

ASSIGNMENT

Networking And System Administration Lab

Submitted by:

Ancy Alexander

Roll no:16

MCA Batch A

Submitted to:

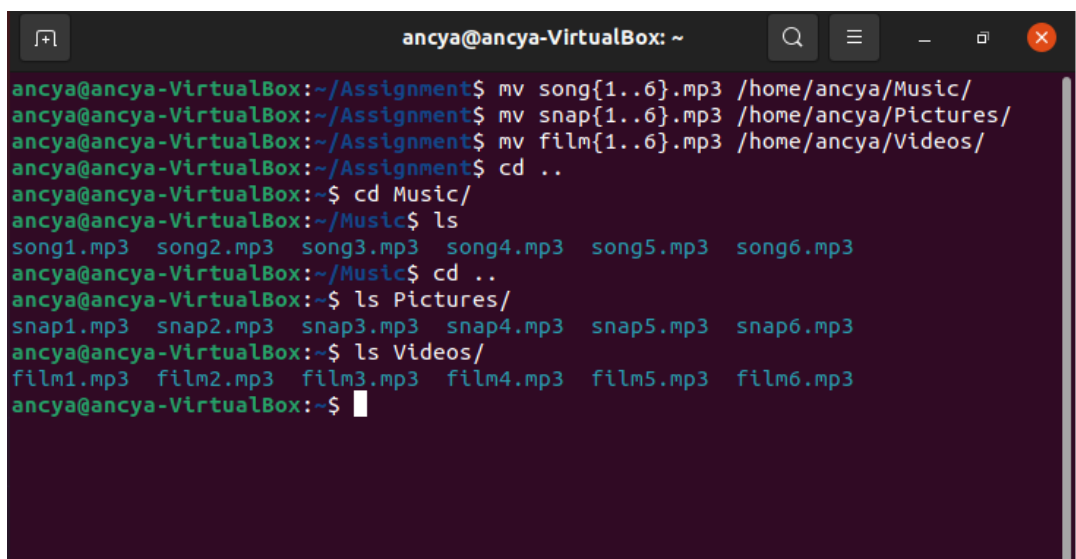
Meera Mathew

1. Lab Assignment 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)

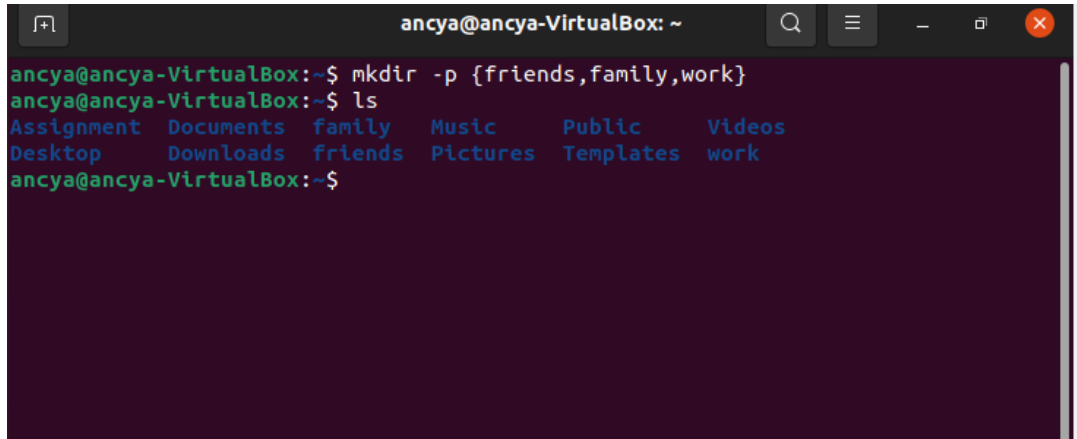
```
ancya@ancya-VirtualBox:~$ mkdir Assignment
ancya@ancya-VirtualBox:~$ cd Assignment/
ancya@ancya-VirtualBox:~/Assignment$ touch song{1..6}.mp3
ancya@ancya-VirtualBox:~/Assignment$ ls
song1.mp3 song2.mp3 song3.mp3 song4.mp3 song5.mp3 song6.mp3
ancya@ancya-VirtualBox:~/Assignment$ touch snap{1..6}.mp3
ancya@ancya-VirtualBox:~/Assignment$ ls
snap1.mp3 snap3.mp3 snap5.mp3 song1.mp3 song3.mp3 song5.mp3
snap2.mp3 snap4.mp3 snap6.mp3 song2.mp3 song4.mp3 song6.mp3
ancya@ancya-VirtualBox:~/Assignment$ touch film{1..6}.mp3
ancya@ancya-VirtualBox:~/Assignment$ ls
film1.mp3 film4.mp3 snap1.mp3 snap4.mp3 song1.mp3 song4.mp3
film2.mp3 film5.mp3 snap2.mp3 snap5.mp3 song2.mp3 song5.mp3
film3.mp3 film6.mp3 snap3.mp3 snap6.mp3 song3.mp3 song6.mp3
ancya@ancya-VirtualBox:~/Assignment$
```

