

ASSIGNMENT

Submitted By,
Ashtami Prasad
S2 MCA
Batch A
Roll No:29

Question:

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

```
ashtami@ashtami-VirtualBox:~$ touch song1.mp3 song2.mp3 song3.mp3 song4.mp3 song5.mp3 song6.mp3
ashtami@ashtami-VirtualBox:~$ touch snap1.mp3 snap2.mp3 snap3.mp3 snap4.mp3 snap5.mp3 snap6.mp3
ashtami@ashtami-VirtualBox:~$ touch film1.mp3 film2.mp3 film3.mp3 film4.mp3 film5.mp3 film6.mp3
ashtami@ashtami-VirtualBox:~$ ls
archie1.tar  file2.txt  film6.mp3  new.txt    snap2.mp3  song2.mp3  Videos
book        film1.mp3  mca        Pictures   snap3.mp3  song3.mp3
Desktop     film2.mp3  MCA        Public     snap4.mp3  song4.mp3
Documents   film3.mp3  Music      q1.txt     snap5.mp3  song5.mp3
Downloads   film4.mp3  myfile.txt q2.txt     snap6.mp3  song6.mp3
file1       film5.mp3  newfile.txt snap1.mp3  song1.mp3  Templates
ashtami@ashtami-VirtualBox:~$
```

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.

```
ashtami@ashtami-VirtualBox:~$ mv song1.mp3 song2.mp3 song3.mp3 song4.mp3 song5.mp3 song6.mp3 ./Music/
ashtami@ashtami-VirtualBox:~$ ls
archie1.tar  file1      film4.mp3  Music      Public      snap3.mp3  Videos
book        file2.txt  film5.mp3  myfile.txt  q1.txt      snap4.mp3
Desktop     film1.mp3  film6.mp3  newfile.txt q2.txt      snap5.mp3
Documents   film2.mp3  mca        new.txt     snap1.mp3   snap6.mp3
Downloads   film3.mp3  MCA        Pictures    snap2.mp3   Templates
ashtami@ashtami-VirtualBox:~$ ls -R Music
Music:
song1.mp3  song2.mp3  song3.mp3  song4.mp3  song5.mp3  song6.mp3
ashtami@ashtami-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.

```
ashtami@ashtami-VirtualBox:~$ mkdir friends family work
ashtami@ashtami-VirtualBox:~$ ls
archive1.tar  file1      film5.mp3  myfile.txt  q2.txt      snap6.mp3
book          file2.txt  film6.mp3  newfile.txt snap1.mp3    Templates
Desktop       film1.mp3  friends    new.txt     snap2.mp3    Videos
Documents     film2.mp3  mca        Pictures    snap3.mp3    work
Downloads     film3.mp3  MCA        Public      snap4.mp3
family        film4.mp3  Music      q1.txt      snap5.mp3
```

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

```
ashtami@ashtami-VirtualBox:~$ cp Music/song6.mp3 friends
ashtami@ashtami-VirtualBox:~$ cp Music/song5.mp3 friends
ashtami@ashtami-VirtualBox:~$ cp Music/song4.mp3 friends
ashtami@ashtami-VirtualBox:~$ cp Music/song3.mp3 friends
ashtami@ashtami-VirtualBox:~$ cp Music/song2.mp3 friends
ashtami@ashtami-VirtualBox:~$ cp Music/song1.mp3 friends
ashtami@ashtami-VirtualBox:~$ ls
archive1.tar  file1      film5.mp3  myfile.txt  q1.txt      snap5.mp3
book          file2.txt  film6.mp3  newfile.txt  q2.txt      snap6.mp3
Desktop       film1.mp3  friends    new.txt     snap1.mp3    Templates
Documents     film2.mp3  mca        Picture     snap2.mp3    Videos
Downloads     film3.mp3  MCA        Pictures    snap3.mp3    work
family        film4.mp3  Music      Public      snap4.mp3
```

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

```
ashtami@ashtami-VirtualBox:~$ rm -r family friends
ashtami@ashtami-VirtualBox:~$ ls
archive1.tar  file2.txt  film6.mp3  new.txt  q2.txt  snap6.mp3
book          film1.mp3  mca        Pic      snap1.mp3 Templates
Desktop       film2.mp3  MCA        Picture  snap2.mp3 Videos
Documents     film3.mp3  Music      Pictures  snap3.mp3 work
Downloads     film4.mp3  myfile.txt Public    snap4.mp3
file1         film5.mp3  newfile.txt q1.txt   snap5.mp3
```

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

