

ASSIGNMENT 5: LAB EXERCISES

20MCA136

Networking & System Administration Lab

MCA2020-22-S2A

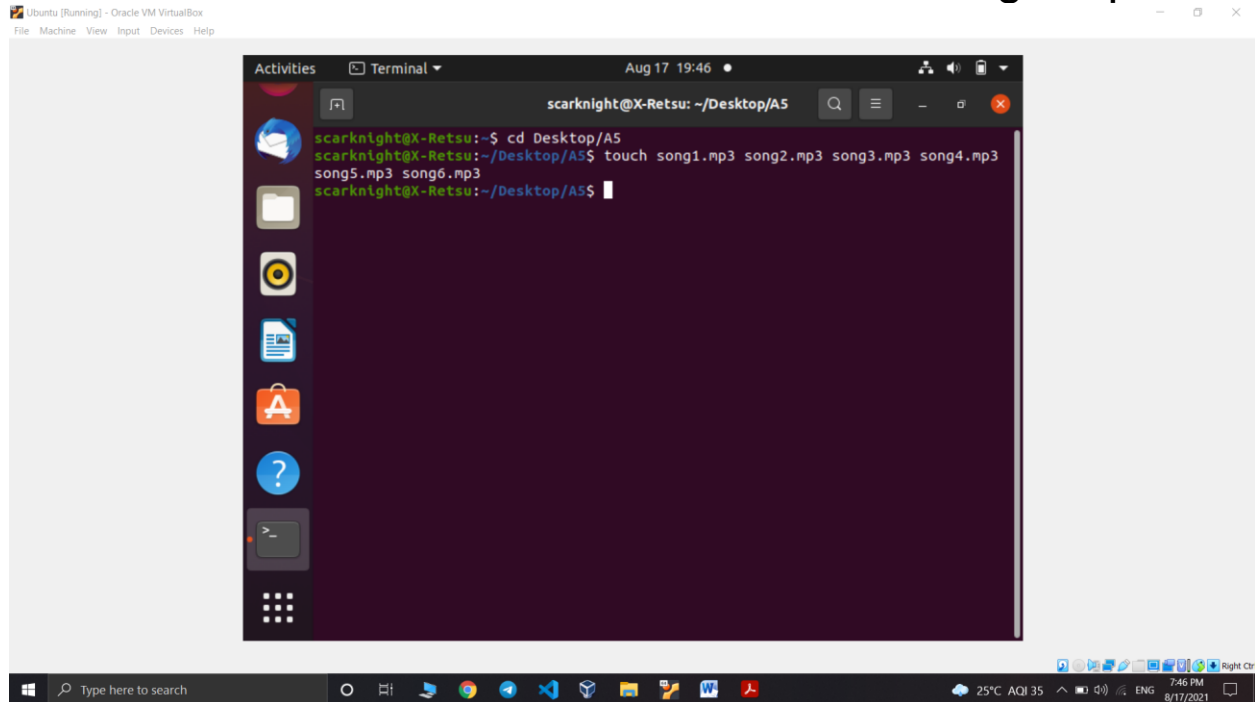
Submitted By:-

Abhishek Scariya M B

Roll no.1

RMCA S2-A

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

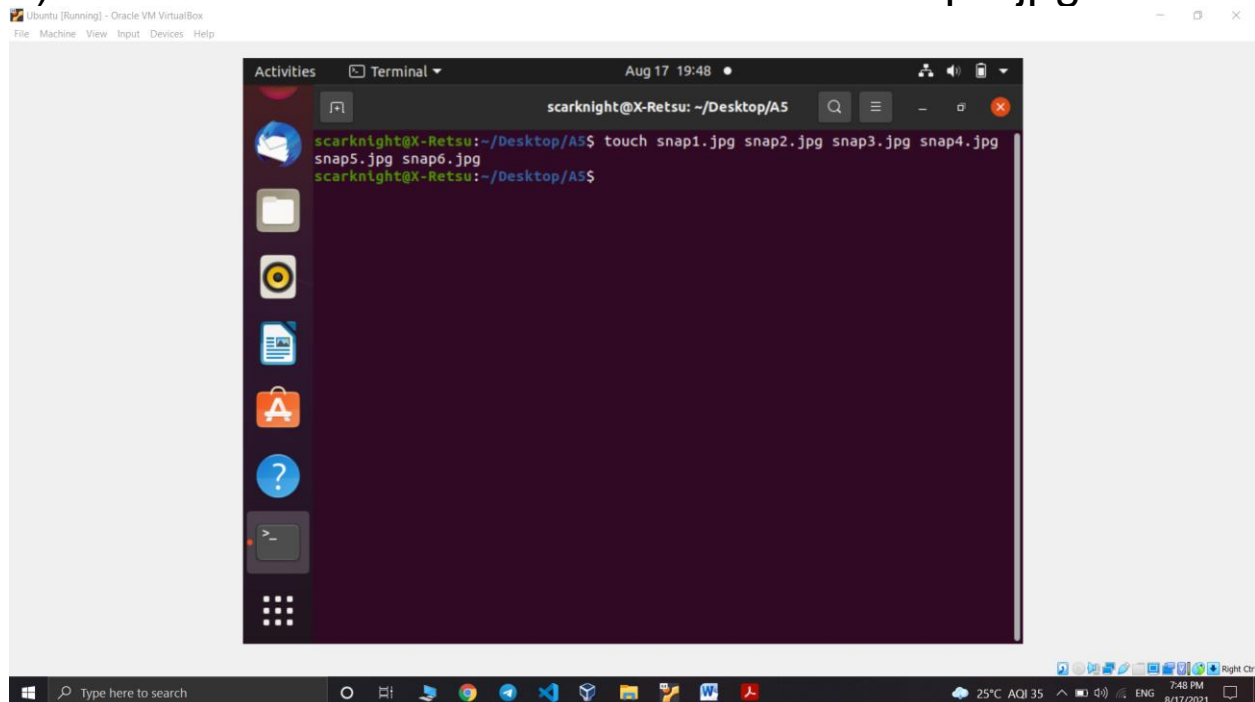


The screenshot shows a terminal window titled "Terminal" with the prompt "scarknight@X-Retsu: ~/Desktop/A5". The user has executed the following commands:

```
scarknight@X-Retsu:~$ cd Desktop/A5
scarknight@X-Retsu:~/Desktop/A5$ touch song1.mp3 song2.mp3 song3.mp3 song4.mp3
song5.mp3 song6.mp3
scarknight@X-Retsu:~/Desktop/A5$
```

The terminal window is part of a desktop environment with a sidebar on the left containing icons for Activities, Files, and various applications. The bottom of the screen shows a taskbar with a search bar and system status indicators.

