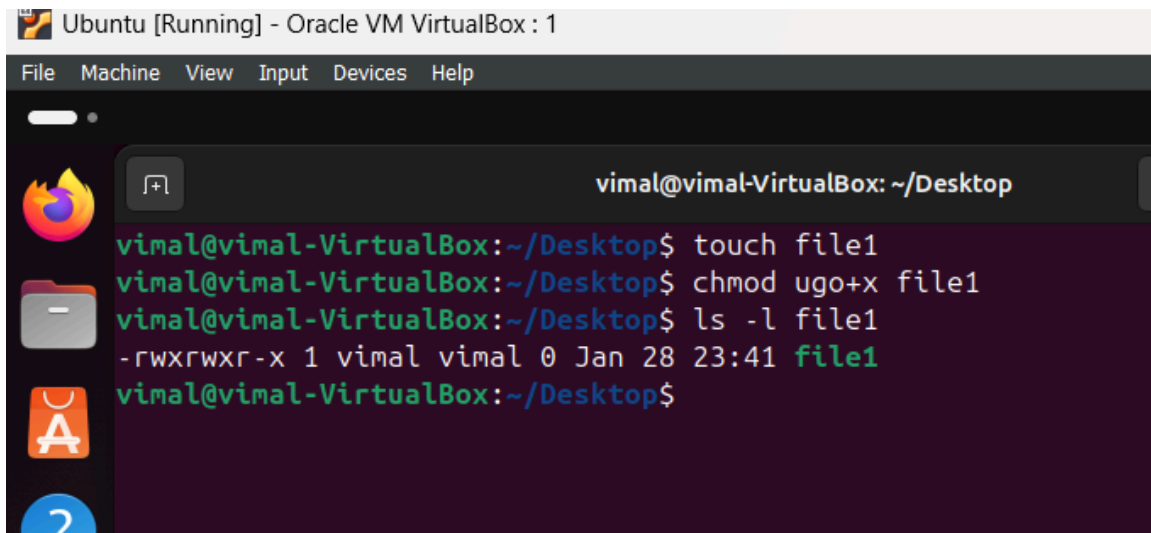


# Campus Hires 2026

## LINUX Weekly Assessment - 1

S Vimal

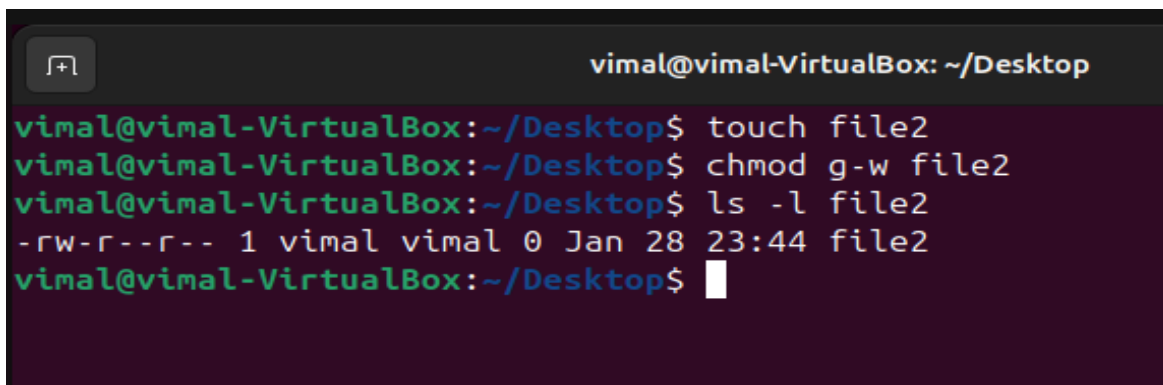
1) Create a file and add executable permission to all users (user, group and others)



```
Ubuntu [Running] - Oracle VM VirtualBox : 1
File Machine View Input Devices Help
vimal@vimal-VirtualBox: ~/Desktop
vimal@vimal-VirtualBox:~/Desktop$ touch file1
vimal@vimal-VirtualBox:~/Desktop$ chmod ugo+x file1
vimal@vimal-VirtualBox:~/Desktop$ ls -l file1
-rwxrwxr-x 1 vimal vimal 0 Jan 28 23:41 file1
vimal@vimal-VirtualBox:~/Desktop$
```

file1 is created and executable permission is added for all users and is checked using ls -l command.