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.



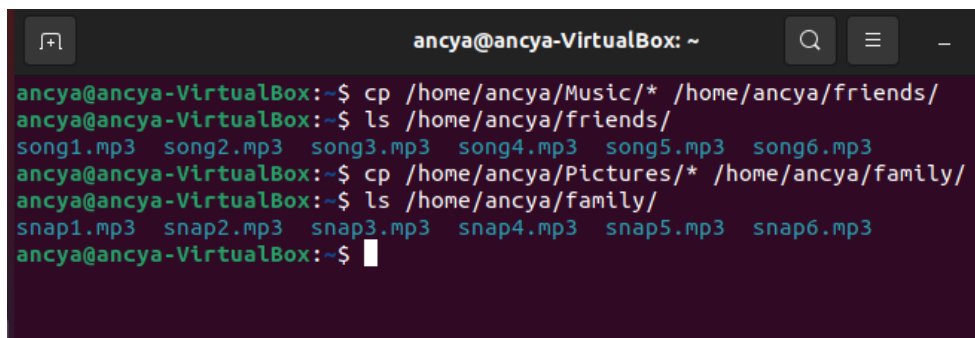
```
ancya@ancya-VirtualBox: ~
ancya@ancya-VirtualBox:~/Assignment$ mv song{1..6}.mp3 /home/ancya/Music/
ancya@ancya-VirtualBox:~/Assignment$ mv snap{1..6}.mp3 /home/ancya/Pictures/
ancya@ancya-VirtualBox:~/Assignment$ mv film{1..6}.mp3 /home/ancya/Videos/
ancya@ancya-VirtualBox:~/Assignment$ cd ..
ancya@ancya-VirtualBox:~$ cd Music/
ancya@ancya-VirtualBox:~/Music$ ls
song1.mp3 song2.mp3 song3.mp3 song4.mp3 song5.mp3 song6.mp3
ancya@ancya-VirtualBox:~/Music$ cd ..
ancya@ancya-VirtualBox:~$ ls Pictures/
snap1.mp3 snap2.mp3 snap3.mp3 snap4.mp3 snap5.mp3 snap6.mp3
ancya@ancya-VirtualBox:~$ ls Videos/
film1.mp3 film2.mp3 film3.mp3 film4.mp3 film5.mp3 film6.mp3
ancya@ancya-VirtualBox:~$
```

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.



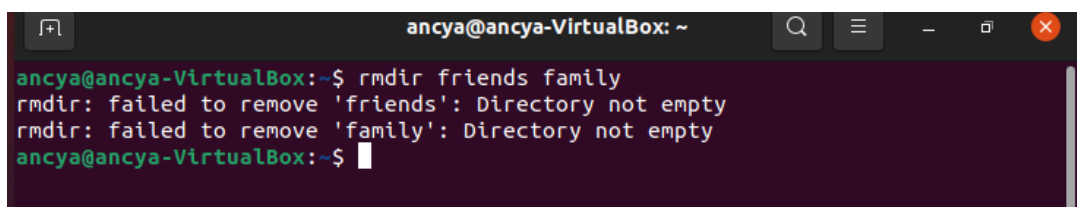
```
ancya@ancya-VirtualBox: ~  
ancya@ancya-VirtualBox:~$ mkdir -p {friends,family,work}  
ancya@ancya-VirtualBox:~$ ls  
Assignment  Documents  family    Music     Public    Videos  
Desktop     Downloads  friends  Pictures  Templates work  
ancya@ancya-VirtualBox:~$
```

