

LINUX ASSIGNMENT

1. Create a directory
2. Switch to this directory

```
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~$ sudo mkdir newdir3
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~$ ls -l
total 52
-rw-rw-r-- 1 rx-gunjans rx-gunjans 0 Feb 21 19:51 abc.txt
drwxr-xr-x 2 rx-gunjans rx-gunjans 4096 Feb 21 14:15 Desktop
drwxr-xr-x 2 rx-gunjans rx-gunjans 4096 Feb 21 14:15 Documents
drwxr-xr-x 3 rx-gunjans rx-gunjans 4096 Feb 21 21:29 Downloads
drwxrwxr-x 3 rx-gunjans rx-gunjans 4096 Feb 21 17:40 IdeaProjects
drwxr-xr-x 2 rx-gunjans rx-gunjans 4096 Feb 21 14:15 Music
drwxrwxr-x 2 rx-gunjans rx-gunjans 4096 Feb 21 19:51 newdir
drwxr-xr-x 2 root      root      4096 Feb 21 21:51 newdir2
drwxr-xr-x 2 root      root      4096 Feb 21 21:51 newdir3
drwxr-xr-x 2 rx-gunjans rx-gunjans 4096 Feb 21 14:15 Pictures
drwxr-xr-x 2 rx-gunjans rx-gunjans 4096 Feb 21 14:15 Public
drwx----- 5 rx-gunjans rx-gunjans 4096 Feb 21 17:39 snap
drwxr-xr-x 2 rx-gunjans rx-gunjans 4096 Feb 21 14:15 Templates
drwxr-xr-x 2 rx-gunjans rx-gunjans 4096 Feb 21 14:15 Videos
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~$ cd newdir3
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~/newdir3$
```

3. Create a normal text file
4. Create a hidden text file

```

rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~/newdir3$ sudo touch abc.txt
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~/newdir3$ ls
abc.txt  efg.txt
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~/newdir3$ mv abc.txt .abc.txt
mv: cannot move 'abc.txt' to '.abc.txt': Permission denied
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~/newdir3$ sudo mv abc.txt .abc.txt
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~/newdir3$ ls
efg.txt
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~/newdir3$ ls -a
.  ..  .abc.txt  efg.txt

```

5. Modify the access of the hidden text file so that it can be edited only by root user.
6. Move the hidden file to a your desktop.

```

rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~/newdir3$ sudo chmod 777 .abc.txt
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~/newdir3$ sudo mv .abc.txt /home/desktop
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~/newdir3$ sudo mkdir ndir
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~/newdir3$ cd ndir
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~/newdir3/ndir$ sudo touch file1 file2 file3
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~/newdir3/ndir$ ls
file1  file2  file3

```

7. Create a directory, add 3 files into it and then remove the whole directory.
8. Create a new user group.

```

rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~$ sudo mkdir ndir
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~$ cd ndir
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~/ndir$ sudo touch file1 file2 file3
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~/ndir$ ls
file1 file2 file3
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~/ndir$ cd
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~$ sudo rm -r ndir
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~$ cd ndir
bash: cd: ndir: No such file or directory
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~$ sudo groupadd group1
groupadd: group 'group1' already exists
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~$ sudo groupadd group2
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~$ sudo useradd user1
useradd: user 'user1' already exists
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~$ sudo useradd user2
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~$ usermod -d/home

```

9. Create a new user and assign a new user home and the previously created usergroup to the user.
10. Create a symbolic link in a different location for the file created in step 3.
11. Open google chrome or any other web browser, see its memory usage using top command and end the process using the ps and grep commands.
12. Use ssh and scp commands to download and modify files on an external machine.

```

rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~$ ps |grep chrome
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~$ ps -f |grep chrome
rx-gunj+  10550    4397  0 22:36 pts/0    00:00:00 grep  --color=auto  chrome
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~$ █

