

Assignment – Process Management

1) List out highest priority process in the system

To list highest priority process

Cmd – `ps -eo pid,comm,pri,nice --sort=pri | head -n 2`

```
ubuntu@ip-172-31-2-192:~$ ps -eo pid,comm,pri,nice --sort=pri | head -n 2
PID COMMAND      PRI  NI
 17 migration/0   139   -
```

ps – cmd used to display process associated with system

-e – To display all process

-o – To display the specified columns

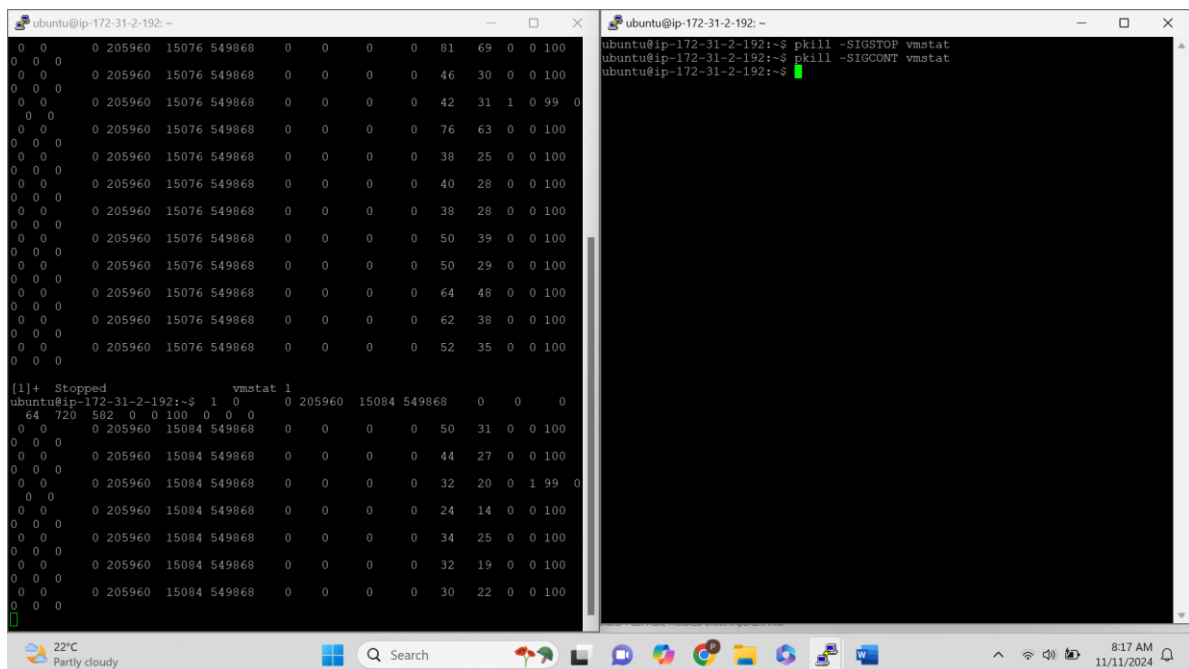
--sort – To sort based on priority

head – To display the specified number of lines in output

2) Open terminal with 2 tabs or sessions

a) run command "vmstat 1"

b) switch to another tab, pause running vmstat command for few seconds and resume it again use appropriate SIGNALS to do this activity.



Step 1 : vmstat 1

To monitor the system activity like cpu, memory usage, process, etc

Step 2 : Pause the vmstat for few seconds

Cmd – `kill -SIGSTOP vmstat`

To continue

Cmd – `kill -SIGCONT vmstat`

3) Find the process which is sleeping in "wait" state.

```
ubuntu@ip-172-31-2-192: ~$ top -b -n 1 | grep 'S'
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1	root	20	0	22336	13280	9312	S	0.0	1.4	0:13.79	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.04	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:00.00	pool_wor
15	root	20	0	0	0	0	S	0.0	0.0	0:00.84	ksftlr+
17	root	rt	0	0	0	0	S	0.0	0.0	0:02.92	migrati+
18	root	-51	0	0	0	0	S	0.0	0.0	0:00.00	idle in+
19	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/0
20	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmp+
23	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kauditd
24	root	20	0	0	0	0	S	0.0	0.0	0:00.11	khungta+
25	root	20	0	0	0	0	S	0.0	0.0	0:00.00	oom_rea+
28	root	20	0	0	0	0	S	0.0	0.0	0:16.43	kcompact+
29	root	25	5	0	0	0	S	0.0	0.0	0:00.00	ksmd
30	root	39	19	0	0	0	S	0.0	0.0	0:00.00	khugepa+
34	root	-51	0	0	0	0	S	0.0	0.0	0:00.00	irq/9-a+
35	root	20	0	0	0	0	S	0.0	0.0	0:00.00	xen-bal+
42	root	-51	0	0	0	0	S	0.0	0.0	0:00.00	watchdo+
44	root	20	0	0	0	0	S	0.0	0.0	0:00.69	kswapd0
45	root	20	0	0	0	0	S	0.0	0.0	0:00.00	ecryptf+
48	root	20	0	0	0	0	S	0.0	0.0	0:00.00	xenbus
49	root	20	0	0	0	0	S	0.0	0.0	0:00.01	xenwatch
54	root	20	0	0	0	0	S	0.0	0.0	0:00.00	scsi_eh+
56	root	20	0	0	0	0	S	0.0	0.0	0:00.00	scsi_eh+
209	root	20	0	0	0	0	S	0.0	0.0	0:00.64	jbd2/xv+
284	root	19	-1	116056	36220	35068	S	0.0	3.7	0:04.41	systemd+
333	root	rt	0	288952	27136	8704	S	0.0	2.8	0:31.41	multipa+
342	root	20	0	26512	8128	5056	S	0.0	0.8	0:00.63	systemd+
367	root	-2	0	0	0	0	S	0.0	0.0	0:00.00	psimon
423	root	20	0	0	0	0	S	0.0	0.0	0:00.00	jbd2/xv+
488	systemd+	20	0	21584	12928	10624	S	0.0	1.3	0:00.76	systemd+
618	systemd+	20	0	22400	9728	8576	S	0.0	1.0	0:00.59	systemd+
661	root	20	0	2720	1920	1792	S	0.0	0.2	0:00.00	acpid
666	message+	20	0	9956	5632	4608	S	0.0	0.6	0:02.44	dbus-da+
673	root	20	0	32456	20736	10624	S	0.0	2.1	0:00.16	network+
675	polkitd	20	0	383076	9476	7424	S	0.0	1.0	0:00.26	polkitd
685	root	20	0	1759116	19392	11136	S	0.0	2.0	0:10.40	amazon+
710	root	20	0	1769732	31828	20480	S	0.0	3.2	0:11.09	znapd
740	root	20	0	18144	8704	7680	S	0.0	0.9	0:01.10	systemd+
769	root	20	0	468828	13440	11392	S	0.0	1.4	0:07.42	udisksd
812	syslog	20	0	222508	6144	4480	S	0.0	0.6	0:00.66	rsyslogd
855	root	20	0	109996	22784	13440	S	0.0	2.3	0:00.08	unatten+
866	chrony	20	0	19388	3652	2944	S	0.0	0.4	0:10.74	chronyd

Cmd – top -b -n 1 | grep 'S'

- top – used to display the process associated with system dynamically
- b – batch mode – to display output in non-interactive mode i.e, plain text
- n – after number of iterations , exit (in this case, it is 1)
- grep 'S' – to filter the output which has 'S' and display it