4. Copy song files to the friends folder and snap files to family folder



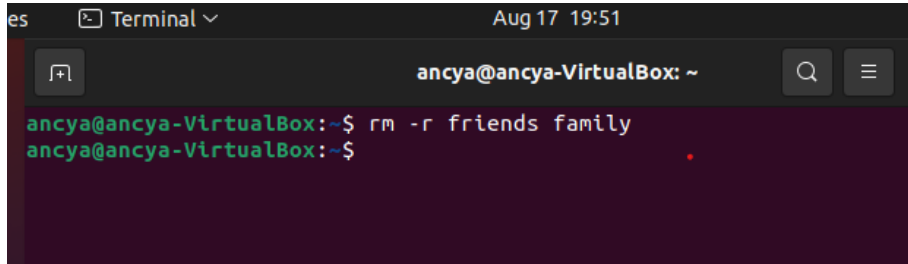
```
ancya@ancya-VirtualBox:~$ cp /home/ancya/Music/* /home/ancya/friends/  
ancya@ancya-VirtualBox:~$ ls /home/ancya/friends/  
song1.mp3 song2.mp3 song3.mp3 song4.mp3 song5.mp3 song6.mp3  
ancya@ancya-VirtualBox:~$ cp /home/ancya/Pictures/* /home/ancya/family/  
ancya@ancya-VirtualBox:~$ ls /home/ancya/family/  
snap1.mp3 snap2.mp3 snap3.mp3 snap4.mp3 snap5.mp3 snap6.mp3  
ancya@ancya-VirtualBox:~$
```

5. Attempt to delete both family and friends projects with a single rmdir command



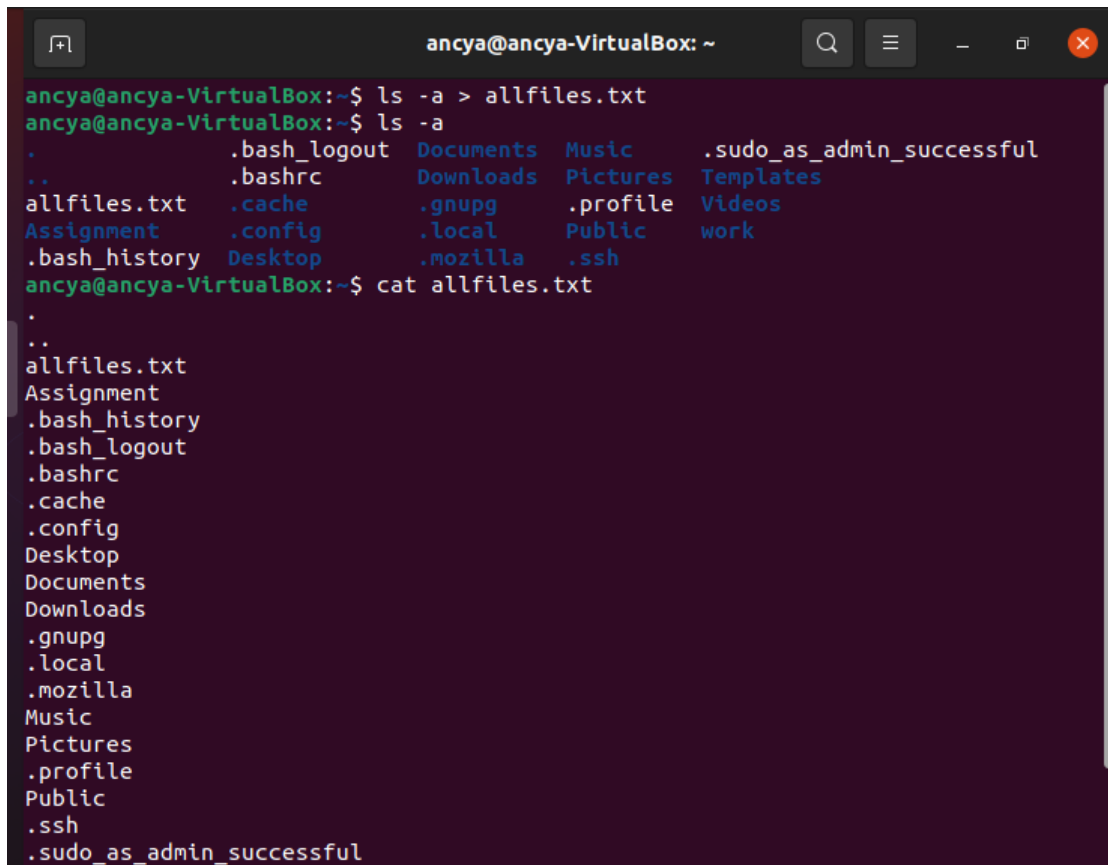
```
ancya@ancya-VirtualBox:~$ rmdir friends family  
rmdir: failed to remove 'friends': Directory not empty  
rmdir: failed to remove 'family': Directory not empty  
ancya@ancya-VirtualBox:~$
```

