Assignment 10: Process Management and Backup/Restore

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Exercise A

Step 4

```
top - 19:05:55 up 34 min,  2 users,  load average: 3.39, 1.07, 0.41
Tasks: 231 total,   5 running, 226 sleeping,   0 stopped,   0 zombie
%Cpu(s): 40.7 us, 59.3 sy,  0.0 ni,  0.0 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
KiB Mem :   995896 total,    70972 free,   687500 used,   237424 buff/cache
KiB Swap:  2097148 total,  2005244 free,    91904 used.    46808 avail Mem

   PID USER      PR  NI    VIRT    RES    SHR S %CPU %MEM     TIME+ COMMAND
 10109 root      20   0  107996    620    524 R 24.9  0.1   0:19.64 dd
 10107 root      20   0  107996    620    524 R 24.6  0.1   0:23.41 dd
 10108 root      20   0  107996    620    524 R 24.6  0.1   0:20.19 dd
 10110 root      20   0  107996    616    524 R 24.6  0.1   0:18.99 dd
```

These are the top-most intense processes on my Linux machine. The load averages are 3.39, 1.07, and 0.41.

Step 5

My current cpu load is at 40.7%.

Step 8

```
File  Edit  View  Search  Terminal  Help
top - 19:12:01 up 40 min,  2 users,  load average: 4.67, 3.41, 1.68
Tasks: 230 total,   5 running, 225 sleeping,   0 stopped,   0 zombie
%Cpu(s): 34.2 us, 62.8 sy,  3.0 ni,  0.0 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
KiB Mem :   995896 total,    63884 free,   675168 used,   256844 buff/cache
KiB Swap:  2097148 total,  1984764 free,   112384 used.    49356 avail Mem

   PID USER      PR  NI    VIRT    RES    SHR S %CPU %MEM     TIME+ COMMAND
 10110 root      20   0  107996    564    472 R 29.0  0.1   1:49.22 dd
 10108 root      20   0  107996    568    472 R 28.7  0.1   1:50.41 dd
 10109 root      20   0  107996    568    472 R 28.7  0.1   1:49.85 dd
 10107 root      25   5  107996    568    472 R  9.6  0.1   1:52.44 dd
  8193 jesseru+  20   0 3061332 189208  44724 S  2.0 19.0   0:14.49 gnome-shell
  7355 root      20   0  408556 108408  70652 S  1.3 10.9   0:06.20 X
```

Process 10107 has moved to the bottom of the dd processes with a niceness of 5

Step 10

```
top - 19:14:41 up 42 min,  2 users,  load average: 3.34, 3.54, 2.02
Tasks: 226 total,   1 running, 225 sleeping,   0 stopped,   0 zombie
%Cpu(s):  0.7 us,  0.3 sy,  0.0 ni, 99.0 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
KiB Mem :   995896 total,    70812 free,   668636 used,   256448 buff/cache
KiB Swap:  2097148 total,  1980668 free,   116480 used.    56144 avail Mem

   PID USER      PR  NI    VIRT    RES    SHR S %CPU %MEM     TIME+ COMMAND
  8193 jesseru+  20   0 3061348 183948  41136 S  0.7 18.5   0:15.56 gnome-shell
  7355 root      20   0  408572 108608  70852 S  0.3 10.9   0:06.74 X
     1 root      20   0  193808   3440   1536 S  0.0  0.3   0:01.93 systemd
     2 root      20   0       0      0      0 S  0.0  0.0   0:00.00 kthreadd
     3 root      20   0       0      0      0 S  0.0  0.0   0:00.12 ksoftirqd/0
     5 root       0 -20       0      0      0 S  0.0  0.0   0:00.00 kworker/0:0H
     7 root      rt   0       0      0      0 S  0.0  0.0   0:00.00 migration/0
     8 root      20   0       0      0      0 S  0.0  0.0   0:00.00 rcu_bh
     9 root      20   0       0      0      0 S  0.0  0.0   0:00.55 rcu_sched
    10 root       0  20       0      0      0 S  0.0  0.0   0:00.00 lru_add_drain
```

All of the dd processes have been killed

Exercise B

Step 3

```
----- ------
-rw-r--r--. 1 root root 613376000 Nov 19 19:20 homefullbackup.tar
[root@localhost bk_folder]# ls -lh
total 585M
-rw-r--r--. 1 root root 585M Nov 19 19:20 homefullbackup.tar
[root@localhost bk_folder]#
```

The home directory was backed up and the size is 613376000 bytes, or 585 megabytes.

Step 5

```
----- ------
-rw-r--r--. 1 root root 443034596 Nov 19 19:27 homefullbackup.tar.gz
[root@localhost bk_folder]# ls -lh
total 423M
-rw-r--r--. 1 root root 423M Nov 19 19:27 homefullbackup.tar.gz
[root@localhost bk_folder]# █
```

The home directory backup file was deleted and a new, compressed file was created. This is 443034596 bytes, or 423 megabytes.

Step 8

```
[root@localhost /]# cd /home/jesserussell
[root@localhost jesserussell]# █
```
```
  root@localhost:/home/jesserussell
```

My user's home folder has been restored.