b) Create six files with name of the form snapX.jpg

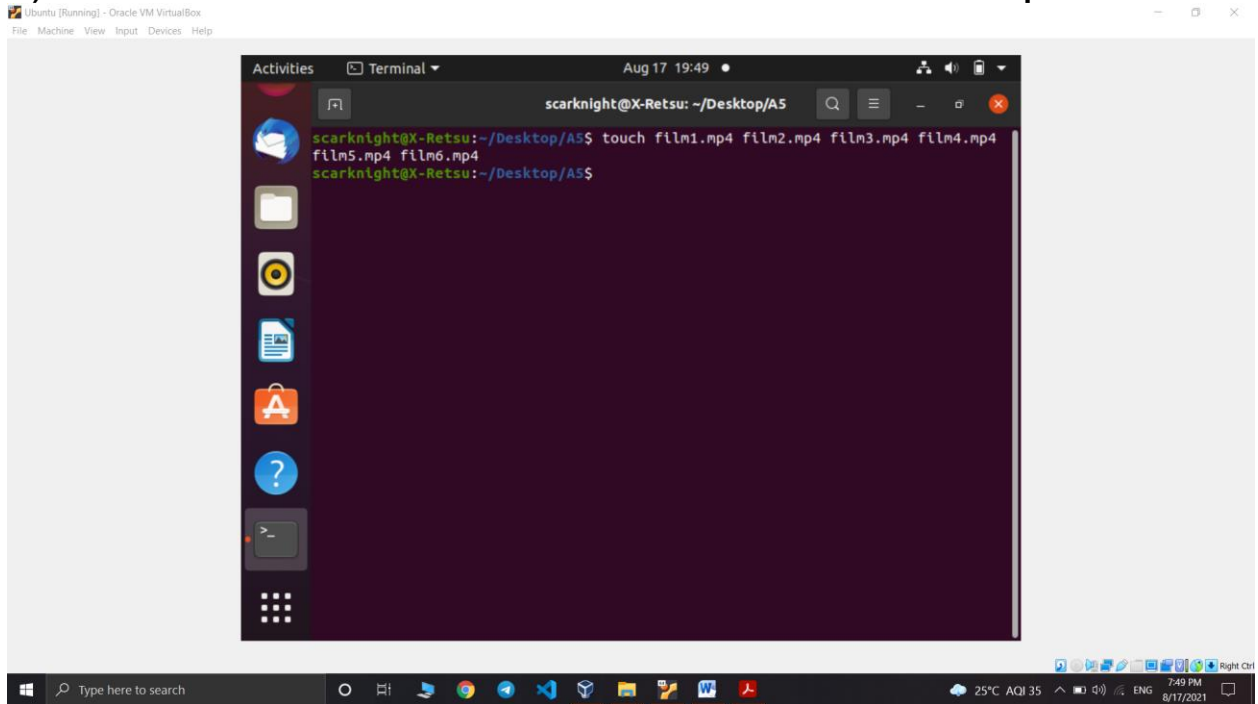


The screenshot shows a terminal window titled "Terminal" with the prompt "scarknight@X-Retsu: ~/Desktop/A5". The user has executed the following commands:

```
scarknight@X-Retsu:~/Desktop/A5$ touch snap1.jpg snap2.jpg snap3.jpg snap4.jpg
snap5.jpg snap6.jpg
scarknight@X-Retsu:~/Desktop/A5$
```

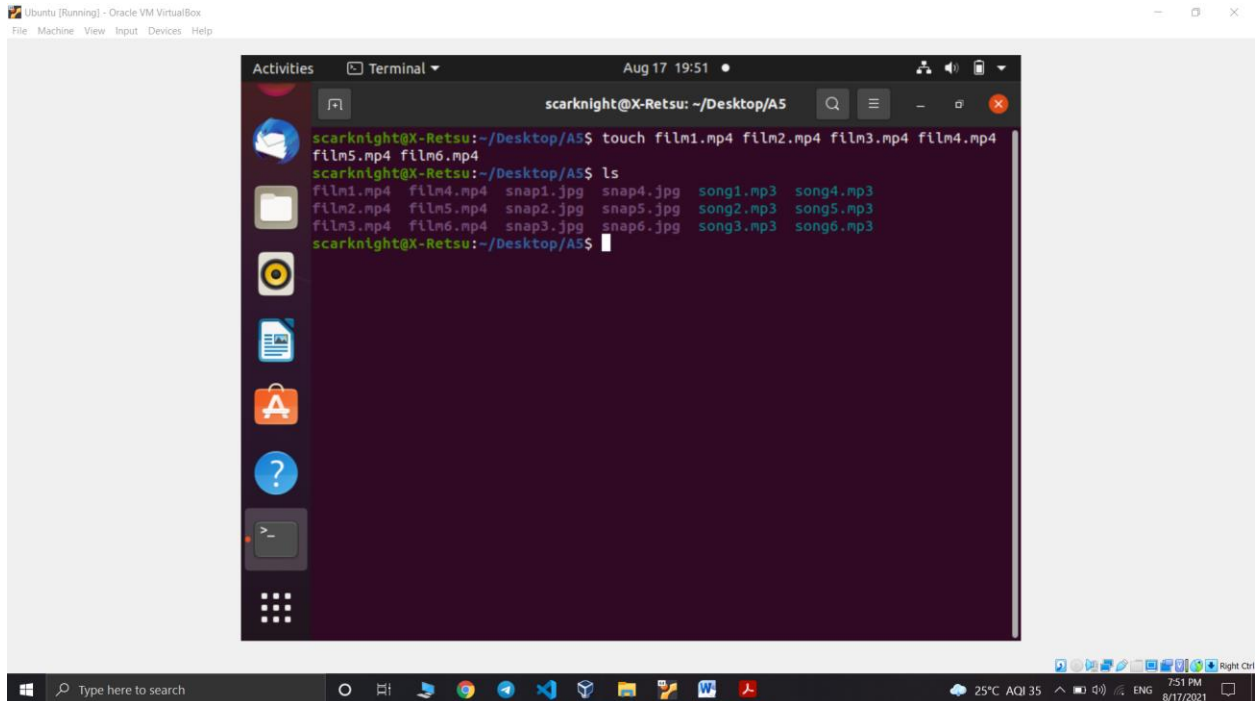
The terminal window is part of a desktop environment with a sidebar on the left containing icons for Activities, Files, and various applications. The bottom of the screen shows a taskbar with a search bar and system status indicators.

