EmbedUR - Linux Training Program

Module - 1

Assignment – 6 (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?

Output:

```
aswinsankesh@aswin-linux:~$ sh
$ sh
$ sh
$ ps
    PID TTY          TIME CMD
   2921 pts/0    00:00:00 bash
   3287 pts/0    00:00:00 sh
   3288 pts/0    00:00:00 sh
   3289 pts/0    00:00:00 sh
   3290 pts/0    00:00:00 ps
$ exit
$ exit
$ exit
aswinsankesh@aswin-linux:~$
```

Explanation:

Sh => creates a new process (ie., spawns a new child process)

Exit => to kill a particular running process.

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?

Output:

```
aswinsankesh@aswin-linux:~$ ps -e | more
    PID TTY          TIME CMD
      1 ?        00:00:06 systemd
      2 ?        00:00:00 kthreadd
      3 ?        00:00:00 rcu_gp
      4 ?        00:00:00 rcu_par_gp
      5 ?        00:00:00 slub_flushwq
      6 ?        00:00:00 netns
     10 ?        00:00:00 mm_percpu_wq
     11 ?        00:00:00 rcu_tasks_kthread
     12 ?        00:00:00 rcu_tasks_rude_kthread
     13 ?        00:00:00 rcu_tasks_trace_kthread
     14 ?        00:00:07 ksoftirqd/0
     15 ?        00:00:07 rcu_preempt
     16 ?        00:00:00 migration/0
     17 ?        00:00:00 idle_inject/0
     19 ?        00:00:00 cpuhp/0
     20 ?        00:00:00 kdevtmpfs
     21 ?        00:00:00 inet_frag_wq
     22 ?        00:00:00 kauditd
     23 ?        00:00:00 khungtaskd
     25 ?        00:00:00 oom_reaper
     26 ?        00:00:00 writeback
     28 ?        00:00:02 kcompactd0
--More--
```

Explanation:

Ps –e => lists both system and user processes

| more => to create a multipage output

```
aswinsankesh@aswin-linux:~$ ps -e | more > process_info.txt
aswinsankesh@aswin-linux:~$ cat process_info.txt
    PID TTY          TIME CMD
      1 ?        00:00:06 systemd
      2 ?        00:00:00 kthreadd
      3 ?        00:00:00 rcu_gp
      4 ?        00:00:00 rcu_par_gp
      5 ?        00:00:00 slub_flushwq
      6 ?        00:00:00 netns
     10 ?        00:00:00 mm_percpu_wq
     11 ?        00:00:00 rcu_tasks_kthread
     12 ?        00:00:00 rcu_tasks_rude_kthread
     13 ?        00:00:00 rcu_tasks_trace_kthread
     14 ?        00:00:07 ksoftirqd/0
     15 ?        00:00:08 rcu_preempt
     16 ?        00:00:00 migration/0
     17 ?        00:00:00 idle_inject/0
     19 ?        00:00:00 cpuhp/0
     20 ?        00:00:00 kdevtmpfs
     21 ?        00:00:00 inet_frag_wq
     22 ?        00:00:00 kauditd
     23 ?        00:00:00 khungtaskd
     25 ?        00:00:00 oom_reaper
     26 ?        00:00:00 writeback
```

Explanation: Storing the same in a file