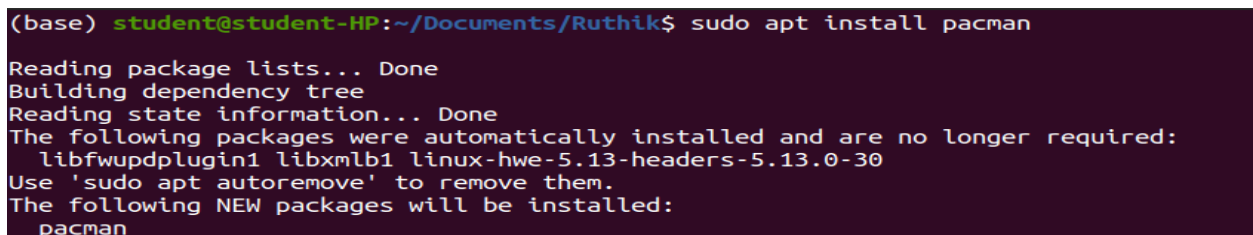
Most used commands:
  update - Retrieve new lists of packages
  upgrade - Perform an upgrade
  install - Install new packages (pkg is libc6 not libc6.deb)
  reinstall - Reinstall packages (pkg is libc6 not libc6.deb)
  remove - Remove packages
  purge - Remove packages and config files
  autoremove - Remove automatically all unused packages
  dist-upgrade - Distribution upgrade, see apt-get(8)
  dselect-upgrade - Follow dselect selections
  build-dep - Configure build-dependencies for source packages
  satisfy - Satisfy dependency strings
  clean - Erase downloaded archive files
  autoclean - Erase old downloaded archive files
  check - Verify that there are no broken dependencies
  source - Download source archives
  download - Download the binary package into the current directory
  changelog - Download and display the changelog for the given package

See apt-get(8) for more information about the available commands.
Configuration options and syntax is detailed in apt.conf(5).
Information about how to configure sources can be found in sources.list(5).
Package and version choices can be expressed via apt_preferences(5).
```

42. Command Name: **pacman**

Command Description: Pacman is a package manager for the arch Linux and arch-based Linux distributions. If you have used Debian-based OS like ubuntu, then the Pacman is similar to the apt command of Debian-based operating systems. Pacman contains the compressed files as a package format and maintains a text-based package database.

Command Output:



```
(base) student@student-HP:~/Documents/Ruthik$ sudo apt install pacman
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libfwupdplugin1 libxmlb1 linux-hwe-5.13-headers-5.13.0-30
Use 'sudo apt autoremove' to remove them.
The following NEW packages will be installed:
  pacman
```


43. Command Name: **yum**

Command Description: Use yum command to install critical and non-critical security updates as well as binary packages. Login as the root user to install and update the system.

Command Output:

```
root@localhost:~  
File Edit View Search Terminal Help  
[root@localhost ~]# yum history  
ID      | Command line          | Date and time    | Action(s)      | Altered  
-----|-----  
5 | remove httpd          | 2020-01-30 14:47 | Removed        | 9  
4 | install httpd         | 2020-01-30 14:33 | Install        | 9  
3 | group install workstatio | 2020-01-24 15:50 | Install        | 1003  
2 | update -y             | 2020-01-24 15:29 | I, U           | 233 EE  
1 |                         | 2019-12-06 11:42 | Install        | 391 EE  
[root@localhost ~]#
```

44. Command Name: **rpm**

Command Description: RPM is a command-line utility for managing packages on Unix/Linux systems. It allows you to install, query, update, verify and remove RPM packages. It is the default package manager for Red Hat based systems and only works with the . rpm format.

Command Output:

```
(base) student@student-HP:~/Documents/Ruthik$ sudo apt install rpm  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following packages were automatically installed and are no longer required:  
  libfwupdplugin1 libxmlb1 linux-hwe-5.13-headers-5.13.0-30  
Use 'sudo apt autoremove' to remove them.  
The following additional packages will be installed:  
  debugedit liblua5.2-0 librpm8 librpmbuild8 librpmio8 librpmjsign8 rpm-common rpm2  
Suggested packages:  
  rpm-i18n alien python elfutils rpmlint rpm2html  
The following NEW packages will be installed:  
  debugedit liblua5.2-0 librpm8 librpmbuild8 librpmio8 librpmjsign8 rpm rpm-common  
0 upgraded, 9 newly installed, 0 to remove and 43 not upgraded.  
2 not fully installed or removed.  
Need to get 610 kB of archives.  
After this operation, 2,587 kB of additional disk space will be used.
```

45. Command Name: **sudo**

Command Description: The Linux `sudo` command stands for Super User Do. Generally, it is applied as a prefix of a few commands that superuser is allowed to execute. If we prefix the command along with other commands, it would execute that command with high privileges.

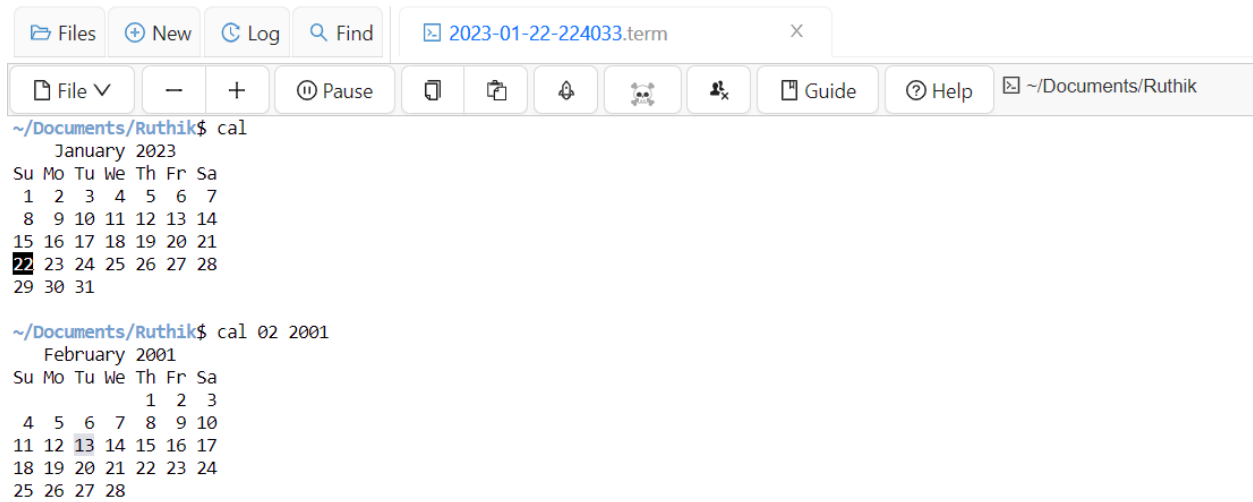
Command Output:

```
(base) student@student-HP:~/Documents/Ruthik$ sudo -V
Sudo version 1.8.31
Sudoers policy plugin version 1.8.31
Sudoers file grammar version 46
Sudoers I/O plugin version 1.8.31
(base) student@student-HP:~/Documents/Ruthik$ sudo apt-get update
Hit:1 http://in.archive.ubuntu.com/ubuntu focal InRelease
Get:2 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Get:3 http://in.archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:4 http://in.archive.ubuntu.com/ubuntu focal-backports InRelease [108 kB]
Get:5 http://security.ubuntu.com/ubuntu focal-security/main i386 Packages [543 kB]
Get:6 http://in.archive.ubuntu.com/ubuntu focal-updates/main i386 Packages [775 kB]
Get:7 http://security.ubuntu.com/ubuntu focal-security/main amd64 Packages [1,959 kB]
Get:8 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages [2,336 kB]
Get:9 http://security.ubuntu.com/ubuntu focal-security/main Translation-en [320 kB]
Get:10 http://security.ubuntu.com/ubuntu focal-security/main amd64 DEP-11 Metadata [59.9 kB]
Get:11 http://security.ubuntu.com/ubuntu focal-security/main amd64 c-n-f Metadata [11.7 kB]
Get:12 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 Packages [1,463 kB]
Get:13 http://in.archive.ubuntu.com/ubuntu focal-updates/main Translation-en [403 kB]
Get:14 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 DEP-11 Metadata [274 kB]
Get:15 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 c-n-f Metadata [16.2 kB]
Get:16 http://in.archive.ubuntu.com/ubuntu focal-updates/restricted i386 Packages [30.4 kB]
Get:17 http://in.archive.ubuntu.com/ubuntu focal-updates/restricted amd64 Packages [1,560 kB]
Get:18 http://in.archive.ubuntu.com/ubuntu focal-updates/universe i386 Packages [707 kB]
Get:19 http://in.archive.ubuntu.com/ubuntu focal-updates/universe amd64 Packages [1,017 kB]
Get:20 http://security.ubuntu.com/ubuntu focal-security/restricted i386 Packages [29.1 kB]
Get:21 http://security.ubuntu.com/ubuntu focal-security/restricted Translation-en [207 kB]
Get:22 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 c-n-f Metadata [624 B]
Get:23 http://security.ubuntu.com/ubuntu focal-security/universe i386 Packages [576 kB]
Get:24 http://in.archive.ubuntu.com/ubuntu focal-updates/universe Translation-en [236 kB]
Get:25 http://in.archive.ubuntu.com/ubuntu focal-updates/universe amd64 DEP-11 Metadata [408 kB]
Get:26 http://in.archive.ubuntu.com/ubuntu focal-updates/universe amd64 c-n-f Metadata [23.2 kB]
Get:27 http://in.archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 DEP-11 Metadata [944 B]
Get:28 http://in.archive.ubuntu.com/ubuntu focal-backports/main amd64 DEP-11 Metadata [8,012 B]
Get:29 http://in.archive.ubuntu.com/ubuntu focal-backports/universe amd64 DEP-11 Metadata [30.5 kB]
Get:30 http://security.ubuntu.com/ubuntu focal-security/universe amd64 Packages [786 kB]
Get:31 http://security.ubuntu.com/ubuntu focal-security/universe Translation-en [152 kB]
Get:32 http://security.ubuntu.com/ubuntu focal-security/universe amd64 DEP-11 Metadata [94.0 kB]
Get:33 http://security.ubuntu.com/ubuntu focal-security/universe amd64 c-n-f Metadata [16.9 kB]
Get:34 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 DEP-11 Metadata [940 B]
Fetched 14.4 MB in 50s (289 kB/s)
Reading package lists... Done
(base) student@student-HP:~/Documents/Ruthik$
```

46. Command Name: **cal**

Command Description: The `cal` command displays a calendar of the specified year or month. The Year parameter names the year for which you want a calendar. Since the `cal` command can display a calendar for any year from 1 through 9999, you must enter the full year rather than just the last two digits.

Command Output:



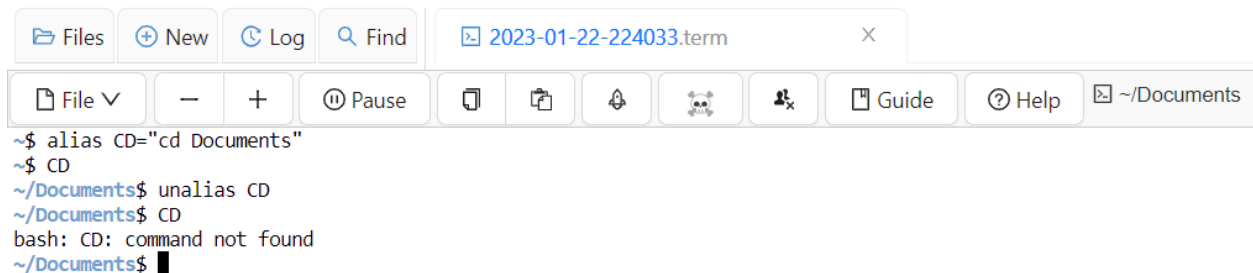
```
~/Documents/Ruthik$ cal
  January 2023
Su Mo Tu We Th Fr Sa
 1  2  3  4  5  6  7
 8  9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

~/Documents/Ruthik$ cal 02 2001
  February 2001
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
```

47. Command Name: **alias**

Command Description: alias command instructs the shell to replace one string with another string while executing the commands. When we often have to use a single big command multiple times, in those cases, we create something called an alias for that command.

Command Output:



```
~$ alias CD="cd Documents"
~$ CD
~/Documents$ unalias CD
~/Documents$ CD
bash: CD: command not found
~/Documents$
```

48. Command Name: **dd**

Command Description: dd is a command-line utility for Unix and Unix-like operating systems whose primary purpose is to convert and copy files. On Unix, device drivers for hardware (such as hard disk drives) and special device files (such as /dev/zero and /dev/random) appear in the file system just like normal files.

Command Output:

```
Files New Log Find 2023-01-22-224033.term X
File - + Pause [Icons] Guide Help ~/Documents/Ruthik
~/Documents/Ruthik$ cat Copied.txt
hey, how are you?~/Documents/Ruthik$ dd if=Copied.txt of=Filelink.txt oflag=append conv=notrunc
0+1 records in
0+1 records out
17 bytes copied, 8.2314e-05 s, 207 kB/s
```

49. Command Name: **whereis**

Command Description: 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.

Command Output:

```
Files New Log Find 2023-01-22-224033.term X
File - + Pause [Icons] Guide Help ~/Documents/Ruthik
~/Documents/Ruthik$ whereis ls
ls: /usr/bin/ls /bin/ls /usr/share/man/man1/ls.1.gz
~/Documents/Ruthik$ whereis -l
bin: /usr/bin
bin: /usr/sbin
bin: /bin
bin: /sbin
bin: /lib/x86_64-linux-gnu
bin: /usr/lib/x86_64-linux-gnu
bin: /usr/local/lib/x86_64-linux-gnu
bin: /usr/lib
bin: /usr/lib64
bin: /etc
bin: /usr/etc
bin: /lib
bin: /lib64
bin: /usr/games
bin: /usr/local/bin
bin: /usr/local/sbin
bin: /usr/local/etc
bin: /usr/local/lib
bin: /usr/local/games
bin: /usr/include
bin: /usr/local
bin: /usr/libexec
bin: /usr/share
bin: /opt/intel/bin
bin: /opt/cabal/bin
bin: /opt/ghc/bin
bin: /opt/quarto/bin
bin: /cocalc/bin
bin: /ext/bin
bin: /usr/lib/xpra
bin: /ext/data/homer/bin
```

50. Command Name: **whatis**

Command Description: The whatis command is used to get brief information about Linux commands or functions. It displays the manual page description in a

single line of the command that passes with the whatis command. It searches for the strings that have been passed with it from its index databases. Its index database is maintained by the mandb program.

Command Output:

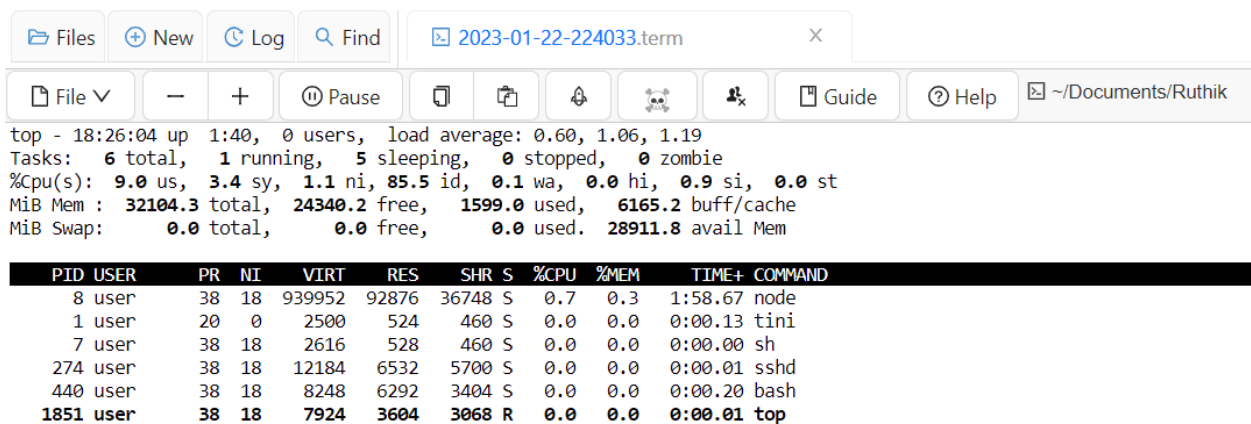
```
~/Documents/Ruthik$ whatis -d ls
From the config file /etc/manpath.config:
Mandatory mandir `/usr/man'.
Mandatory mandir `/usr/share/man'.
Mandatory mandir `/usr/local/share/man'.
Path `/bin' mapped to mandir `/usr/share/man'.
Path `/usr/bin' mapped to mandir `/usr/share/man'.
Path `/sbin' mapped to mandir `/usr/share/man'.
Path `/usr/sbin' mapped to mandir `/usr/share/man'.
Path `/usr/local/bin' mapped to mandir `/usr/local/man'.
Path `/usr/local/bin' mapped to mandir `/usr/local/share/man'.
Path `/usr/local/sbin' mapped to mandir `/usr/local/man'.
Path `/usr/local/sbin' mapped to mandir `/usr/local/share/man'.
Path `/usr/X11R6/bin' mapped to mandir `/usr/X11R6/man'.
Path `/usr/bin/X11' mapped to mandir `/usr/X11R6/man'.
Path `/usr/games' mapped to mandir `/usr/share/man'.
Path `/opt/bin' mapped to mandir `/opt/man'.
Path `/opt/sbin' mapped to mandir `/opt/man'.
Global mandir `/usr/man', catdir `/var/cache/man/fsstnd'.
Global mandir `/usr/share/man', catdir `/var/cache/man'.
Global mandir `/usr/local/man', catdir `/var/cache/man/oldlocal'.
Global mandir `/usr/local/share/man', catdir `/var/cache/man/local'.
Global mandir `/usr/X11R6/man', catdir `/var/cache/man/X11R6'.
Global mandir `/opt/man', catdir `/var/cache/man/opt'.
Global mandir `/snap/man', catdir `/var/cache/man/snap'.
Added sections: `1', `n', `l', `8', `3', `2', `3posix', `3pm', `3perl', `3am', `5', `4', `9', `6', `7'.
path directory /cocalc/bin is not in the config file
path directory /cocalc/src/smc-project/bin is not in the config file
path directory /home/user/bin is not in the config file
path directory /home/user/.local/bin is not in the config file
path directory /ext/bin is not in the config file
path directory /usr/lib/xpra is not in the config file
path directory /opt/ghc/bin is not in the config file
path directory /usr/local/sbin is in the config file
```