c) Create six files with name of the form filmX.mp4



The screenshot shows a terminal window titled "scarknight@X-Retsu: ~/Desktop/A5" with a search bar and window controls. The terminal output shows the command `touch film1.mp4 film2.mp4 film3.mp4 film4.mp4 film5.mp4 film6.mp4` being executed, followed by the prompt `scarknight@X-Retsu:~/Desktop/A5$`. The terminal is part of a desktop environment with a sidebar on the left containing icons for Activities, Home, and various applications. The bottom of the screen shows a taskbar with a search bar, application icons, and system status information including temperature (25°C), AQI (35), and time (7:49 PM, 8/17/2021).

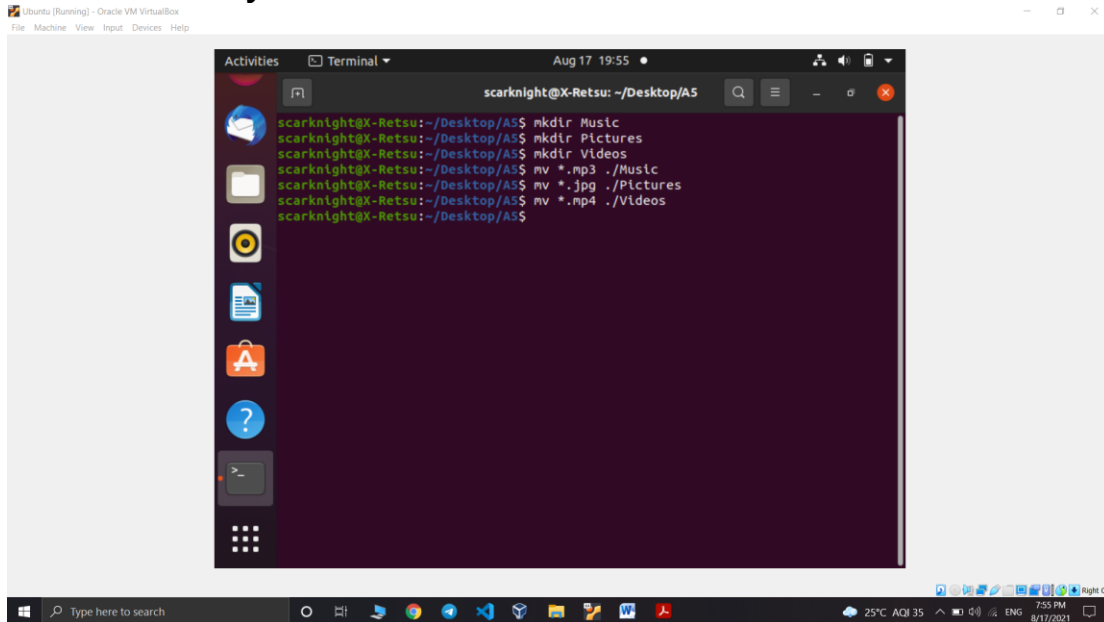
```
scarknight@X-Retsu:~/Desktop/A5$ touch film1.mp4 film2.mp4 film3.mp4 film4.mp4 film5.mp4 film6.mp4
scarknight@X-Retsu:~/Desktop/A5$
```