```

```
Activities Terminal Feb 21 22:32 rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2: ~
top - 22:32:20 up 2:56, 1 user, load average: 0.19, 0.10, 0.10
Tasks: 299 total, 1 running, 297 sleeping, 1 stopped, 0 zombie
%Cpu(s): 2.9 us, 0.4 sy, 0.0 ni, 96.7 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
Mem: 15663.5 total, 11287.8 free, 1870.6 used, 2505.1 buff/cache
Mem Swap: 2048.0 total, 2048.0 free, 0.0 used, 12923.7 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR     S    %CPU  %MEM     TIME+ COMMAND
 1732 rx-gunj+   20   0 5600488 315836 131420  S    14.6    2.0   4:12.30 gnome-shell
10385 rx-gunj+   20   0 549280 42864 22820  S    4.7    0.3   0:00.74 gnome-screensho
4265 rx-gunj+   20   0 509456 59368 43776  S    4.3    0.4   0:30.90 gnome-terminal-
9777 root      0 -20   0      0      0  I    1.0    0.0   0:01.30 kworker/u17:0-1915_flt
2708 rx-gunj+   20   0 7410088 222612 104516  S    0.7    1.4   0:52.43 teams
3117 rx-gunj+   20   0 14.0g 380756 94128  S    0.7    2.4   2:30.43 teams
764 root      20   0 267744 18400 15512  S    0.3    0.1   0:08.70 NetworkManager
2168 rx-gunj+   20   0 396860 11280 6780  S    0.3    0.1   0:09.96 tbus-daemon
2838 rx-gunj+   20   0 876980 69384 55472  S    0.3    0.4   0:17.15 teams
10383 root     20   0 0      0      0  I    0.3    0.0   0:00.00 kworker/6:1-events
1 root      20   0 164628 10824 7704  S    0.0    0.1   0:01.14 systemd
2 root      20   0 0      0      0  S    0.0    0.0   0:00.01 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
6 root      0 -20   0      0      0  I    0.0    0.0   0:00.00 kworker/0:0H-events_highpri
9 root      0 -20   0      0      0  I    0.0    0.0   0:00.00 mm_percpu_wq
10 root     20   0 0      0      0  S    0.0    0.0   0:00.00 rcu_tasks_rude_
11 root     20   0 0      0      0  S    0.0    0.0   0:00.00 rcu_tasks_trace
12 root     20   0 0      0      0  S    0.0    0.0   0:00.10 ksoftirqd/0
13 root     20   0 0      0      0  I    0.0    0.0   0:07.50 rcu_sched
14 root     rt    0 0      0      0  S    0.0    0.0   0:00.00 migration/0
15 root    -51   0 0      0      0  S    0.0    0.0   0:00.00 idle_inject/0
16 root     20   0 0      0      0  S    0.0    0.0   0:00.00 cpuhp/0
17 root     20   0 0      0      0  S    0.0    0.0   0:00.00 cpuhp/1
18 root    -51   0 0      0      0  S    0.0    0.0   0:00.00 idle_inject/1
19 root     rt    0 0      0      0  S    0.0    0.0   0:00.16 migration/1
20 root     20   0 0      0      0  S    0.0    0.0   0:00.06 ksoftirqd/1
22 root     0 -20   0      0      0  I    0.0    0.0   0:00.00 kworker/1:0H-events_highpri
23 root     20   0 0      0      0  S    0.0    0.0   0:00.00 cpuhp/2
24 root     20   0 0      0      0  S    0.0    0.0   0:00.00 idle_inject/2
25 root     rt    0 0      0      0  S    0.0    0.0   0:00.16 migration/2
26 root     20   0 0      0      0  S    0.0    0.0   0:00.04 ksoftirqd/2
28 root     0 -20   0 0      0  I    0.0    0.0   0:00.00 kworker/2:0H-events_highpri
29 root     20   0 0      0      0  S    0.0    0.0   0:00.00 cpuhp/3
30 root    -51   0 0      0      0  S    0.0    0.0   0:00.00 idle_inject/3
31 root     rt    0 0      0      0  S    0.0    0.0   0:00.16 migration/3
32 root     20   0 0      0      0  S    0.0    0.0   0:00.03 ksoftirqd/3
34 root     0 -20   0 0      0  I    0.0    0.0   0:00.00 kworker/3:0H-events_highpri
35 root     20   0 0      0      0  S    0.0    0.0   0:00.00 cpuhp/4
36 root    -51   0 0      0      0  S    0.0    0.0   0:00.00 idle_inject/4
37 root     rt    0 0      0      0  S    0.0    0.0   0:00.17 migration/4
38 root     20   0 0      0      0  S    0.0    0.0   0:00.03 ksoftirqd/4
40 root     0 -20   0 0      0  I    0.0    0.0   0:00.00 kworker/4:0H-kblockd
41 root     20   0 0      0      0  S    0.0    0.0   0:00.00 cpuhp/5
42 root    -51   0 0      0      0  S    0.0    0.0   0:00.00 idle_inject/5
43 root     rt    0 0      0      0  S    0.0    0.0   0:00.17 migration/5
44 root     20   0 0      0      0  S    0.0    0.0   0:00.05 ksoftirqd/5
46 root     0 -20   0 0      0  I    0.0    0.0   0:00.00 kworker/5:0H-events_highpri
```

12.

```
rx-gunjans@rxgunjans-ThinkPad-L14-Gen-2:~$ ssh lt-meenalr@172.28.2.234
The authenticity of host '172.28.2.234 (172.28.2.234)' can't be established.
ECDSA key fingerprint is SHA256:jff7PaA12dQWwMubX6Ut64Nc/Ady2oSIfSsY6BbBfqw.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '172.28.2.234' (ECDSA) to the list of known hosts.
lt-meenalr@172.28.2.234's password:
Welcome to Ubuntu 21.10 (GNU/Linux 5.13.0-28-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

1 device has a firmware upgrade available.
Run 'fwupdmgtr get-upgrades' for more information.

9 updates can be applied immediately.
9 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

lt-meenalr@ltmeenalr-ThinkPad-L14-Gen-2:~$ who i am
lt-meenalr pts/1      2022-02-22 13:09 (172.28.1.223)
lt-meenalr@ltmeenalr-ThinkPad-L14-Gen-2:~$ whoiam
whoiam: command not found
lt-meenalr@ltmeenalr-ThinkPad-L14-Gen-2:~$ nano abc.txt
lt-meenalr@ltmeenalr-ThinkPad-L14-Gen-2:~$ scp abc.txt lt-meenalr@172.28.2.234
lt-meenalr@ltmeenalr-ThinkPad-L14-Gen-2:~$ scp abc.txt lt-meenalr@172.28.2.234 /home
cp: cannot create regular file '/home/abc.txt': Permission denied
cp: cannot create regular file '/home/lt-meenalr@172.28.2.234': Permission denied
lt-meenalr@ltmeenalr-ThinkPad-L14-Gen-2:~$ scp abc.txt lt-meenalr@172.28.2.234 ls
ls: No such file or directory
lt-meenalr@ltmeenalr-ThinkPad-L14-Gen-2:~$ ls
abc.txt Desktop dir Documents Downloads lt-meenalr@172.28.2.234 Music new_file Pictures Public res snap Templates Videos
lt-meenalr@ltmeenalr-ThinkPad-L14-Gen-2:~$
```