1/09/2022 Kamal Gurung CSCI-340 (WINTER) Prof. Dr. Simina Fluture. Zombie snapshots

Before the execution of zombie process,

top - 21:49:15 up 145 days, 11:36, 22 users, load average: 2.02, 2.02, 2.00 Tasks: 1214 total, 3 running, 1209 sleeping, 2 stopped, 0 zomble %Cpu(s): 1.2 us, 1.8 sy, 0.0 ni, 97.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st MiB Mem: 515176.3 total, 190926.2 free, 1385.1 used, 318087.0 buff/cache MiB Swap: 4096.0 total, 4067.1 free, 28.9 used. 494906.5 avail Mem

PID	USER	PR N	I	VIRT	RES	SHR S	%CPU	%MEM	TIME+ COMMAND
	gadi8984		0	8640	1164		100.0	0.0	45373:21 out.exe
				35816	8024		100.0		72102:05 vim
	guka4106			55564	5796	3684 R		0.0	0:00.02 top
	root		0 2	40756	13464	8364 S		0.0	33:49.27 systemd
2	root		0	0	0	0 S	0.0	0.0	0:22.38 kthreadd
3	root	0 -2	0	0	0	0 I	0.0	0.0	0:00.00 rcu_gp
4	root	0 -2	0	0	0	0 I	0.0	0.0	0:00.00 rcu_par_gp
6	root	0 -2	0	0	0	0 I		0.0	0:00.00 kworker/0:0H-events_highpri
10	root	0 -2	0	0	0	0 I	0.0	0.0	0:00.00 mm_percpu_wq
11	root	20	0	0	0	0 5	0.0	0.0	0:00.00 rcu_tasks_rude_
12	root	20	0	0	0	0 S	0.0	0.0	0:00.00 rcu tasks trace
13	root	20	0	0	0	0 S	0.0	0.0	0:22.32 ksoftirgd/0
14	root	20	0	0	0	0 I	0.0	0.0	58:33.86 rcu_sched
15	root	rt	0	0	0	0 S	0.0	0.0	0:00.26 migration/0
16	root		0	0	0	0 S	0.0	0.0	0:02.32 watchdog/0
17	root		0	0	0	0 5	0.0	0.0	0:00.00 cpuhp/0
18	root	20	0	0	0	0 S	0.0	0.0	0:00.00 cpuhp/1
19	root	rt	0	0	0	0 S	0.0	0.0	0:05.28 watchdog/1
20	root		0	0	0	0 S	0.0	0.0	0:00.37 migration/1
	root		0	0	0	0 S		0.0	0:15.39 ksoftirqd/1
23	root	0 -2	0	0	0	0 I	0.0	0.0	0:00.00 kworker/1:0H-events_highpri
25	root		0	0	0	0 S	0.0	0.0	0:00.00 cpuhp/2
	root		0	0	0	0 S	0.0	0.0	0:04.81 watchdog/2
27	root		0	0	0	0 S	0.0	0.0	0:00.26 migration/2
28	root		0	0	0	0 S	0.0	0.0	0:09.81 ksoftirqd/2
30	root	0 -2	0	0	0	0 I	0.0	0.0	0:00.00 kworker/2:0H-events_highpri
	root		0	0	0	0 S		0.0	0:00.00 cpuhp/3
	root		0	0	0	0 S		0.0	0:06.62 watchdog/3
	root		0	0	0	0 S		0.0	0:00.53 migration/3
	root		0	0	0	0 S		0.0	0:10.65 ksoftirgd/3
	root	0 -2		0	0	0 I		0.0	0:00.00 kworker/3:0H-events_highpri
	root		0	0	0	0 S		0.0	0:00.00 cpuhp/4
	root		0	0	0	0 S		0.0	0:05.79 watchdog/4
	root		0	0	0	0 S		0.0	0:00.18 migration/4
	root		0	0	0	0 S		0.0	0:06.74 ksoftirqd/4
	root	0 -2		0	0	0 I		0.0	0:00.00 kworker/4:0H-events_highpri
	root		0	0	0	0 5		0.0	0:00.00 cpuhp/5
	root		0	0	0	0 S		0.0	0:07.37 watchdog/5
	root		0	0	0	0 S		0.0	0:00.34 migration/5
	root	0 -2		0	0	0 S		0.0	0:13.74 ksoftirqd/5
	root		0	0	0			0.0	0:00.00 kworker/5:0H-events_highpri
	root		0	0	0	0 S		0.0	0:00.00 cpuhp/6 0:05.74 watchdog/6
			0	0	0	0 5			
	root		0	0	0	0 S		0.0	0:00.42 migration/6