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

A terminal window titled "Terminal" with a timestamp of "Aug 17 19:51". The prompt is "ancya@ancya-VirtualBox: ~". The user enters the command "rm -r friends family". The prompt returns, and a single red dot is visible on the line following the command.

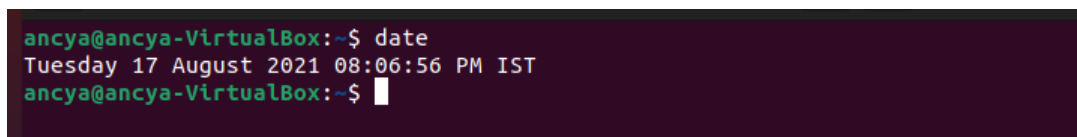
```
ancya@ancya-VirtualBox:~$ rm -r friends family
ancya@ancya-VirtualBox:~$
```

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

A terminal window titled "ancya@ancya-VirtualBox: ~". The user enters "ls -a > allfiles.txt". The prompt returns. The user enters "ls -a", and a long listing of files and directories is displayed. The user then enters "cat allfiles.txt", and the same listing is displayed again.

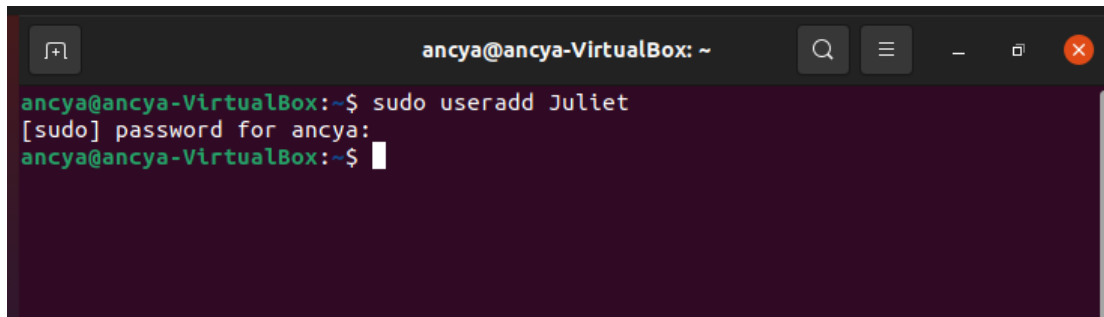
```
ancya@ancya-VirtualBox:~$ ls -a > allfiles.txt
ancya@ancya-VirtualBox:~$ ls -a
.                .bash_logout    Documents      Music          .sudo_as_admin_successful
..               .bashrc         Downloads     Pictures       Templates
allfiles.txt     .cache          .gnupg        .profile      Videos
Assignment       .config         .local        Public         work
.bash_history    Desktop         .mozilla     .ssh
ancya@ancya-VirtualBox:~$ cat allfiles.txt
.
..
allfiles.txt
Assignment
.bash_history
.bash_logout
.bashrc
.cache
.config
Desktop
Documents
Downloads
.gnupg
.local
.mozilla
Music
Pictures
.profile
Public
.ssh
.sudo_as_admin_successful
```

8. In the command window, display today's date with day of the week, month, date and year

A terminal window showing the output of the "date" command. The prompt is "ancya@ancya-VirtualBox:~\$". The user enters "date", and the output is "Tuesday 17 August 2021 08:06:56 PM IST". The prompt returns.