The screenshot shows a terminal window titled "scarknight@X-Retsu: ~/Desktop/A5" with a search bar and window controls. The terminal output shows the command `touch film1.mp4 film2.mp4 film3.mp4 film4.mp4 film5.mp4 film6.mp4` being executed, followed by the command `ls`. The output of `ls` is a list of files: `film1.mp4 film4.mp4 snap1.jpg snap4.jpg song1.mp3 song4.mp3 film2.mp4 film5.mp4 snap2.jpg snap5.jpg song2.mp3 song5.mp3 film3.mp4 film6.mp4 snap3.jpg snap6.jpg song3.mp3 song6.mp3`. The terminal is part of a desktop environment with a sidebar on the left containing icons for Activities, Home, and various applications. The bottom of the screen shows a taskbar with a search bar, application icons, and system status information including temperature (25°C), AQI (35), and time (7:51 PM, 8/17/2021).

```
scarknight@X-Retsu:~/Desktop/A5$ touch film1.mp4 film2.mp4 film3.mp4 film4.mp4 film5.mp4 film6.mp4
scarknight@X-Retsu:~/Desktop/A5$ ls
film1.mp4 film4.mp4 snap1.jpg snap4.jpg song1.mp3 song4.mp3
film2.mp4 film5.mp4 snap2.jpg snap5.jpg song2.mp3 song5.mp3
film3.mp4 film6.mp4 snap3.jpg snap6.jpg song3.mp3 song6.mp3
scarknight@X-Retsu:~/Desktop/A5$
```

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.

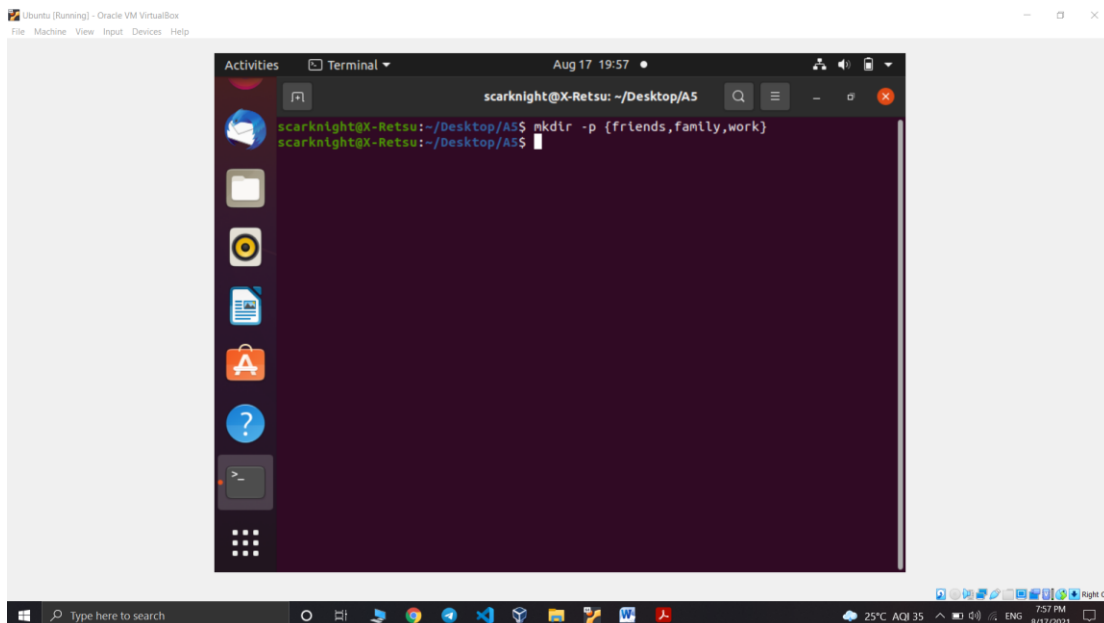


The screenshot shows a terminal window titled "scarknight@X-Retsu: ~/Desktop/AS" with the following commands and output:

```
scarknight@X-Retsu:~/Desktop/AS$ mkdir Music
scarknight@X-Retsu:~/Desktop/AS$ mkdir Pictures
scarknight@X-Retsu:~/Desktop/AS$ mkdir Videos
scarknight@X-Retsu:~/Desktop/AS$ mv *.mp3 ./Music
scarknight@X-Retsu:~/Desktop/AS$ mv *.jpg ./Pictures
scarknight@X-Retsu:~/Desktop/AS$ mv *.mp4 ./Videos
scarknight@X-Retsu:~/Desktop/AS$
```

The terminal is part of an Ubuntu desktop environment. The left sidebar shows application icons for Dash, Home, Files, and various utilities. The bottom status bar displays system information like temperature (25°C), AQI (35), and time (7:55 PM, 8/17/2021).

