1.BASIC LINUX COMMANDS

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BASIC LINUX COMMANDS

Aim:

To learn how the basic Linux commands work.

Commands:

- **pwd:**

Description: Print working directory command in Linux.

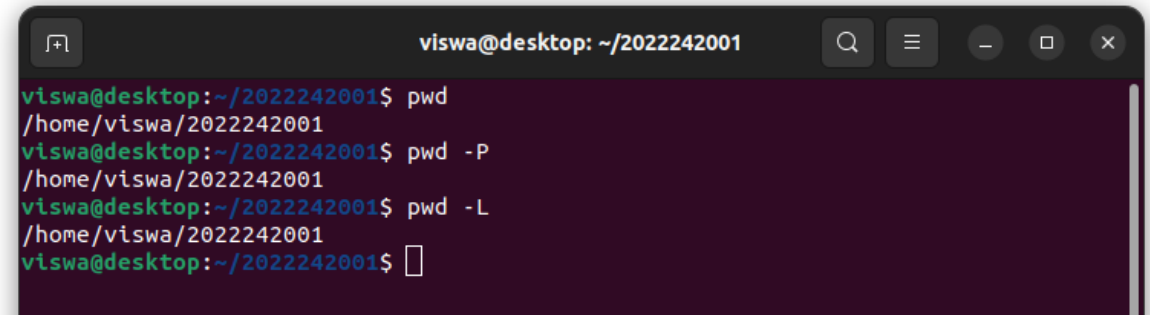
Syntax: ~$ pwd

Options:

-L or –logical Prints environment variable content, including symbolic links.

-P or –physical Prints the actual path of the current directory.

Output:



- **man:**

Description: The man command provides a user manual of any commands or utilities you can run in Terminal, including the name, description, and options.

Syntax: ~$ man

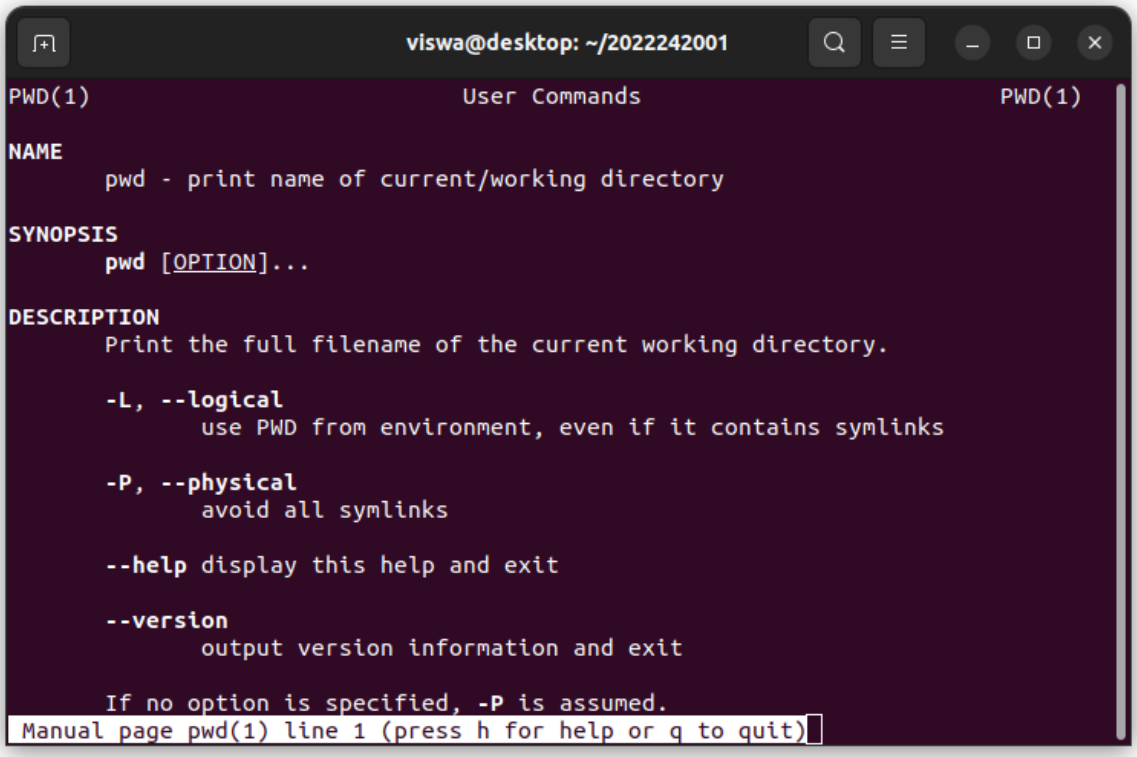
Options:

~$ man [command_name]

-a Intro

-t Bash

Output:



- **ls:**

Description: List files and directories in the current working directory.

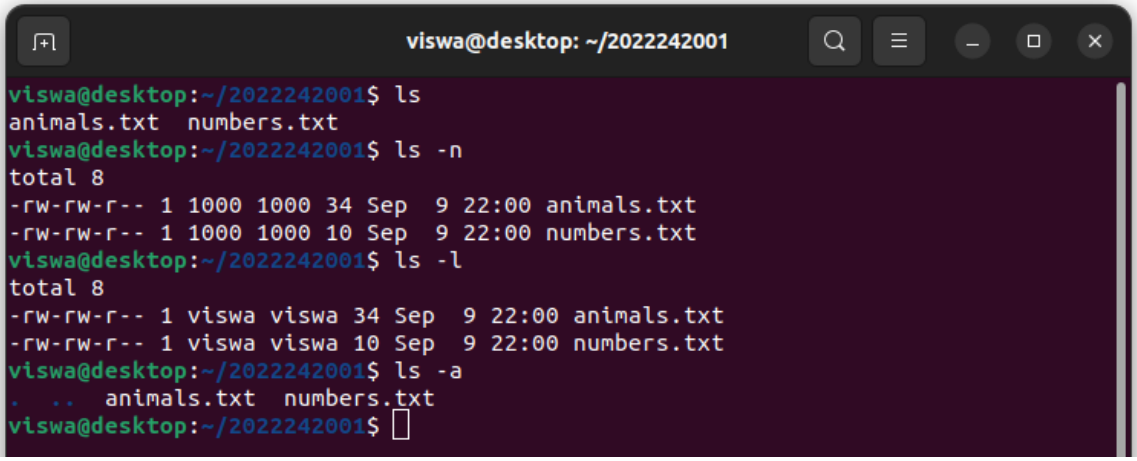
Syntax: ~$ ls

Options:

-l Long listed format

-n List numeric user and group ID

Output:



- **mkdir:**

Description: Create one or multiple directories at once and set permissions for each of them.

Syntax: ~$ mkdir [directory name]

Options:

-m Sets the file permissions

-v Prints a message for each created directory.

Output:

- **cat:**

Description: Concatenate file(s) to a standard output. With no file, or when file is not created, read standard output.

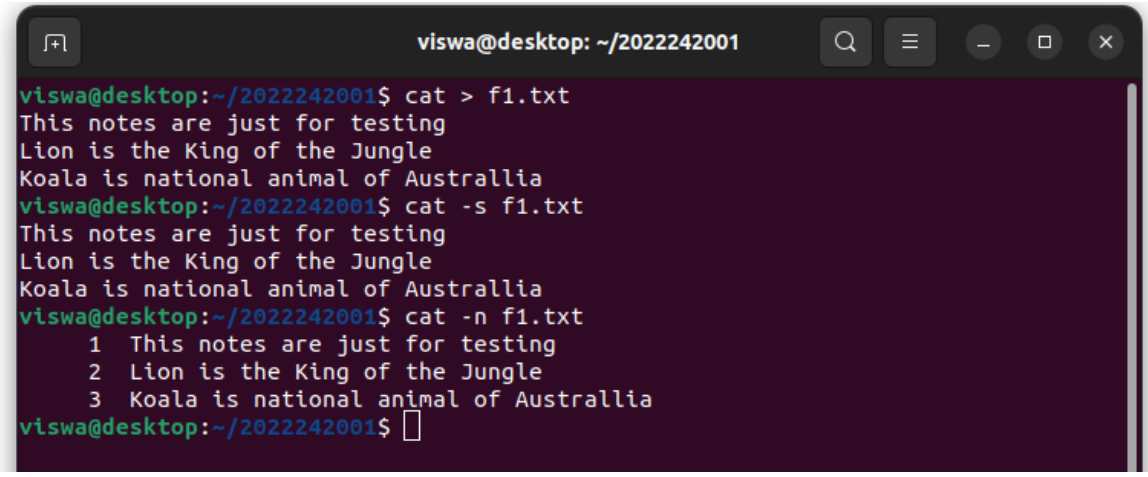
Syntax: ~$ cat [filename]

Options:

-s Suppress repeated empty lines

-n Number all output lines

Output:



- **cp:**

Description: Copy files or directories and their content from SOURCE to DESTINATION.

