



SHELL PROGRAMMING

ASSIGNMENT -7

SUBMITTED BY:

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SAP ID - 500086400

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SUBMITTED TO:

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bg – to send a process in background

```
root@Ayush500086400:~# bg
[2]+ sleep 1000 &
root@Ayush500086400:~#
```

fg – to run a stopped process in foreground

```
root@Ayush500086400:~# fg
sleep 1000
```

top – details on all active processes

```
top - 12:05:43 up 14 min, 1 user, load average: 0.21, 0.08, 0.04
Tasks: 193 total, 1 running, 191 sleeping, 1 stopped, 0 zombie
%Cpu(s): 0.0 us, 0.0 sy, 0.0 ni, 100.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 3895.7 total, 2576.5 free, 800.1 used, 519.1 buff/cache
MiB Swap: 974.0 total, 974.0 free, 0.0 used. 2864.7 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1	root	20	0	100572	11224	8336	S	0.0	0.3	0:01.43	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.01	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+
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker+
7	root	20	0	0	0	0	I	0.0	0.0	0:00.25	kworker+
8	root	20	0	0	0	0	I	0.0	0.0	0:02.80	kworker+
9	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	mm_perc+
10	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_tas+
11	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_tas+
12	root	20	0	0	0	0	S	0.0	0.0	0:00.03	ksoftir+
13	root	20	0	0	0	0	I	0.0	0.0	0:00.13	rcu_sch+
14	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migrati+
15	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/0
16	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/1
17	root	rt	0	0	0	0	S	0.0	0.0	0:00.68	migrati+
18	root	20	0	0	0	0	S	0.0	0.0	0:00.05	ksoftir+

```
root@Ayush500086400:~# jobs
[1]-  Running                sleep 500 &
[2]+  Stopped                 sleep 1000
root@Ayush500086400:~# █
```

ps- give the status of processes running for a user

```
root@Ayush500086400:~# ps
  PID TTY          TIME CMD
 1661 pts/0        00:00:00 bash
 1694 pts/0        00:00:00 sleep
 1696 pts/0        00:00:00 sleep
 1700 pts/0        00:00:00 top
 1701 pts/0        00:00:00 ps
root@Ayush500086400:~#
```

```
root@Ayush500086400:~# ps
  PID TTY          TIME CMD
 1661 pts/0        00:00:00 bash
 1694 pts/0        00:00:00 sleep
 1696 pts/0        00:00:00 sleep
 1700 pts/0        00:00:00 top
 1713 pts/0        00:00:00 ps
root@Ayush500086400:~# ps 1661
  PID TTY          STAT       TIME COMMAND
 1661 pts/0        Ss          0:00    /usr/bin/bash
root@Ayush500086400:~#
```

kill - kills the process

```
root@Ayush500086400:~# kill -9 1700
root@Ayush500086400:~# ps 1700
  PID TTY          STAT       TIME COMMAND
[3]+  Killed                  top
root@Ayush500086400:~#
```

nice-starts a process with given priority

```
root@Ayush500086400:~# nice -n 5 bash
root@Ayush500086400:~# top

top - 12:11:11 up 19 min,  1 user,  load average: 0.01, 0.05, 0.03
Tasks: 195 total,  1 running, 193 sleeping,  1 stopped,  0 zombie
%Cpu(s):  0.7 us,  0.2 sy,  0.0 ni, 99.2 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
MiB Mem : 3895.7 total, 2529.6 free,  835.6 used,  530.5 buff/cache
MiB Swap:  974.0 total,  974.0 free,  0.0 used, 2829.0 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM    TIME+  COMMAND
 1208 root       20   0 3939760 340180 133024 S   0.7   8.5   0:13.13 gnome-s+
 1123 root       20   0 324604   88076  54408 S   0.3   2.2   0:04.33 Xorg
    1 root       20   0 100572   11224  8336 S   0.0   0.3   0:01.45 systemd
    2 root       20   0      0      0      0 S   0.0   0.0   0:00.01 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+
    6 root        0 -20      0      0      0 I   0.0   0.0   0:00.00 kworker+
    7 root       20   0      0      0      0 I   0.0   0.0   0:00.34 kworker+
    8 root       20   0      0      0      0 I   0.0   0.0   0:02.81 kworker+
    9 root        0 -20      0      0      0 I   0.0   0.0   0:00.00 mm_perc+
   10 root       20   0      0      0      0 S   0.0   0.0   0:00.00 rcu_tas+
```