```
ashtami@ashtami-VirtualBox:~$ rmdir family friends
rmdir: failed to remove 'family': No such file or directory
rmdir: failed to remove 'friends': No such file or directory
ashtami@ashtami-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.

```
ashtami@ashtami-VirtualBox:~$ ls -al > allfile.txt
ashtami@ashtami-VirtualBox:~$ ls
allfile.txt  file1      film5.mp3  newfile.txt  q1.txt      snap5.mp3
archive1.tar file2.txt  film6.mp3  new.txt      q2.txt      snap6.mp3
book        film1.mp3 mca        Pic          snap1.mp3   Templates
Desktop     film2.mp3 MCA        Picture      snap2.mp3   Videos
Documents   film3.mp3 Music      Pictures     snap3.mp3   work
Downloads   film4.mp3 myfile.txt Public       snap4.mp3
```

```
ashtami@ashtami-VirtualBox:~$ cat allfile.txt
total 192
drwxr-xr-x 24 ashtami ashtami 4096 Aug 17 09:19 .
drwxr-xr-x 3 root root 4096 Jun 13 07:15 ..
-rw-rw-r-- 1 ashtami ashtami 0 Aug 17 09:20 allfile.txt
-rw-rw-r-- 1 ashtami ashtami 10240 Aug 12 10:07 archive1.tar
-rw----- 1 ashtami ashtami 4247 Aug 17 08:50 .bash_history
-rw-r--r-- 1 ashtami ashtami 220 Jun 13 07:15 .bash_logout
-rw-r--r-- 1 ashtami ashtami 3771 Jun 13 07:15 .bashrc
drwxr-xr-x 2 ashtami ashtami 4096 Aug 9 09:36 book
drwx----- 13 ashtami ashtami 4096 Aug 17 08:20 .cache
drwx----- 14 ashtami ashtami 4096 Aug 10 04:19 .config
drwxr-xr-x 2 ashtami ashtami 4096 Aug 10 04:12 Desktop
drwxr-xr-x 3 ashtami ashtami 4096 Jun 15 05:54 Documents
drwxr-xr-x 2 ashtami ashtami 4096 Jun 13 07:29 Downloads
drwxrwxr-x 2 ashtami ashtami 4096 Aug 9 09:37 file1
-rw-rw-r-- 1 ashtami ashtami 56 Jun 21 12:13 file2.txt
-rw-rw-r-- 1 ashtami ashtami 6 Aug 17 08:12 film1.mp3
-rw-rw-r-- 1 ashtami ashtami 6 Aug 17 08:12 film2.mp3
-rw-rw-r-- 1 ashtami ashtami 6 Aug 17 08:12 film3.mp3
-rw-rw-r-- 1 ashtami ashtami 6 Aug 17 08:12 film4.mp3
-rw-rw-r-- 1 ashtami ashtami 6 Aug 17 08:12 film5.mp3
-rw-rw-r-- 1 ashtami ashtami 6 Aug 17 08:12 film6.mp3
drwx----- 3 ashtami ashtami 4096 Aug 17 08:09 .gnupg
drwx----- 3 ashtami ashtami 4096 Jun 13 07:29 .local
drwxrwxr-x 2 ashtami ashtami 4096 Aug 12 09:41 mca
drwxr-xr-x 2 ashtami ashtami 4096 Aug 10 11:26 MCA
drwxr-xr-x 2 ashtami ashtami 4096 Aug 17 08:15 Music
-rw-rw-r-- 1 ashtami ashtami 6 Aug 12 09:36 myfile.txt
```

```

-rw-rw-r-- 1 ashtami ashtami 6 Aug 12 09:36 myfile.txt
-rw-rw-r-- 1 ashtami ashtami 42 Aug 9 11:31 newfile.txt
-rw-rw-r-- 1 ashtami ashtami 8 Aug 9 11:31 new.txt
drwxrwxr-x 2 ashtami ashtami 4096 Aug 17 08:53 Pic
drwxrwxr-x 2 ashtami ashtami 4096 Aug 17 08:20 Picture
drwxr-xr-x 2 ashtami ashtami 4096 Jun 13 07:29 Pictures
-rw-r--r-- 1 ashtami ashtami 807 Jun 13 07:15 .profile
drwxr-xr-x 2 ashtami ashtami 4096 Jun 13 07:29 Public
drwxrwxr-x 3 ashtami ashtami 4096 Jun 15 05:55 q1.txt
drwxrwxr-x 2 ashtami ashtami 4096 Jun 21 11:58 q2.txt
-rw-rw-r-- 1 ashtami ashtami 4 Aug 17 09:15 snap1.mp3
-rw-rw-r-- 1 ashtami ashtami 5 Aug 17 08:12 snap2.mp3
-rw-rw-r-- 1 ashtami ashtami 4 Aug 17 08:12 snap3.mp3
-rw-rw-r-- 1 ashtami ashtami 4 Aug 17 08:12 snap4.mp3
-rw-rw-r-- 1 ashtami ashtami 4 Aug 17 08:12 snap5.mp3
-rw-rw-r-- 1 ashtami ashtami 4 Aug 17 08:12 snap6.mp3
drwx----- 2 ashtami ashtami 4096 Aug 12 10:20 .ssh
-rw-r--r-- 1 ashtami ashtami 0 Aug 10 04:15 .sudo_as_admin_successful
drwxr-xr-x 2 ashtami ashtami 4096 Jun 13 07:29 Templates
drwxr-xr-x 2 ashtami ashtami 4096 Jun 13 07:29 Videos
drwxrwxr-x 2 ashtami ashtami 4096 Aug 17 08:17 work