Syntax: ~$ cp [SOURCE] [DEST]

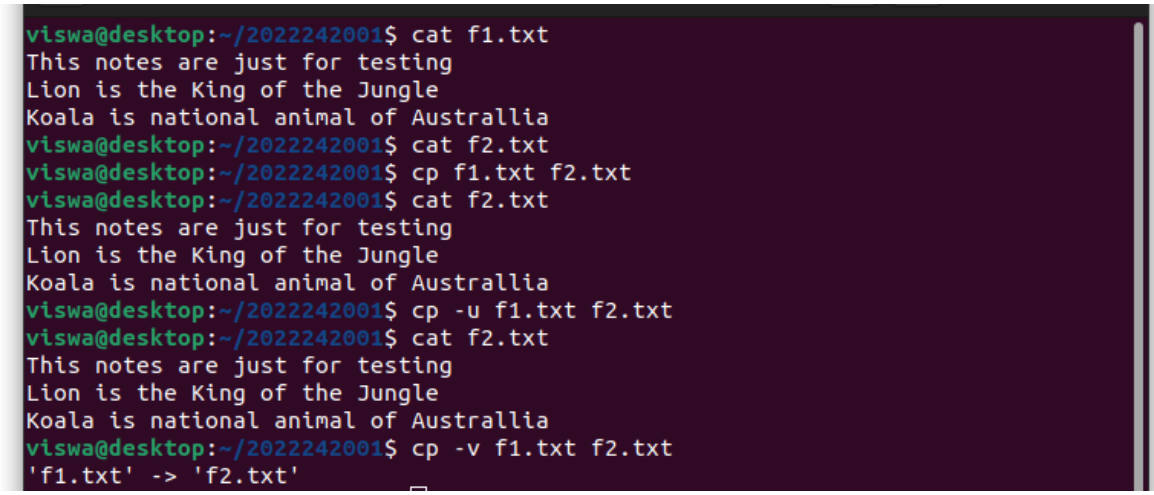
Options:

-u –update Copy when the source is new than destination or destination file doesn't exist.

-v –verbose Explain what is going on.

Output:

`



- **mv:**

Description: Move files from SOURCE to DEST or rename files and directories.

Syntax: ~$ mv [SOURCE] [DEST]

Options:

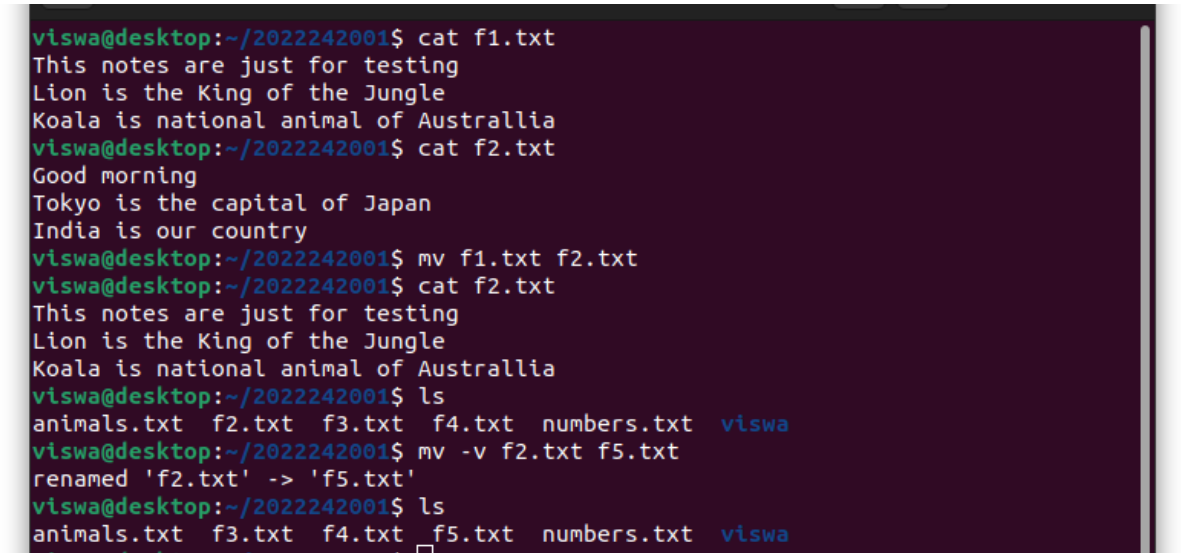
-i –interactive

Prompt before overwrite.

-v –verbose

Explain what is going on.

Output:



- **rm:**

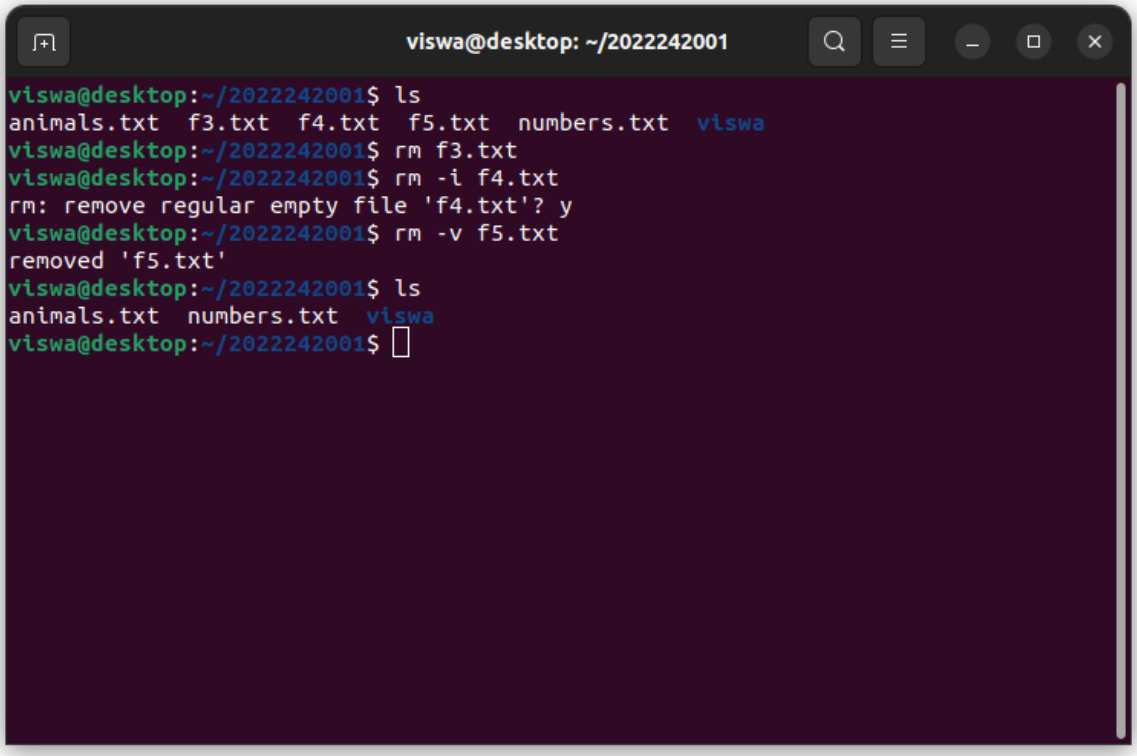
Description: Removes each specific file. By default, it doesn't remove directories.

Syntax: ~$ rm [filename]

Options:

-i	Prompt before every removal.
-v –verbose	Explain what is going on.

Output:



- **rmdir:**

Description: Permanently delete directory if it is empty.

Syntax: ~$ rmdir [directory]

Options:

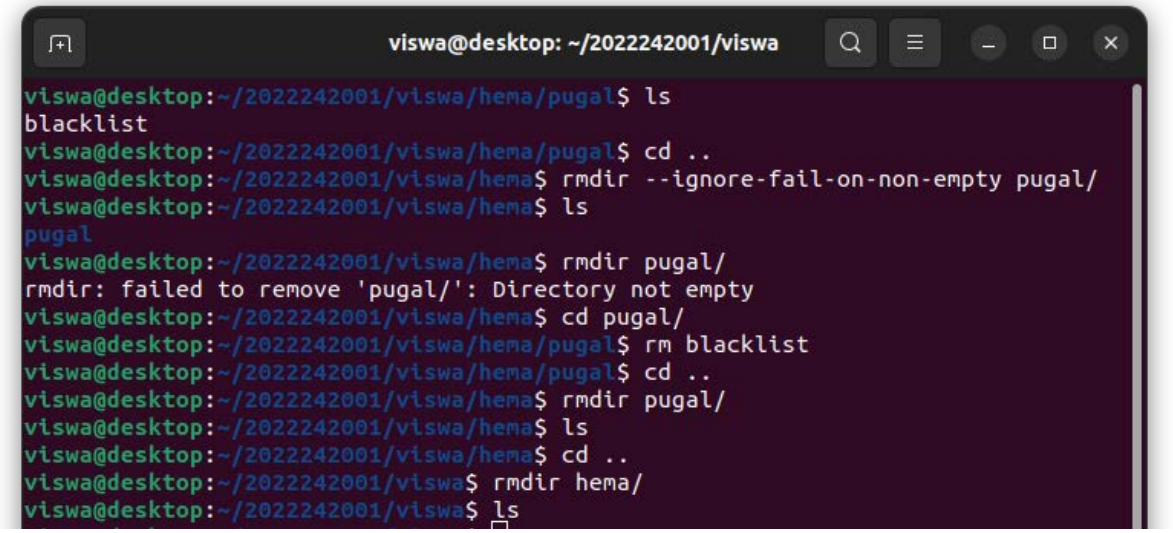
--ignore-fail-on-non-empty

Ignore each failure that is solely because a directory is non-empty

-v --verbose

Output a diagnostic for every directory processed.

