**-----process management-----**

first process is init/systemd and it does not have any parent demon ----> process which are started with system and keep running demon never dies

**ps :-**

ps ------- > means process status

**if we don't pass any argument then it shows processes related to current session**

**ps -e  -------> everything**it shows all the process

a process that is not associated with terminal will show ? in tty field

**ps -f -------> full form**

UID   UserId/ User Name

PID   Process ID (Every Process has Unique ID)

           PPID     Parent Process ID

Time --> CPU Utilization Time Stime ---> start time c ----> cpu usage %

**processes related to a perticular user**ps -u username

**process with name**

I want to know process of id of perticular command

**ps -aux**

all user extra , Shows a detailed listing of all processes running on the system, including those started by other

users, and additional information about each process.

**ps -t terminal**to show all the processes related to a specific terminal

**ps -G groupId**   ----> to show all process related to groupId

**ps -C commandname**   -----> to show all process related to a perticular command

**ps -l  ---->**longform shows additional info about each process

F         ------> The process's flags or state.

UID      -----> The user ID of the process owner.

PID       -----> The process ID of the process.

PPID      ---->The parent process ID of the process.

C:           ---->The CPU utilization of the process.

PRI:       ---->The priority of the process.

NI:       ----->The nice value of the process.

ADDR:   ---> The memory address of the process.

SZ:          ---> The size of the process in memory (in kilobytes).

WCHAN: --> The name of the kernel function that the process is waiting on.

TTY:        ---> The terminal that the process is running on.

TIME:   ----->The CPU time used by the process.

CMD:    ----->The command that started the process.

**ps -r**   ----> view all the running processes

ps --ppid PPID  ------> process related to parent process id

here I am creating a compressed archieve of all files and folders inside

pictures folder using bzip2 compression algo

then suspending or stopping the job then moving that job in background

bg         -----> will move last job in background bg %+   -----> will move last job in background bg % -   -----> will move last to last job in background bg %n   -----> will move nth job in background

**kill :-**

kill pid   ----> kill process kill -9 pid   ----> focefully terminate

kill -STOP  pid  ----->  to stop/pause a process kill -CONT pid  -----> to start/resume a process

**killall :-**

using killall command we can kill a process by name

-r  ----> we can use regular expression

-v ----> verbose

-i  ----> intrective

-I  ----> ignore case  ( capital i)

**10. Top :-**

------->   Uptime    , user count , load average ,

------->  cpu count ( press 1 to check other cpus ), user process, system                         process, nice value, idle,

                        hardware intrupt, system interrupt, stolen time     3    ------->   free

Res ----> reserved memory Virt -----> virtual memory

Shr  -----> shared memory

S ----> running , stopped , idle etc

Press u ----> enter username

K   ----> kill

‘M’ to sort by memory usage

‘P’ to sort by CPU usage

‘N’ to sort by process ID

‘T’ to sort by the running time

By default, top displays all results in descending order. However, you can switch to ascending order by pressing ‘R’