```

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

```

ashtami@ashtami-VirtualBox:~$ date
Tue 17 Aug 2021 09:22:48 AM EDT

```

9. Add the user Juliet

```

ashtami@ashtami-VirtualBox:~$ sudo useradd juliet
[sudo] password for ashtami:

```

```
ashtami@ashtami-VirtualBox:~$ cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/var/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin)/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
systemd-timesync:x:102:104:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:103:106:,:/nonexistent:/usr/sbin/nologin
syslog:x:104:110:,:/home/syslog:/usr/sbin/nologin
_apt:x:105:65534:,:/nonexistent:/usr/sbin/nologin
tss:x:106:111:TPM software stack...:/var/lib/tpm:/bin/false
```

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


```
ashtami@ashtami-VirtualBox:~$ cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/var/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
systemd-timesync:x:102:104:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:103:106::/nonexistent:/usr/sbin/nologin
syslog:x:104:110::/home/syslog:/usr/sbin/nologin
```

```

tcpdump:x:108:115::/nonexistent:/usr/sbin/nologin
avahi-autoipd:x:109:116:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
usbmux:x:110:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
rtkit:x:111:117:RealtimeKit,,,:/proc:/usr/sbin/nologin
dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
cups-pk-helper:x:113:120:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin
speech-dispatcher:x:114:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
avahi:x:115:121:Avahi mDNS daemon,,,:/var/run/avahi-daemon:/usr/sbin/nologin
kernoops:x:116:65534:Kernel Oops Tracking Daemon,,,:/usr/sbin/nologin
saned:x:117:123::/var/lib/saned:/usr/sbin/nologin
nm-openvpn:x:118:124:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
hplip:x:119:7:HPLIP system user,,,:/run/hplip:/bin/false
whoopsie:x:120:125::/nonexistent:/bin/false
colord:x:121:126:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:122:127::/var/lib/geoclue:/usr/sbin/nologin
pulse:x:123:128:PulseAudio daemon,,,:/var/run/pulse:/usr/sbin/nologin
gnome-initial-setup:x:124:65534::/run/gnome-initial-setup:/bin/false
gdm:x:125:130:Gnome Display Manager:/var/lib/gdm3:/bin/false
ashtami:x:1000:1000:Ashtami Prasad,,,:/home/ashtami:/bin/bash
systemd-coredump:x:999:999:systemd Core Dumper:/usr/sbin/nologin
juliet:x:1001:1006::/home/juliet:/bin/sh

```

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

```

ashtami@ashtami-VirtualBox:~$ sudo passwd juliet
New password:
Retype new password:
passwd: password updated successfully
ashtami@ashtami-VirtualBox:~$

