OSG202 LAB 03

ASSIGNMENT REPORT

System Attributes, Using Word Processor

Table of contents

Process management	03
System commands	04
Using the Editor Program vi	07

1. PROCESS MANAGEMENT

1.1. View process status (ps)

Syntax: ps [-OPTIONS]...[

<u>Description:</u> report a snapshot of the current processes.

Example:

```
root@fedora:~
[root@fedora ~]# ps -a
   PID TTY
                    TIME CMD
  1178 tty2
              00:00:00 gnome-session-b
  4651 pts/0 00:00:00 su
  4664 pts/0 00:00:00 bash
  4873 pts/0
              00:00:00 ps
[root@fedora ~]# ps
   PID TTY
                    TIME CMD
  4651 pts/0
              00:00:00 su
  4664 pts/0 00:00:00 bash
  4874 pts/0
               00:00:00 ps
[root@fedora ~]#
```

1.2. Stop a process

Syntax: kill -9 PID

Description: terminate a process

Example:

```
dangloc@fedora:~
                                                                                        Q ≡
[root@fedora ~]# ps -a
   PID TTY
                    TIME CMD
              00:00:00 gnome-session-b
  1178 tty2
  4651 pts/0 00:00:00 su
  4664 pts/0 00:00:00 bash
  4873 pts/0
               00:00:00 ps
[root@fedora ~]# ps
   PID TTY
                    TIME CMD
  4651 pts/0 00:00:00 su
  4664 pts/0 00:00:00 bash
  4874 pts/0
                00:00:00 ps
[root@fedora ~]#
[root@fedora ~]# kill -9 4651
[root@fedora ~]# Killed
[dangloc@fedora ~]$
logout
```

After killing the process with PID 4651, the status was change from user root (#) to normal user(\$)

2. SYSTEM COMMANDS

1.1. vmstat

Syntax: vmstat [OPTIONS] [DELAY [COUNT]]

<u>Description:</u> report virtual memory statistics.

Example:

```
root@fedora:~
                                                                         Q ≡
[root@fedora ~]# vmstat
procs -------memory-----cpu-----io--- -system-- ----cpu----
         free
              buff cache si so
                               bi
    swpd
                                       in
r b
                                     bo
                                           cs us sy id wa st
1 0 366336 88856
               192 507888 26 126
                                498
                                     67 142
                                            96 1 3 95 0 0
[root@fedora ~]# vmstat -a
free inact active si so bi bo in cs us sy id wa st
r b swpd
0 0 366336 88856 874452 356208 26 125
                                494
                                   66 141
                                           95 1 3 96 0 0
[root@fedora ~]#
```

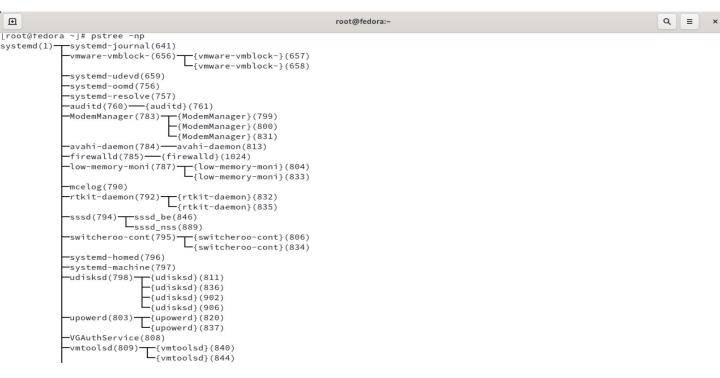
System performance monitoring command that provides data on processes, memory, paging, block IO, disk, and CPU scheduling

1.2. pstree -np

Syntax: pstree [OPTIONS] [USER or PID]

Description: display a tree of processes

Example:



Displaying the running processes as a tree, which is a more convenient manner of displaying the process hierarchy and improves the output's aesthetic appeal.

1.3. pgrep

Syntax: pgrep [OPTION] PATTERN

<u>Description:</u> Looks through the currently running processes and lists the process following name, properties,...

Example:



Displaying the process IDs that match the selection criteria to stdout from the currently executing processes..

1.4. pkill

Syntax: pkill [OPTIONS] PATTERN

<u>Description:</u> send the specified signal (by default SIGTERM) to each process instead of listing them on stdout

Example:



Firefox is processing with PID 3177, after use pkill comman, there was no firefox process with 3177 PID.

Use the kill - command to list all available signals.

The most commonly used signals are:

- 1 (HUP): to reload a process.
- 9 (KILL): to kill a process.
- 15 (TERM): to gracefully stop a process.

1.5. uptime

Syntax: uptime [OPTIONS]

Description: Tell how long the system has been running.

Example:



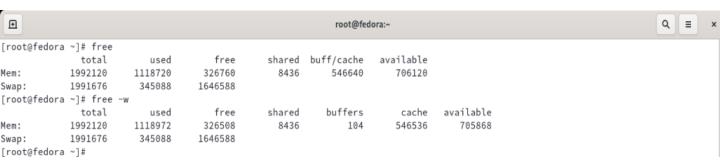
The following information displayed in a single

1.6. free

Syntax: free [OPTIONS]

Description: Display amount of free and used memory in the system

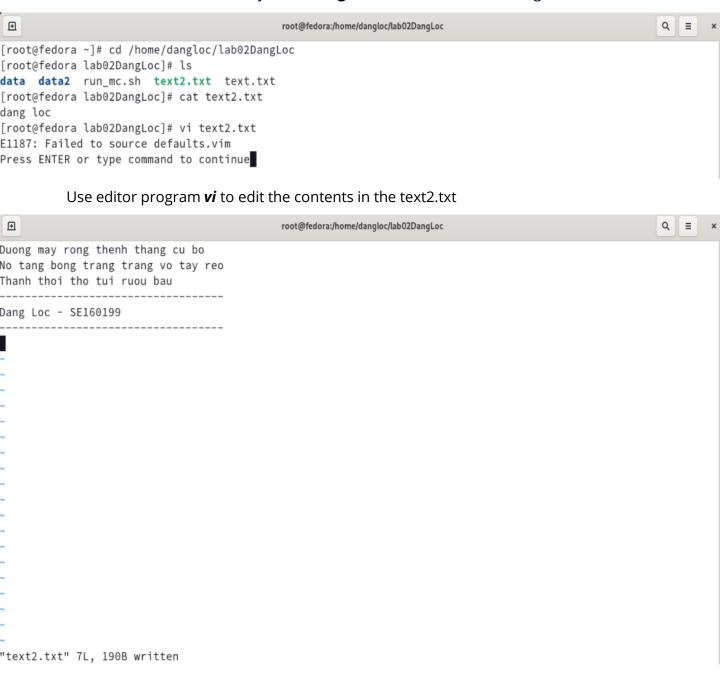
Example:



Showing how much physical and swap memory is free and utilised in the system, as well as the kernel's buffers and caches.

3. Editor program VIM

The file **text2.txt** in directory **lab02DangLoc** has the content of "dang loc" in initial.



The contents of the **text2.txt** was changed.

[root@fedora lab02DangLoc]#

Thank you!