Output:



- **date:**

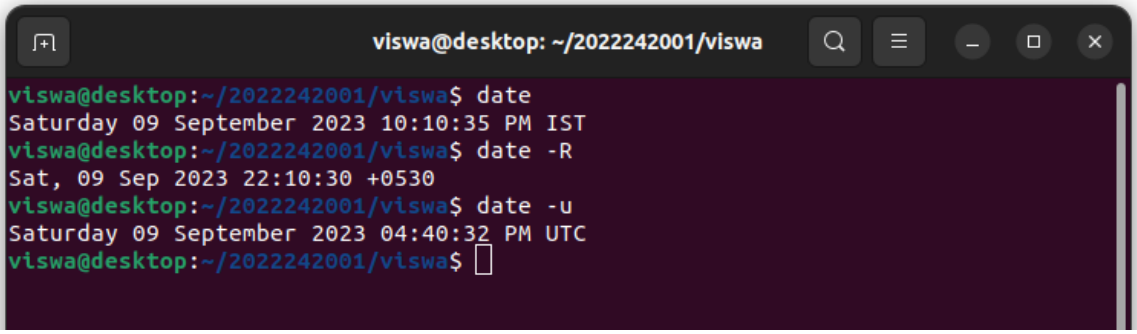
Description: Display current time in given FORMAT. Update system date.

Syntax: ~$ date

Options:

--R --rfc-email	Output date and time in RFC 5322 format
-u --utc	Print or set Coordinated Universal Time (UTC)

Output:



- **cal:**

Description: Displays a calendar with specific intervals given.

Syntax: ~$ cal

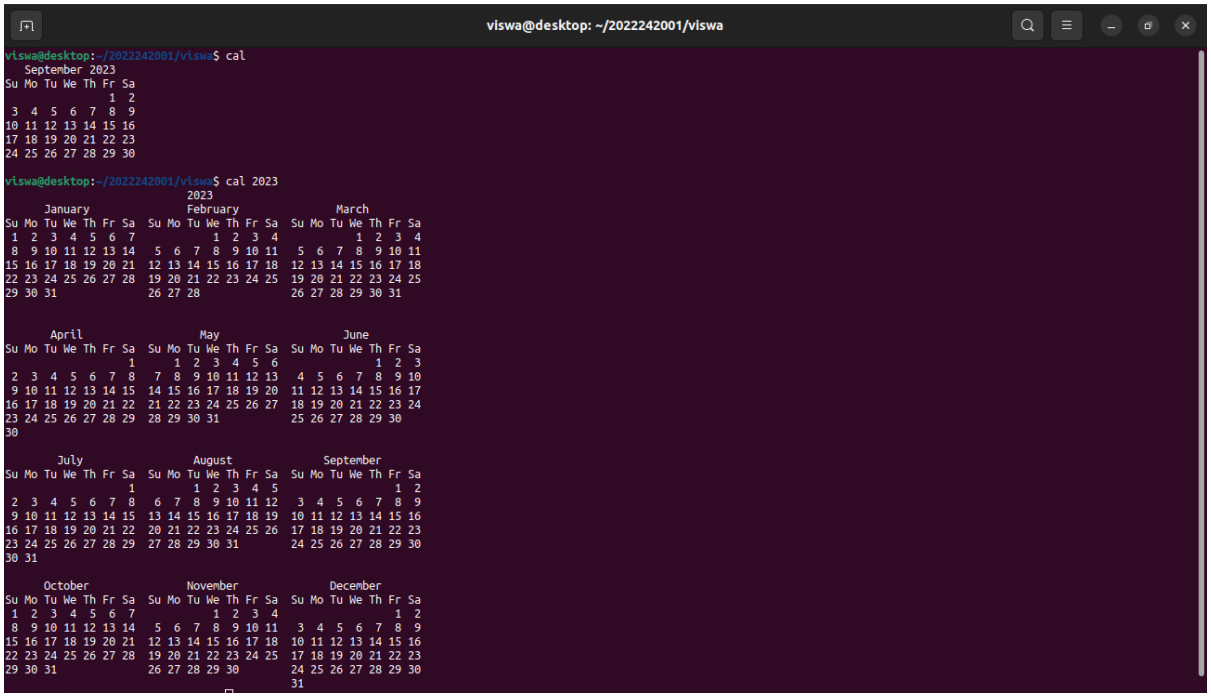
Options:

-A [num] Display the specific month and then next [num] months

~$ cal [year]

~$ cal [month]

Output:



- **uname:**

Description: Print detailed information about your Linux system and hardware.

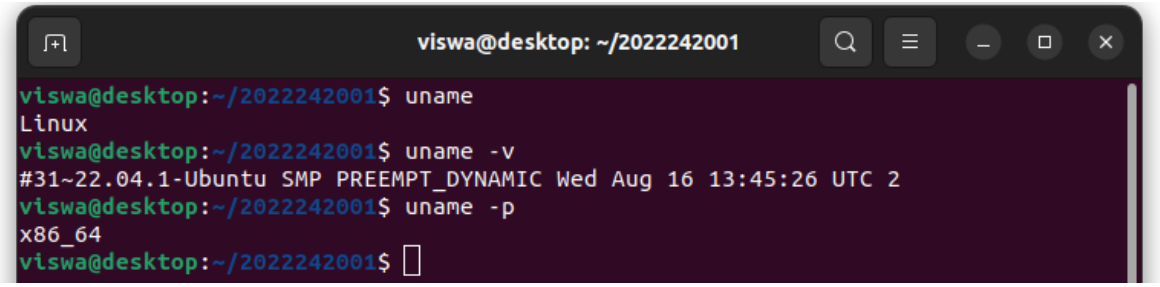
Syntax: ~$ uname

Options:

-v --kernel-version Print the kernel version

-p --processor type Print the processor type

Output:



- **clear:**

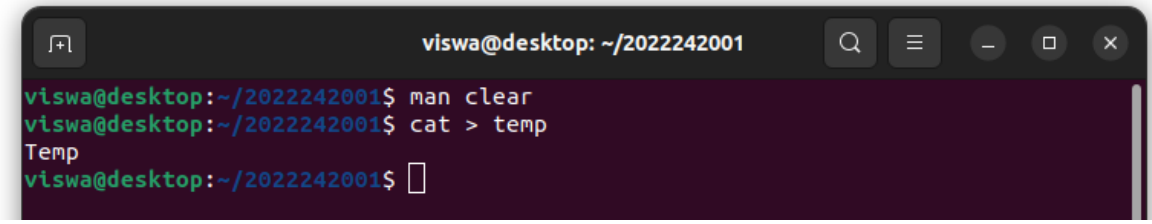
Description: Clear the terminal display.

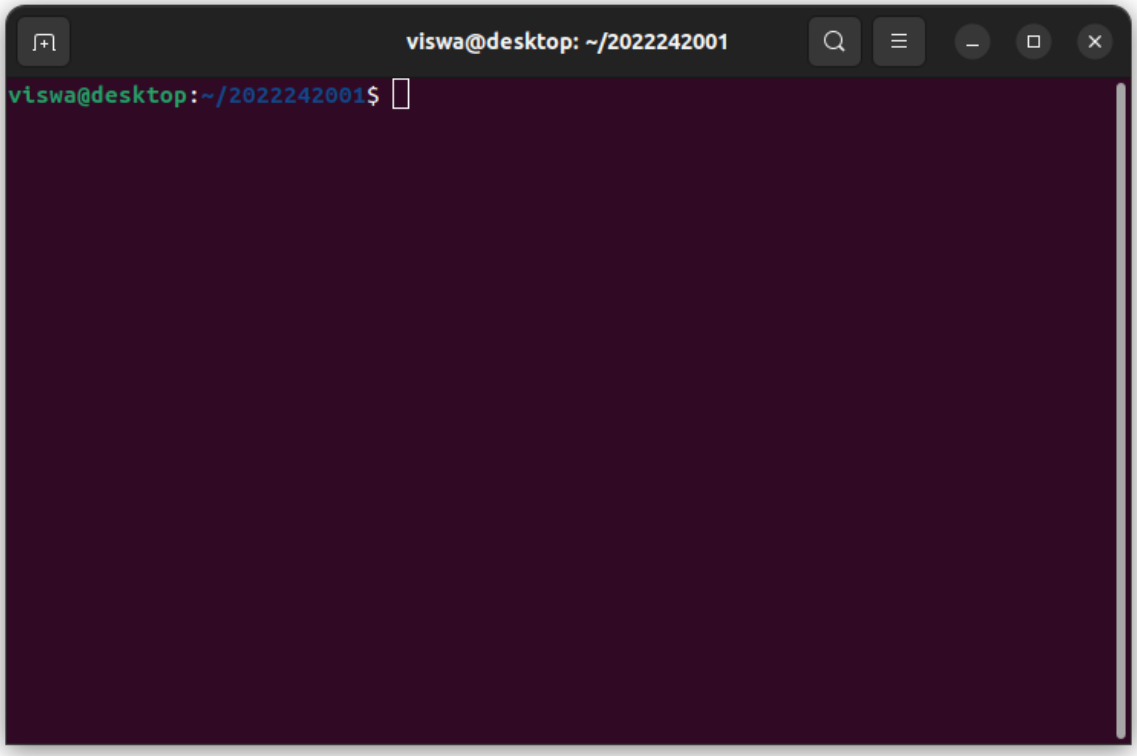
Syntax: ~$ clear

Options:

-x Don’t attempt to clear the terminal’s scrollbar buffer using extended “E3” capability.