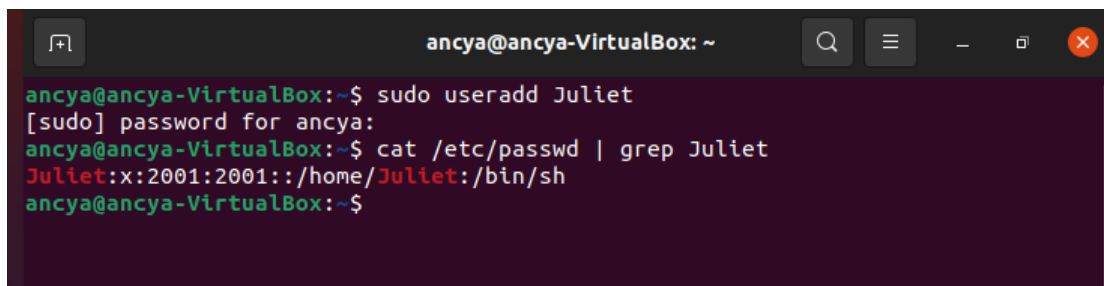
```
ancya@ancya-VirtualBox:~$ date
Tuesday 17 August 2021 08:06:56 PM IST
ancya@ancya-VirtualBox:~$
```

9. Add the user Juliet



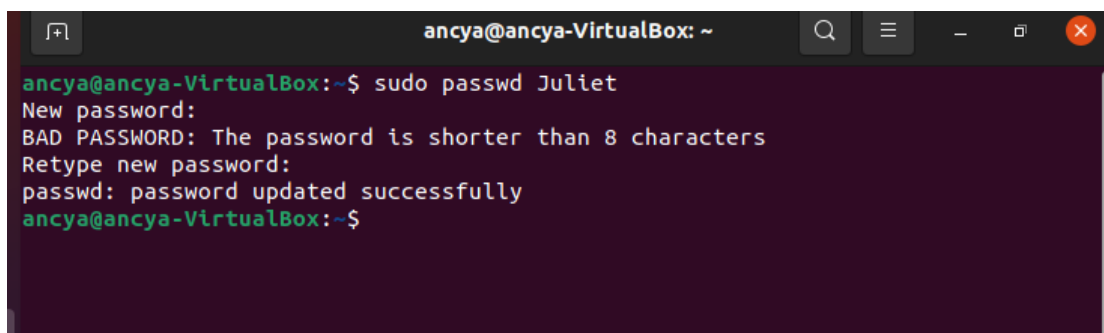
```
ancya@ancya-VirtualBox: ~  
ancya@ancya-VirtualBox:~$ sudo useradd Juliet  
[sudo] password for ancy:  
ancya@ancya-VirtualBox:~$
```

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



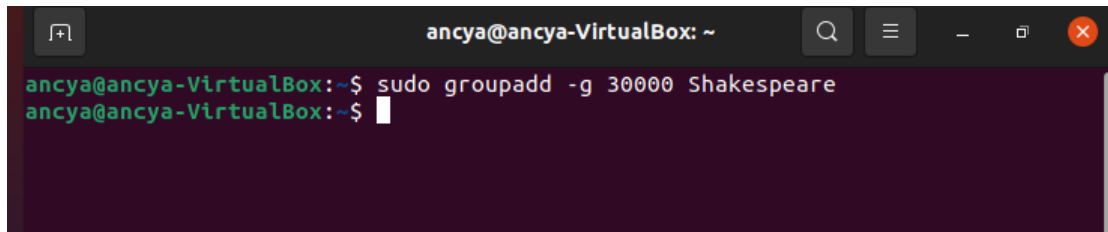
```
ancya@ancya-VirtualBox: ~  
ancya@ancya-VirtualBox:~$ sudo useradd Juliet  
[sudo] password for ancy:  
ancya@ancya-VirtualBox:~$ cat /etc/passwd | grep Juliet  
Juliet:x:2001:2001:~/home/Juliet:/bin/sh  
ancya@ancya-VirtualBox:~$
```

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



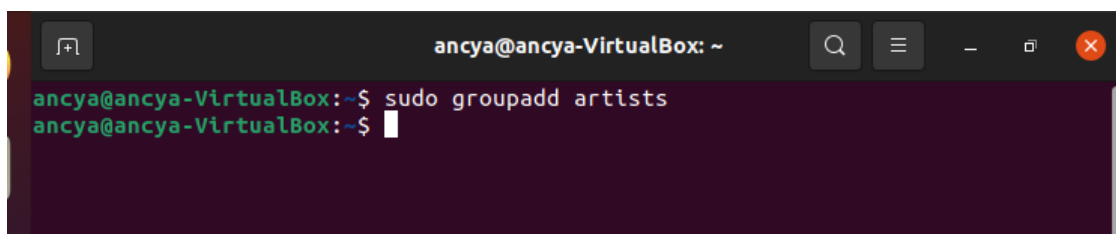
```
ancya@ancya-VirtualBox: ~  
ancya@ancya-VirtualBox:~$ sudo passwd Juliet  
New password:  
BAD PASSWORD: The password is shorter than 8 characters  
Retype new password:  
passwd: password updated successfully  
ancya@ancya-VirtualBox:~$
```