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



```
vimal@vimal-VirtualBox: ~/Desktop
vimal@vimal-VirtualBox:~/Desktop$ touch file2
vimal@vimal-VirtualBox:~/Desktop$ chmod g-w file2
vimal@vimal-VirtualBox:~/Desktop$ ls -l file2
-rw-r--r-- 1 vimal vimal 0 Jan 28 23:44 file2
vimal@vimal-VirtualBox:~/Desktop$
```

file2 is created and write permission is removed for the group

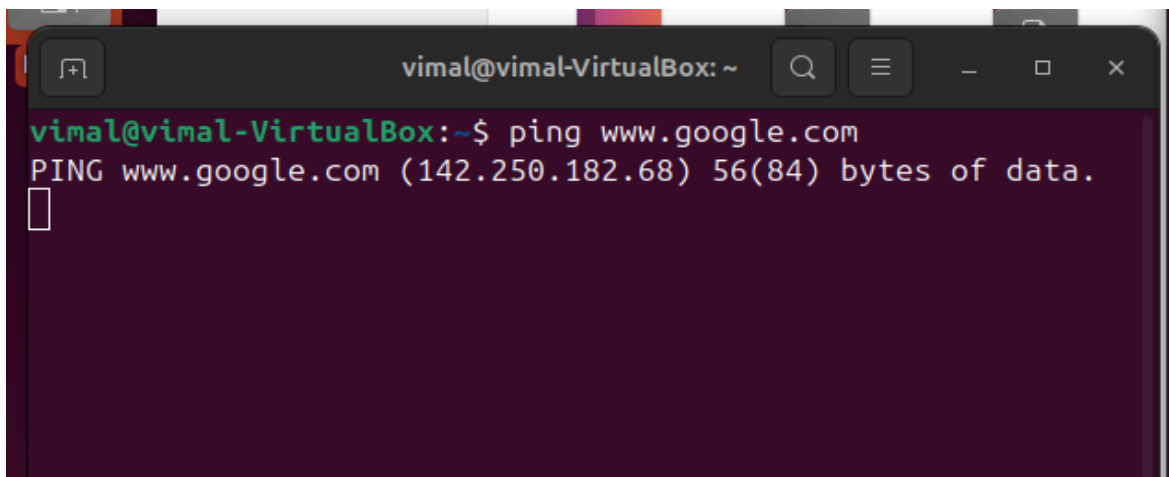
3) Create a file and add a softlink to the file in different directory  
(Eg : Create a file in dir1/dir2/file and create a softlink for file inside dir1)

A terminal window titled 'vimal@vimal-VirtualBox: ~/dir1' with search and menu icons. It shows a series of commands to create a directory structure and a softlink. The commands are: 'mkdir dir1', 'cd dir1', 'mkdir dir2', 'cd dir2', 'touch file2', 'cd ..', 'cd ..', 'ln -s dir1/dir2/file2 dir1/file2\_link', 'cd ..', 'cd vimal', 'cd dir1', and 'ls'. The 'ls' command output shows 'dir2' and 'file2\_link'. The prompt is currently 'vimal@vimal-VirtualBox:~/dir1\$' with a cursor.

```
vimal@vimal-VirtualBox:~/dir1$ mkdir dir1
vimal@vimal-VirtualBox:~/dir1$ cd dir1
vimal@vimal-VirtualBox:~/dir1$ mkdir dir2
vimal@vimal-VirtualBox:~/dir1$ cd dir2
vimal@vimal-VirtualBox:~/dir1/dir2$ touch file2
vimal@vimal-VirtualBox:~/dir1/dir2$ cd ..
vimal@vimal-VirtualBox:~/dir1$ cd ..
vimal@vimal-VirtualBox:~$ ln -s dir1/dir2/file2 dir1/file2_link
vimal@vimal-VirtualBox:~$ cd ..
vimal@vimal-VirtualBox:/home$ cd vimal
vimal@vimal-VirtualBox:~$ cd dir1
vimal@vimal-VirtualBox:~/dir1$ ls
dir2  file2_link
vimal@vimal-VirtualBox:~/dir1$ S
```

file2 created in dir1/dir2/ and its softlink “file2\_link” is created on dir1 using  
ln command

4) Use ps command with options to display all active process  
running on the system

