Networking & System Administration Lab
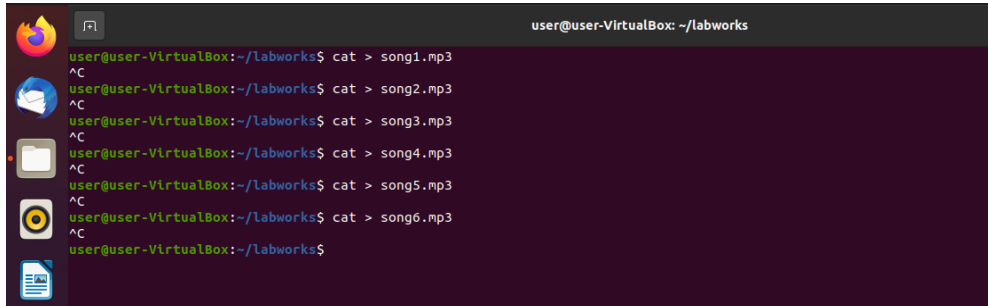## Assignment-5

Submitted by:

Amal Vijayan

Roll no: 10

S2 RMCA A

Managing Files, Creating Users and Groups Using Command-line tools
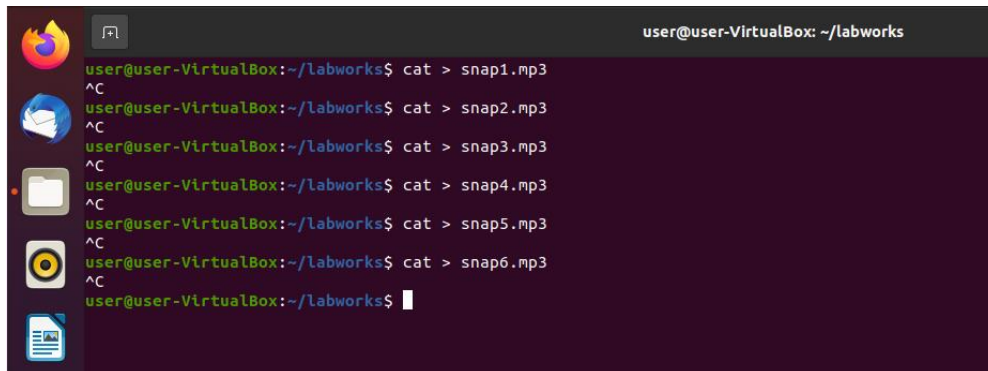
1.

a. Create six files with name of the form songX.mp3
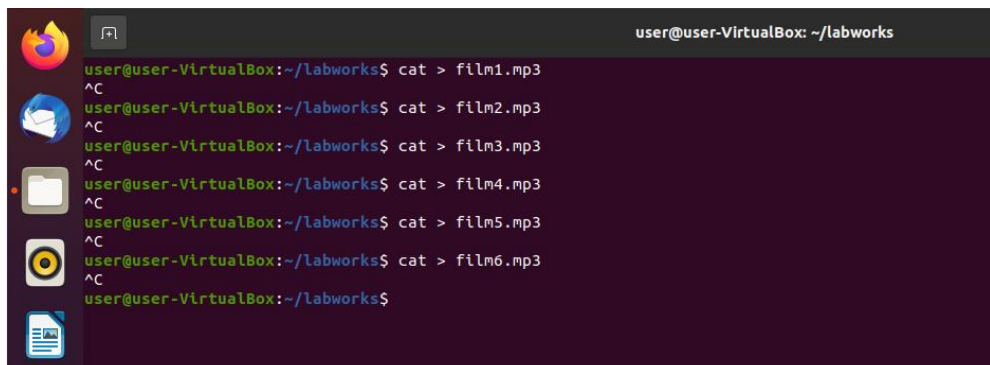
b. Create six files with name of the form snapX.mp3

