

Commands in Linux (Reviewed)

Exit: This command helps the user close and exit the terminal, bringing the user back to the home screen.

ls: It shows users everything including files, document that their computer is storing currently.

ls -las: It shows users everything including files, document that their computer is currently storing. This contains more private files that are usually hidden.

pwd: when users are working with terminal, pwd command show them where are they working at

cd {path}: this command helps users who want to change their working directory/path to a different directory/path, cd {path} will change their current path to a new destination path.

cd .. : this command is about navigating users to the directory hierarchy to its parent directory which contains other files and documents from the current location.

mv: This command is about moving a file from the current place to a particular place that users wish to.

mv: This command also can be used to rename a current file to a new file name that users wish to change.

cp: This command allows users to duplicate their files and move the duplicate files into the destination (Directory) that users wish to.

clear: This command is used to wipe out everything from the current terminal after working with different commands in the terminal.

rm : this command makes the file become no longer accessible as users wish to.

man : This command helps users learn how to use any command by displaying manual documents of its.

info : This command works similar to man but with better organized document format such as Hierarchical, structured with sections.

mkdir: This command helps users create a new folder at the location they are at.

free: This command shows how much RAM the OS consumes

Ifconfig: This command displays the network status configuration in users' computers

grep: This command will track all content in a file and return to the user a string that they're looking for.

date: This command allows users to set time, date or displaying the current time zone.

touch: This command will allow users to create a brand new file that users are going to work on.

echo: This command prints out or displays string (output) from users on the terminal.

cat: This command makes the content of a file appear on the terminal.

Commands in Linux (5 self-research)

sudo: This command allows users to have abilities to access computer systems by terminal deeper.

kill: This command shuts down all things that are working currently

ps: This command displays a list of everything that is running on computer now

apt-get: This command allows users to install or update their software directly on terminal without going to store.

df: This command allows users to explore how many spaces they used or how much was left.

lsblk: lsblk is a **command-line utility used for listing block devices on a Linux system**. Block devices consist of storage devices that hold data in the form of blocks, which are, typically, hard disk drives (HDDs) or solid-state drives (SSDs).

sudo eject /dev/hdc : this will eject the CD if hdc is CDROM

sudo umount /mnt : Unmount all drives at mount point /mnt

sudo umount /dev/hda1: UNmount the partition 1 on hard drive

sudo mount what? where?

sudo mount /dev/sda1 /mnt: mount the first flash drive first partition in the mnt/ directory

hda, hdb, hdc, hdd are old hard drives

sda, sdb, sdc are newer hard drives

drivers are accessed via the /dev directory.

sda -> disk and **sda with number (sda 1) -> part**

sudo command:

There are 3 groups:

User: Users can access but limited and cant change system or destroy other user data.

User with sudo ability: User mode can shift up by using sudo command when each operation requires root.

ROOT: a person with root has unlimited access, can change systems or destroy other data. Dangerous for daily uses.

sudo -u username <linux command>

su: change current session to superuser, account must have root privileges to use this.

su [username]: change current session to the user ID specified, account must have root privileges to use this.

the difference between sudo and su. Sudo only lasts for every single command after that it returns to original rights status while su will stay forever until the user changes it back.

Move to /etc by typing `cd /etc`

To see a folders of each users, go to `/home` and `ls -l`

Set first sudo password: `sudo passwd root`

- To know if i'm logged with root privileges, the prompt is `#` instead of `$`.
- The `whoami` command will return to root.
- To exit from su then use `exit`.

4 commands which return user basic information:

- whoami: return username of logged in user
- users: return the names of the users logged into the host computer
- who return summary information users who are currently logged in
- w: return more detailed information about users who are currently logged in

`/etc`: human control room in Linux System. It has a lot of information stored in it. Many configuration changes can be performed by changing the content of the file in `/etc`.

-blue are sub directory

passwd file located in `/etc` directory, we can view it through `cat` command. This command is used to list users.

`nguyen:x:1000:1000:Nguyen Giang,,,:/home/nguyen:/bin/bash`

User username: `nguyen`

`x`: Indicate account has password

`1000`: is user id (UID started at 1000)

Second `1000`: Group ID of users - `GID`

`Nguyen Giang`: user information, some of this cannot be entered from GUI add user option.

`/home.../nguyen`: User home directory

`/bin/bash`: shell environment being used by the user.

The colon: delimited file which could be dumped into spreadsheet to evaluate the information.

UIDs 1-99 special system users

UIDs ≥ 1000 - human users.

UIDs less than 100 are hidden.

passwd has a manual page file which is called "man 5 passwd". q to quit it.

groups is inside /etc.

Example of group file reading:

sudo:x:27:nguyen,justin

sudo: group name

x: group passwords are usually not used

27: group ID or GID

nguyen,justin: usernames of the users in this group

groups command is groups

groups <username> to tell what groups a user belongs to.

getent command to verify

syntax **getent** **database** **entity**

For example: getent passwd nguyen

It will return configuration of users

database can be group, passwd, shadow, hosts, etc.

shadow is inside /etc.

This is the encrypted passwords of users. This is dangerous, it's something similar to Window Register.

Changing Ownership:

chown - change the owner -> chown new_owner old_owner

chgrp - change the group directory -> sudo chgrp group user_

chmod - change the access rights

-> chmod who +/- what file/directory

r - read

w - write

x - execute

Adding and Removing Users

For most of Linux:

useradd LOGIN to add user

userdel LOGIN to remove user

For Ubuntu:

adduser user to add user

deluser user to remove user

In order to create user, you need sudo

Group Command:

add new group : groupadd name

remove group: groupdel name

add user to group: gpasswd -a username group

remove user from group: gpasswd -d username group

Checking group by going to `/etc` and typing `cat group`

group

Terminal Color Means:

The default color scheme used in Ubuntu's terminal to indicate different types of files and directories when you list them with the `ls` command is as follows:

- . **Blue:** Directories are displayed in blue. When you list the contents of a directory using `ls`, the directories will typically be shown in blue. This helps you quickly identify them.
- . **Green:** In the default Ubuntu color scheme, executable files are displayed in green. Executable files are those that can be run as programs or scripts. This allows you to easily distinguish them from non-executable files.
- . **Cyan:** Symbolic links (symlinks) are often displayed in cyan. Symbolic links are special types of files that act as references to other files or directories. They are shown in cyan to differentiate them from regular files and directories.

These color conventions help make it easier to identify the types of files and directories in the terminal, providing a visual cue to the user. However, please note that the specific color scheme may vary depending on your terminal emulator and its settings. You can customize the color scheme in your terminal to fit your preferences or use a different terminal emulator with a different default color scheme if desired.