

### Question

1. Create a directory
2. Switch to this directory
3. Create a normal text file
4. Create a hidden text file

```
rx-rishabhr@LT-RISHABHR:~/Desktop$ mkdir assignment
rx-rishabhr@LT-RISHABHR:~/Desktop$ cd assignment
rx-rishabhr@LT-RISHABHR:~/Desktop/assignment$ touch normal.txt
rx-rishabhr@LT-RISHABHR:~/Desktop/assignment$ touch .hidden.txt
rx-rishabhr@LT-RISHABHR:~/Desktop/assignment$ ls
normal.txt
rx-rishabhr@LT-RISHABHR:~/Desktop/assignment$ ls -al
total 8
drwxrwxr-x 2 rx-rishabhr rx-rishabhr 4096 Feb 21 21:23 .
drwxr-xr-x 3 rx-rishabhr rx-rishabhr 4096 Feb 21 21:23 ..
-rw-rw-r-- 1 rx-rishabhr rx-rishabhr  0 Feb 21 21:23 .hidden.txt
-rw-rw-r-- 1 rx-rishabhr rx-rishabhr  0 Feb 21 21:23 normal.txt
rx-rishabhr@LT-RISHABHR:~/Desktop/assignment$
```

### Question

5. Modify the access of the hidden text file so that it can be edited only by root user.

```
chown: changing ownership of '.hidden.txt': operation not permitted
rx-rishabhr@LT-RISHABHR:~/Desktop/assignment$ sudo chown root:root .hidden.txt
[sudo] password for rx-rishabhr:
Sorry, try again.
[sudo] password for rx-rishabhr:
rx-rishabhr@LT-RISHABHR:~/Desktop/assignment$ ls -al
total 8
drwxrwxr-x 2 rx-rishabhr rx-rishabhr 4096 Feb 21 21:23 .
drwxr-xr-x 3 rx-rishabhr rx-rishabhr 4096 Feb 21 21:23 ..
-rw-rw-r-- 1 root      root          0 Feb 21 21:23 .hidden.txt
-rw-rw-r-- 1 rx-rishabhr rx-rishabhr  0 Feb 21 21:23 normal.txt
rx-rishabhr@LT-RISHABHR:~/Desktop/assignment$ chmod 700 .hidden.txt
chmod: changing permissions of '.hidden.txt': Operation not permitted
rx-rishabhr@LT-RISHABHR:~/Desktop/assignment$ sudo 700 .hidden.txt
sudo: 700: command not found
rx-rishabhr@LT-RISHABHR:~/Desktop/assignment$ sudo chmod 700 .hidden.txt
rx-rishabhr@LT-RISHABHR:~/Desktop/assignment$ ls -al
total 8
drwxrwxr-x 2 rx-rishabhr rx-rishabhr 4096 Feb 21 21:23 .
drwxr-xr-x 3 rx-rishabhr rx-rishabhr 4096 Feb 21 21:23 ..
-rwx----- 1 root      root          0 Feb 21 21:23 .hidden.txt
-rw-rw-r-- 1 rx-rishabhr rx-rishabhr  0 Feb 21 21:23 normal.txt
rx-rishabhr@LT-RISHABHR:~/Desktop/assignment$
```

### Question

6. Move the hidden file to a your desktop.

```
rx-rishabhr@LT-RISHABHR:~/Desktop/assignment$ mv .hidden.txt ../
rx-rishabhr@LT-RISHABHR:~/Desktop/assignment$ ls
normal.txt
```

### Question

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

```

rx-rishabhr@LT-RISHABHR:~/Desktop$ mkdir dirtobedeleted
rx-rishabhr@LT-RISHABHR:~/Desktop$ cd dirtodeleted
bash: cd: dirtodeleted: No such file or directory
rx-rishabhr@LT-RISHABHR:~/Desktop$ cd dirtobedelted
bash: cd: dirtobedelted: No such file or directory
rx-rishabhr@LT-RISHABHR:~/Desktop$ ls
assignment dirtobedeleted
rx-rishabhr@LT-RISHABHR:~/Desktop$ cd dirtobedeleted
rx-rishabhr@LT-RISHABHR:~/Desktop/dirtobedeleted$ touch a.txt
rx-rishabhr@LT-RISHABHR:~/Desktop/dirtobedeleted$ touch b.txt
rx-rishabhr@LT-RISHABHR:~/Desktop/dirtobedeleted$ touch c.txt
rx-rishabhr@LT-RISHABHR:~/Desktop/dirtobedeleted$ cd..
cd..: command not found
rx-rishabhr@LT-RISHABHR:~/Desktop/dirtobedeleted$ cd.. --help
cd..: command not found
rx-rishabhr@LT-RISHABHR:~/Desktop/dirtobedeleted$ cd /home/rx-rishabhr/Desktop
rx-rishabhr@LT-RISHABHR:~/Desktop$ rm -r dirtobedeleted
rx-rishabhr@LT-RISHABHR:~/Desktop$ ls
assignment
rx-rishabhr@LT-RISHABHR:~/Desktop$