```

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


```
ashtami@ashtami-VirtualBox:~$ sudo groupadd -g 3000 shakespeare
ashtami@ashtami-VirtualBox:~$ cat /etc/group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog,ashtami
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:
dialout:x:20:
fax:x:21:
voice:x:22:
cdrom:x:24:ashtami
floppy:x:25:
tape:x:26:
```

```
floppy:x:25:  
tape:x:26:  
sudo:x:27:ashtami  
audio:x:29:pulse  
dip:x:30:ashtami  
www-data:x:33:  
backup:x:34:  
operator:x:37:  
list:x:38:  
irc:x:39:  
src:x:40:  
gnats:x:41:  
shadow:x:42:  
utmp:x:43:  
video:x:44:  
sasl:x:45:  
plugdev:x:46:ashtami  
staff:x:50:  
games:x:60:  
users:x:100:  
nogroup:x:65534:  
systemd-journal:x:101:  
systemd-network:x:102:  
systemd-resolve:x:103:  
systemd-timesync:x:104:  
crontab:x:105:  
messagebus:x:106:  
input:x:107:
```

13. Create a supplementary group called artists.

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

```
ashtami@ashtami-VirtualBox:~$ cat /etc/group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog,ashtami
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:
dialout:x:20:
fax:x:21:
voice:x:22:
cdrom:x:24:ashtami
floppy:x:25:
tape:x:26:
sudo:x:27:ashtami
audio:x:29:pulse
dip:x:30:ashtami
www-data:x:33:
```

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

```
tcpdump:x:115:
avahi-autoipd:x:116:
rtkit:x:117:
ssh:x:118:
netdev:x:119:
lpadmin:x:120:ashtami
avahi:x:121:
scanner:x:122:saned
saned:x:123:
nm-openvpn:x:124:
whoopsie:x:125:
colord:x:126:
geoclue:x:127:
pulse:x:128:
pulse-access:x:129:
gdm:x:130:
lxd:x:131:ashtami
ashtami:x:1000:
smbashare:x:132:ashtami
systemd-coredump:x:999:
Mca:x:1001:
MCA:x:1002:
Newgrp:x:1003:
grp:x:1004:
newgrp:x:1005:
juliet:x:1006:
shakespeare:x:3000:
artists:x:3001:
```

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

```
ashtami@ashtami-VirtualBox:~$ sudo usermod -G shakespeare juliet
ashtami@ashtami-VirtualBox:~$ cat /etc/group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog,ashtami
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:
dialout:x:20:
fax:x:21:
voice:x:22:
cdrom:x:24:ashtami
floppy:x:25:
tape:x:26:
sudo:x:27:ashtami
audio:x:29:pulse
dip:x:30:ashtami
www-data:x:33:
backup:x:34:
```

```
tcpdump:x:115:
avahi-autoipd:x:116:
rtkit:x:117:
ssh:x:118:
netdev:x:119:
lpadmin:x:120:ashtami
avahi:x:121:
scanner:x:122:saned
saned:x:123:
nm-openvpn:x:124:
whoopsie:x:125:
colord:x:126:
geoclue:x:127:
pulse:x:128:
pulse-access:x:129:
gdm:x:130:
lxd:x:131:ashtami
ashtami:x:1000:
sambashare:x:132:ashtami
systemd-coredump:x:999:
Mca:x:1001:
MCA:x:1002:
Newgrp:x:1003:
grp:x:1004:
newgrp:x:1005:
juliet:x:1006:
shakespeare:x:3000:juliet
artists:x:3001:
```

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

```
ashtami@ashtami-VirtualBox:~$ id -u juliet
1001
ashtami@ashtami-VirtualBox:~$ id -g juliet
1006
```

