PS [PROCESS MANAGEMENT]

* **ps** = it shows running process of current terminal and current cmd.
* **ps -a** = to see total number of process running in the system.
* **ps -u user** = to see process runs by user.
* **ps -x** = to see a process which are attached to terminal and not(? = not attached).
* **ps -G group** = to see a process running by a group.
* **ps –aux** = To see processes run by all users.
* **kill -l** = to see list of signals.
* **Kill -1 pid** = reloading the process.
* **Kill -9 pid** = kill the process.
* **Kill -15 pid** = terminate the process.
* **Kill -20 pid** = stop the process.
* **Jobs =** Displays list of jobs running in the background.
* **cmd & =** To sent a process to background.
* **fg jobID =** Move a background process to foreground.
* **pgrep service =** It is used to see PID’s of specific service.
* **buffer =** It is a temporary location to store data for a specific application, this can’t be used by any other application.
* **Cache =** It is a memory location to store frequently used data for faster access. Both are temporary.

**NICE, RENICE AND TOP**

* Nice and renice values are to set priority for the process. It starts from -19 to 20. The least the number is, the highest the priority will be for the process. By using this, we can allocate the importance to the process which will get more CPU focus.
* To set priority for newly creating process = **nice –n 5 cat >file1**
* To set priority for already running process = **renice 5 PID**
* You can monitor process using **TOP** cmd. You can also change nice values, kill process in there.
* To see running process in real time, we use TOP. It also shows free physical memory and virtual memory (swap).
* It will have 5 lines showing the statistics.

**1 = Uptime, how many users logged in, load avg of 1, 5, 15 min intervals.**

**2 = Shows no of process running their respective states.**

**3 = CPU Usage**

**4 = RAM Usage.**

**5 = SWAP Usage.**

* You can kill, change nice values of the process in top.

**M** = Shows process by memory usage.

**P** = Shows by CPU usage.

**r** = To renice a process.

**z** = To display color (highlights running process).

**k** = to kill process. Enter PID and kill signal to close process.

**q** = Quit.

* **Top** = displays tasks, memory, cpu and swap.
* **Top –u user-name** = displays specific user’s process.
* **C** = displays obsolute path of procress.
* **D** = to change refresh interval (default = 3).