

Working with Linux Process

1. Open a terminal. Now spawn three shell processes one after another i.e. first spawn one shell, then from the spawned shell, spawn one new shell and so on. Now, how can you see the PID of the current shell ? How can you see the PID of the shell which is the grandparent of the current shell?

Ans: open a terminal enter command 'bash'

Enter bash again to get child terminal

To get PID of current terminal: echo \$\$

To get PID of grandparent : pstree -p | grep PID_of_current bash

```
bgmadhavan@bgm-vir... x bgmadhavan@bgm-vir... x bgmadhavan@bgm-vir... x
bgmadhavan@bgm-virtual-machine:~/demodir$ echo $$
448
bgmadhavan@bgm-virtual-machine:~/demodir$ pstree -p | grep 3448
    |                                     | -bash(3448)--grep(3455)
bgmadhavan@bgm-virtual-machine:~/demodir$
```

2. How can you see all the processes (both system & user processes) in your computer? The output can be quite large. How can you view the output as multipage output ? How can you store the output in a file named process_info?

Ans: To view all the process: ps -ef

Multipage output: ps -ef | less

Ps -ef > process_info

```
bgmadhavan@bgm-vir... x bgmadhavan@bgm-vir... x bgmadhavan@bgm-vir... x
root      2435      2  0 11:31 ?        00:00:24 [kworker/0:0-pm]
root      2777      2  0 11:36 ?        00:00:03 [kworker/u256:2-events_freez
ble_power_]
bgmadha+  2847    1236  0 11:41 ?        00:00:01 gjs /usr/share/gnome-shell/e
tensions/ding@rastersoft.com/ding.js -E -P /usr/share/gnome-shell/extensions/di
g@rastersoft.com -M 0 -D 0:0:979:436:1:27:0:0:0
root      2966      2  0 11:48 ?        00:00:06 [kworker/1:2-events]
root      3005      2  0 11:50 ?        00:00:00 [kworker/1:3-events]
root      3246      2  0 12:19 ?        00:00:01 [kworker/u256:3-events_freez
ble_power_]
root      3382      2  0 12:32 ?        00:00:00 [kworker/u256:0-events_unbou
d]
root      3405      2  0 12:37 ?        00:00:00 [kworker/0:2-events]
root      3410      2  0 12:42 ?        00:00:00 [kworker/0:1-events]
bgmadha+  3429    1923  0 12:46 pts/0    00:00:00 bash
bgmadha+  3435    1905  0 12:46 pts/1    00:00:00 bash
bgmadha+  3442    3435  0 12:46 pts/1    00:00:00 bash
bgmadha+  3448    1905  0 12:46 pts/2    00:00:00 bash
root      3473      2  0 12:49 ?        00:00:00 [kworker/u256:1-flush-8:0]
bgmadha+  3474    3448  0 12:49 pts/2    00:00:00 ps -ef
bgmadha+  3475    3448  0 12:49 pts/2    00:00:00 less
```