

Linux commands

| Command | Description |
|--|--|
| whoami | Print the current logged in user |
| ls | List files |
| ls -a | List all files and hidden files |
| ls -l | Long format for file list |
| pwd | Print working directory |
| touch file 1 | Create file 1 |
| top -p 2823 | Print process with pid 2823 details |
| Cd /home/dina | Change directory |
| Cd - | Back to the last place |
| Cd .. | One step back |
| Cd ../.. | Back two steps |
| Sudo mkdir /usr/dir1 | Super user do make directory dir1 as admin |
| Nano filepath | Open file and edit it if it exist , if not exist it will be created |
| Cat | Preview file عرض بس |
| Tac | Reverse view |
| vim , vi ex) vim /etc/passwd | Enhanced text editors |
| Apt Ex) sudo apt install vim | Linux installer |
| Wc -l file1 Wc -w file1 Wc -c file1 | Word count → -l get num of lines in the file → -w get number of words → -c get num of charecters |
| Head -n 7 | Preview first 10 lines , -n 7 get only 7 lines |
| Tail -n 3 | Preview last 10 lines , -n 3 get only 3 lines |
| Less file | Scroll up and down after that Q or ctr c to exit this scroll |
| Useradd → Redhat Adduser → Ubuntu(debian) | Add user |
| Usermod Ex) usermod ahmed -aG sales | Modify user ex) sudo usermod hamza -aG cdrom add hamza to group Add ahmed to sales group |
| User del Ex) sudo userdel ali Ex) sudo userdel -r ahmed | Delete user Delete ali and keep his files Delete Ahmed and delete all files related to ahmed |
| Groubadd sales | Add logical groub |
| Groupmems -g sales -l | Check if sales groub is exist or not -l list and list uses in this groub |
| Groupmemes -g sales -d ahmed | -d delete ahmed from group sales or (edit in etc/group) |
| Groubdel Ex) groupdel sales | Delete group (group delete don't delete it's users only leave from groub) |
| Chown ahmed file1 | Change owner of file |
| Chgrp senior file1 | Change group of file |
| Sudo nano /etc/sudoers | Add user or group in this file to be admin and take all admin priv. |
| Id ahmed | Check if there is user called ahmed ? |

Linux commands

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|--|--|
| Passwd ahmed | Change ahmed password |
| Su ahmed | Switch user to ahmed |
| | |
| Top | Print all running processes |
| Pstree | Print all process tree |
| Pstree -p | Print all process tree with pid s |
| Pidof firefox | Display pids for all firefox functions |
| Pgrep firefox | Display parent pid |
| Top -p 53900 -p 54145 | Display all processes details PID user command 53900 dina 20 0 3373828 273364 80508 S 0.0 5.5 54145 dina 20 0 3373828 273364 80508 S 0.0 5.5 |
| Ps -aux | Get all processes one shot not updated |
| Top | Get all processes updated |
| Man 7 signal | display all signals that deals with processes from 1 to 31 |
| Kill -signal pid ex) kill -9 5212 | Send signal to specific pid |
| Pkill -signal pattern Ex)pkill -9 fir | Send signal to pattern(جزء من اسم ال app) |
| Killall Ex)killall -15 firefox | Send signal to appName but for all users |
| Systemctl action servicesName Ex)systemctl start ssh Ex) systemctl status cron sudo killall -15 cron sudo systemctl status cron sudo systemctl start sudo systemctl start cron sudo systemctl mask cron | Control services Status,start,stop,restart,enable(add service in startup),disable,mask(don't work this service),unmask |
| sudo systemctl list-dependencies cron | Get all services dependencies |
| Systemctl <u>double tab</u> | Print all systemctl actions |
| Systemctl status NetworkManager | Get nm status ,nic name (ens33),configuration (ipv4 /dhcp4) |
| Ip addr show ens33 | Display nic ايه الاعدادات الى تم منحها لكارت ال |
| Route -n (or) ip route show | Display Gateway info |
| hostname | Display hostname for the machine |
| nmtui | Open tui(text user interface) to change network config |
| Sudo cat etc/NetworkManager/system-connection/wired/connection/1.nmconnection | Display dns |
| apt update (ubuntu) / apt upgrade dnf repolist (RH) | Download latest index for all apps repositories |
| Ping -c 2 | to check the machine is connected to the internet or not |
| Apt dist-upgrade(ubuntu) Dnf update (RH) | Install OS updates and kernel virgin |
| Apt install appname Ex:) apt install zsh | Install app |
| Dnf list installed | Get all installed apps |