Output:





- **du:**

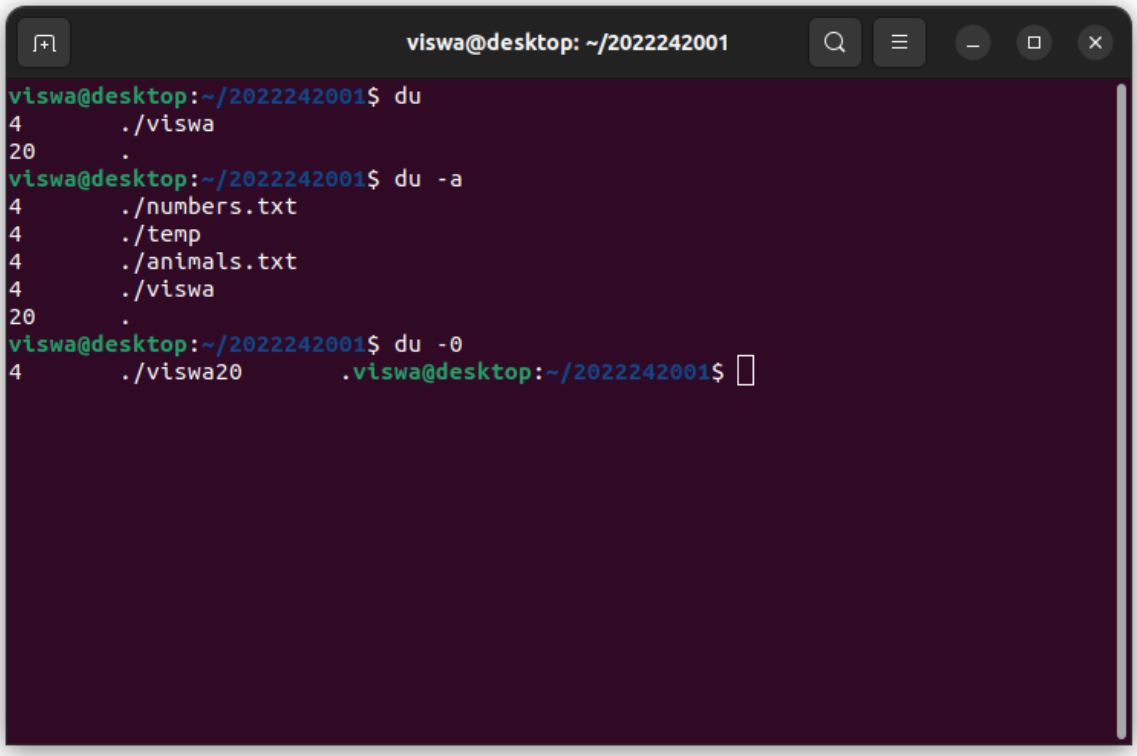
Description: Checks how much space a file or a directory takes up.

Syntax: ~$ du

Options:

-0 –null	End output file with NULL
-a –all	Write count for all files.

Output:



- **who:**

Description: Print information about users who are currently logged in.

Syntax: ~$ who

Options:

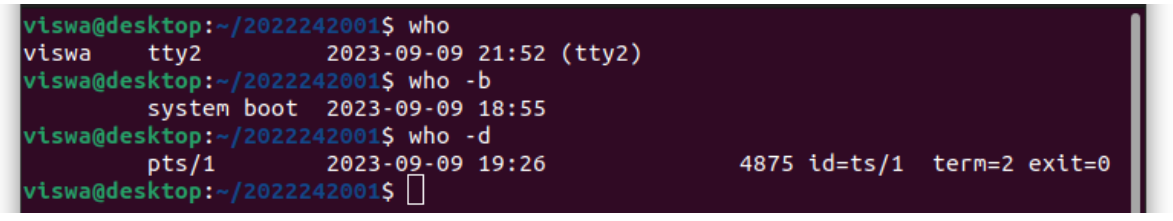
-b --boot

Time of last system boot.

-l --login

Print system login processes.

Output:



- **head:**

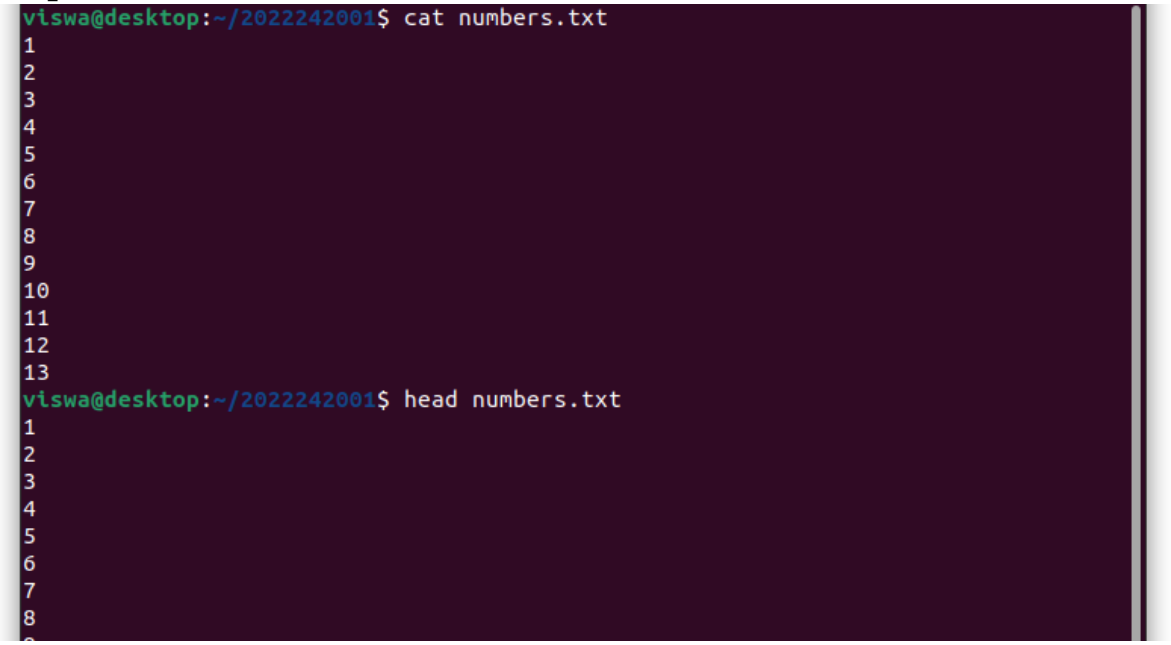
Description: Print the first 10 lines of each file to standard output.

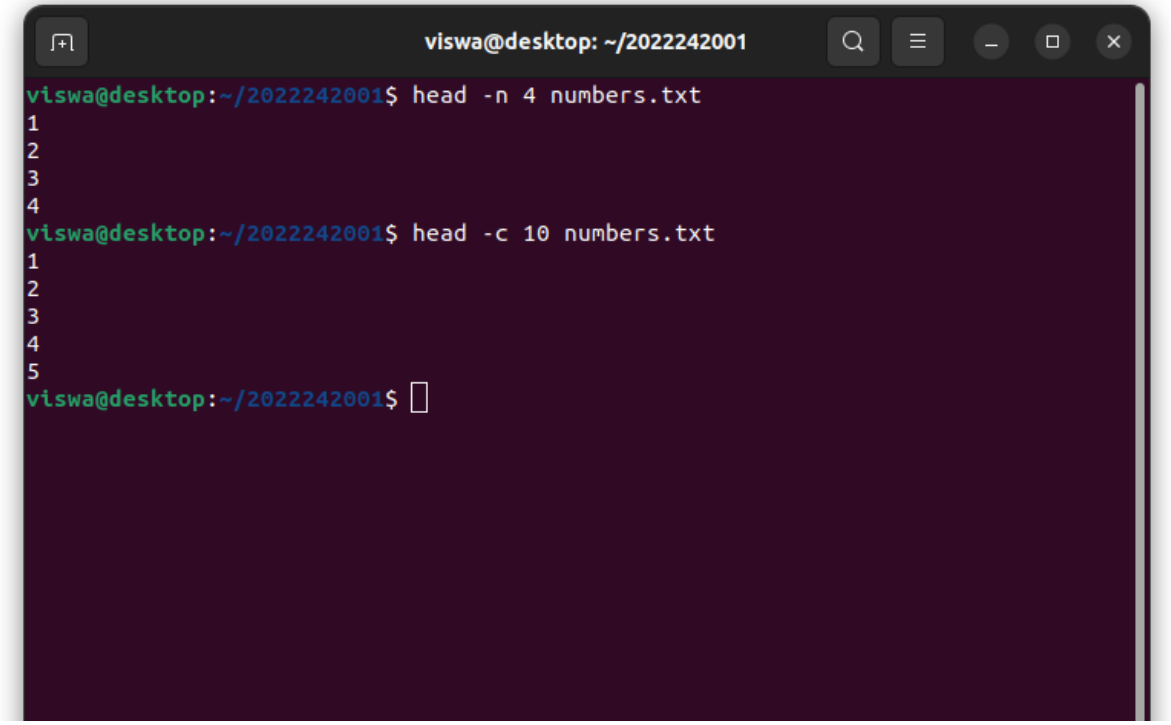
Syntax: ~$ head [filename]

Options:

-n –lines=NUM	Print the first NUM lines.
-c –bytes=NUM	Print the first NUM bytes.