```
~/Documents/Ruthik$ whatis -v ls
ls (1) - list directory contents
~/Documents/Ruthik$ whatis -r ls
Future::Utils (3pm) - utility functions for working with "Future" objects
List::UtilsBy (3pm) - higher-order list utility functions
_illseek (2) - reposition read/write file offset
alsa-info (8) - command-line utility to gather information about the ALSA subsystem
alsabat (1) - command-line sound tester for ALSA sound card driver
alsactl (1) - advanced controls for ALSA soundcard driver
alsactl_init (7) - alsa control management - initialization
alsaloop (1) - command-line PCM loopback
alsamixer (1) - soundcard mixer for ALSA soundcard driver, with ncurses interface
alsatplg (1) - ALSA Topology Compiler
alsaucm (1) - ALSA Use Case Manager
ArrayLabels (3o) - no description
backtrace_symbols (3) - support for application self-debugging
backtrace_symbols_fd (3) - support for application self-debugging
bcftools (1) - utilities for variant calling and manipulating VCFs and BCFs.
Biber::Internals (3pm) - Internal methods for processing the bibliographic data
Biber::Utils (3pm) - Various utility subs used in Biber
BytesLabels (3o) - Byte sequence operations.
CamlInternalMenhirLib.IncrementalEngine.SYMBOLS (3o) - no description
CamlInternalMenhirLib.InspectionTableInterpreter.Symbols (3o) - no description
credentials (7) - process identifiers
critcl_literals (3tcl) - Critcl Utilities: Constant string pools
d.labels (1grass) - Displays text labels (created with v.label) to the active frame on the graphics monitor.
DateTime::Locale::en_LS (3pm) - Locale data examples for the English Lesotho (en-LS) locale
DateTime::TimeZone::OlsonDB (3pm) - An object to represent an Olson time zone database
deb-symbols (5) - Debian's extended shared library information file
dh_autotools-dev_restoreconfig (1) - restore config.sub and config.guess
dh_autotools-dev_updateconfig (1) - update config.sub and config.guess
dh_install systemd (1) - install systemd unit files
dh_install systemduser (1) - install systemd unit files
dh_update autotools config (1) - Update autotools config files
```

51.Command Name: **top**

Command Description: top command is used to show the Linux processes. It provides a dynamic real-time view of the running system. Usually, this command shows the summary information of the system and the list of processes or threads which are currently managed by the Linux Kernel.

Command Output:



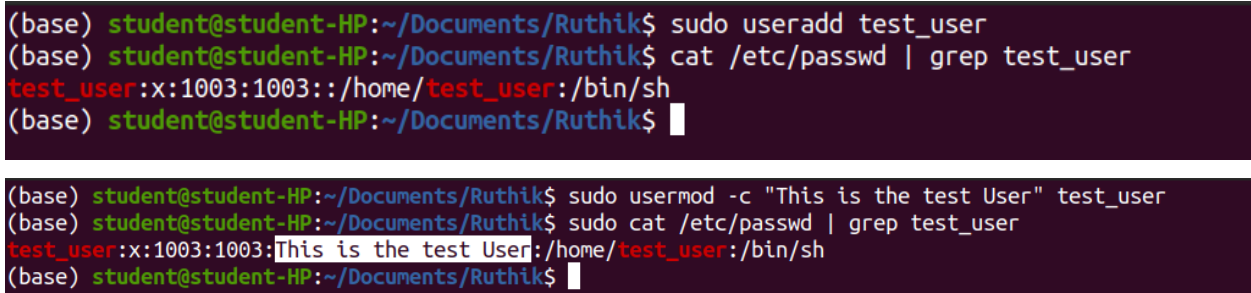
```
top - 18:26:04 up 1:40, 0 users, load average: 0.60, 1.06, 1.19
Tasks: 6 total, 1 running, 5 sleeping, 0 stopped, 0 zombie
%Cpu(s): 9.0 us, 3.4 sy, 1.1 ni, 85.5 id, 0.1 wa, 0.0 hi, 0.9 si, 0.0 st
MiB Mem : 32104.3 total, 24340.2 free, 1599.0 used, 6165.2 buff/cache
MiB Swap: 0.0 total, 0.0 free, 0.0 used, 28911.8 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
8	user	38	18	939952	92876	36748	S	0.7	0.3	1:58.67	node
1	user	20	0	2500	524	460	S	0.0	0.0	0:00.13	tini
7	user	38	18	2616	528	460	S	0.0	0.0	0:00.00	sh
274	user	38	18	12184	6532	5700	S	0.0	0.0	0:00.01	sshd
440	user	38	18	8248	6292	3404	S	0.0	0.0	0:00.20	bash
1851	user	38	18	7924	3604	3068	R	0.0	0.0	0:00.01	top

