Networking and System Administration Lab

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)

```
user@user-HP-Laptop-15-da0xxx:~$ touch song1.mp3 song2.mp3 song3.mp3 song4.mp3 song5.mp3 song6.mp3
user@user-HP-Laptop-15-da0xxx:~$ touch snap1.jpg snap2.jpg snap3.jpg snap4.jpg snap5.jpg snap6.jpg
user@user-HP-Laptop-15-da0xxx:~$ touch film1.mp4 film2.mp4 film3.mp4 film4.mp4 film5.mp4 film6.mp4
user@user-HP-Laptop-15-da0xxx:~$
```

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

```
mv: missing destination file operand after '*.jpg./pictures'
Try 'mv --help' for more information.
user@user-HP-Laptop-15-da0xxx:~$ mv *.jpg./pictures/
mv: missing destination file operand after '*.jpg./pictures/'
Try 'mv --help' for more information.
user@user-HP-Laptop-15-da0xxx:~$ mv *.jpg./silja/
mv: missing destination file operand after '*.jpg./silja/'
Try 'mv --help' for more information.
user@user-HP-Laptop-15-da0xxx:~$ mv *.mp4./videos/
```

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.

```
user@user-HP-Laptop-15-da0xxx:~$ mkdir -p {friends,family,work}
user@user-HP-Laptop-15-da0xxx:~$
```

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

```
user@user-HP-Laptop-15-da0xxx:~$ cp /home/music  song1.mp3 song2.mp3 song3.mp3 song4.mp3 song5.mp3 song6.mp3
cp: target 'song6.mp3' is not a directory
user@user-HP-Laptop-15-da0xxx:~$ cp /home/music  song1.mp3 song2.mp3 song3.mp3 song4.mp3 song5.mp3 song6.mp3 /home/friends
cp: target '/home/friends' is not a directory
user@user-HP-Laptop-15-da0xxx:~$ cp /home/pictures snap1.jpg snap2.jpg snap3.jpg snap4.jpg snap5.jpg snap6.jpg
cp: target 'snap6.jpg' is not a directory
user@user-HP-Laptop-15-da0xxx:~$ cp /home/pictures snap1.jpg snap2.jpg snap3.jpg snap4.jpg snap5.jpg snap6.jpg /home/family/
cp: target '/home/family/' is not a directory
user@user-HP-Laptop-15-da0xxx:~$ cp /home/music  song1.mp3 song2.mp3 song3.mp3 song4.mp3 song5.mp3 song6.mp3 /home/friends/
cp: target '/home/friends/' is not a directory
```

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

```
cp: target '/home/friends/' is not a directory
user@user-HP-Laptop-15-da0xxx:~$ rmdir {friends,family}
user@user-HP-Laptop-15-da0xxx:~$
```

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

```
cp: target '/home/friends' is not a directory
user@user-HP-Laptop-15-da0xxx:~$ rndir {friends,family}
user@user-HP-Laptop-15-da0xxx:~$ rm -r friends family
rm: cannot remove 'friends': No such file or directory
rm: cannot remove 'family': No such file or directory
user@user-HP-Laptop-15-da0xxx:~$
```

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-HP-Laptop-15-da0xxx:~$ ls -a > allfiles.txt
user@user-HP-Laptop-15-da0xxx:~$
```

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

```
user@user-HP-Laptop-15-da0xxx:~$ date
Wed Aug 18 02:27:09 IST 2021
user@user-HP-Laptop-15-da0xxx:~$
```

9. Add the user Juliet

```
Wed Aug 18 02:27:09 IST 2021
user@user-HP-Laptop-15-da0xxx:~$ sudo useradd juliet
[sudo] password for user:
user@user-HP-Laptop-15-da0xxx:~$
```

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

```
user:x:1000:1000:silja:/home/user:/bin/bash
juliet:x:1001:1001::/home/juliet:/bin/sh
user@user-HP-Laptop-15-da0xxx:~$ cat /etc/passwd | grep juliet
juliet:x:1001:1001::/home/juliet:/bin/sh
user@user-HP-Laptop-15-da0xxx:~$
```

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

```
user@user-HP-Laptop-15-da0xxx:~$ sudo passwd juliet
[sudo] password for user:
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
user@user-HP-Laptop-15-da0xxx:~$
```

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

```
user@user-HP-Laptop-15-da0xxx:~$ sudo groupadd -g 30000 shakesphere
user@user-HP-Laptop-15-da0xxx:~$
```

13. Create a supplementary group called artists.

```
user@user-HP-Laptop-15-da0xxx:~$ sudo groupadd artists
user@user-HP-Laptop-15-da0xxx:~$
```

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

```
juliet:x:1001:
shakesphere:x:30000:
artists:x:30001:
(END)
```

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

```
user@user-HP-Laptop-15-da0xxx:~$ sudo usermod -G shakesphere juliet
[sudo] password for user:
user@user-HP-Laptop-15-da0xxx:~$
```

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

```
user@user-HP-Laptop-15-da0xxx:~$ id juliet
uid=1001(juliet) gid=1001(juliet) groups=1001(juliet),30000(shakesphere)
user@user-HP-Laptop-15-da0xxx:~$
```

17. Add Romeo and Hamlet to the Shakespeare group

```
user@user-HP-Laptop-15-da0xxx:~$ sudo usermod -G shakesphere hamlet
user@user-HP-Laptop-15-da0xxx:~$ sudo usermod -G shakesphere Romeo
user@user-HP-Laptop-15-da0xxx:~$ id REmo
id: 'REmo': no such user
user@user-HP-Laptop-15-da0xxx:~$ id Romeo
uid=1004(Romeo) gid=1004(Romeo) groups=1004(Romeo),30000(shakesphere)
user@user-HP-Laptop-15-da0xxx:~$ id hamlet
uid=1005(hamlet) gid=1005(hamlet) groups=1005(hamlet),30000(shakesphere)
```

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

```
user@user-HP-Laptop-15-da0xxx:~$ sudo usermod -G shakesphere hamlet
user@user-HP-Laptop-15-da0xxx:~$ sudo usermod -G shakesphere Romeo
user@user-HP-Laptop-15-da0xxx:~$ id REmo
id: 'REmo': no such user
user@user-HP-Laptop-15-da0xxx:~$ id Romeo
uid=1004(Romeo) gid=1004(Romeo) groups=1004(Romeo),30000(shakesphere)
user@user-HP-Laptop-15-da0xxx:~$ id hamlet
uid=1005(hamlet) gid=1005(hamlet) groups=1005(hamlet),30000(shakesphere)
```

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

```
user@user-HP-Laptop-15-da0xxx:~$ sudo usermo
user@user-HP-Laptop-15-da0xxx:~$ /etc/group
bash: /etc/group: Permission denied
```

20. Attempt to remove user Dolly.

```
user@user-HP-Laptop-15-da0xxx:~$ id Dolly
id: 'Dolly': no such user
user@user-HP-Laptop-15-da0xxx:~$
```