c. Create six files with name of the form filmX.mp3

(In each set, replace X with the numbers 1 through 6)
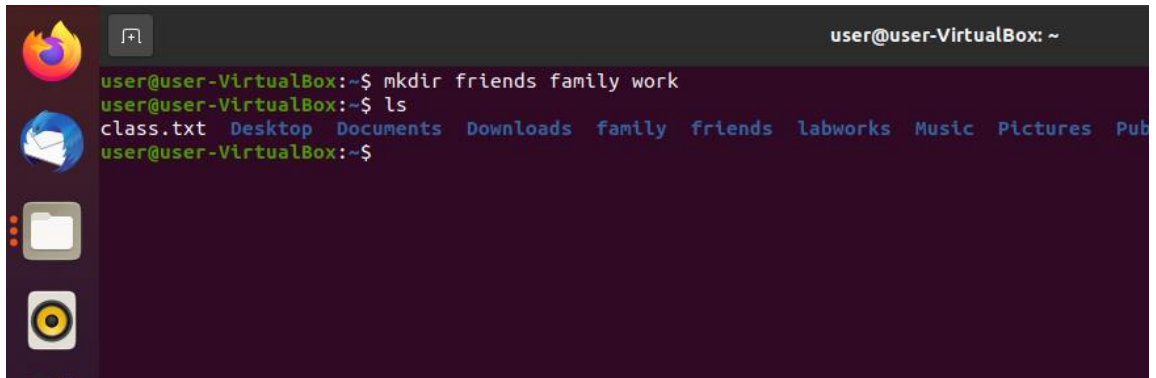
2. From your home directory, move the song files into your music subdirectory, the snapshot files into your pictures subdirectory, and the movie files into videos subdirectory.

user@user-VirtualBox:~/labworks$ ls
film1.mp3 film3.mp3 film5.mp3 snap1.mp3 snap3.mp3 snap5.mp3 song1.mp3 song3.mp3 song5.mp3
film2.mp3 film4.mp3 film6.mp3 snap2.mp3 snap4.mp3 snap6.mp3 song2.mp3 song4.mp3 song6.mp3
user@user-VirtualBox:~/labworks$ mv song1.mp3 song2.mp3 song3.mp3 song4.mp3 song5.mp3 song6.mp3 /home/user/Music
user@user-VirtualBox:~/labworks$ mv snap1.mp3 snap2.mp3 snap3.mp3 snap4.mp3 snap5.mp3 snap6.mp3 /home/user/Pictures
user@user-VirtualBox:~/labworks$ mv film1.mp3 film2.mp3 film3.mp3 film4.mp3 film5.mp3 film6.mp3 /home/user/Videos
user@user-VirtualBox:~/labworks$

