

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

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.

Ubuntu CLI cheat sheet

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 and 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 chage <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.

IXD

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

lxd init initializes LXD before first use

Creating instances

lxc init ubuntu:24.04 <container name> Creates lxc system container (without starting it).

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

lxc launch ubuntu:24.04 <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 push <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 <option> Configures a project.

lxc project switch <project> Switches to a project.

Ubuntu Pro

Ubuntu Pro delivers up to 12 years of security coverage, expanding Ubuntu's Long Term Support (LTS) commitment and adding management and compliance tooling. Visit 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.