	root	0 -2		0	0	0 I		0.0	0:05.88 ksoftirqd/6
	root		0	9	0	0 S		0.0	0:00.00 kworker/6:0H-events_highpri 0:00.00 cpuhp/7
	root		0	0	0	0 5		0.0	e:ee.ee cpump/ 0:06.77 watchdog/7
	root		0	9	0	0 S		0.0	e:ee.// watchooy/ 0:ee.44 migration/7
37	, 500		-	9	9	0 3	0.0	0.0	VIVOLTT MAGINEAUNT

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rt 0
                                              0.0 0.0 0:07.37 watchdog/5
    44 root
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    45 root
                rt
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                                                          0:00.34 migration/5
                20 0
                                                    0.0 0:13.74 ksoftirqd/5
    46 root
                                         0 5
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    48 root
                0 -20
                                         0 I
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    49 root
                20 0
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    52 root
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    54 root
                0 -20
                                         0 I
                                               0.0
                20 0
    55 root
                                         0 5 0.0
                                                    0.0 0:00.00 cpuhp/7
[guka4106@venus ~]$ ps
   PID TTY
                   TIME CMD
161887 pts/28
               00:00:00 tcsh
166192 pts/28
               00:00:00 top
167009 pts/28 00:00:00 ps
[guka4106@venus ~]$ gcc kamalgurung_zombie.c -o zombie
```

After the execution of zombie process.

top - 21:49:52 up 145 days, 11:36, 22 users, load average: 2.01, 2.01, 2.00 Tasks: 1216 total, 3 running, 1210 sleeping, 2 stopped, 1 zombie %Cpu(s): 1.1 us, 1.9 sy, 0.0 nl, 97.0 ld, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st MiB Mem: 515176.3 total, 190926.4 free, 1382.6 used, 310897.2 buff/cache MiB Swap: 4096.0 total, 4067.1 free, 28.9 used. 494906.9 avail Mem

PID	USER	PR NI	VIRT	RES	SHR S	%CPU	%MEM	TIME+ COMMAND
916954	gadi8984	20 0	8640	1164	1052 R	88.9	0.0	45373:58 out.exe
1472830	shmu7349	20 0	35816	8024	5220 R	88.9	0.0	72102:42 vim
167025	guka4106	20 0	55564	5652	3620 R	5.6	0.0	0:00.02 top
1	root	20 0	240756	13464	8364 S	0.0	0.0	33:49.27 systemd
2	root	20 0	0	0	0 5	0.0	0.0	0:22.38 kthreadd
3	root	0 -20	0	0	0 I	0.0	0.0	0:00.00 rcu_gp
4	root	0 -20	0	0	0 I	0.0	0.0	0:00.00 rcu_par_gp
6	root	0 -20	0	0	0 I	0.0	0.0	0:00.00 kworker/0:0H-events_highpri
10	root	0 -20	0	0	0 I	0.0	0.0	0:00.00 mm_percpu_wq
11	root	20 0	0	0	0 5	0.0	0.0	0:00.00 rcu_tasks_rude_