Home   Music

song1.mp3   song2.mp3   song3.mp3   song4.mp3   song5.mp3   song6.mp3

Home   Pictures

snap1.mp3   snap2.mp3   snap3.mp3   snap4.mp3   snap5.mp3   snap6.mp3

Home   Videos

film1.mp3   film2.mp3   film3.mp3   film4.mp3   film5.mp3   film6.mp3
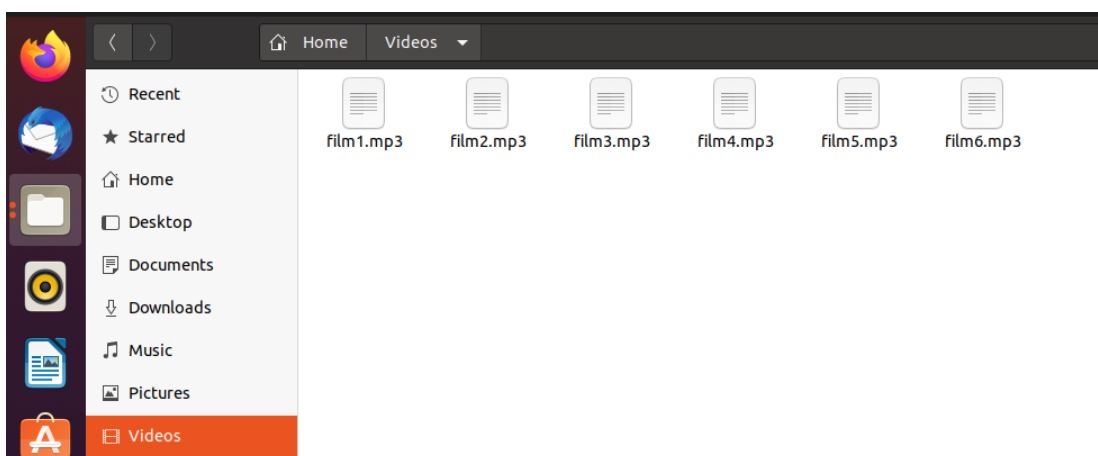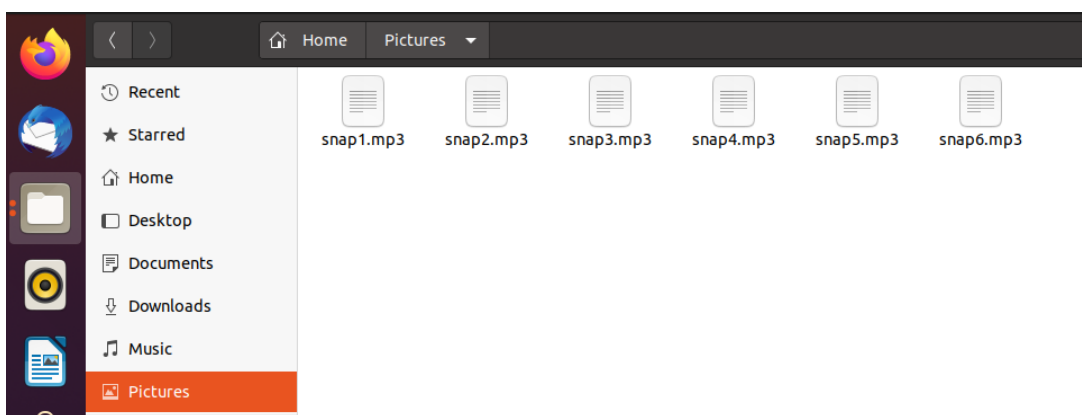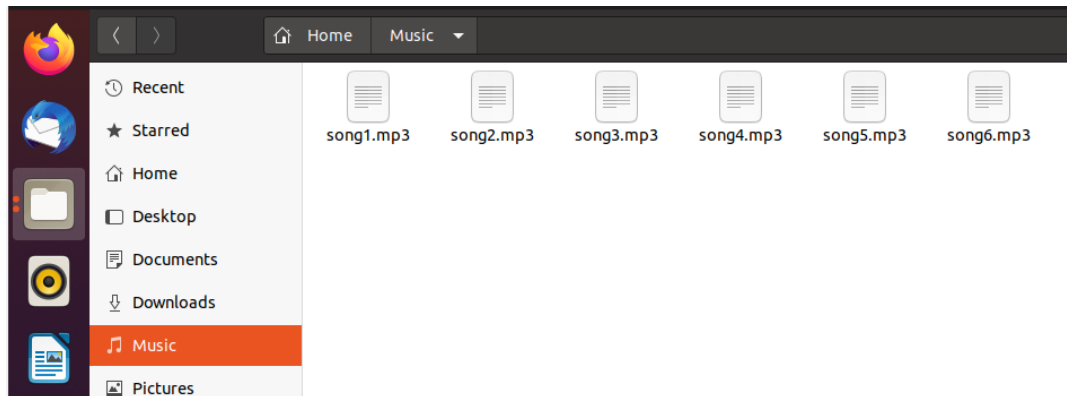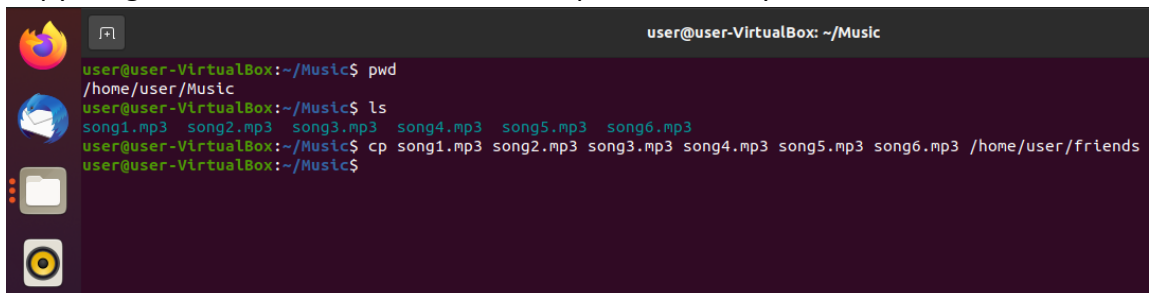
3. In your home directory, create three subdirectories for organizing your files. Call these directories friends, family, and work. Create all three with one command.
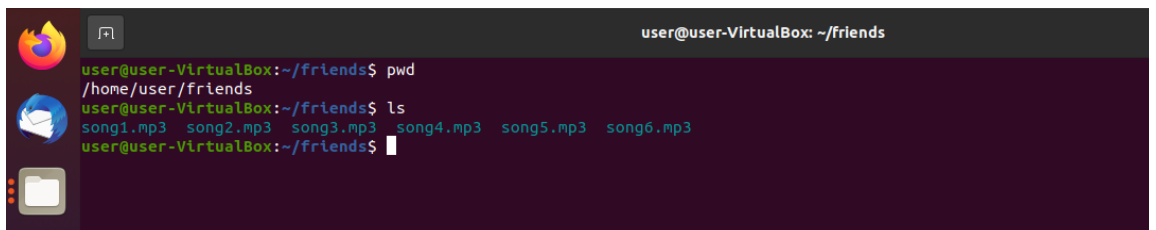

