

System



System information

uname -a : Displays all system information.
hostnamectl : Shows current hostname and related details.
lscpu : Lists CPU architecture information.
timedatectl status : Shows system time.

System monitoring and management

top : Displays real-time system processes.
htop : An interactive process viewer (needs installation).
df -h : Shows disk usage in a human-readable format.
free -m : Displays free and used memory in MB.
kill <process id> : Terminates a process.

Running commands

[command] & : Runs command in the background.
jobs : Displays background commands.
fg <command number> : Brings command to the foreground.

Service management

sudo systemctl start <service> : Starts a service.
sudo systemctl stop <service> : Stops a service
sudo systemctl status <service> : Checks the status of a service.
sudo systemctl reload <service> : Reloads a service's configuration without interrupting its operation.
journalctl -f : Follows the journal, showing new log messages in real time.
journalctl -u <unit_name> : Displays logs for a specific systemd unit.

Cron jobs and scheduling

crontab -e : Edits cron jobs for the current user.
crontab -l : Lists cron jobs for the current user.

Files



File management

ls : Lists files and directories.
touch <filename> : Creates an empty file or updates the last accessed date.
cp <source> <destination> : Copies files from source to destination.
mv <source> <destination> : Moves files or renames them.
rm <filename> : Deletes a file.

Directory navigation

pwd : Displays the current directory path.
cd <directory> : Changes the current directory.
mkdir <dirname> : Creates a new directory.

File permissions and ownership

chmod [who][+/-][permissions] <file> : Changes file permissions.
chmod u+x <file> : Makes a file executable by its owner.
chown [user]:[group] <file> : Changes file owner and group.

Searching and finding

find [directory] -name <search_pattern> : Finds files and directories.
grep <search_pattern> <file> : Searches for a pattern in files.

Archiving and compression

tar -czvf <name.tar.gz> [files] : Compresses files into a tar.gz archive.
tar -xvf <name.tar.[gz|bz|xz]> [destination] : Extracts a compressed tar archive.

Text editing and processing

nano [file] : Opens a file in the Nano text editor.
cat <file> : Displays the contents of a file.
less <file> : Displays the paginated content of a file.
head <file> : Shows the first few lines of a file.
tail <file> : Shows the last few lines of a file.
awk '{print}' [file] : Prints every line in a file.

Packages



Package management (APT)

sudo apt install <package> : Installs a package.
sudo apt install -f --reinstall <package> : Reinstalls a broken package.
apt search <package> : Searches for APT packages.
apt-cache policy <package> : Lists available package versions.
sudo apt update : Updates package lists.
sudo apt upgrade : Upgrades all upgradable packages.
sudo apt remove <package> : Removes a package.
sudo apt purge <package> : Removes a package and all its configuration files.

Package management (Snap)

snap find <package> : Search for Snap packages.
sudo snap install <snap_name> : Installs a Snap package.
sudo snap remove <snap_name> : Removes a Snap package.
sudo snap refresh : Updates all installed Snap packages.
snap list : Lists all installed Snap packages.
snap info <snap_name> : Displays information about a Snap package.

Users & groups



User management

w : Shows which users are logged in.
sudo adduser <username> : Creates a new user.
sudo deluser <username> : Deletes a user.
sudo passwd <username> : Sets or changes the password for a user.
su <username> : Switches user.
sudo passwd -l <username> : Locks a user account.
sudo passwd -u <username> : Unlocks a user password.
Sudo change <username> : Sets user password expiration date.

Group management

id [username] : Displays user and group IDs.
groups [username] : Shows the groups a user belongs to.
sudo addgroup <groupname> : Creates a new group.
sudo delgroup <groupname> : Deletes a group.

Networking



Networking

ip addr show : Displays network interfaces and IP addresses.
ip -s link : Shows network statistics.
ss -l : Shows listening sockets.
ping <host> : Pings a host and outputs results.