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.

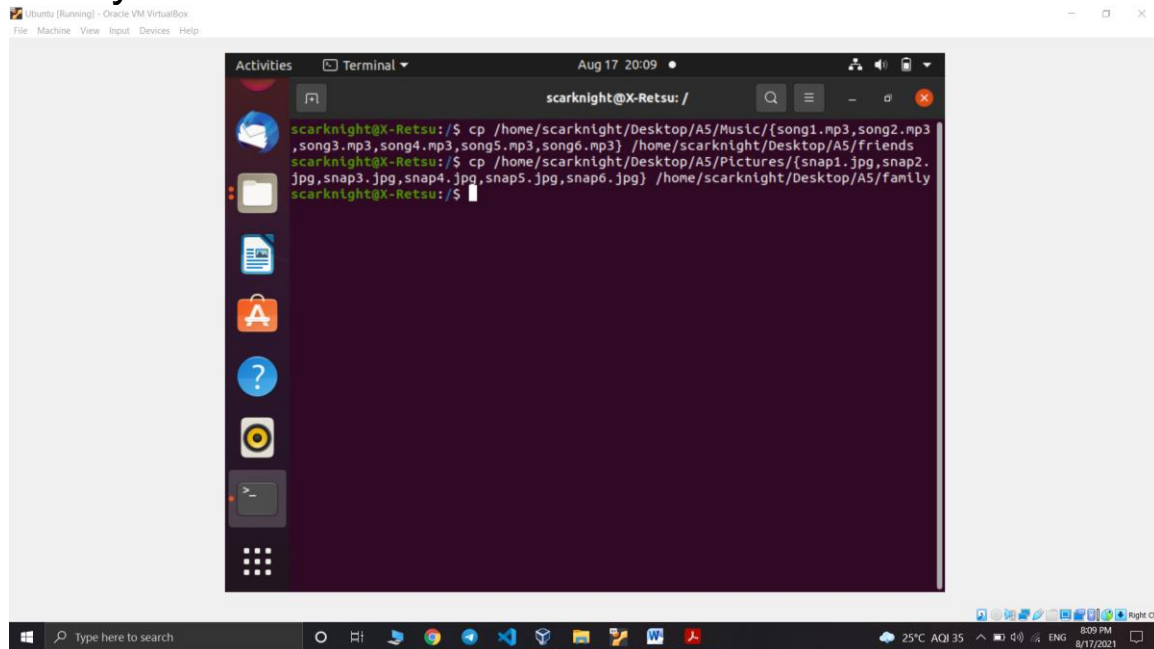


The screenshot shows a terminal window titled "scarknight@X-Retsu: ~/Desktop/AS" with the following command and output:

```
scarknight@X-Retsu:~/Desktop/AS$ mkdir -p {friends,family,work}
scarknight@X-Retsu:~/Desktop/AS$
```

The terminal is part of an Ubuntu desktop environment. The left sidebar shows application icons for Dash, Home, Files, and various utilities. The bottom status bar displays system information like temperature (25°C), AQI (35), and time (7:57 PM, 8/17/2021).