4. Copy song files to the friends folder and snap files to family folder.
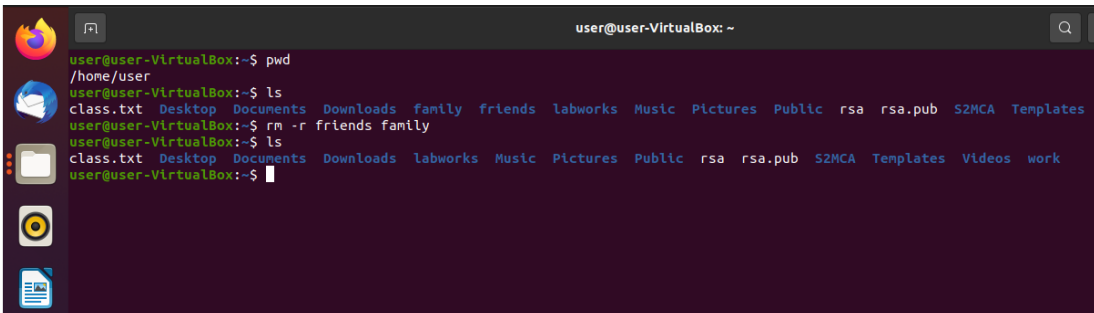
5. Attempt to delete both family and friends projects with a single rmdir command.


```
user@user-VirtualBox:~$ rmdir friends family
rmdir: failed to remove 'friends': Directory not empty
rmdir: failed to remove 'family': Directory not empty
user@user-VirtualBox:~$
```