Linux commands

| Action | File | Directory / folder |
|---------------|--|--|
| Create | <ul style="list-style-type: none">• Touch fileName1 fileName 2• If hidden file → touch .fileName• If file name more than one word → Touch "file name "• If create file in path → touch /path/filename | <ul style="list-style-type: none">• Mkdir dirName 1dirName2• If hidden dir -> mkdir .dirName• If dir name more than one word → mkdir "dir name" |
| Copy | Cp source destination | Cp -r source destination |
| Rename | Mv source destination | Mv source destination |
| Cut/move | Mv source destination | Mv source destination |
| Remove/delete | Rm -f | Rm -rf |

Sudo mkdir dir1 ; sudo touch file 1 -> more than one command can be done by ; delimiter

Sudo nano /etc/sudoers → all admins

Ex) Ahmed ALL=(ALL) ALL get all admin privileges

If no password

Ex) Ahmed ALL=(ALL) NOPASSWD: ALL get all admin privileges and no ask for password

If I want to make group of users in admin

Ex) %seniors ALL=(ALL) NOPASSWD any user in senior in senior group is admin

/etc/group → all groups

/etc/

Nano -> open file like notepad in windows

Black → file

Dark blue → directory

Blue → hyperlink

Red → archive file (compressed)

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Processes (main parent process id → systemd) types:

→ running s=R

→sleep – loaded but not working s= S sleep

→Stopped –manually stopped process s= I ideal

→zombie child has no parent – connection lost with its parent. S=Z

- Virus غير معلومه الهويه
- Attack process
- Overload on server and hardware full utilizes cause child lost connection

Deal with process :

- I know app → pidof firefox/pgrep firefox
pidof firefox (parent 53900)
55022 55003 54754 54753 54415 54258 54239 54147 53900

pgrep firefox
53900 (parent)
- I know pid → top -p 2022
Top -p 51440
- I don't know app or pid →top / pstree -p / ps -aux

Signals :

Numbers from 1 -31 means messages to processes ex:)

Man 7 signal -----→ display all signals that deals with processes

Signal 1 reload → if I want to send message to process to reload.

Signal 9 force terminate →kill signal. (usually used with zombie processes)

Signal 15 clean terminate → send message to parent to stop the process and kill all child

Signal 18 pause process →

Signal 19 continue process →

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How to send signals :

-kill -signal pid → ex) kill -9 5212

send signal to pid 5212 to (-9) force terminate

-pkill -signal pattern → ex) pkill -9 fir

مصيبة سوده عشان بيدور على أي تطبيق فيه الجزء ده من الباترن و ينفذ عليهم ال سيجنال

