Foreground and Background process in Linux

Aishi De

```
aishi@Aishi:~$ echo foreground process
foreground process
aishi@Aishi:~$ ps
                       TIME CMD
    PID TTY
   3420 pts/0
                  00:00:00 bash
   3435 pts/0
                  00:00:00 ps
aishi@Aishi:~$ top
top - 11:51:49 up 38 min, 1 user, load average: 0.00, 0.00, 0.00
Tasks: 39 total, 1 running, 38 sleeping, 0 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 : 7545.2 total, 6782.8 free, 776.2 used, 225.5 buff/cache
             2048.0 total,
MiB Swap:
                              2048.0 free,
                                                  0.0 used.
                                                               6769.0 avail Mem
    PID USER
                    PR NI
                              VIRT
                                       RES
                                               SHR S %CPU %MEM
                                                                       TIME+ COMMAND
      1 root
                    20
                         0
                             21760
                                     13004
                                              9528 S
                                                        0.0
                                                              0.2
                                                                     0:03.19 systemd
                                              1796 S
                                                              0.0
                                                                     0:00.01 init-systemd(Ub
      2 root
                    20
                         0
                              2776
                                      1920
                                                        0.0
      8 root
                    20
                         0
                              2776
                                      132
                                               132 S
                                                        0.0
                                                              0.0
                                                                     0:00.00 init
                                             18476 S
                                                                     0:00.78 systemd-journal
     54 root
                   19
                        -1
                             66820
                                     19700
                                                              0.3
                                                        0.0
                             24516
     98 root
                                              4936 S
                                                                     0:00.38 systemd-udevd
                   20
                         0
                                      6688
                                                        0.0
                                                              0.1
                         0 152936
    112 root
                   20
                                               32 S
                                                        0.0
                                                                     0:00.00 snapfuse
                                      200
                                                              0.0
                                                        0.0
    123 root
                   20
                         0 153068
                                      2740
                                               448 S
                                                                     0:00.00 snapfuse
                                                              0.0
    130 root
                   20 0 153068
                                      2752
                                               444 S
                                                        0.0
                                                              0.0
                                                                     0:00.00 snapfuse
                   20 0 377360
                                               444 S
                                                                     0:00.40 snapfuse
    139 root
                                     12380
                                                        0.0
                                                              0.2
    144 root
                  20 0 153200
                                      2236
                                               32 S
                                                        0.0
                                                                   0:00.01 snapfuse
                                                              0.0
                                               328 S
    153 root
                  20 0 378152
                                      9000
                                                        0.0
                                                              0.1
                                                                   0:00.54 snapfuse
                  20 0 302992
                                      4668
                                               208 S
    156 root
                                                        0.0
                                                              0.1 0:00.02 snapfuse
                   20 0 153068
                                               384 S
    163 root
                                      756
                                                        0.0
                                                              0.0 0:00.01 snapfuse
                    20 0 153068
                                               36 S
                                                              0.0 0:00.01 snapfuse
                                      2240
                                                        0.0
    167 root
                    20
                         0 377228
                                     15280
                                               380 S
                                                        0.0
                                                              0.2
                                                                    0:02.41 snapfuse
    173 root
                   20
    265 systemd+
                         0
                             21452
                                     11828
                                              9636 S
                                                        0.0
                                                              0.2
                                                                    0:00.18 systemd-resolve
    266 systemd+
                   20
                         0
                             91020
                                      6572
                                              5716 S
                                                        0.0
                                                              0.1
                                                                     0:00.21 systemd-timesyn
    275 root
                    20
                         0
                              4236
                                      2704
                                              2476 S
                                                        0.0
                                                              0.0
                                                                     0:00.02 cron
                              9620
                                      5216
                                              4532 S
                                                        0.0
                                                                     0:00.51 dbus-daemon
    276 message+
                   20
                         0
                                                              0.1
    289 root
                    20
                         0
                             17976
                                      8256
                                              7232 S
                                                        0.0
                                                              0.1
                                                                     0:00.50 systemd-logind
    292 root
                    20
                         0 1756096
                                     16076
                                              9488 S
                                                        0.0
                                                              0.2
                                                                     0:00.50 wsl-pro-service
                                              1108 S
    308 root
                    20
                         0
                               3160
                                      1196
                                                        0.0
                                                              0.0
                                                                     0:00.01 agetty
    312 root
                               3116
                                              1020 S
                    20
                         0
                                      1108
                                                        0.0
                                                              0.0
                                                                     0:00.01 agetty
[1]+ Stopped
                                 top
```

aishi@Aishi:~\$ echo background process
background process

```
aishi@Aishi:~$ jobs
[1]+ Stopped
                               top
aishi@Aishi:~$ ps -e
    PID TTY
                     TIME CMD
      1 ?