Output:





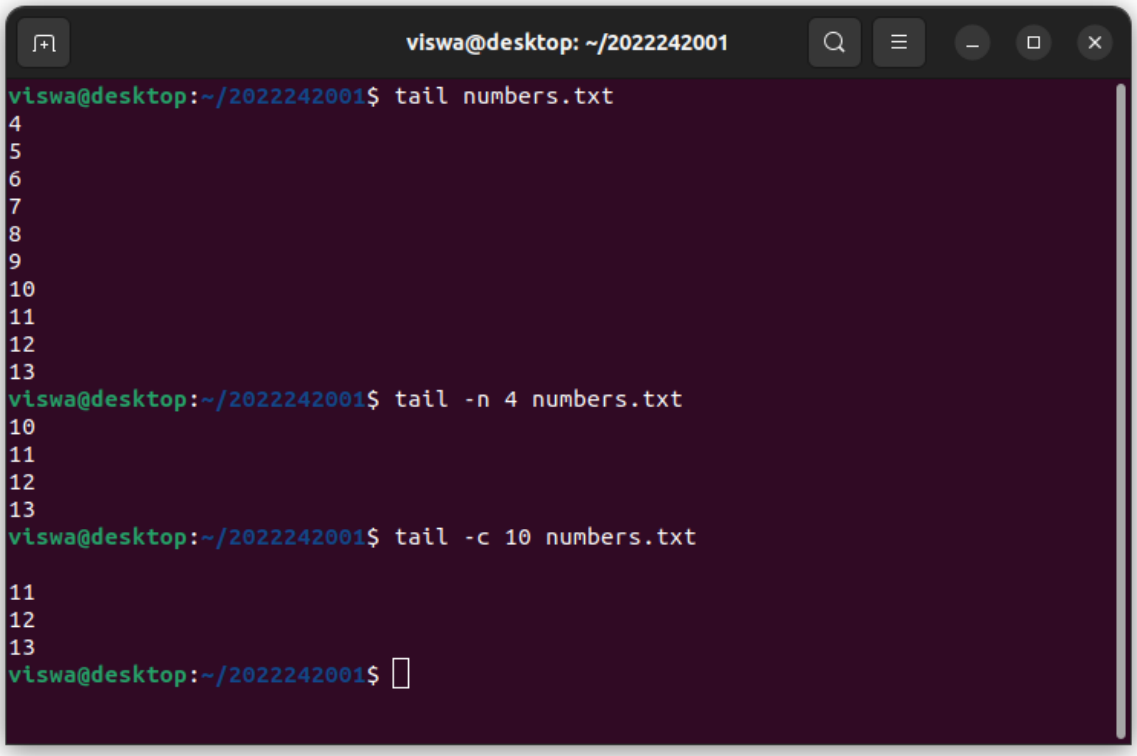
- **tail:**

Description: Print the last 10 lines of each file to standard output.

Syntax: ~$ tail [filename]

Options:

-n –lines=NUM	Print the last NUM lines.
-c –bytes=NUM	Print the last NUM bytes



- **df:**

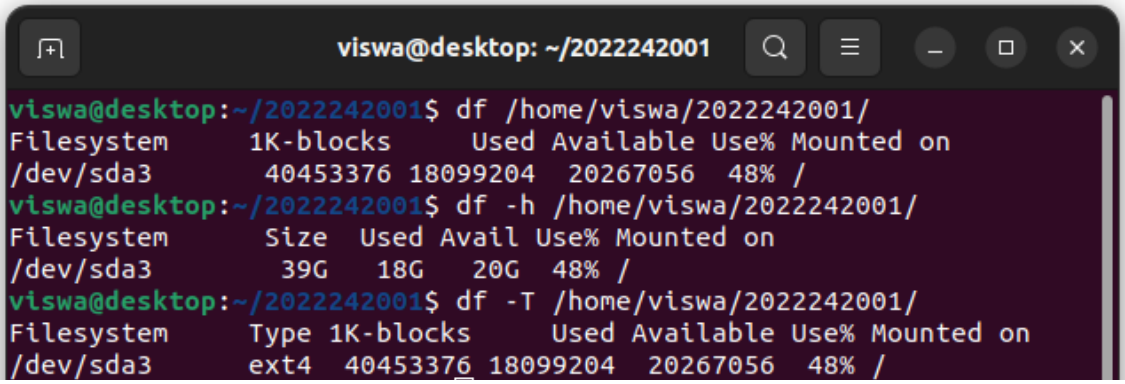
Description: Report the system's disk space usage in percentage and kilobyte (KB).

Syntax: ~$ df /directory_name

Options:

-T	Shows the file system type in a new column.
-h	Shows size in power of 1024.

Output:



- **echo:**

Description: Displays a line of text or string using the standard output.

Syntax: ~$ echo “[statement]”

Options:

-n displays the output without the trailing newline.

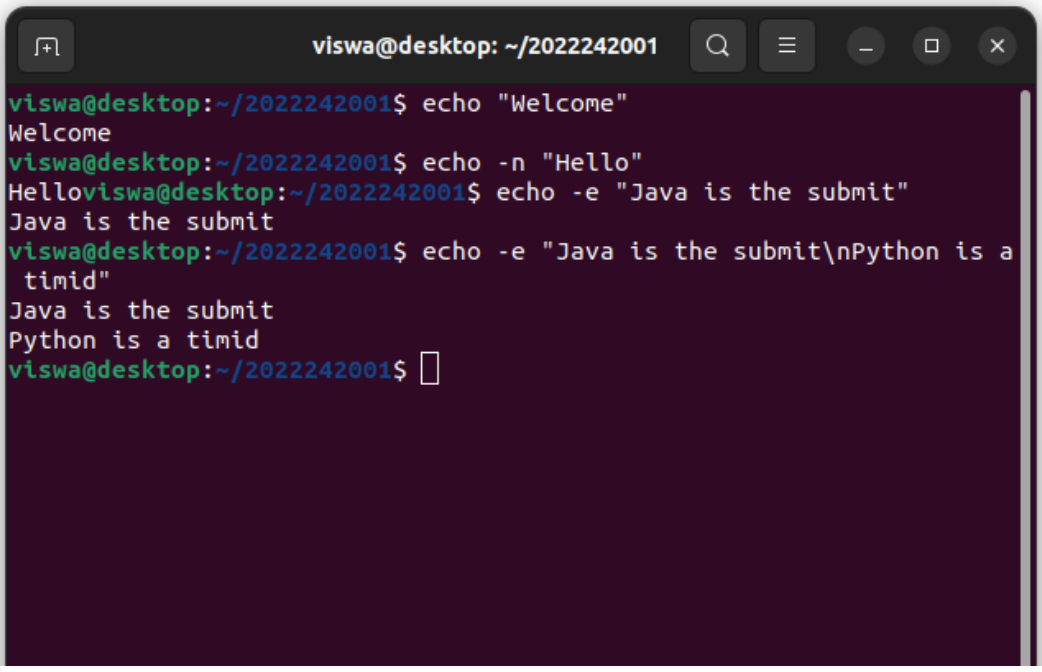
-e enables the interpretation of the following backslash escapes:

\a plays sound alert.

\b removes spaces in between a text.

\c produces no further output.

Output:



- **ps:**

Description: Displays snapshot of all running processes in your system.

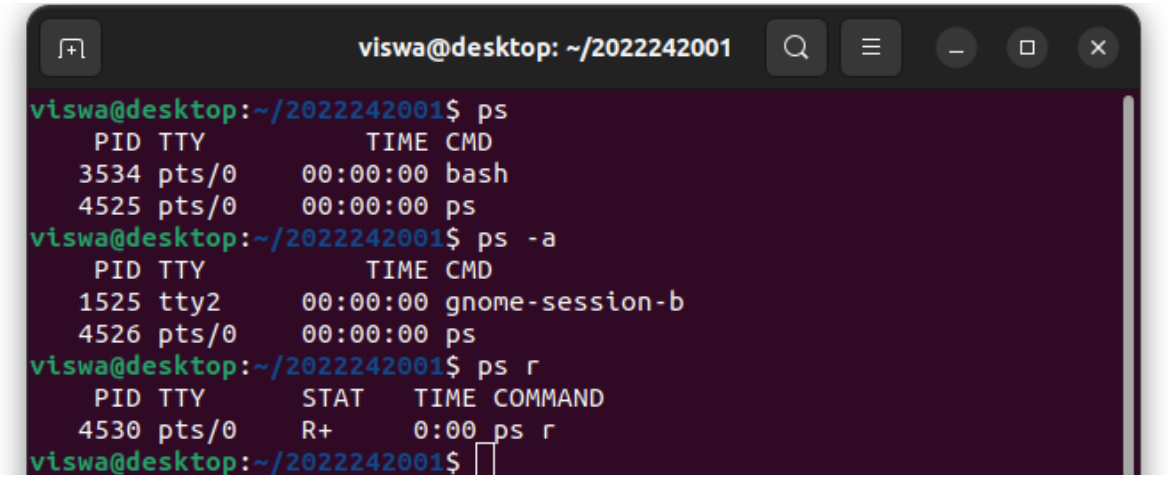
Syntax: ~$ ps

Options:

-a Shows all the running processes.

-d Select all processes except session leaders.

Output:



- **touch:**

Description: Create an empty file or generate and modify a timestamp in the Linux command line.

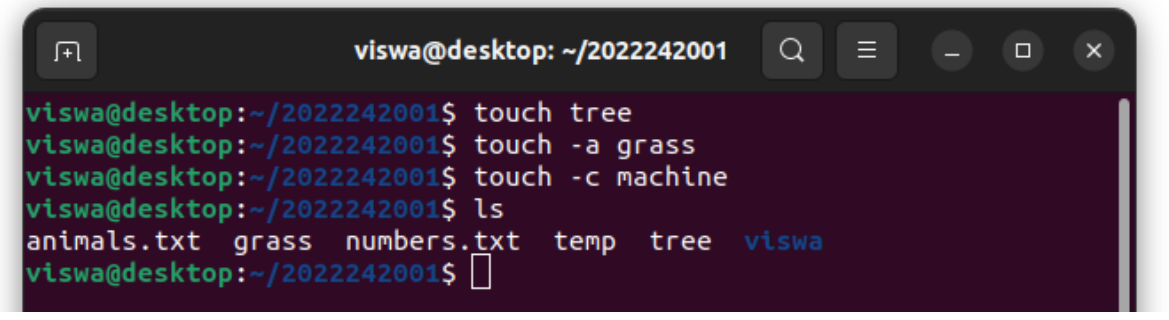
Syntax: ~$ touch [filename]

Options:

-a Change only the access time

-c Do not create any files

Output:



- **sudo:**

Description: Commands that permits user to perform tasks that require administrative or root permissions.

