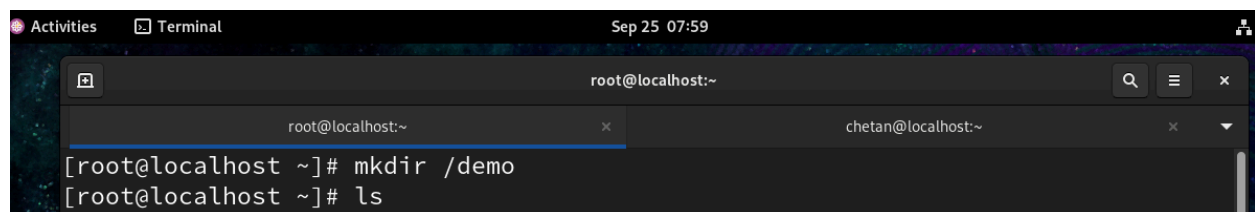


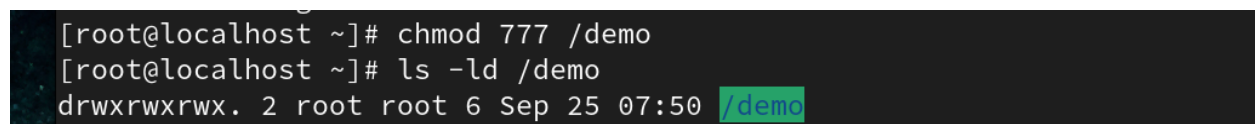
6. Create /demo folder as root, give 777 permission to /demo folder and login as normal user and try creating files and folder in /demo folder. Now add sgid permission to the /demo folder using root. Again try creating files and folder as normal user in /demo folder. Write the observations.

1. Login as root user, make directory named demo

A terminal window titled 'Terminal' with a date/time stamp 'Sep 25 07:59'. It shows two tabs: 'root@localhost:~' and 'chetan@localhost:~'. The active tab is 'root@localhost:~', where the following commands are entered:

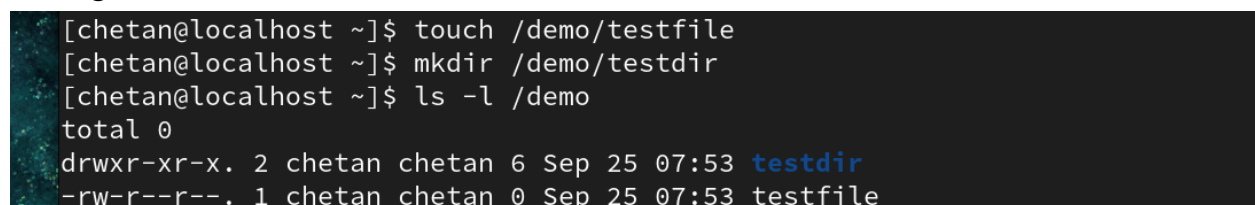
```
[root@localhost ~]# mkdir /demo
[root@localhost ~]# ls
```

2. Given 777 permission to demo folder

A terminal window showing the following commands and output:

```
[root@localhost ~]# chmod 777 /demo
[root@localhost ~]# ls -ld /demo
drwxrwxrwx. 2 root root 6 Sep 25 07:50 /demo
```

3. Login as normal user and created a file

A terminal window showing the following commands and output:

```
[chetan@localhost ~]$ touch /demo/testfile
[chetan@localhost ~]$ mkdir /demo/testdir
[chetan@localhost ~]$ ls -l /demo
total 0
drwxr-xr-x. 2 chetan chetan 6 Sep 25 07:53 testdir
-rw-r--r--. 1 chetan chetan 0 Sep 25 07:53 testfile
```

4. Using root we added SGID permission to demo folder

```
[root@localhost ~]# chmod g+s /demo
[root@localhost ~]# ls -ld /demo
drwxrwsrwx. 3 root root 37 Sep 25 07:53 /demo
```

5. Created file as normal user

```
[chetan@localhost ~]$ touch /demo/testfile_sgid
[chetan@localhost ~]$ mkdir /demo/testdir_sgid
[chetan@localhost ~]$ ls -l /demo
total 0
drwxr-xr-x. 2 chetan chetan 6 Sep 25 07:53 testdir
drwxr-sr-x. 2 chetan root 6 Sep 25 07:56 testdir_sgid
-rw-r--r--. 1 chetan chetan 0 Sep 25 07:53 testfile
-rw-r--r--. 1 chetan root 0 Sep 25 07:55 testfile_sgid
```

### Before Setting SGID:

- The normal user can create files and directories because of **777** permissions.
- The ownership of the files and directories is set to the user and the user's group.

### After Setting SGID:

- The normal user can still create files and directories.
- The ownership of the files remains with the normal user, but the **group ownership** is inherited from the **/demo** folder (which is **root**).
- This behavior ensures consistent group ownership for files and directories created inside **/demo**, which can be useful for shared folders and files.