6. Use another command that will succeed in deleting both the family and friends folder.


```
user@user-VirtualBox:~$ pwd
/home/user
user@user-VirtualBox:~$ ls
class.txt  Desktop  Documents  Downloads  family  friends  labworks  Music  Pictures  Public  rsa  rsa.pub  S2MCA  Templates
user@user-VirtualBox:~$ rm -r friends family
user@user-VirtualBox:~$ ls
class.txt  Desktop  Documents  Downloads  labworks  Music  Pictures  Public  rsa  rsa.pub  S2MCA  Templates  Videos  work
user@user-VirtualBox:~$
```
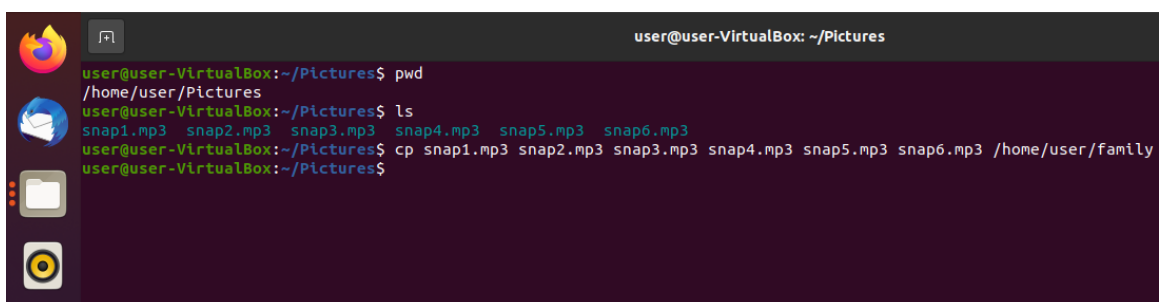
7. Redirect a long listing of all home directory files, including hidden, into a file named allfiles.txt. Confirm that the file contains the listing.


```
user@user-VirtualBox:~$ pwd
/home/user
user@user-VirtualBox:~$ ls -a
.              .bash_logout  class.txt  Documents  labworks  Music     Public   S2MCA                      Templates
..             .bashrc       .config    Downloads  .local    Pictures  rsa      .ssh                       .thunderbird
.bash_history  .cache        Desktop    .gnupg     .mozilla  .profile  rsa.pub  .sudo_as_admin_successful  Videos
user@user-VirtualBox:~$ ls > allfiles.txt
user@user-VirtualBox:~$ cat allfiles.txt
allfiles.txt
class.txt
Desktop
Documents
Downloads
labworks
Music
Pictures
Public
rsa
rsa.pub
S2MCA
Templates
Videos
work
user@user-VirtualBox:~$
```
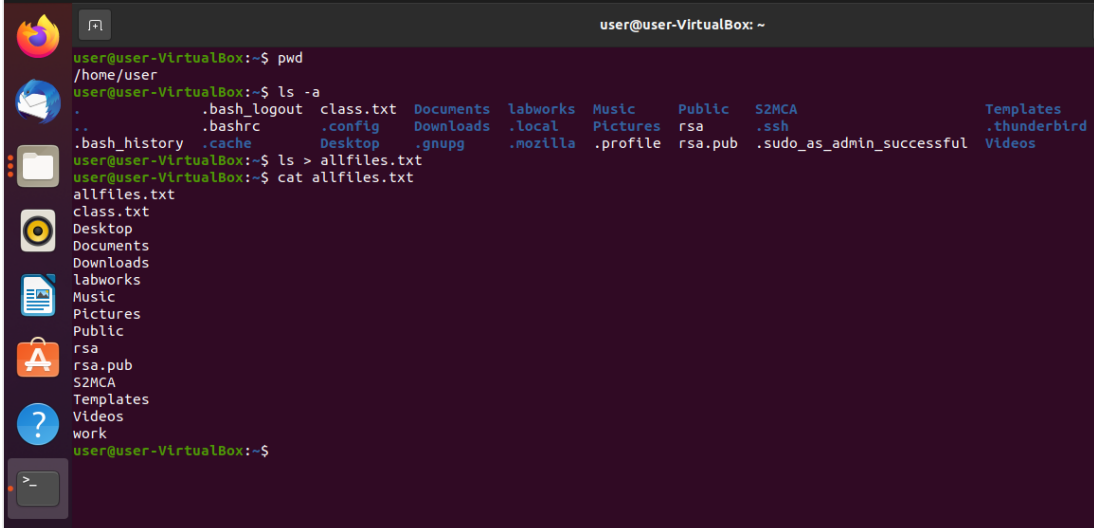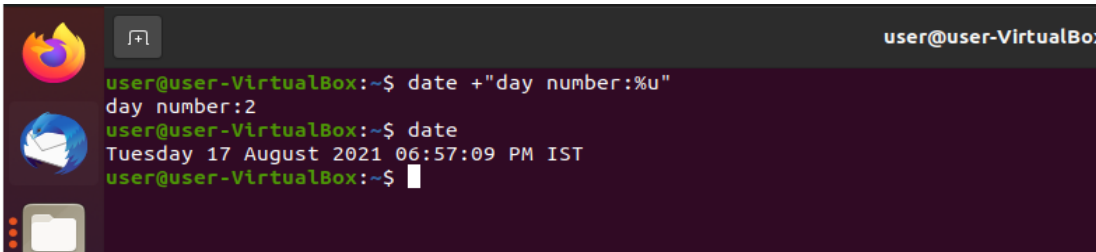
8. In the command window, display today's date with day of the week, month, date and year.


```
user@user-VirtualBox:~$ date +"day number:%u"
day number:2
user@user-VirtualBox:~$ date
Tuesday 17 August 2021 06:57:09 PM IST
user@user-VirtualBox:~$
```