```

Question

8. Create a new user group.

9. Create a new user and assign a new user home and the previously created usergroup to the user.

```

rx-rishabhr@LT-RISHABHR:~/Desktop$ sudo groupadd user_group
[sudo] password for rx-rishabhr:
rx-rishabhr@LT-RISHABHR:~/Desktop$ useradd -m -g user_group user1
useradd: Permission denied.
useradd: cannot lock /etc/passwd; try again later.
rx-rishabhr@LT-RISHABHR:~/Desktop$ sudo useradd -m -g user_group user1
rx-rishabhr@LT-RISHABHR:~/Desktop$ ls /home/
rx-rishabhr user1
rx-rishabhr@LT-RISHABHR:~/Desktop$ sudo passwd user1
New password:
Retype new password:
Sorry, passwords do not match.
passwd: Authentication token manipulation error
passwd: password unchanged
rx-rishabhr@LT-RISHABHR:~/Desktop$ sudo passwd user1
New password:
Retype new password:
passwd: password updated successfully
rx-rishabhr@LT-RISHABHR:~/Desktop$

```

Question

10. Create a symbolic link in a different location for the file created in step 3.

```

rx-rishabhr@LT-RISHABHR:~/Desktop$ ln -s /assignment/normal.txt
rx-rishabhr@LT-RISHABHR:~/Desktop$ ls -al
total 12
drwxr-xr-x  3 rx-rishabhr rx-rishabhr 4096 Feb 21 23:24 .
drwxr-xr-x 23 rx-rishabhr rx-rishabhr 4096 Feb 21 21:21 ..
drwxrwxr-x  2 rx-rishabhr rx-rishabhr 4096 Feb 21 21:33 assignment
-rwx----- 1 root      root          0 Feb 21 21:23 .hidden.txt
lrwxrwxrwx  1 rx-rishabhr rx-rishabhr   22 Feb 21 23:24 normal.txt -> /assignment/normal.txt

```

```
rx-rishabhr@LT-RISHABHR:~/Desktop$ ln assignment/normal.txt hardlink
rx-rishabhr@LT-RISHABHR:~/Desktop$ ls
assignment hardlink normal.txt
rx-rishabhr@LT-RISHABHR:~/Desktop$
```

### Question

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.

```
rx-rishabhr@LT-RISHABHR:~$ firefox
rx-rishabhr@LT-RISHABHR:~$ ps | grep pidof firefox
grep: firefox: No such file or directory
rx-rishabhr@LT-RISHABHR:~$ ps | grep firefox
  7192 pts/0    00:00:06 firefox
rx-rishabhr@LT-RISHABHR:~$ kill 7192
```

### Question

12. Use ssh and scp commands to download and modify files on an external machine.

```
rx-rishabhr@LT-RISHABHR:/$ sudo ssh rx-mudits@172.28.2.65
The authenticity of host '172.28.2.65 (172.28.2.65)' can't be established.
ECDSA key fingerprint is SHA256:SR86CFUBAuHHpJbfsE34iwni3DgenHgIQ9+9YTbkkBA.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '172.28.2.65' (ECDSA) to the list of known hosts.
rx-mudits@172.28.2.65's password:
Welcome to Ubuntu 20.04.3 LTS (GNU/Linux 5.10.0-1057-oem x86_64)

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

8 updates can be applied immediately.
3 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.

rx-mudits@mudits:~$ ls
backport-iwlwifi Desktop dev Documents Downloads linux-firmware Music Pictures Public snap Templates Video
rx-mudits@mudits:~$ cd dev
rx-mudits@mudits:~/dev$ ls
link file.txt name.txt
rx-mudits@mudits:~/dev$ cat >name.txt
i am modifying the file
^C
rx-mudits@mudits:~/dev$ cat name.txt
i am modifying the file
rx-mudits@mudits:~/dev$

rx-rishabhr@LT-RISHABHR:/$ sudo scp rx-mudits@172.28.2.65:/home/rx-mudits/dev/name.txt /home/rx-rishabhr/Downloads
[sudo] password for rx-rishabhr:
Sorry, try again.
[sudo] password for rx-rishabhr:
Sorry, try again.
[sudo] password for rx-rishabhr:
rx-mudits@172.28.2.65's password:
name.txt                                100%  25    7.0KB/s   00:00
rx-rishabhr@LT-RISHABHR:/$
```