A terminal window titled 'vimal@vimal-VirtualBox: ~' with search, menu, and window control icons. It shows a 'ping' command being executed. The output is 'PING www.google.com (142.250.182.68) 56(84) bytes of data.' followed by a cursor.

```
vimal@vimal-VirtualBox:~$ ping www.google.com
PING www.google.com (142.250.182.68) 56(84) bytes of data.

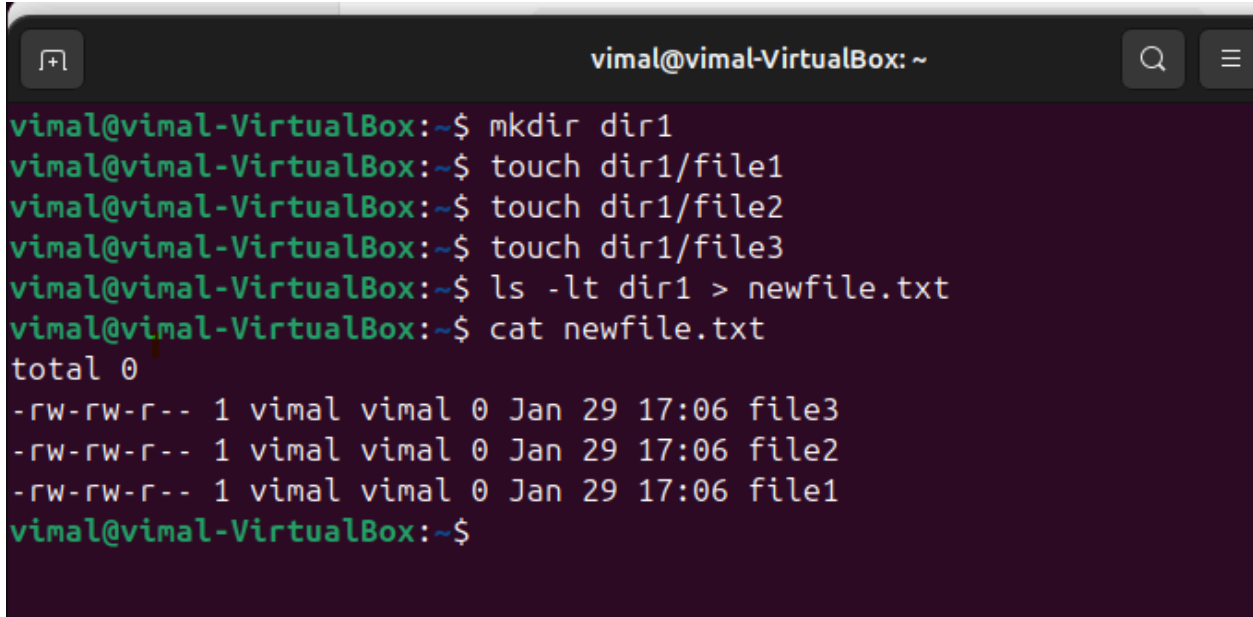
```

```
vimal@vimal-VirtualBox: ~/Desktop
vimal@vimal-VirtualBox:~/Desktop$ ps -ef
UID          PID    PPID  C STIME TTY          TIME CMD
root           1        0  0 Jan28 ?        00:00:07 /sbin/init splash
root           2        0  0 Jan28 ?        00:00:00 [kthreadd]
root           3        2  0 Jan28 ?        00:00:00 [pool_workqueue_release]
root           4        2  0 Jan28 ?        00:00:00 [kworker/R-rcu_g]
root           5        2  0 Jan28 ?        00:00:00 [kworker/R-rcu_p]
root           6        2  0 Jan28 ?        00:00:00 [kworker/R-slub_]
root           7        2  0 Jan28 ?        00:00:00 [kworker/R-netns]
root           9        2  0 Jan28 ?        00:00:01 [kworker/0:1-events]
root          10        2  0 Jan28 ?        00:00:00 [kworker/0:0H-events_highpri]
root          12        2  0 Jan28 ?        00:00:00 [kworker/R-mm_pe]
root          13        2  0 Jan28 ?        00:00:00 [rcu_tasks_kthread]
root          14        2  0 Jan28 ?        00:00:00 [rcu_tasks_rude_kthread]
root          15        2  0 Jan28 ?        00:00:00 [rcu_tasks_trace_kthread]
root          16        2  0 Jan28 ?        00:00:00 [ksoftirqd/0]
root          17        2  0 Jan28 ?        00:00:03 [rcu_preempt]
root          18        2  0 Jan28 ?        00:00:00 [migration/0]
root          19        2  0 Jan28 ?        00:00:00 [idle_inject/0]
root          20        2  0 Jan28 ?        00:00:00 [cpuhp/0]
root          21        2  0 Jan28 ?        00:00:00 [cpuhp/1]
root          22        2  0 Jan28 ?        00:00:00 [idle_inject/1]

root          4882        1  1 Jan28 ?        00:02:11 /usr/lib/snapd/snapd
root          5199        2  0 Jan28 ?        00:00:03 [kworker/u8:10-events_unbound]
root          5749        1  0 Jan28 ?        00:00:03 /usr/libexec/fwupd/fwupd
root          5760        2  0 Jan28 ?        00:00:00 [kworker/0:2H-kblockd]
root          6028        2  0 Jan28 ?        00:00:00 [kworker/2:2H-kblockd]
root          6776        2  0 Jan28 ?        00:00:00 [psimon]
root          6786        2  0 Jan28 ?        00:00:00 [kworker/1:2H-kblockd]
root          7265        2  0 Jan28 ?        00:00:02 [kworker/u8:1-events_unbound]