9. Add the user Juliet.

10. Confirm that Juliet has been added by examining the /etc/passwd file

11. Use the passwd command to initialize Juliet's password

12. Create a supplementary group called Shakespeare with a group id of 30000.

13. Create a supplementary group called artists.

```
                                                    user@user-VirtualBox: ~
user@user-VirtualBox:~$ sudo groupadd artists
user@user-VirtualBox:~$ cat /etc/group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog,user
tty:x:5:syslog
disk:x:6:
lp:x:7:
mail:x:8:
news:x:9:
uucp:x:10:
man:x:12:
proxy:x:13:
kmem:x:15:
```

14. Confirm that Shakespeare and artists have been added by examining the /etc/group file.

```
                                                    user@user-VirtualBox: ~
user@user-VirtualBox:~$ cat /etc/group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog,user
tty:x:5:syslog
disk:x:6:
gdm:x:130:
lxd:x:131:user
user:x:1000:
sambashare:x:132:user
systemd-coredump:x:999:
Shakespeare:x:30000:
juliet:x:1001:
shakespeare:x:3000:
artists:x:30001:
user@user-VirtualBox:~$
```

15. Add the Juliet user to the Shakespeare group as a supplementary group.

```
                                                    user@user-VirtualBox: ~
user@user-VirtualBox:~$ sudo usermod -a -G shakespeare juliet
user@user-VirtualBox:~$ groups juliet
juliet : juliet shakespeare
user@user-VirtualBox:~$
```
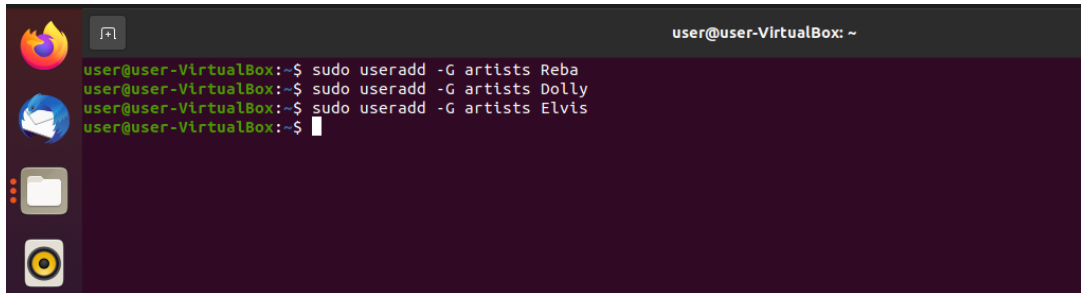
16. Confirm that Juliet has been added using the id command.

```
                                                    user@user-VirtualBox: ~
user@user-VirtualBox:~$ id juliet
uid=1001(juliet) gid=1001(juliet) groups=1001(juliet),3000(shakespeare)
user@user-VirtualBox:~$
```

17. Add Romeo and Hamlet to the Shakespeare group.

```
                                                    user@user-VirtualBox: ~
user@user-VirtualBox:~$ sudo useradd -G artists Reba
user@user-VirtualBox:~$ sudo useradd -G artists Dolly
user@user-VirtualBox:~$ sudo useradd -G artists Elvis
user@user-VirtualBox:~$
```

18. Add Reba, Dolly and Elvis to the artists group.


```
user@user-VirtualBox:~$ sudo useradd -G artists Reba
user@user-VirtualBox:~$ sudo useradd -G artists Dolly
user@user-VirtualBox:~$ sudo useradd -G artists Elvis
user@user-VirtualBox:~$
```

