What is process ? Running instance on executable {program} on computer system.

Types of process ?

1. Foreground process --🡪 process running on foreground require interaction of user EX—Microsoft excel on linux
2. Background process ----🡪 process running on background no need user interaction .EX antivirus
3. System process-----🡪 process running by system kernal
4. User process ----🡪 process running by user

State of process. ?

1. Running
2. Stopped -🡪 stopped by user
3. Sleep ---🡪 waiting for resource
4. Zombie ---🡪 process complete its execution but still have entry on process table.
5. Orphan --🡪 process that its parent has been terminated.

Managing process ?

How to list process running on system ?

1. $ ps
2. $ top ---🡪 list running process on system on real-live

How to terminate process ?

$ kill process\_id

How to get process id ?

1. $ pidof process\_name
2. $ ps -aux
3. $ top

How to change priority of process ?

We have 2 criteria

1. Process will start running with certain nice value we will use nice

$ nice -n nice\_value process\_name

1. Process already running we will use renice

$ renice nice\_value -p process\_id

Why we cannot use process name with renice command ?

Because its ok to have more than one process running with same name. EX … open 3 tabs on chrome

Process of highest priority executed first.

Higher priority for process means executed lower nice value.

How to change priority for process running by specific user and group ?

$ renice nice\_value -u user\_name -g group\_name

How to check disk status ?

$ df -h

How to check status of memory?

$ free

How to get status of specific process ?

$ ps pid

What is use of bg ?

$ bg pid

Send running process to background

What is fg?

$ fg pid

Running stopped process on forground

How to terminate process ?

1. kill ---🡪 using process\_id

$ kill process\_id

1. pkill ---🡪 using process name

$ pkill process\_name

1. killall process\_name -> kill all process running with same name

$ killall process\_name

Actually when you write kill command there is signal send to this process to terminate it.

$ kill -l --🡪 list all signals

Most 3 important ?

1 [SIGHUB], 9[SIGKILL], 15 [SIGTERM]

9 ---------🡪 kill process gracefully ,not give process time to respond.

15 -------🡪 kill process gently, give process sometime to save its state free resource.

$ kill -15 process\_id

$ kill -s sigal\_name process\_id

$ kill $(pidof process\_name)

Default signal used is 15.

Default nice value for any process start is 0.

Daemon ----🡪 [Linux] process running on background, not interactive and don’t have controlling terminal .

EX ---🡪 sshd

Service --🡪 [Windows]

Path to executable

$ which kill