Day 11

Process class 2

Top - To check the running process.

Cpu Definition

%Cpu(s): 6.4 us, 1.5 sy, 0.0 ni, 91.6 id, 0.0 wa, 0.3 hi, 0.2 si, 0.0 st

Us - Amount of time the cpu spends executing the process people in user space.
Sy - Amount of time spent running system kernel space processes.
Ni - Amount of time spent executing the process with manually set nice values.
Id - Amount of cpu idle time.
Wa -Amount of time the cpu time waiting for io2 completed.
Hi - Amount of time for hardware interrupt.
Si - Amount of time spent for software interrupt.
St - Amount of time it takes you to run a virtual machine.

Definition for top command to using the process

    PID USER   PR NI   VIRT   RES   SHR S %CPU %MEM   TIME+ COMMAND

Pid -   process id.
User - Owner of the process.
Pr -   process of priority.
Ni -   nice value of the process.
VIRT - The amount of virtual memory of a process.
RES - The amount of residential memory used by the process.
SHR - The amount of shared memory used by the process.
S   - State the process.
CPU - The Amount the CPU consuming the process.
MEM - The Amount of memory consuming the process.
TIME - Total time used by the process.
Command - The command used for the process will be started.

Command using to top

Shift - p = Highest consuming of cpu
Shift - m = Memory use age.
N   = Maximum tasks.
Z   = Colour change.
U   = View to the user.
S   = Delay timing using.
K   = kill the PID no to be executed.
R   = Renice to priority pid no to priority in -20 to +19

1.using to shift p highest consuming of cpu

```
top - 12:36:47 up  2:56,  1 user,  load average: 0.06, 0.04, 0.00
Tasks: 243 total,   1 running, 232 sleeping,  10 stopped,   0 zombie
%Cpu(s):  0.7 us,  0.3 sy,  0.0 ni, 98.8 id,  0.0 wa,  0.2 hi,  0.0 si,  0.0 st
MiB Mem :   1696.6 total,     82.1 free,   1267.6 used,    523.8 buff/cache
MiB Swap:   2048.0 total,   2018.6 free,     29.4 used.    428.9 avail Mem

    PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM     TIME+ COMMAND
   1995 gowtham+  20   0 4009764 290304 122468 S   1.3  16.7   2:50.17 gnome-shell
```

2.using to shift m memory usage to views

```
top - 12:38:00 up  2:57,  1 user,  load average: 0.05, 0.04, 0.00
Tasks: 244 total,   1 running, 233 sleeping,  10 stopped,   0 zombie
%Cpu(s):  1.5 us,  1.0 sy,  0.0 ni, 97.0 id,  0.0 wa,  0.3 hi,  0.2 si,  0.0 st
MiB Mem :   1696.6 total,     80.1 free,   1269.6 used,    523.8 buff/cache
MiB Swap:   2048.0 total,   2018.6 free,     29.4 used.    426.9 avail Mem

    PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM     TIME+ COMMAND
   1995 gowtham+  20   0 4003716 290312 122468 S   2.6  16.7   2:51.69 gnome-shell
```

3.using to n command to views in maximum task for 10

```
top - 12:39:49 up  2:59,  1 user,  load average: 0.00, 0.03, 0.00
Tasks: 245 total,   1 running, 232 sleeping,  12 stopped,   0 zombie
%Cpu(s):  1.3 us,  0.8 sy,  0.0 ni, 97.5 id,  0.0 wa,  0.2 hi,  0.2 si,  0.0 st
MiB Mem :   1696.6 total,     79.3 free,   1270.4 used,    523.8 buff/cache
MiB Swap:   2048.0 total,   2018.6 free,     29.4 used.    426.1 avail Mem

    PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM     TIME+ COMMAND
   1995 gowtham+  20   0 4009764 290328 122468 S   3.6  16.7   2:54.92 gnome-shell
   2692 gowtham+  20   0  849220  56664  42152 S   0.7   3.3   0:21.28 gnome-terminal-
   4805 root      20   0  226028   4064   3436 R   0.7   0.2   0:00.06 top
   2323 gowtham+  20   0 1254564  87268  42900 S   0.3   5.0   0:06.22 gnome-software
   4387 root      20   0       0      0      0 I   0.3   0.0   0:01.71 kworker/1:1-mpt_poll_0
      1 root      20   0  171752  15936  10128 S   0.0   0.9   0:05.85 systemd
      2 root      20   0       0      0      0 S   0.0   0.0   0:00.05 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
      5 root      39  19       0      0      0 I   0.0   0.0   0:00.00 netns
```