Syntax: ~$ sudo [command]

Options:

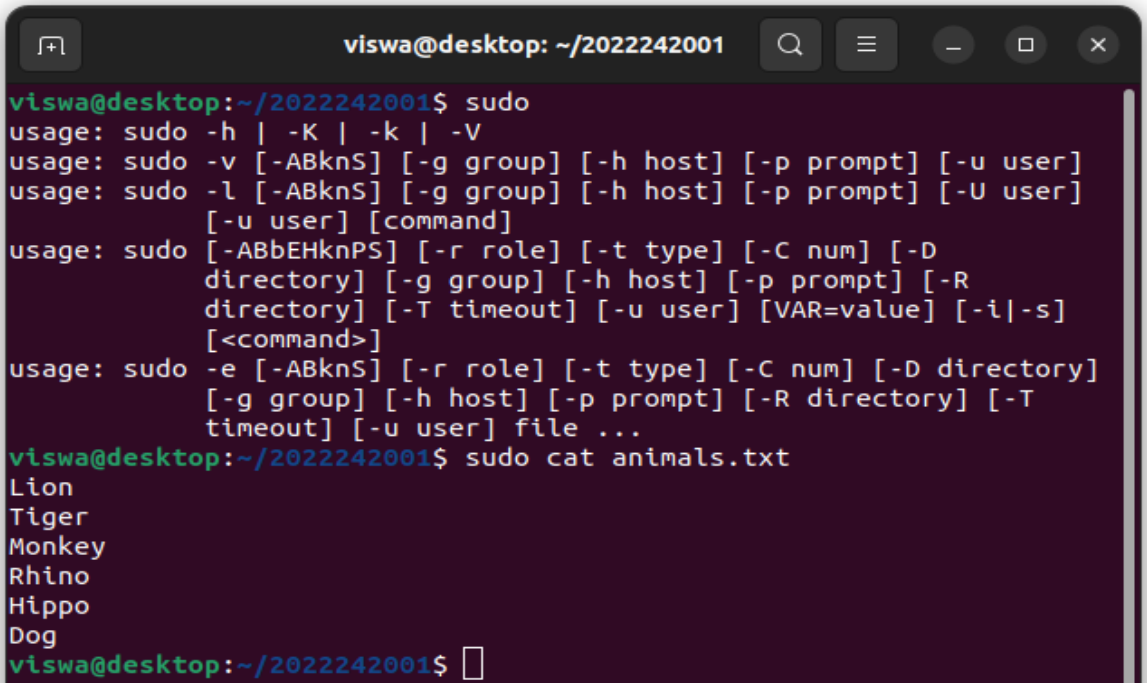
-B --bell

Ring the bell as part of the password prompt when a terminal is present.

-h --help

Display a short help message to the standard output and exit.

Output:



- **free:**

Description: Displays the total amount of free and used physical and swap memory in the system.

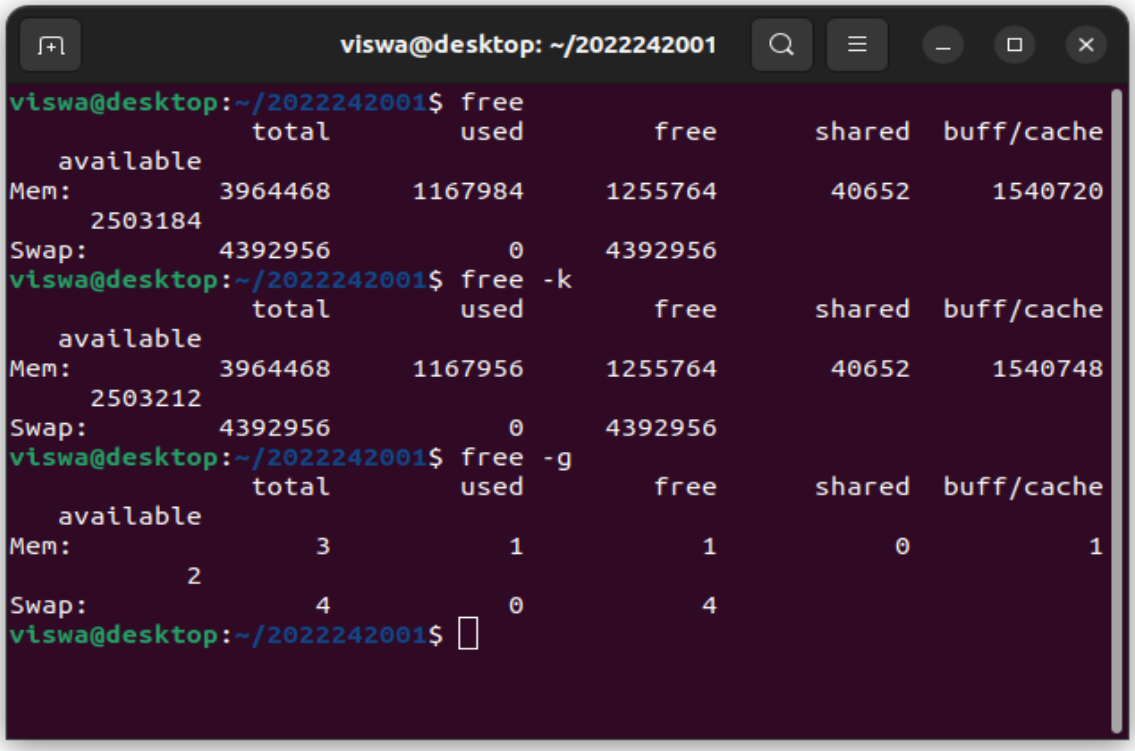
Syntax: ~$ free

Options:

-b --bytes Display the amount of memory in bytes.

-k Display the amount of memory in kilo-bytes.

Output:



- **more:**

Description: Displays large files that cannot be viewed in their entirety on a single screen.

Syntax: ~$ more [filename]

Options:

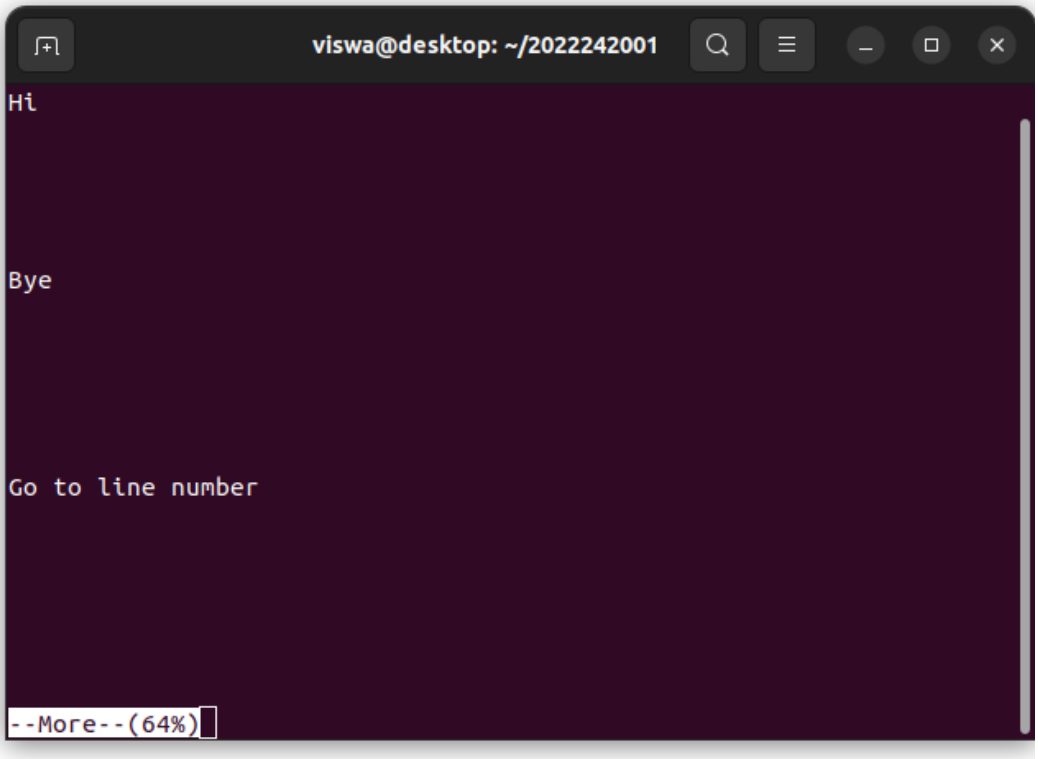
-n or --line-numbers Displays the line numbers at the beginning of each line.