-killall -signal appName → ex) killall -9 firefox

اهدى شويه عشان بيدور علي التطبيق بنفس الاسم بس عند كل ال مستخدمين

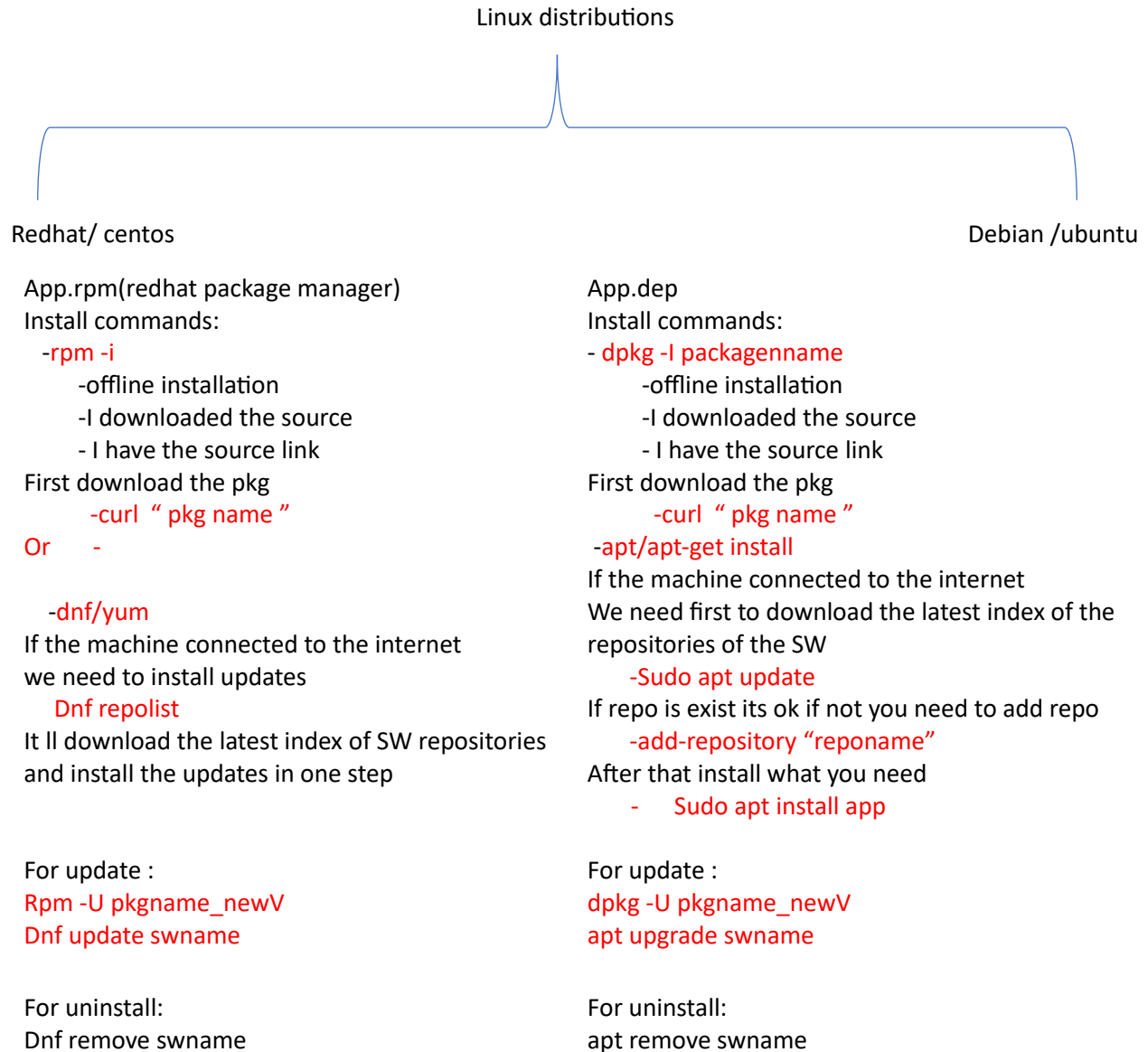
Systemctl parent -> kernel

Change network configuration using gui :

Network → wired settings → setting → ipv4 → manual →

Address → 192.168.80.150 → subnet 24 or 255.255.255.0 →

DNS static , 8.8.8.8 → apply → disconnect & connect to load the new configurations



Note

Dnf update → update sw and kernel

apt update → update sw only , if we need to update repos → dist-upgrade

Apt dist-upgrade(ubuntu) == Dnf update (RH)

Linux commands

Example to install new SW didn't exist in repo

Docker-ce

`Sudo apt install docker-ce` --→ docker ce not available

So we need to add repo

`Sudo apt add-repository docker-repo` -→ no jpg found

So we need to download jpg key

`sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /etc/apt/trusted.gpg.d/docker.gpg` -→ curl not found

So we need to install curl

`Sudo apt install curl`