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

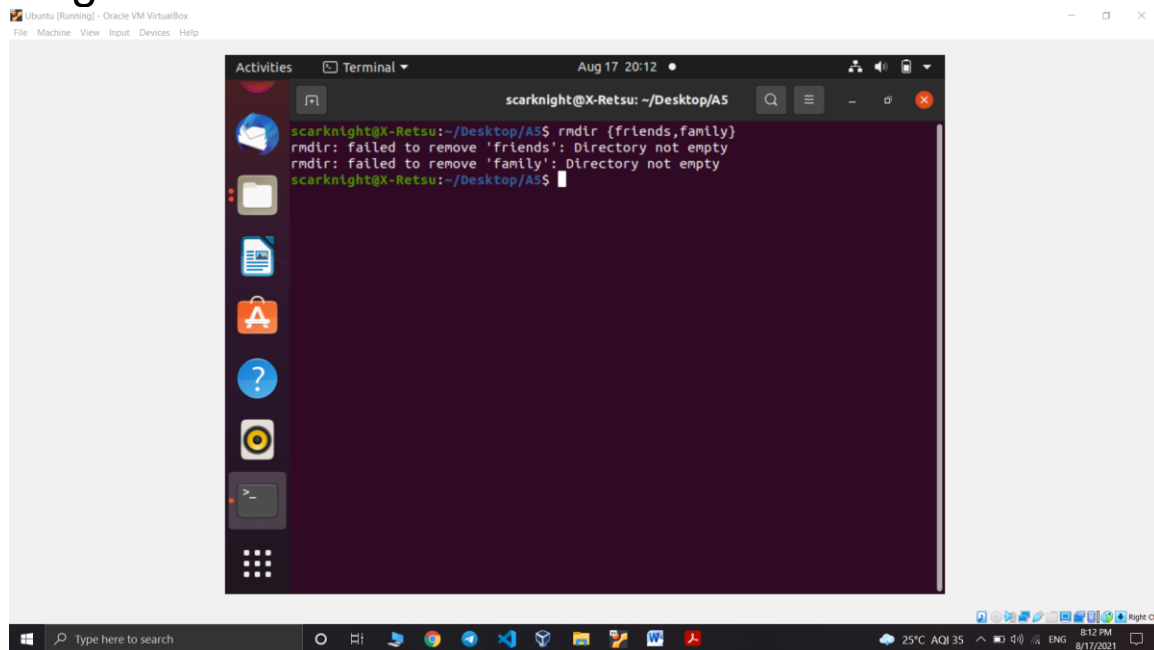


The screenshot shows a terminal window titled "scarknight@X-Retsu: /" with the following commands and output:

```
scarknight@X-Retsu:/$ cp /home/scarknight/Desktop/A5/Music/{song1.mp3,song2.mp3,song3.mp3,song4.mp3,song5.mp3,song6.mp3} /home/scarknight/Desktop/A5/friends
scarknight@X-Retsu:/$ cp /home/scarknight/Desktop/A5/Pictures/{snap1.jpg,snap2.jpg,snap3.jpg,snap4.jpg,snap5.jpg,snap6.jpg} /home/scarknight/Desktop/A5/family
scarknight@X-Retsu:/$
```

The terminal is part of an Ubuntu desktop environment. The system tray at the bottom shows the date as August 17, 2021, and the time as 8:09 PM.