                 00:00:03 systemd
      2 ?
                 00:00:00 init-systemd(Ub
      8 ?
                 00:00:00 init
     54 ?
                 00:00:00 systemd-journal
     98 ?
                 00:00:00 systemd-udevd
    112 ?
                 00:00:00 snapfuse
    123 ?
                 00:00:00 snapfuse
    130 ?
                 00:00:00 snapfuse
   139 ?
                 00:00:00 snapfuse
   144 ?
                 00:00:00 snapfuse
   153 ?
                 00:00:00 snapfuse
   156 ?
                 00:00:00 snapfuse
    163 ?
                 00:00:00 snapfuse
   167 ?
                 00:00:00 snapfuse
   173 ?
                 00:00:02 snapfuse
    265 ?
                 00:00:00 systemd-resolve
    266 ?
                 00:00:00 systemd-timesyn
    275 ?
                 00:00:00 cron
                 00:00:00 dbus-daemon
    276 ?
    289 ?
                 00:00:00 systemd-logind
    292 ?
                 00:00:00 wsl-pro-service
```

```
aishi@Aishi:~$ ps -ef
                    PPID C STIME TTY
UID
             PID
                                                TIME CMD
root
               1
                        0
                          0 11:13 ?
                                            00:00:03 /usr/lib/sys
root
               2
                        1
                          0 11:13 ?
                                            00:00:00 /init
                          0 11:13 ?
                                            00:00:00 plan9 --cont
root
               8
                        2
                                            00:00:00 /usr/lib/sys
                          0 11:13 ?
              54
root
                        1
              98
                          0 11:13 ?
                                            00:00:00 /usr/lib/sys
root
root
             112
                        1
                          0 11:13 ?
                                            00:00:00 snapfuse /va
                                            00:00:00 snapfuse /va
root
             123
                        1
                          0 11:13 ?
             130
                        1
                          0 11:13 ?
                                            00:00:00 snapfuse /va
root
                        1
root
             139
                          0 11:13 ?
                                            00:00:00 snapfuse /va
root
             144
                        1 0 11:13 ?
                                            00:00:00 snapfuse /va
             153
                        1 0 11:13 ?
                                            00:00:00 snapfuse /va
root
             156
                        1 0 11:13 ?
                                            00:00:00 snapfuse /va
root
             163
                        1 0 11:13 ?
                                            00:00:00 snapfuse /va
root
             167
                        1
                          0 11:13 ?
                                            00:00:00 snapfuse /va
root
root
             173
                        1
                          0 11:13 ?
                                            00:00:02 snapfuse /va
systemd+
             265
                        1
                          0 11:13 ?
                                            00:00:00 /usr/lib/sys
systemd+
             266
                        1
                          0 11:13 ?
                                            00:00:00 /usr/lib/sys
```

```
aishi@Aishi:~$ ps -u
USER
              PID %CPU %MEM
                                VSZ
                                       RSS TTY
                                                     STAT START
                                                                   TIME COMMAND
aishi
              567
                   0.0
                         0.0
                               6072
                                      5136 pts/1
                                                     S+
                                                           11:13
                                                                   0:00 -bash
aishi
             3420
                   0.0
                                                           11:51
                         0.0
                               6072
                                      5316 pts/0
                                                     Ss
                                                                   0:00 -bash
aishi
             3436
                   0.0
                         0.0
                               9272
                                      5368 pts/0
                                                           11:51
                                                                   0:00 top
                                                     Т
             3443
                   0.0
                         0.0
                               8280
                                      4248 pts/0
aishi
                                                     R+
                                                           11:53
                                                                   0:00 ps -u
```