root          7276        2  0 Jan28 ?        00:00:00 [kworker/0:0]
vimal         7315      3457  0 Jan28 ?        00:00:03 gjs /usr/share/gnome-shell/extensions/ding@rastersof
root          7359        2  0 Jan28 ?        00:00:00 [kworker/1:0-cgroup_destroy]
root          7683        2  0 Jan28 ?        00:00:00 [kworker/2:3-events]
vimal         7771      3196  1 Jan28 ?        00:00:10 /usr/bin/nautilus --gapplication-service
root          7833        2  0 Jan28 ?        00:00:00 [kworker/2:0-cgroup_destroy]
root          7849        2  0 Jan28 ?        00:00:01 [kworker/u8:2-events_unbound]
root          7891        2  0 Jan28 ?        00:00:00 [kworker/3:3-events]
root          7979        2  0 00:00 ?        00:00:00 [kworker/1:2-cgroup_destroy]
root          7988        2  0 00:00 ?        00:00:00 [kworker/2:1]
root          7990        2  0 00:00 ?        00:00:00 [kworker/2:2]
root          7991        1  0 00:00 ?        00:00:00 /usr/sbin/cupsd -l
cups-br+      7992        1  0 00:00 ?        00:00:00 /usr/sbin/cups-browsed
root          7997        2  0 00:00 ?        00:00:00 [kworker/3:0-cgroup_destroy]
root          8084        2  0 00:00 ?        00:00:00 [kworker/u8:0]
vimal         8134      3196  3 00:01 ?        00:00:04 /usr/libexec/gnome-terminal-server
vimal         8142      8134  0 00:01 pts/0    00:00:00 bash
vimal         8148      8142  0 00:01 pts/0    00:00:00 ping www.google.com
vimal         8149      7315  0 00:01 ?        00:00:00 /usr/bin/python3 /usr/bin/gnome-terminal --wait
vimal         8150      8149  0 00:01 ?        00:00:00 /usr/bin/gnome-terminal.real --wait
vimal         8157      8134  0 00:01 pts/1    00:00:00 bash
root          8695        2  0 00:02 ?        00:00:00 [kworker/u8:3]
vimal         8910      8157  0 00:03 pts/1    00:00:00 ps -ef
```

“ping www.google.com” process can be seen in the terminal

5) Create 3 files in a dir1 and re-direct the output of list command with sorted by timestamp of the files to a file



```
vimal@vimal-VirtualBox: ~  
vimal@vimal-VirtualBox:~$ mkdir dir1  
vimal@vimal-VirtualBox:~$ touch dir1/file1  
vimal@vimal-VirtualBox:~$ touch dir1/file2  
vimal@vimal-VirtualBox:~$ touch dir1/file3  
vimal@vimal-VirtualBox:~$ ls -lt dir1 > newfile.txt  
vimal@vimal-VirtualBox:~$ cat newfile.txt  
total 0  
-rw-rw-r-- 1 vimal vimal 0 Jan 29 17:06 file3  
-rw-rw-r-- 1 vimal vimal 0 Jan 29 17:06 file2  
-rw-rw-r-- 1 vimal vimal 0 Jan 29 17:06 file1  
vimal@vimal-VirtualBox:~$
```

All the contents of dir1 is sorted and the output is re-directed to newfile.txt