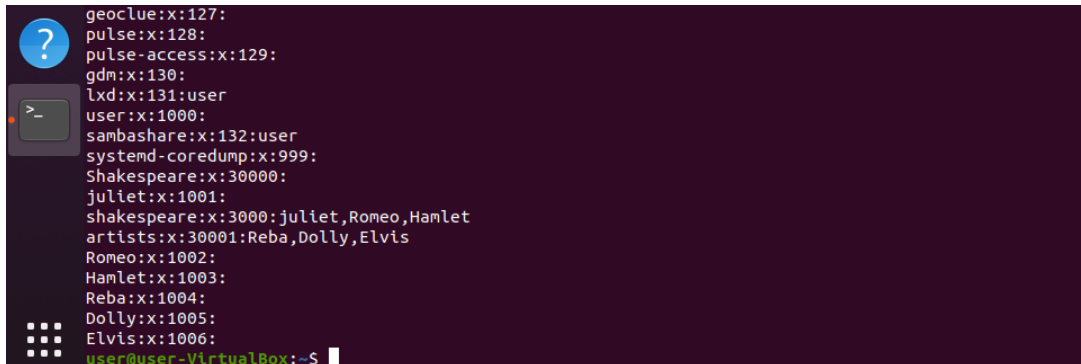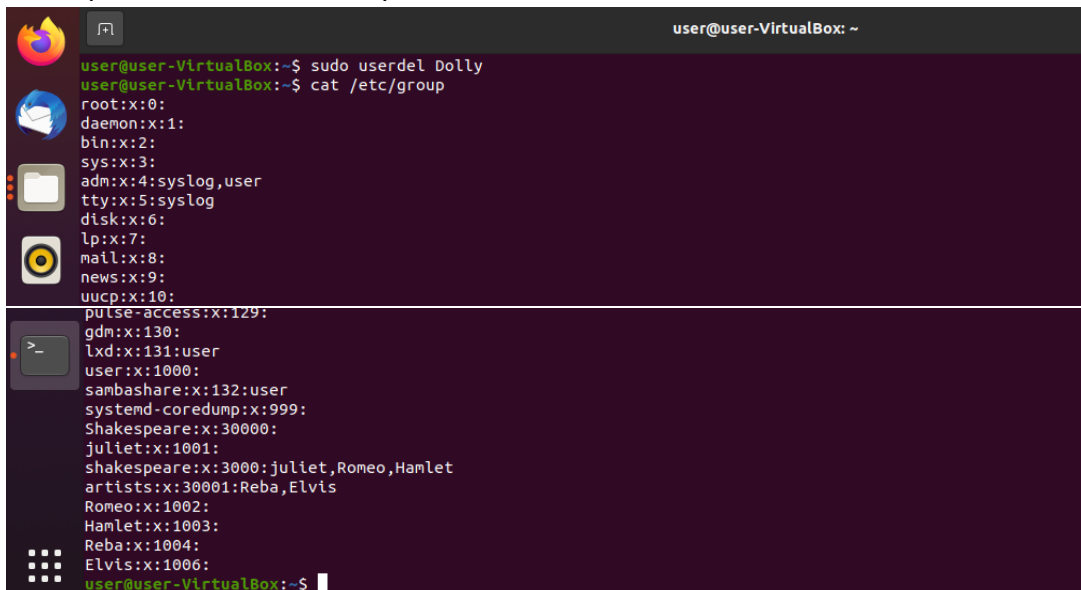19. Verify the supplemental group memberships by examining the /etc/group file.


```
geoclue:x:127:
pulse:x:128:
pulse-access:x:129:
gdm:x:130:
lxd:x:131:user
user:x:1000:
sambashare:x:132:user
systemd-coredump:x:999:
Shakespeare:x:30000:
juliet:x:1001:
shakespeare:x:3000:juliet,Romeo,Hamlet
artists:x:30001:Reba,Dolly,Elvis
Romeo:x:1002:
Hamlet:x:1003:
Reba:x:1004:
Dolly:x:1005:
Elvis:x:1006:
user@user-VirtualBox:~$
```

20. Attempt to remove user Dolly.


```
user@user-VirtualBox:~$ sudo userdel Dolly
user@user-VirtualBox:~$ cat /etc/group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog,user
tty:x:5:syslog
disk:x:6:
lp:x:7:
mail:x:8:
news:x:9:
uucp:x:10:
```

```
pulse-access:x:129:
gdm:x:130:
lxd:x:131:user
user:x:1000:
sambashare:x:132:user
systemd-coredump:x:999:
Shakespeare:x:30000:
juliet:x:1001:
shakespeare:x:3000:juliet,Romeo,Hamlet
artists:x:30001:Reba,Elvis
Romeo:x:1002:
Hamlet:x:1003:
Reba:x:1004:
Elvis:x:1006:
user@user-VirtualBox:~$
```