52.Command Name: **useradd** and **usermod**

Command Description: The difference between useradd and usermod is that the former is used for creating new users and the latter is used for modifying existing users. While useradd can define a Linux user's settings, it does so for new users, not existing users. See our Linux Users and Groups guide for more on the useradd command.

Command Output:



```
(base) student@student-HP:~/Documents/Ruthik$ sudo useradd test_user
(base) student@student-HP:~/Documents/Ruthik$ cat /etc/passwd | grep test_user
test_user:x:1003:1003::/home/test_user:/bin/sh
(base) student@student-HP:~/Documents/Ruthik$

(base) student@student-HP:~/Documents/Ruthik$ sudo usermod -c "This is the test User" test_user
(base) student@student-HP:~/Documents/Ruthik$ sudo cat /etc/passwd | grep test_user
test_user:x:1003:1003:This is the test User:/home/test_user:/bin/sh
(base) student@student-HP:~/Documents/Ruthik$
```

53.Command Name: **passwd**

Command Description: The passwd command changes passwords for user accounts. A normal user may only change the password for their own account,

while the superuser may change the password for any account. passwd also changes the account or associated password validity period.

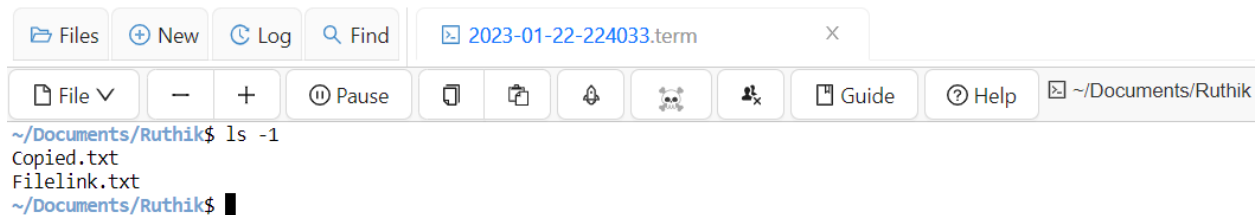
Command Output:

```
(base) student@student-HP:~/Documents/Ruthik$ passwd
Changing password for student.
Current password:
New password:
Retype new password:
passwd: password updated successfully
```

54.Command Name: **ls -l | wc -l**

Command Description: ls command is used to list the contents of a current directory. Copied! ls lists files and directories in the bare format where details like file types, size, modified date, modified time, permission, links, etc can't be viewed. There are some options that can be used with ls command to change the output format.

Command Output:



```
~/Documents/Ruthik$ ls -l
Copied.txt
Filelink.txt
~/Documents/Ruthik$
```

55.Command Name: **kill**

Command Description: 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 the kill command then a default TERM signal is sent that terminates the process.

