Linux Command Checklist

I. Directory Navigation & Structure

Command	Description
`cd <pathname>`	**Change Directory** to the specified path.
`/`	Represents the **root directory**.
`~`	Represents the **home directory** for the current user.
`.`	Represents the **current directory**.
`..`	Represents the **parent directory**.

II. File & Directory Manipulation

A. Listing Contents

Command	Description
`ls <directory>`	Lists the contents of a directory.
`ls`	Lists the **current working directory**.
`ls -l`	Lists contents in **long format**.
`ls -a`	Lists **all files**, including **hidden files** (starting with a dot).
`ls -la` or `ls -l -a`	Combines options: long format and all files.

B. Creation & Deletion

Command	Description
`touch <file>`	Creates an **empty** file.
`mkdir <dir>`	Creates a directory.
`rm <file1> <file2>`	Deletes files.
`rmdir <dir>`	Deletes an **empty** directory.

Command	Description
`rm -r <dir>`	Deletes a directory **along with its contents**.

C. Copying & Moving/Renaming

Command	Description
`cp <file1> <file2>`	Copies content of `file1` into `file2`.
`cp <file1> <dir>`	Copies a file into a directory.
`cp -r <dir1> <dir2>`	If `dir2` doesn't exist, copy `dir1` as `dir2`. Otherwise, copy `dir1` **inside** `dir2`.
`mv <file1> <file2>`	Renames `file1` as `file2`.
`mv <file> <dir>`	Moves a file into a directory.
`mv <dir1> <dir2>`	If `dir2` doesn't exist, rename `dir1` as `dir2`. Otherwise, move `dir1` **inside** `dir2`.

III. Viewing & Editing File Content

Command	Description
`nano <file>`	Edits a file (simple editor).
`gedit <file>`	Edits a file (GUI editor).
`cat <file>`	Shows the **entire file content** to standard output.
`less <file>`	Shows file content page-by-page.

IV. I/O Redirection

Symbol	Description
`>`	Redirects **Standard Output** to a file. E.g., `ls -l > ls_rst.txt`.
`<`	Redirects **Standard Input** from a file. E.g., `my_program < input.txt`.

V. Other Commands & Features

Command/Feature	Description
`*`	Wildcard. Represents **any character string** (including an empty string).
`diff <file1> <file2>`	Compares two files for differences. Add `-w` to ignore white spaces (space, tab).
`sudo apt-get install <program>`	Installs a program. `sudo` executes the command as a **superuser** (requires a password).
`sudo apt-get autoremove <program>`	Removes a program.
`man <command>`	Shows the command's **manual page** for help.

VI. Extension: Useful Commands

Command/Feature	Description
`pwd`	**P**rints the **w**orking **d**irectory (shows your current location).
`<command> --help` or `<command> -h`/`--h`	Displays a brief summary and list of common options for a specific command. "--help" is the safest option among all.
`clear`	Clears the terminal screen, moving all previous output out of sight.
`history`	Displays a list of previously executed commands.
`whoami`	Displays your current effective username.
`echo <text>`	Prints the specified text to the standard output (the terminal).