4.using to z command to views for color in current values

```
top - 12:41:32 up  3:01,  1 user,  load average: 0.00, 0.02, 0.00
Tasks: 247 total,   1 running, 233 sleeping,  13 stopped,   0 zombie
%Cpu(s):  1.3 us,  0.8 sy,  0.0 ni, 97.5 id,  0.0 wa,  0.3 hi,  0.0 si,  0.0 st
MiB Mem :   1696.6 total,     77.6 free,   1272.1 used,    523.8 buff/cache
MiB Swap:   2048.0 total,   2018.6 free,     29.4 used.    424.4 avail Mem

    PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM     TIME+ COMMAND
   1995 gowtham+  20   0 4003716 290256 122468 S   3.0  16.7   2:56.66 gnome-shell
      1 root      20   0  171752  15936  10128 S   0.7   0.9   0:05.89 systemd
   2692 gowtham+  20   0  849220  56664  42152 S   0.7   3.3   0:21.52 gnome-terminal-
    562 root      20   0       0      0      0 S   0.3   0.0   0:01.41 xfsaild/dm-0
    791 root      20   0   79252   3016   2756 S   0.3   0.2   0:00.70 irqbalance
    816 root      20   0  456400  10320   7036 S   0.3   0.6   0:13.08 vmtoolsd
   2538 gowtham+  20   0  600092  12752   6220 S   0.3   0.7   0:07.43 ibus-daemon
   4387 root      20   0       0      0      0 I   0.3   0.0   0:01.78 kworker/1:1-mm_percpu+
   4822 root      20   0  226028   4012   3384 R   0.3   0.2   0:00.04 top
      2 root      20   0       0      0      0 S   0.0   0.0   0:00.05 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
      5 root      39  19       0      0      0 I   0.0   0.0   0:00.00 netns
      7 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 kworker/0:0H-events_h+
      9 root       0 -20       0      0      0 I   0.0   0.0   0:00.19 kworker/0:1H-events_h+
     10 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 mm_percpu_wq
```

5.using to u command views to the user

```
top - 12:43:08 up  3:02,  1 user,  load average: 0.43, 0.12, 0.04
Tasks: 248 total,   1 running, 233 sleeping,  14 stopped,   0 zombie
%Cpu(s):  1.8 us,  0.5 sy,  0.0 ni, 97.3 id,  0.0 wa,  0.2 hi,  0.2 si,  0.0 st
MiB Mem :   1696.6 total,     74.2 free,   1275.5 used,    523.8 buff/cache
MiB Swap:   2048.0 total,   2018.6 free,     29.4 used.    421.0 avail Mem

   PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM     TIME+ COMMAND
  1995 gowtham+  20   0 4009764 290284 122468 S   3.7  16.7   3:00.67 gnome-shell
  2538 gowtham+  20   0  600092  12752   6220 S   0.3   0.7   0:07.54 ibus-daemon
  2692 gowtham+  20   0  849220  56664  42152 S   0.3   3.3   0:21.91 gnome-terminal-
  1879 gowtham+  20   0   22524  13972  10192 S   0.0   0.8   0:01.14 systemd
  1887 gowtham+  20   0  107700   4464      4 S   0.0   0.3   0:00.00 (sd-pam)
  1905 gowtham+  20   0  452552   6532   5856 S   0.0   0.4   0:00.11 gnome-keyring-d
  1912 gowtham+  20   0  374140   5388   4912 S   0.0   0.3   0:00.01 gdm-wayland-ses
  1915 gowtham+  20   0   10672   4540   4096 S   0.0   0.3   0:00.04 dbus-broker-lau
  1916 gowtham+  20   0    6456   4304   2632 S   0.0   0.2   0:00.62 dbus-broker
  1919 gowtham+  20   0  521364  19632  15016 S   0.0   1.1   0:00.10 gnome-session-b
  1962 gowtham+  20   0  303796   4660   4216 S   0.0   0.3   0:00.00 gnome-session-c
  1965 gowtham+  20   0  882356  21236  15836 S   0.0   1.2   0:00.35 gnome-session-b
  2034 gowtham+  20   0  452172   7392   6524 S   0.0   0.4   0:00.05 gvfsd
  2039 gowtham+  20   0  379916   6324   5688 S   0.0   0.4   0:00.01 gvfsd-fuse
  2047 gowtham+  20   0  308576   9432   6616 S   0.0   0.5   0:00.06 at-spi-bus-laun
  2052 gowtham+  20   0   10544   4052   3700 S   0.0   0.2   0:00.01 dbus-broker-lau
```