12	root	20 0	0	0	0 S	0.0	0.0	0:00.00 rcu tasks trace
13	root	20 0	0	0	0 5	0.0	0.0	0:22.32 ksoftirgd/0
14	root	20 0	0	0	0 I	0.0	0.0	58:33.86 rcu sched
15	root	rt 0	0	0	0 S	0.0	0.0	0:00.26 migration/0
16	root	rt 0	0	0	0 5	0.0	0.0	0:02.32 watchdog/0
17	root	20 0	0	0	0 5	0.0	0.0	0:00.00 cpuhp/0
18	root	20 0	0	0	0 5	0.0	0.0	0:00.00 cpuhp/1
19	root	rt 0	0	0	0 S	0.0	0.0	0:05.28 watchdog/1
20	root	rt 0	0	0	0 S	0.0	0.0	0:00.37 migration/1
21	root	20 0	0	0	0 5	0.0	0.0	0:15.39 ksoftirgd/1
23	root	0 -20	0	0	0 I	0.0	0.0	0:00.00 kworker/1:0H-events_highpri
25	root	20 0	0	0	0 S	0.0	0.0	0:00.00 cpuhp/2
26	root	rt 0	0	0	0 S	0.0	0.0	0:04.81 watchdog/2
27	root	rt 0	0	0	0 5	0.0	0.0	0:00.26 migration/2
28	root	20 0	0	0	0 S	0.0	0.0	0:09.81 ksoftirqd/2
30	root	0 -20	0	0	0 I	0.0	0.0	0:00.00 kworker/2:0H-events_highpri
31	root	20 0	0	0	0 5	0.0	0.0	0:00.00 cpuhp/3
32	root	rt 0	0	0	0 S	0.0	0.0	0:06.62 watchdog/3
33	root	rt 0	0	0	0 S	0.0	0.0	0:00.53 migration/3
34	root	20 0	0	0	0 S	0.0	0.0	0:10.65 ksoftirqd/3
36	root	0 -20	0	0	0 I	0.0	0.0	0:00.00 kworker/3:0H-events_highpri
37	root	20 0	0	0	0 5	0.0	0.0	0:00.00 cpuhp/4
38	root	rt 0	0	0	0 5	0.0	0.0	0:05.79 watchdog/4
	root	rt 0	0	0	0 5	0.0	0.0	0:00.18 migration/4
40	root	20 0	0	0	0 5	0.0	0.0	0:06.74 ksoftirqd/4
	root	0 -20	0	0	0 I	0.0	0.0	0:00.00 kworker/4:0H-events_highpri
43	root	20 0	0	0	0 5	0.0	0.0	0:00.00 cpuhp/5
	root	rt 0	0	0	0 5	0.0	0.0	0:07.37 watchdog/5
	root	rt 0	0	0	0 S	0.0	0.0	0:00.34 migration/5
	root	20 0	0	0	0 5	0.0	0.0	0:13.74 ksoftirqd/5
	root	0 -20	0	0	0 I	0.0	0.0	0:00.00 kworker/5:0H-events_highpri
	root	20 0	0	0	0 5	0.0	0.0	0:00.00 cpuhp/6
	root	rt 0	0	0	0 5	0.0	0.0	0:05.74 watchdog/6
	root	rt 0	0	0	0 5	0.0	0.0	0:00.42 migration/6
	root	20 0	0	0	0 5	0.0	0.0	0:05.88 ksoftirqd/6
	root	0 -20	0	0	0 I	0.0	0.0	0:00.00 kworker/6:0H-events_highpri
	root	20 0	0	0	0 5	0.0	0.0	0:00.00 cpuhp/7
	root	rt 0	0	0	0 S	0.0	0.0	0:06.77 watchdog/7
57	root	rt 0	0	0	0 S	0.0	0.0	0:00.44 migration/7

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44 root
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     45 root
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                                                          0.0
                                                                0:00.44 migration/7
[[guka4106@venus ~]$ ps
    PID TTY
                     TIME CMD
 161887 pts/28
                 00:00:00 tcsh
 166192 pts/28
                 00:00:00 top
                 00:00:00 zombie
 167023 pts/28
 167024 pts/28
                 00:00:00 zombie <defunct>
 167029 pts/28
                 00:00:00 ps
 [guka4106@venus ~]$
 Exitting Parent
```