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

A terminal window titled 'ancya@ancya-VirtualBox: ~' with search, menu, and window control icons. The prompt is 'ancya@ancya-VirtualBox:~\$'. The command 'sudo groupadd -g 30000 Shakespeare' is entered and executed. The prompt returns to 'ancya@ancya-VirtualBox:~\$' with a cursor.

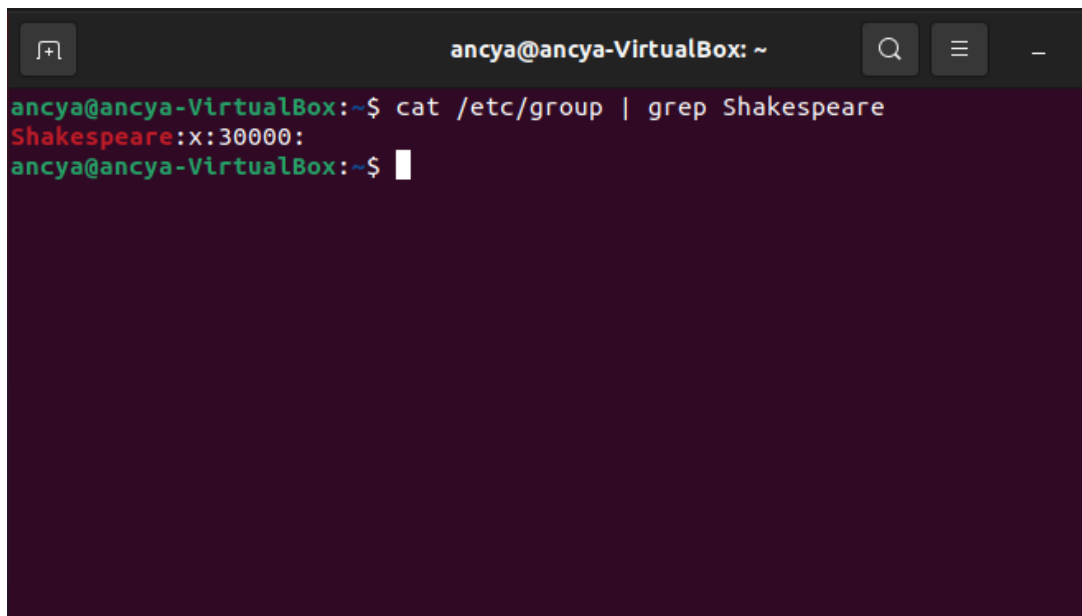
```
ancya@ancya-VirtualBox:~$ sudo groupadd -g 30000 Shakespeare
ancya@ancya-VirtualBox:~$
```

13. Create a supplementary group called artists.

A terminal window titled 'ancya@ancya-VirtualBox: ~' with search, menu, and window control icons. The prompt is 'ancya@ancya-VirtualBox:~\$'. The command 'sudo groupadd artists' is entered and executed. The prompt returns to 'ancya@ancya-VirtualBox:~\$' with a cursor.

```
ancya@ancya-VirtualBox:~$ sudo groupadd artists
ancya@ancya-VirtualBox:~$
```

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

A terminal window titled 'ancya@ancya-VirtualBox: ~' with search, menu, and window control icons. The prompt is 'ancya@ancya-VirtualBox:~\$'. The command 'cat /etc/group | grep Shakespeare' is entered and executed. The output 'Shakespeare:x:30000:' is displayed in red text. The prompt returns to 'ancya@ancya-VirtualBox:~\$' with a cursor.

```
ancya@ancya-VirtualBox:~$ cat /etc/group | grep Shakespeare
Shakespeare:x:30000:
ancya@ancya-VirtualBox:~$
```

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

```
aneya@aneya-VirtualBox: ~  
aneya@aneya-VirtualBox:~$ sudo usermod -G Shakespeare Juliet  
aneya@aneya-VirtualBox:~$
```