17. Add Romeo and Hamlet to the Shakespeare group.


```
ashtami@ashtami-VirtualBox:~$ sudo usermod -G shakespeare romeo
ashtami@ashtami-VirtualBox:~$ sudo usermod -G shakespeare hamlet
ashtami@ashtami-VirtualBox:~$ cat /etc/group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog
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:
dialout:x:20:
fax:x:21:
voice:x:22:
cdrom:x:24:
floppy:x:25:
tape:x:26:
sudo:x:27:
audio:x:29:pulse
dip:x:30:
www-data:x:33:
backup:x:34:
operator:x:37:
```

```
tcpdump:x:115:
avahi-autoipd:x:116:
rtkit:x:117:
ssh:x:118:
netdev:x:119:
lpadmin:x:120:
avahi:x:121:
scanner:x:122:saned
saned:x:123:
nm-openvpn:x:124:
whoopsie:x:125:
colord:x:126:
geoclue:x:127:
pulse:x:128:
pulse-access:x:129:
gdm:x:130:
lxd:x:131:
ashtami:x:1000:
smbshare:x:132:
systemd-coredump:x:999:
Mca:x:1001:
MCA:x:1002:
Newgrp:x:1003:
grp:x:1004:
newgrp:x:1005:
juliet:x:1006:
shakespeare:x:3000:juliet,ashtami,romeo,hamlet
artists:x:3001:
```

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

```
ashtami@ashtami-VirtualBox:~$ sudo useradd -g artists Reba
ashtami@ashtami-VirtualBox:~$ sudo useradd -g artists Dolly
ashtami@ashtami-VirtualBox:~$ Elvis
^[[AElvis: command not found
ashtami@ashtami-VirtualBox:~$ sudo useradd -g artists Elvis
```

```
ashtami@ashtami-VirtualBox:~$ sudo usermod -G artists Reba
ashtami@ashtami-VirtualBox:~$ sudo usermod -G artists Dolly
ashtami@ashtami-VirtualBox:~$ sudo usermod -G artists Elvis
ashtami@ashtami-VirtualBox:~$ cat /etc/group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog
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:
dialout:x:20:
fax:x:21:
voice:x:22:
cdrom:x:24:
floppy:x:25:
tape:x:26:
sudo:x:27:
audio:x:29:pulse
dip:x:30:
www-data:x:33:
```

```
tcpdump:x:115:
avahi-autoipd:x:116:
rtkit:x:117:
ssh:x:118:
netdev:x:119:
lpadmin:x:120:
avahi:x:121:
scanner:x:122:saned
saned:x:123:
nm-openvpn:x:124:
whoopsie:x:125:
colord:x:126:
geoclue:x:127:
pulse:x:128:
pulse-access:x:129:
gdm:x:130:
lxd:x:131:
ashtami:x:1000:
smbshare:x:132:
systemd-coredump:x:999:
Mca:x:1001:
MCA:x:1002:
Newgrp:x:1003:
grp:x:1004:
newgrp:x:1005:
juliet:x:1006:
shakespeare:x:3000:juliet,ashtami,romeo,hamlet
artists:x:3001:Reba,Dolly,Elvis
```

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

```
tcpdump:x:115:
avahi-autoipd:x:116:
rtkit:x:117:
ssh:x:118:
netdev:x:119:
lpadmin:x:120:
avahi:x:121:
scanner:x:122:saned
saned:x:123:
nm-openvpn:x:124:
whoopsie:x:125:
colord:x:126:
geoclue:x:127:
pulse:x:128:
pulse-access:x:129:
gdm:x:130:
lxd:x:131:
ashtami:x:1000:
smbshare:x:132:
systemd-coredump:x:999:
Mca:x:1001:
MCA:x:1002:
Newgrp:x:1003:
grp:x:1004:
newgrp:x:1005:
juliet:x:1006:
shakespeare:x:3000:juliet,ashtami,romeo,hamlet
artists:x:3001:Reba,Dolly,Elvis
```

20. Attempt to remove user Dolly.

```
ashtami@ashtami-VirtualBox:~$ sudo userdel Dolly
ashtami@ashtami-VirtualBox:~$ cat /etc/group
```

```
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog
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:
```

```
tcpdump:x:115:
avahi-autoipd:x:116:
rtkit:x:117:
ssh:x:118:
netdev:x:119:
lpadmin:x:120:
avahi:x:121:
scanner:x:122:saned
saned:x:123:
nm-openvpn:x:124:
whoopsie:x:125:
colord:x:126:
geoclue:x:127:
pulse:x:128:
pulse-access:x:129:
gdm:x:130:
lxd:x:131:
ashtami:x:1000:
smbshare:x:132:
systemd-coredump:x:999:
Mca:x:1001:
MCA:x:1002:
Newgrp:x:1003:
grp:x:1004:
newgrp:x:1005:
juliet:x:1006:
shakespeare:x:3000:juliet,ashtami,romeo,hamlet
artists:x:3001:Reba,Elvis
```