Signals can be specified in three ways:

- By number (e.g. -5)
- With SIG prefix (e.g. -SIGkill)
- Without SIG prefix (e.g. -kill)

Command Output:

```
~/Documents/Ruthik$ ps
  PID TTY          TIME CMD
  440 pts/0    00:00:00 bash
 2021 pts/0    00:00:00 wc
 2086 pts/0    00:00:00 ps
~/Documents/Ruthik$ kill 2086
bash: kill: (2086) - No such process
~/Documents/Ruthik$ kill -l
 1) SIGHUP      2) SIGINT      3) SIGQUIT     4) SIGILL      5) SIGTRAP
 6) SIGABRT     7) SIGBUS     8) SIGFPE      9) SIGKILL     10) SIGUSR1
11) SIGSEGV    12) SIGUSR2    13) SIGPIPE    14) SIGALRM     15) SIGTERM
16) SIGSTKFLT  17) SIGCHLD   18) SIGCONT     19) SIGSTOP     20) SIGTSTP
21) SIGTTIN    22) SIGTTOU    23) SIGURG     24) SIGXCPU    25) SIGXFSZ
26) SIGVTALRM  27) SIGPROF   28) SIGWINCH   29) SIGIO       30) SIGPWR
31) SIGSYS     34) SIGRTMIN  35) SIGRTMIN+1 36) SIGRTMIN+2 37) SIGRTMIN+3
38) SIGRTMIN+4 39) SIGRTMIN+5 40) SIGRTMIN+6 41) SIGRTMIN+7 42) SIGRTMIN+8
43) SIGRTMIN+9 44) SIGRTMIN+10 45) SIGRTMIN+11 46) SIGRTMIN+12 47) SIGRTMIN+13
48) SIGRTMIN+14 49) SIGRTMIN+15 50) SIGRTMAX-14 51) SIGRTMAX-13 52) SIGRTMAX-12
53) SIGRTMAX-11 54) SIGRTMAX-10 55) SIGRTMAX-9  56) SIGRTMAX-8  57) SIGRTMAX-7
58) SIGRTMAX-6  59) SIGRTMAX-5 60) SIGRTMAX-4 61) SIGRTMAX-3 62) SIGRTMAX-2
63) SIGRTMAX-1 64) SIGRTMAX
```

56.Command Name: **w**

Command Description: The **w** command is a built-in tool that allows administrators to view information about users that are currently logged in. This includes their username, where they are logged in from, and what they are currently doing.

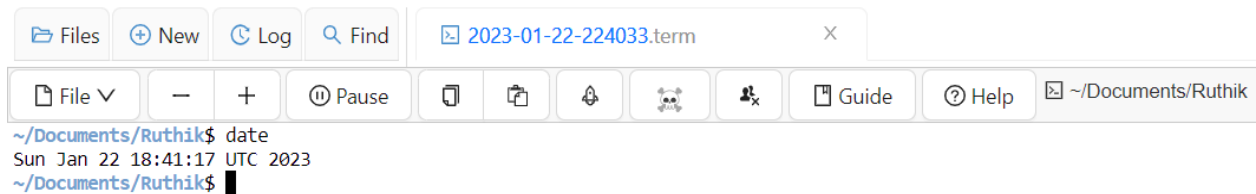
Command Output:

```
~/Documents/Ruthik$ w
 18:40:15 up  1:54,  0 users,  load average: 1.58, 1.51, 1.35
USER      TTY      FROM            LOGIN@   IDLE   JCPU   PCPU   WHAT
~/Documents/Ruthik$
```

57.Command Name: **date**

Command Description: **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.

Command Output:

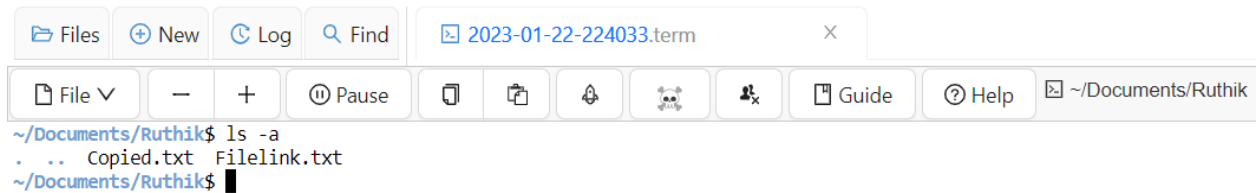


```
~/Documents/Ruthik$ date
Sun Jan 22 18:41:17 UTC 2023
~/Documents/Ruthik$
```

58. Command Name: **ls -a**

Command Description: `ls` command is used to list contents of present working directory. It can also list contents of any given path. Path can be both absolute and relative path. We will also learn about certain flags which can be used to modify or narrow down the listing.