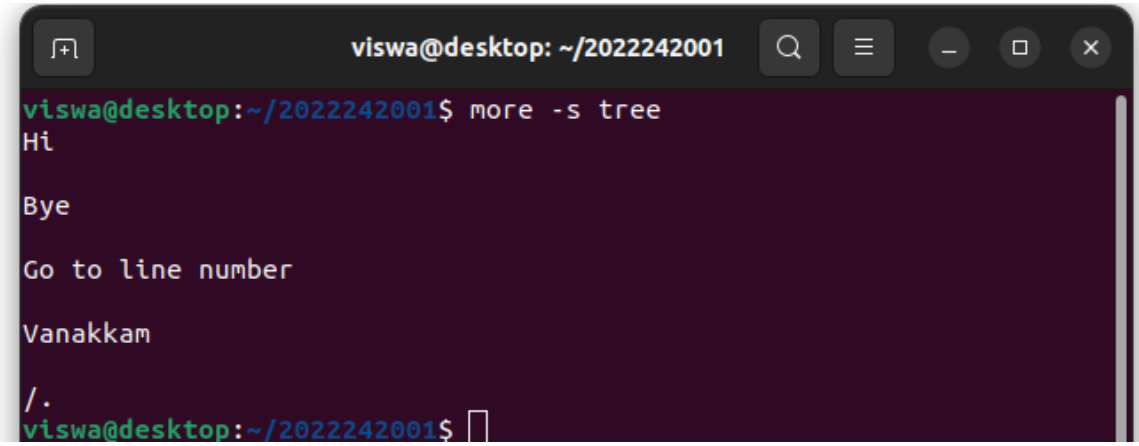
-s or --squeeze-blank This option removes empty lines from the output.

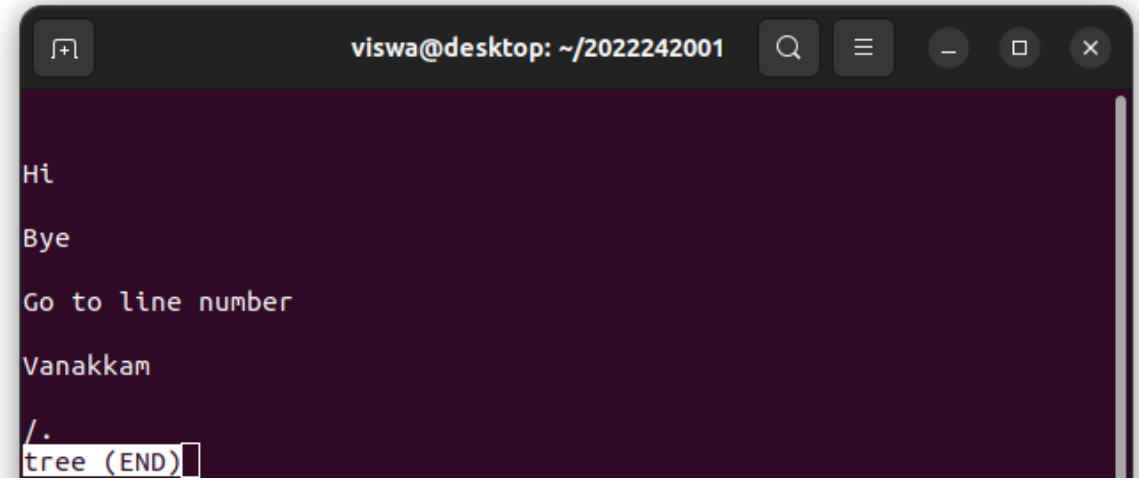
-u or --underline This option underlines the output.

-f or --force This option forces more command to display the file, even if it is small enough to fit on one screen.

Output:


viswa@desktop: ~/2022242001
Hi
Bye
Go to line number
--More--(64%)


viswa@desktop: ~/2022242001
viswa@desktop:~/2022242001$ more -s tree
Hi
Bye
Go to line number
Vanakkam
/.
viswa@desktop:~/2022242001$


viswa@desktop: ~/2022242001
Hi
Bye
Go to line number
Vanakkam
/.
tree (END)

- **less:**

Description: Displays large files by scroll through the file in both forward and backward directions, making it easier to navigate and read large text files.

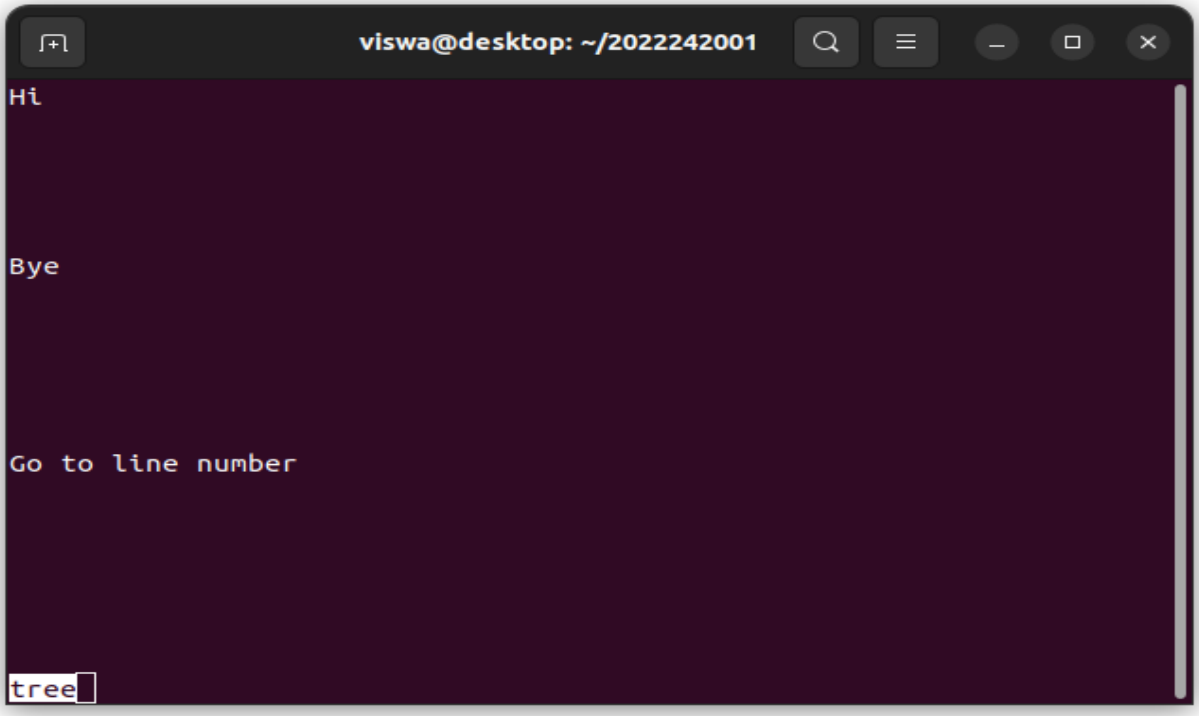
Syntax: ~$ less [filename]

Options:

-E Causes less to automatically exit the first time it reaches end-of-file.

-s Causes consecutive blank lines to be squeezed into a single blank line.

Output:



- **uptime:**

Description: Displays information about how long a Linux system has been running, the number of users logged in, and the current system load average.

Syntax: ~$ uptime

Options:

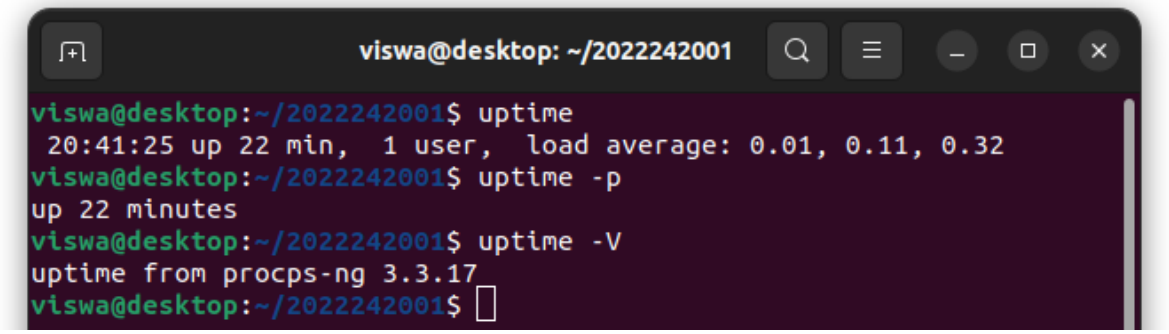
-p --pretty

Show uptime in pretty format.

-V --version

Display version information and exit.

Output:



- **diff:**

Description: Compares two contents of a file line by line. After analysing them, it will display the parts that do not match.

Syntax: ~$ diff [FILE] [FILE]

Options:

-q --brief

Report only when files differ

-y --side-by-side

Output in two columns

Output:

- **ifconfig:**

Description: View and modify network interface parameters such as IP addresses, netmasks, and broadcast addresses.

