Day 10

Process mangement

Definition:

An instance of a program is called a process.In simple terms any command that you give to the linux machine starts a new machine.

Types of Process:

1.Foreground:

They run on the screen and need input from the user.(**office program**)

2.background:

They run in the background and usally do not need user input.(**antivirus**)

Top:

To check what the process is running.

Command (ps -efa)

PS - Current process status.

E - list very process on the system

F - This Display full format listing shows a total information about each process.

A - Include all processes associated with the terminals including both of the other uses.

Command (**ps -auxe**)

PS - Current process running status.

A - Shows information about all users.

U - Shows additional information.

X - Shows information about the process without terminals.

E - Display Extended information.

USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND

User - user id or name

PID - Process id

CPU - The percentage % of cpu the process currently consuming

MEM - The percentage % of memory the process currently consuming

VSZ - The size of processing kilo byte

RSS - Residual set size the non swapped physical memory the process is used

TTY - Terminal associated process

STAT - The process to running or sleep or zombing

START - The start time date when process started

TIME - Total time cpu used by the process

Command - The command that is start the process

1.usd to seconds also adding this command using to sleep

```
[root@localhost ~]# sleep 500&
[1] 2901
```

2.process view to the command is jobs

```
[root@localhost ~]# jobs
[1]+  Running                 sleep 500 &
```

3.over all process running to view the command is ps - aux

```
[root@localhost ~]# ps -aux
USER         PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1  0.7  0.9 171648 15768 ?        Rs   11:58   0:02 /usr/lib/systemd/systemd rh
root           2  0.0  0.0      0     0 ?        S    11:58   0:00 [kthreadd]
root        2901  0.0  0.0 220952  1036 pts/0    S    12:04   0:00 sleep 500
root        2902  0.0  0.3 233420  6300 pts/0    R+   12:04   0:00 ps -aux
```

4.Foreground process will be view the command is fg 1 and not contain will typing to fg

```
[root@localhost ~]# fg 1
sleep 500
```

5.again you will next to back command is ctrl z

```
^Z
[1]+  Stopped                 sleep 500
```

6.Back ground process will be view the command is bg 1

```
[root@localhost ~]# bg 1
[1]+ sleep 500 &
```

7.over all process running to view the command is ps - aux

```
[root@localhost ~]# ps -aux
USER         PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1  0.6  0.9 171648 15768 ?        Ss   11:58   0:02 /usr/lib/systemd/systemd rh
root           2  0.0  0.0      0     0 ?        S    11:58   0:00 [kthreadd]
root        2901  0.0  0.0 220952  1036 pts/0    S    12:04   0:00 sleep 500
root        2904  0.0  0.0      0     0 ?        I    12:04   0:00 [kworker/1:0-events]
root        2906  0.0  0.0      0     0 ?        I    12:05   0:00 [kworker/0:0-ata_sff]
root        2908  0.0  0.3 233420  6356 pts/0    R+   12:05   0:00 ps -aux
```

8.next removing the process command is kill -15 pid no to add to remove

```
[root@localhost ~]# kill -15 2901
```

9.next again to removing the status to command ps -aux

```
[root@localhost ~]# ps -aux
USER         PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1  0.6  0.9 171648 15768 ?        Ss   11:58   0:02 /usr/lib/systemd/systemd rh
```

```
root        2904  0.0  0.0      0     0 ?        I    12:04   0:00 [kworker/1:0-events]
root        2906  0.0  0.0      0     0 ?        I    12:05   0:00 [kworker/0:0-ata_sff]
root        2909  0.0  0.3 233420  6312 pts/0    R+   12:05   0:00 ps -aux
[1]+  Terminated              sleep 500
```

10.And ps -auxe command to be used in display extended information

```
[root@localhost ~]# ps -auxe
USER         PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1  0.2  0.9 171788 15764 ?        Ss   11:58   0:03 /usr/lib/systemd/systemd rh
root           2  0.0  0.0      0     0 ?        S    11:58   0:00 [kthreadd]
root        2945  0.5  0.4 512292  8036 ?        Ssl  12:17   0:00 /usr/libexec/fprintd LANG=e
root        2978  0.0  0.0      0     0 ?        I    12:17   0:00 [kworker/u256:0]
root        2982  0.0  0.3 233420  6340 pts/0    R+   12:17   0:00 ps -auxe SHELL=/bin/bash HI
```

11.process to create the priority and command is renice - -priority 10 - - pid 3272

```
[root@localhost ~]# sleep 200&
[2] 3272
```

```
[root@localhost ~]# renice --priority 10 --pid 3272
3272 (process ID) old priority 0, new priority 10
[1]-  Done                    sleep 400
```

```
[root@localhost ~]# kill -15 3272
[root@localhost ~]# renice --priority 10 --pid 3272
renice: failed to get priority for 3272 (process ID): No such process
[2]+  Terminated              sleep 200
```