6.using to s command delay second for views and execute to 10 sec

```
top - 12:44:38 up  3:04,  1 user,  load average: 0.09, 0.08, 0.03
Tasks: 250 total,   2 running, 233 sleeping,  15 stopped,   0 zombie
%Cpu(s):  3.8 us,  0.5 sy,  0.0 ni, 95.5 id,  0.0 wa,  0.1 hi,  0.1 si,  0.0 st
MiB Mem :   1696.6 total,     69.3 free,   1280.4 used,    523.8 buff/cache
MiB Swap:   2048.0 total,   2018.6 free,     29.4 used.    416.1 avail Mem

   PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM     TIME+ COMMAND
  1995 gowtham+  20   0 4003700 290292 122468 S   7.7  16.7   3:03.23 gnome-shell
  2692 gowtham+  20   0  849220  56664  42152 S   0.6   3.3   0:22.18 gnome-terminal-
  2538 gowtham+  20   0  600092  12752   6220 S   0.4   0.7   0:07.59 ibus-daemon
   816 root      20   0  456400  10320   7036 S   0.2   0.6   0:13.46 vmtoolsd
  2352 gowtham+  20   0  542808  45152  32816 S   0.2   2.6   0:13.17 vmtoolsd
  4851 root      20   0  226028   4092   3468 R   0.2   0.2   0:00.04 top
     1 root      20   0  171752  15936  10128 S   0.0   0.9   0:05.93 systemd
     2 root      20   0       0      0      0 S   0.0   0.0   0:00.05 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
     5 root      39  19       0      0      0 I   0.0   0.0   0:00.00 netns
     7 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 kworker/0:0H-events_h+
     9 root       0 -20       0      0      0 I   0.0   0.0   0:00.19 kworker/0:1H-events_h+
    10 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 mm_percpu_wq
```

7.using renice to priority to pid no to execute the priority in -20 to +19

```
top - 12:51:26 up  3:11,  1 user,  load average: 0.12, 0.28, 0.16
Tasks: 238 total,   1 running, 237 sleeping,   0 stopped,   0 zombie
%Cpu(s):  0.5 us,  0.5 sy,  0.0 ni, 98.7 id,  0.0 wa,  0.2 hi,  0.2 si,  0.0 st
MiB Mem :   1696.6 total,     72.7 free,   1298.5 used,    508.7 buff/cache
MiB Swap:   2048.0 total,   1989.1 free,     58.9 used.    398.0 avail Mem

    PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM     TIME+ COMMAND
   5470 gowtham+  20   0 3915712 278984 123228 S   1.3  16.1   0:06.26 gnome-shell
   5826 gowtham+  20   0  537576  39272  31976 S   1.0   2.3   0:00.35 vmtoolsd
   2685 root      20   0  225744    456    300 S   0.3   0.0   0:00.31 gpg-agent
   5897 gowtham+  20   0  139500  57268  46388 S   0.3   3.3   0:00.15 Xwayland
   6191 gowtham+  20   0  783560  55696  43828 S   0.3   3.2   0:00.75 gnome-terminal-
      1 root      20   0  179948  15428  10128 S   0.0   0.9   0:06.56 systemd
      2 root      20   0       0      0      0 S   0.0   0.0   0:00.05 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
      5 root      35  15       0      0      0 I   0.0   0.0   0:00.00 netns
```