16. Confirm that Juliet has been added using the id command.

```
aneya@aneya-VirtualBox: ~  
aneya@aneya-VirtualBox:~$ id Juliet  
uid=2001(Juliet) gid=2001(Juliet) groups=2001(Juliet),30000(Shakespeare)  
aneya@aneya-VirtualBox:~$
```

17. Add Romeo and Hamlet to the Shakespeare group

```
aneya@aneya-VirtualBox: ~  
aneya@aneya-VirtualBox:~$ sudo useradd Romeo  
aneya@aneya-VirtualBox:~$ sudo useradd Hamlet  
aneya@aneya-VirtualBox:~$ sudo usermod -G Shakespeare Romeo  
aneya@aneya-VirtualBox:~$ sudo usermod -G Shakespeare Hamlet  
aneya@aneya-VirtualBox:~$
```

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

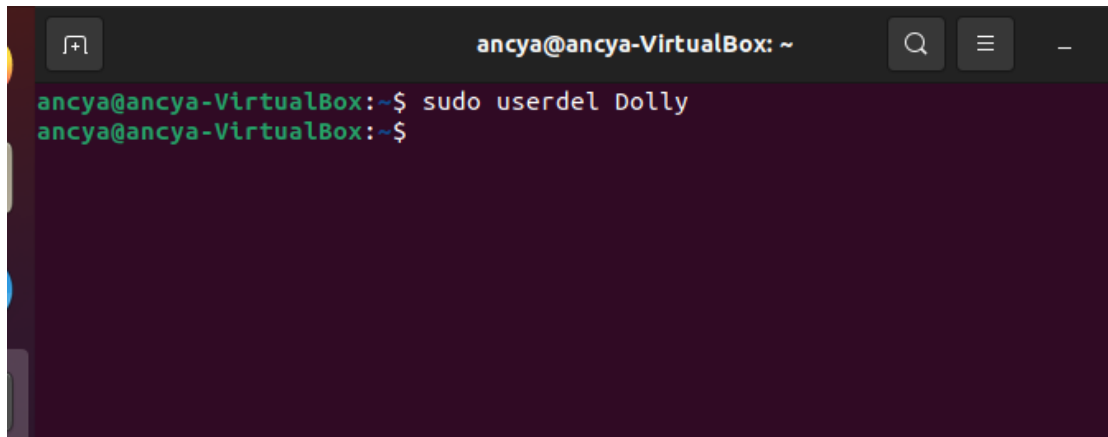
```
ancya@ancya-VirtualBox:~$ sudo useradd Reba
ancya@ancya-VirtualBox:~$ sudo useradd Dolly
ancya@ancya-VirtualBox:~$ sudo useradd Elvis
ancya@ancya-VirtualBox:~$ sudo usermod -G artists Reba
ancya@ancya-VirtualBox:~$ sudo usermod -G artists Dolly
ancya@ancya-VirtualBox:~$ sudo usermod -G artists Elvis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

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

```
ancya@ancya-VirtualBox:~$ cat /etc/group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog,ancya
tty:x:5:
disk:x:6:
lp:x:7:
mail:x:8:
news:x:9:
uucp:x:10:
man:x:12:
proxy:x:13:
kmem:x:15:
dialout:x:20:
fax:x:21:
voice:x:22:
cdrom:x:24:ancya
floppy:x:25:
tape:x:26:
sudo:x:27:ancya
audio:x:29:pulse
dip:x:30:ancya
www-data:x:33:
backup:x:34:
operator:x:37:
list:x:38:
irc:x:39:
```

```
travel:x:1007:anu
AJCE:x:1006:anu
Juliet:x:2001:
Shakespeare:x:30000:Juliet,Romeo,Hamlet
artists:x:30001:Reba,Dolly,Elvis
Romeo:x:2002:
Hamlet:x:2003:
Reba:x:2004:
Dolly:x:2005:
Elvis:x:2006:
```


20. Attempt to remove user Dolly.

A terminal window titled 'ancya@ancya-VirtualBox: ~' with search, menu, and window control icons. The prompt is 'ancya@ancya-VirtualBox:~\$'. The command 'sudo userdel Dolly' has been entered and executed, resulting in a new prompt 'ancya@ancya-VirtualBox:~\$' on the next line.

```
ancya@ancya-VirtualBox:~$ sudo userdel Dolly
ancya@ancya-VirtualBox:~$
```