

Here's a list of commonly used Ubuntu commands for beginners, organized by category. These commands are fundamental for interacting with the terminal, managing files, installing software, and performing basic system administration tasks:

System Information and Basic Commands

- **pwd** — Print the current working directory.
 - **ls** — List files and directories in the current directory.
 - **cd <directory>** — Change to a different directory.
 - **clear** — Clear the terminal screen.
 - **whoami** — Display the current logged-in user.
 - **hostname** — Show the system's hostname.
 - **date** — Display the current date and time.
 - **uptime** — Display how long the system has been running.
 - **top** — View running processes in real-time.
 - **htop** — An enhanced version of **top** (requires installation).
 - **free -h** — Display system memory usage (in human-readable format).
 - **df -h** — Show disk space usage (in human-readable format).
 - **du -sh <directory>** — Display the size of a specific directory.
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File and Directory Management

- **mkdir <directory>** — Create a new directory.
- **rmdir <directory>** — Remove an empty directory.
- **rm <file>** — Remove a file.
- **rm -r <directory>** — Remove a directory and its contents (recursively).
- **cp <source> <destination>** — Copy a file or directory.
- **mv <source> <destination>** — Move or rename a file or directory.
- **touch <file>** — Create a new empty file.
- **cat <file>** — Display the contents of a file.
- **nano <file>** — Open a file in the **nano** text editor (easy-to-use terminal editor).
- **vi <file>** — Open a file in the **vi** editor (advanced text editor).
- **more <file>** — View the contents of a file one page at a time.

- `less <file>` — View the contents of a file (with navigation options).
 - `find <directory> -name <filename>` — Search for a file by name in a directory.
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File Permissions and Ownership

- `chmod <permissions> <file>` — Change file permissions (e.g., `chmod 755 <file>`).
 - `chown <user>:<group> <file>` — Change file ownership.
 - `chgrp <group> <file>` — Change the group ownership of a file.
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Package Management (APT)

- `sudo apt update` — Update package list from repositories.
 - `sudo apt upgrade` — Upgrade all installed packages.
 - `sudo apt install <package>` — Install a package.
 - `sudo apt remove <package>` — Remove a package.
 - `sudo apt purge <package>` — Remove a package and its configuration files.
 - `sudo apt autoremove` — Remove unnecessary packages and dependencies.
 - `dpkg -l` — List all installed packages.
 - `apt-cache search <package>` — Search for a package in the repositories.
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User and Group Management

- `adduser <username>` — Create a new user.
 - `passwd <username>` — Change a user's password.
 - `usermod -aG <group> <username>` — Add a user to a group.
 - `deluser <username>` — Delete a user.
 - `groupadd <groupname>` — Create a new group.
 - `groups <username>` — List the groups a user belongs to.
 - `who` — Show who is logged in to the system.
 - `last` — Show the last logins on the system.
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System Management

- `sudo reboot` — Reboot the system.
 - `sudo shutdown now` — Shut down the system immediately.
 - `sudo shutdown -h +10` — Shut down the system in 10 minutes.
 - `sudo systemctl restart <service>` — Restart a service (e.g., `sudo systemctl restart apache2`).
 - `sudo systemctl status <service>` — Check the status of a service.
 - `sudo systemctl enable <service>` — Enable a service to start on boot.
 - `sudo systemctl disable <service>` — Disable a service from starting on boot.
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Networking

- **ifconfig** — Show network interface configuration (deprecated, use **ip**).
 - **ip a** — Show all network interfaces and their details.
 - **ping <hostname or IP>** — Check network connectivity to a server.
 - **traceroute <hostname or IP>** — Trace the route packets take to a network host.
 - **curl <URL>** — Fetch data from a URL (e.g., download a file or test a website).
 - **wget <URL>** — Download files from the web.
 - **ssh <user>@<host>** — Connect to a remote server via SSH.
 - **scp <file> <user>@<host>:<path>** — Copy files securely over SSH.
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Disk and Storage Management

- **lsblk** — List all block devices (disks and partitions).
 - **fdisk -l** — List all disk partitions.
 - **mount <device> <mount_point>** — Mount a device or partition.
 - **umount <mount_point>** — Unmount a device or partition.
 - **sudo mkfs.ext4 <device>** — Format a device/partition with the ext4 file system.
 - **sudo mount -o loop <iso_file> <mount_point>** — Mount an ISO file.
 - **fsck <device>** — Check and repair file systems.
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Logs and System Monitoring

- **dmesg** — Display system messages and boot logs.
 - **journalctl** — View system logs (useful for systemd-based systems).
 - **tail -f <file>** — Continuously view the end of a file (useful for logs).
 - **ps aux** — List all running processes.
 - **kill <PID>** — Terminate a process by its Process ID (PID).
 - **killall <process>** — Terminate all processes with a specific name.
 - **free -h** — View memory usage.
 - **vmstat** — Show system performance information (CPU, memory, processes).
 - **uptime** — Show how long the system has been running, load average.
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Text Processing

- **grep <pattern> <file>** — Search for a pattern within a file.
- **sed 's/old/new/g' <file>** — Replace text in a file (stream editor).
- **awk '{print \$1}' <file>** — Process text (for example, print the first column of a file).
- **sort <file>** — Sort the contents of a file.
- **cut -d '<delimiter>' -f <field>** — Cut out specific columns from a file (e.g., CSV).
- **tee <file>** — Read from standard input and write to a file (and also to standard output).

Searching and Finding Files

- `locate <filename>` — Find files by name (uses an indexed database).
- `updatedb` — Update the database used by `locate`.
- `find <directory> -name <filename>` — Search for a file in a directory and its subdirectories.
- `which <command>` — Find the full path of a command (e.g., `which python`).

Archiving and Compression

- `tar -czvf <archive.tar.gz> <directory>` — Create a compressed archive (gzip).
- `tar -xzvf <archive.tar.gz>` — Extract a compressed archive (gzip).
- `zip <archive.zip> <file>` — Compress a file into a zip archive.
- `unzip <archive.zip>` — Extract a zip archive.
- `gzip <file>` — Compress a file with gzip.
- `gunzip <file.gz>` — Decompress a gzip file.

Advanced Commands (For Later Learning)

- `sudo` — Run a command as a superuser (admin).
- `alias <name>=<command>` — Create a shortcut for a command (e.g., `alias ll='ls -l'`).
- `tar` — Archive files (both compression and extraction).
- `cron` — Schedule tasks to run at specified times (using `crontab`).
- `systemctl` — Manage system services (start, stop, enable, disable).
- `docker` — Manage containers (install Docker for container management).

Help and Documentation

- `man <command>` — Display the manual page for a command (e.g., `man ls`).
- `--help` — Display a command's help page (e.g., `ls --help`).
- `**info <`

`command>**` — Access the info page for a command (more detailed than `man`).

This list covers many of the commands that are helpful for beginners as they start learning Ubuntu and Linux in general. As you grow more comfortable, you'll find that some of these commands can be combined in scripts to automate tasks or speed up your workflow.