8.using to k command to kill the pid no to execute

```
top - 12:56:30 up  3:16,  1 user,  load average: 0.12, 0.12, 0.11
Tasks: 236 total,   1 running, 235 sleeping,   0 stopped,   0 zombie
%Cpu(s):  0.5 us,  0.2 sy,  0.0 ni, 99.3 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
MiB Mem :   1696.6 total,     99.8 free,   1290.5 used,    489.6 buff/cache
MiB Swap:   2048.0 total,   1989.1 free,     58.9 used.    406.1 avail Mem
PID to signal/kill [default pid = 5470] 6333
    PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM     TIME+ COMMAND
   5470 gowtham+  20   0 3909648 277424 121268 S   0.7  16.0   0:10.10 gnome-shell
   5966 gowtham+  20   0  526320  11112   6772 S   0.3   0.6   0:00.20 ibus-daemon
   6333 root      20   0       0      0      0 I   0.3   0.0   0:00.15 kworker/1:0-events_freezable
   6356 root      20   0  226036   4120   3492 R   0.3   0.2   0:00.64 top
```

```
top - 12:56:30 up  3:16,  1 user,  load average: 0.12, 0.12, 0.11
Tasks: 236 total,   1 running, 235 sleeping,   0 stopped,   0 zombie
%Cpu(s):  0.5 us,  0.2 sy,  0.0 ni, 99.3 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
MiB Mem :   1696.6 total,     99.8 free,   1290.5 used,    489.6 buff/cache
MiB Swap:   2048.0 total,   1989.1 free,     58.9 used.    406.1 avail Mem
Send pid 6333 signal [15/sigterm] 15
    PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM     TIME+ COMMAND
   5470 gowtham+  20   0 3909648 277424 121268 S   0.7  16.0   0:10.10 gnome-shell
   5966 gowtham+  20   0  526320  11112   6772 S   0.3   0.6   0:00.20 ibus-daemon
   6333 root      20   0       0      0      0 I   0.3   0.0   0:00.15 kworker/1:0-events_freezable
   6356 root      20   0  226036   4120   3492 R   0.3   0.2   0:00.64 top
```

```
top - 12:57:42 up  3:17,  1 user,  load average: 0.04, 0.10, 0.10
Tasks: 236 total,   1 running, 235 sleeping,   0 stopped,   0 zombie
%Cpu(s):  1.3 us,  0.8 sy,  0.0 ni, 97.7 id,  0.0 wa,  0.2 hi,  0.0 si,  0.0 st
MiB Mem :   1696.6 total,     94.3 free,   1295.9 used,    489.6 buff/cache
MiB Swap:   2048.0 total,   1989.1 free,     58.9 used.    400.6 avail Mem

    PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM     TIME+ COMMAND
   5470 gowtham+  20   0 3915712 277440 121268 S   3.3  16.0   0:11.26 gnome-shell
   5897 gowtham+  20   0  139688  57268  46388 S   0.7   3.3   0:00.17 Xwayland
   6191 gowtham+  20   0  783560  54488  42620 S   0.7   3.1   0:01.42 gnome-terminal-
      1 root      20   0  179948  15428  10128 S   0.3   0.9   0:06.62 systemd
    787 dbus      20   0   10360   5804   2376 S   0.3   0.3   0:02.51 dbus-broker
    816 root      20   0  456400   9948   6848 S   0.3   0.6   0:14.24 vmtoolsd
   6333 root      20   0       0      0      0 I   0.3   0.0   0:00.18 kworker/1:0-events
   6356 root      20   0  226036   4120   3492 R   0.3   0.2   0:00.66 top
```