

Mod 1 Assessment

- 1) Create a file and add executable permission to all users

```
vishnu@vishnu:~/Documents/linux_assignments/assignment_1$ touch myscript.sh
vishnu@vishnu:~/Documents/linux_assignments/assignment_1$ chmod a+x myscript.sh
```

- 2) Create a file and remove write permission for group user alone

```
vishnu@vishnu:~/Documents/linux_assignments/assignment_1$ touch secure_file.txt
vishnu@vishnu:~/Documents/linux_assignments/assignment_1$ chmod g-w secure_file.txt
```

- 3) Create a file in dir1/dir2 and create a softlink in dir1

```
vishnu@vishnu:~/Documents/linux_assignments/assignment_1$ mkdir -p dir1/dir2
vishnu@vishnu:~/Documents/linux_assignments/assignment_1$ touch dir1/dir2/actual_file
vishnu@vishnu:~/Documents/linux_assignments/assignment_1$ ln -s dir2/actual_file dir1/softlink
```

- 4) Use ps command to display all active processes

```
vishnu@vishnu:~/Documents/linux_assignments/assignment_1$ ps aux
USER      PID %CPU %MEM    VSZ RSS TTY      STAT START   TIME COMMAND
root      1 0.1 0.3 23172 13692 ?        Ss   19:26  0:03 /sbin/init
root      2 0.0 0.0 0 0 ?        S    19:26  0:00 [kthreadd]
root      3 0.0 0.0 0 0 ?        S    19:26  0:00 [pool_workqueue_release]
root      4 0.0 0.0 0 0 ?        I<  19:26  0:00 [kworker/R-rCU_p]
root      5 0.0 0.0 0 0 ?        I<  19:26  0:00 [kworker/R-rCU_p]
root      6 0.0 0.0 0 0 ?        I<  19:26  0:00 [kworker/R-slub_]
root      7 0.0 0.0 0 0 ?        I<  19:26  0:00 [kworker/R-netns]
root      10 0.0 0.0 0 0 ?       I<  19:26  0:00 [kworker/0:0H-events_highpri]
root     12 0.0 0.0 0 0 ?       I<  19:26  0:00 [kworker/R-mm_pe]
root     13 0.0 0.0 0 0 ?       I   19:26  0:00 [rcu_tasks_kthread]
root     14 0.0 0.0 0 0 ?       I   19:26  0:00 [rcu_tasks_rude_kthread]
root     15 0.0 0.0 0 0 ?       I   19:26  0:00 [rcu_tasks_trace_kthread]
root     16 0.0 0.0 0 0 ?       S   19:26  0:00 [ksoftirqd/0]  I
root     17 0.0 0.0 0 0 ?       I   19:26  0:00 [rcu_preempt]
root     18 0.0 0.0 0 0 ?       S   19:26  0:00 [migration/0]
root     19 0.0 0.0 0 0 ?       S   19:26  0:00 [idle_inject/0]
root     20 0.0 0.0 0 0 ?       S   19:26  0:00 [cpuhp/0]
root     21 0.0 0.0 0 0 ?       S   19:26  0:00 [cpuhp/1]
root     22 0.0 0.0 0 0 ?       S   19:26  0:00 [idle_inject/1]
root     23 0.0 0.0 0 0 ?       S   19:26  0:00 [migration/1]
root     24 0.0 0.0 0 0 ?       S   19:26  0:00 [ksoftirqd/1]
root     26 0.0 0.0 0 0 ?       I<  19:26  0:00 [kworker/1:0H-events_highpri]
root     27 0.0 0.0 0 0 ?       S   19:26  0:00 [cpuhp/2]
root     28 0.0 0.0 0 0 ?       S   19:26  0:00 [idle_inject/2]
root     29 0.0 0.0 0 0 ?       S   19:26  0:00 [migration/2]
root     30 0.0 0.0 0 0 ?       S   19:26  0:00 [ksoftirqd/2]
root     32 0.0 0.0 0 0 ?       I<  19:26  0:00 [kworker/2:0H-events_highpri]
root     33 0.0 0.0 0 0 ?       S   19:26  0:00 [cpuhp/3]
root     34 0.0 0.0 0 0 ?       S   19:26  0:00 [idle_inject/3]
root     35 0.0 0.0 0 0 ?       S   19:26  0:00 [migration/3]
root     36 0.0 0.0 0 0 ?       S   19:26  0:00 [ksoftirqd/3]
root     38 0.0 0.0 0 0 ?       I<  19:26  0:00 [kworker/3:0H-events_highpri]
root     39 0.0 0.0 0 0 ?       S   19:26  0:00 [kdevtmpfs]
root     40 0.0 0.0 0 0 ?       I<  19:26  0:00 [kworker/R-inet_]
root     41 0.0 0.0 0 0 ?       S   19:26  0:00 [kauditfd]
root     42 0.0 0.0 0 0 ?       S   19:26  0:00 [khungtaskd]
root     44 0.0 0.0 0 0 ?       S   19:26  0:00 [oom_reaper]
root     45 0.0 0.0 0 0 ?       I<  19:26  0:00 [kworker/R-write]
root     46 0.0 0.0 0 0 ?       S   19:26  0:00 [kcompactd0]
root     47 0.0 0.0 0 0 ?       SN  19:26  0:00 [ksmd]
root     49 0.0 0.0 0 0 ?       SN  19:26  0:00 [khugepaged]
root     50 0.0 0.0 0 0 ?       I<  19:26  0:00 [kworker/R-kinte]
root     51 0.0 0.0 0 0 ?       I<  19:26  0:00 [kworker/R-kbloc]
```

5) Create 3 files in `dir1`, list them sorted by time, and redirect to a file

```
vishnu@vishnu:~/Documents/linux_assignments/assignment_1$ touch dir1/f1
vishnu@vishnu:~/Documents/linux_assignments/assignment_1$ touch dir1/f2
vishnu@vishnu:~/Documents/linux_assignments/assignment_1$ touch dir1/f3
vishnu@vishnu:~/Documents/linux_assignments/assignment_1$ ls -lt dir1 > output.txt
vishnu@vishnu:~/Documents/linux_assignments/assignment_1$ cat output.txt
total 4
-rw-rw-r-- 1 vishnu vishnu    0 Feb 13 20:01 f3
-rw-rw-r-- 1 vishnu vishnu    0 Feb 13 20:00 f2
-rw-rw-r-- 1 vishnu vishnu    0 Feb 13 20:00 f1
lrwxrwxrwx 1 vishnu vishnu   16 Feb 13 19:58 softlink -> dir2/actual_file
drwxrwxr-x 2 vishnu vishnu 4096 Feb 13 19:58 dir2
```