Command Output:

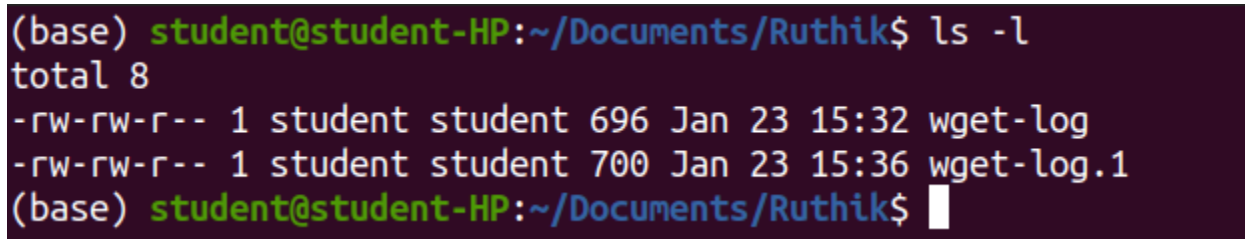


```
~/Documents/Ruthik$ ls -a
.  ..  Copied.txt  Filelink.txt
~/Documents/Ruthik$
```

59. Command Name: **ls -l**

Command Description: `ls` is a Linux shell command that lists directory contents of files and directories. One of the most often used commands in regular Linux/UNIX operations is the `ls` command.

Command Output:



```
(base) student@student-HP:~/Documents/Ruthik$ ls -l
total 8
-rw-rw-r-- 1 student student 696 Jan 23 15:32 wget-log
-rw-rw-r-- 1 student student 700 Jan 23 15:36 wget-log.1
(base) student@student-HP:~/Documents/Ruthik$
```

60. Command Name: **ls -R**

Command Description: `ls` is a Linux shell command that lists directory contents of files and directories.

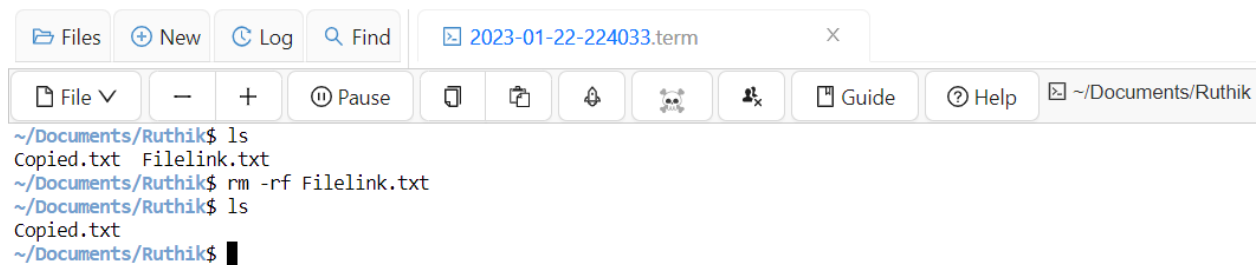
Command Output:

```
(base) student@student-HP:~/Documents/Ruthik$ ls -R
.:
wget-log  wget-log.1
(base) student@student-HP:~/Documents/Ruthik$
```

61. Command Name: **rm -rf**

Command Description: rm stands for remove, and it is used to remove files, directories, and links. By default, it does not remove directories. This command normally works silently and it should be used carefully, because once you delete a file in Linux the content cannot be recovered.

Command Output:



The screenshot shows a terminal window with a title bar containing '2023-01-22-224033.term'. The terminal interface includes a menu bar with 'File', 'New', 'Log', and 'Find' options, and a toolbar with icons for file operations and a 'Guide' button. The terminal output shows the user running 'ls' in the directory '~/Documents/Ruthik', which lists 'Copied.txt' and 'Filelink.txt'. Then, the user runs 'rm -rf Filelink.txt', and a subsequent 'ls' command shows only 'Copied.txt' remaining.

```
~/Documents/Ruthik$ ls
Copied.txt  Filelink.txt
~/Documents/Ruthik$ rm -rf Filelink.txt
~/Documents/Ruthik$ ls
Copied.txt
~/Documents/Ruthik$
```