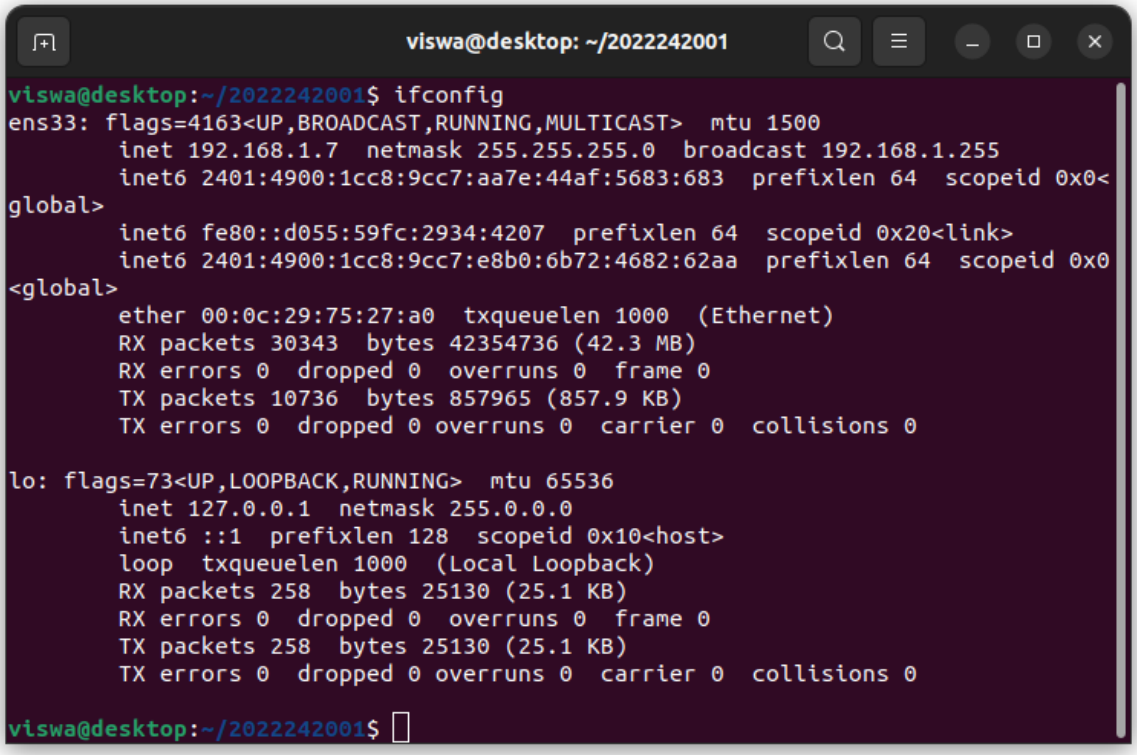
Syntax: ~$ ifconfig

Options:

-s Display a short list

-v Be more verbose for some error conditions

Output:



- **kill:**

Description: Terminate a program manually using PID.

Syntax: ~$ kill

Options:

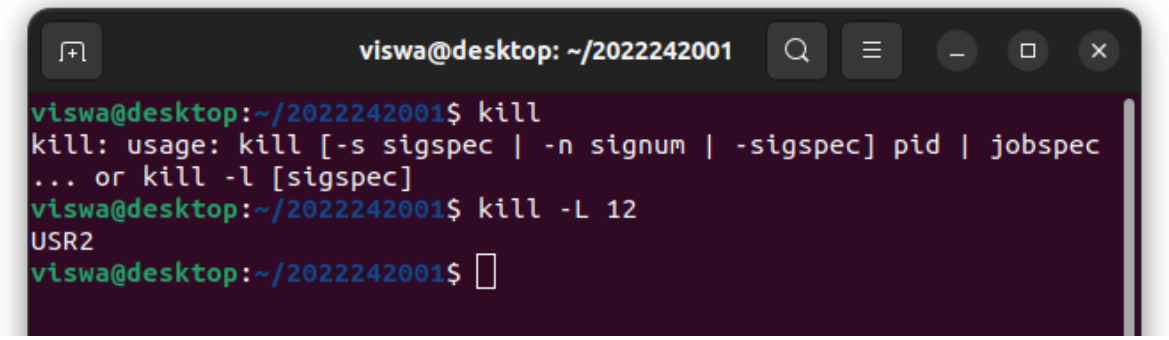
-l --list

List signal names.

-L --table

List signal names in a table.

Output:



- **cd:**

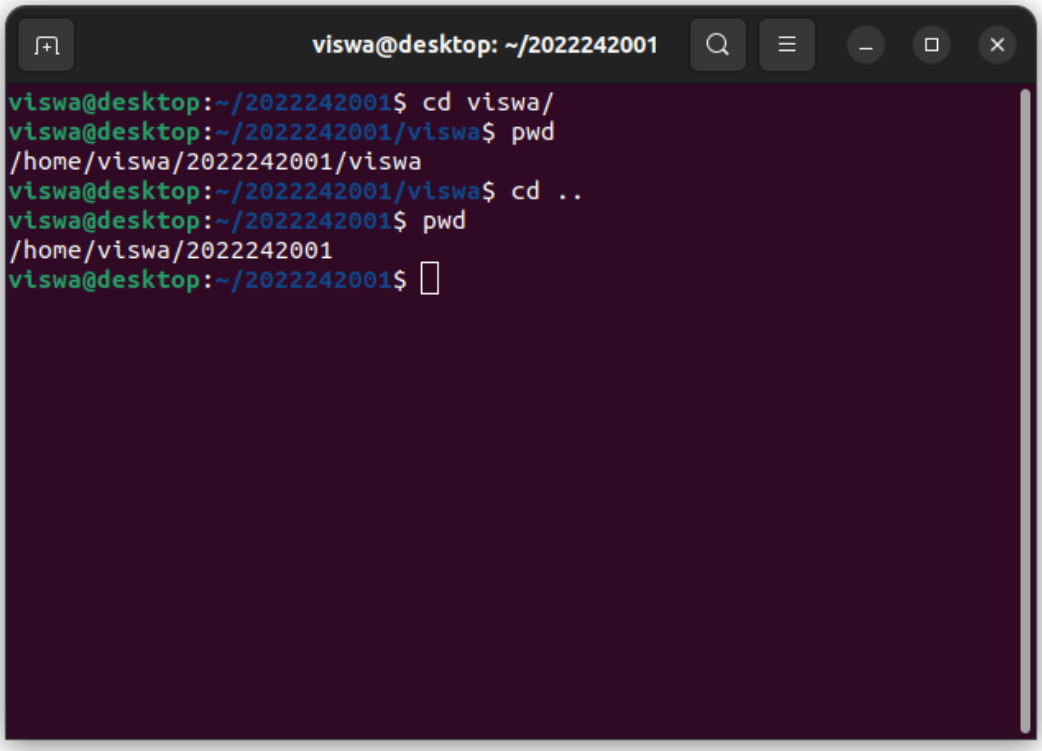
Description: Change Directory.

Syntax: ~$ cd [directory name]

Options:

cd	Return to parent directory.
cd..	Return to current directory.

Output:



- **whoami:**

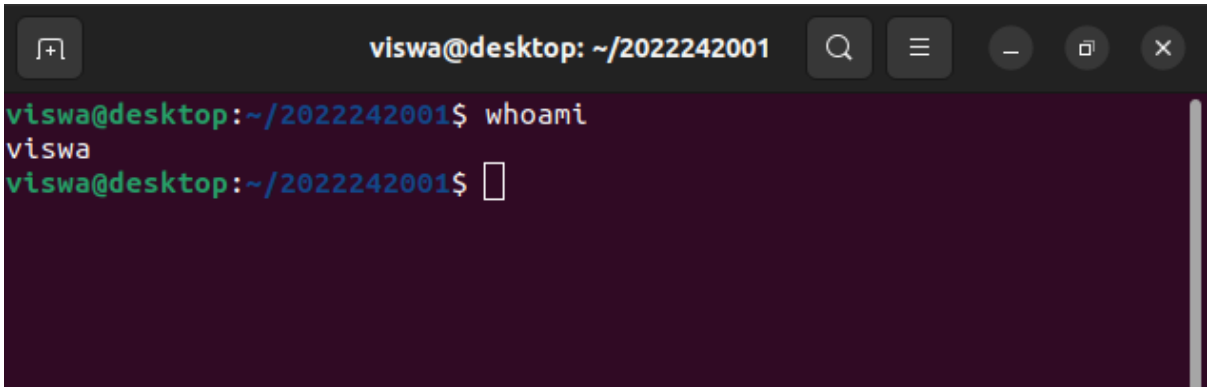
Description: Displays username associated with the current effective user ID.

Syntax: ~$ whoami

Options:

-h, --help	Displays a help message and exits.
-V, --version	Displays the version information and exits.

Output:



- **tac:**

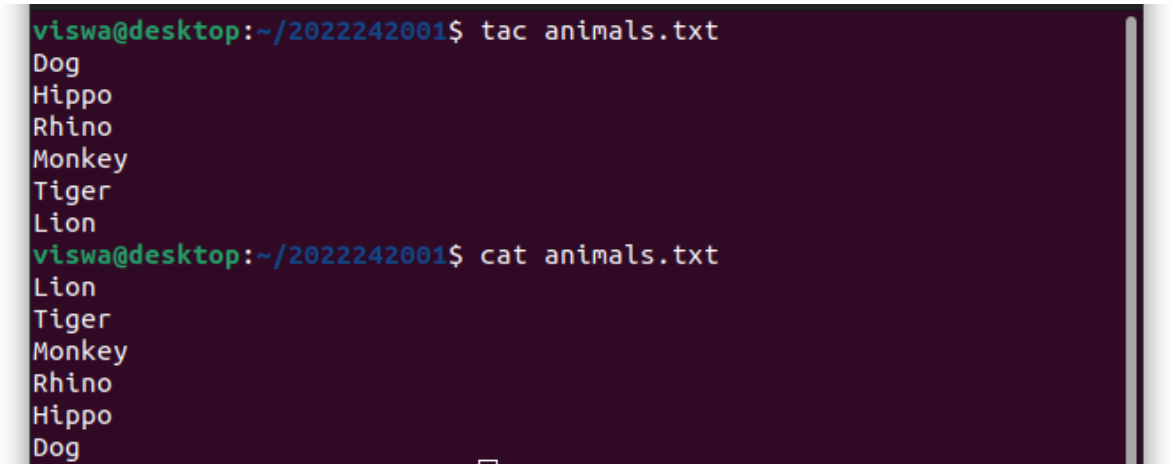
Description: Concatenate and print files in reverse.

Syntax: ~$ tac

Options:

-h, --help	Displays a help message and exits.
-V, --version	Displays the version information and exits.

Output:



Result:

Thus, the basic Linux Commands were learned.