Process Management:

These commands are commonly used in Linux for process management.

1. `ps` Command:

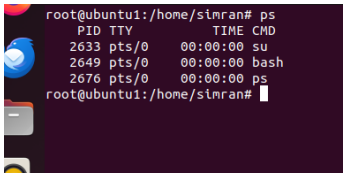
Ps stands for process status

The `ps` command is used to display information about processes running on a system.

Examples:

- Display a list of all processes running in the current terminal session:

```bash
ps
```



- Display detailed information about all processes running on the system:

```bash
ps aux
```

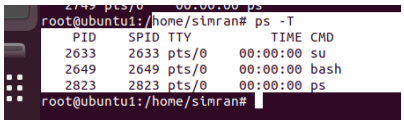
To see all running processes:

ps -A

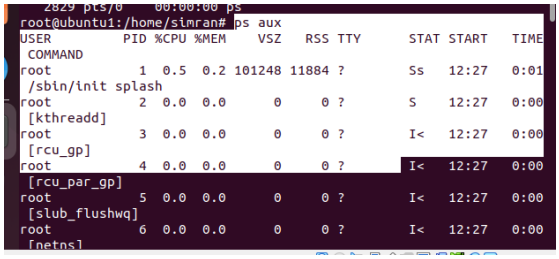
ps -e

To see list of processes associated with the terminal only:

ps -T



ps aux



VSZ- virtual memory size of process

RSS – physical memory size of process

TTY- terminal

STAT- Process state (Sleeping running and zombie)

TIME – minutes:seconds

- Show a tree view of processes with parent-child relationships:

```bash
ps auxf
```

Ps aux –sort=- %mem

2. `bg` Command:

The `bg` command is used to move a process to the background, allowing it to continue running while freeing up the terminal.

Example:

- Move a stopped or suspended process to the background:

```bash
Sleep 5
```

Press [Ctrl+Z] to stop the process

```
Jobs
```

It will show you stopped processes

Now we can send this process to background

```
bg %1
```

(Assuming the job ID is 1; replace it with the actual job ID.)

3. `fg` Command:

The `fg` command is used to bring a background process back to the foreground.

Example:

Sleep 5

Press [Ctrl+Z] to stop the process

Jobs

It will show you stopped processes

- Bring the most recent background process to the foreground:

```bash
fg %1
```

4. `nice` Command:

The `nice` command is used to launch a command with a specified priority (niceness), affecting its CPU scheduling priority.

Range for nice values : -20 to +19

Examples:

- Start a command with a higher priority (lower niceness value):

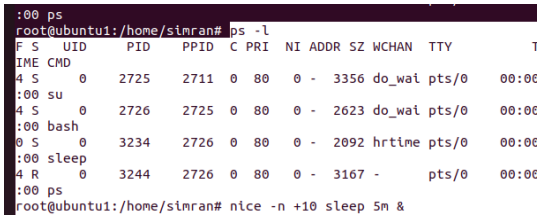
```bash
nice -n -10 command
```

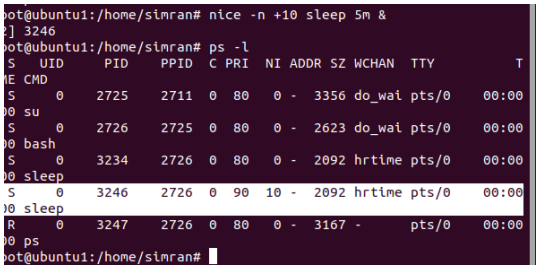
- Start a command with a lower priority (higher niceness value):

```bash
**nice -n 10 command**
```

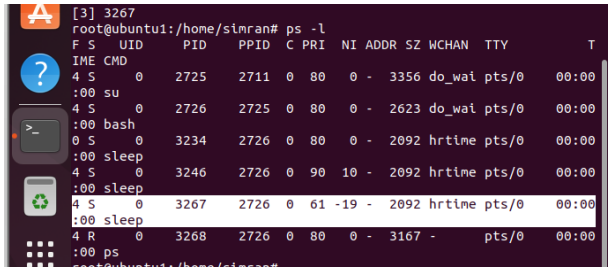
- Check the current niceness value of a running process:

```bash

nice -n

```

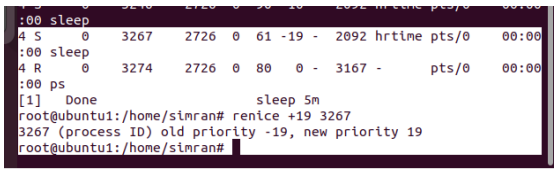




Lower the nice value higher will be the priority of that process



Now to change the priority of process which is already running



Changed priority