Netplan configuration (read more at netplan.io)

cat /etc/netplan/*.yaml : Displays the current Netplan configuration.
sudo netplan try : Tests a new configuration for a set period of time.
sudo netplan apply : Applies the current Netplan configuration.

Firewall management

sudo ufw status : Displays the status of the firewall.
sudo ufw enable : Enables the firewall.
sudo ufw disable : Disables the firewall.
sudo ufw allow <port/service> : Allows traffic on a specific port or service.
sudo ufw deny <port/service> : Denies traffic on a specific port or service.
sudo ufw delete allow/deny <port/service> : Deletes an existing rule.

SSH and remote access

ssh <user@host> : Connects to a remote host via SSH.
scp <source> <user@host>:<destination> : Securely copies files between hosts.

Firewall management

sudo ufw status : Displays the status of the firewall.
sudo ufw enable : Enables the firewall.
sudo ufw disable : Disables the firewall.
sudo ufw allow <port/service> : Allows traffic on a specific port or service.
sudo ufw deny <port/service> : Denies traffic on a specific port or service.
sudo ufw delete allow/deny <port/service> : Deletes an existing rule.

SSH and remote access

ssh <user@host> : Connects to a remote host via SSH.
scp <source> <user@host>:<destination> : Securely copies files between hosts.

LXD



LXD is a modern, secure and powerful tool that provides a unified experience for running and managing containers or virtual machines. Visit <https://canonical.com/lxd> for more information.

lxd init : initializes LXD before first use

Creating instances

lxc init ubuntu:22.04 <container name> : Creates a lxc system container (without starting it).

lxc launch ubuntu:24.04 <container name> : Creates and starts a lxc system container.

lxc launch ubuntu:22.04 <vm name> --vm : Creates and starts a virtual machine.

Managing instances

lxc list : Lists instances.

lxc info <instance> : Shows status information about an instance.

lxc start <instance> : Starts an instance.

lxc stop <instance> [--force] : Stops an instance.

lxc delete <instance> [--force|--interactive] : Deletes an instance.

Accessing instances

lxc exec <instance> -- <command> : Runs a command inside an instance.

lxc exec <instance> -- bash : Gets shell access to an instance (if bash is installed).

lxc console <instance> [flags] : Gets console access to an instance.

lxc file pull <instance>/<instance_filepath> <local_filepath> : Pulls a file from an instance.

lxc file pull <local_filepath> <instance>/<instance_filepath> : Pushes a file to an instance.

Using projects

lxc project create <project> [--config <option>] : Creates a project.

lxc project set <project> <option> : Configures a project.

lxc project switch <project> : Switches to a project.

Ubuntu Pro



Ubuntu Pro delivers 10 years of expanded security coverage on top of Ubuntu's Long Term Support (LTS) commitment in addition to management and compliance tooling. Visit <https://ubuntu.com/pro> to register for free on up to five machines.

Activating Ubuntu Pro

sudo pro attach <token> : Attaches your machine to Ubuntu Pro using a specific token. This token is provided when you subscribe to Ubuntu Pro.

Managing services

sudo pro status : Displays the status of all Ubuntu Pro services.

sudo pro enable <service> : Enables a specific Ubuntu Pro service, like ESM, FIPS, or Livepatch.

sudo pro disable <service> : Disables a specific Ubuntu Pro service.

Extended Security Maintenance (ESM)

sudo pro enable esm-infra : Activates Extended Security Maintenance for infrastructure packages, providing security updates beyond the standard release cycle.

sudo pro enable esm-apps : Activates ESM for applications, extending security coverage for specific applications.

Livepatch service

sudo pro enable livepatch : Enables the Livepatch service, which applies critical kernel patches without rebooting.

FIPS mode

sudo pro enable fips : Enables FIPS (Federal Information Processing Standards) mode, enforcing strict cryptographic standards and practices.

Updating configuration

sudo pro refresh : Refreshes the Ubuntu Pro state to ensure the latest configuration and services are in place.

Detaching Ubuntu Pro

sudo pro detach : Detaches the machine from Ubuntu Pro, disabling all services.