Canonical Ubuntu

Ubuntu CLI cheat sheet

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 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.

LXD

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 <project> <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.