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

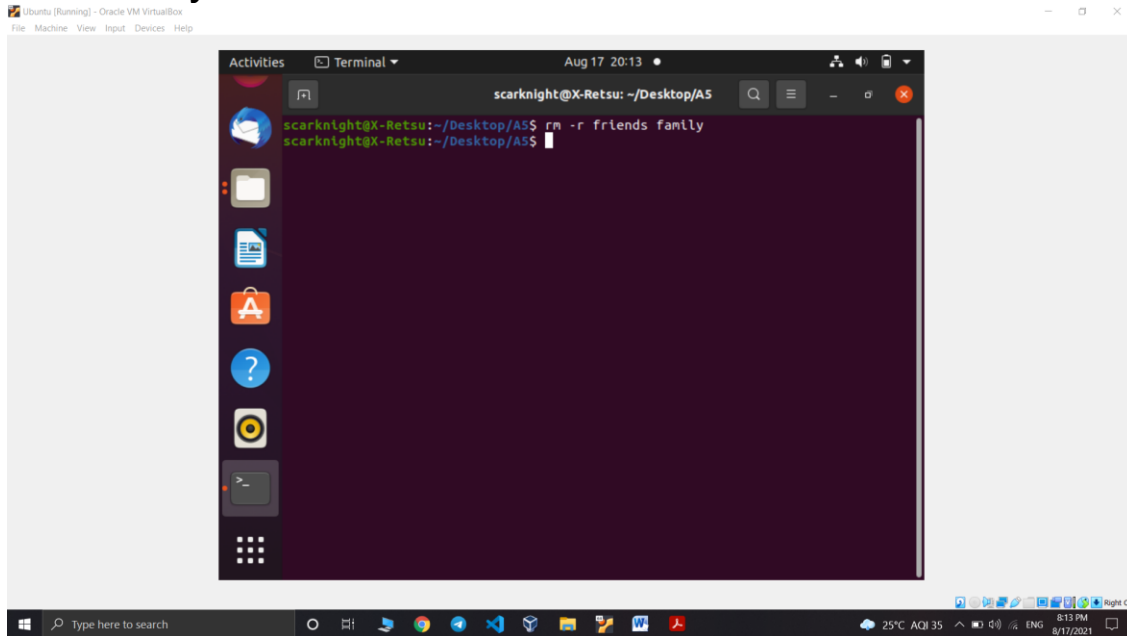


The screenshot shows a terminal window titled "scarknight@X-Retsu: ~/Desktop/A5" with the following commands and output:

```
scarknight@X-Retsu:~/Desktop/A5$ rmdir {friends,family}
rmdir: failed to remove 'friends': Directory not empty
rmdir: failed to remove 'family': Directory not empty
scarknight@X-Retsu:~/Desktop/A5$
```

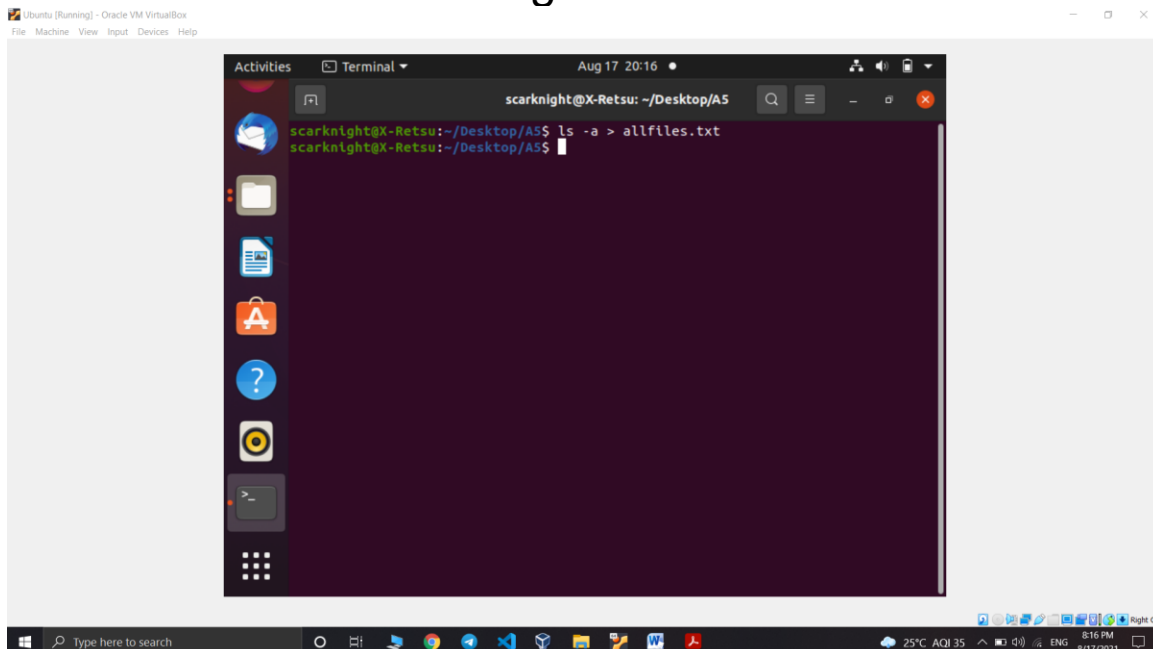
The terminal is part of an Ubuntu desktop environment. The system tray at the bottom shows the date as August 17, 2021, and the time as 8:12 PM.

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

A screenshot of a terminal window within an Ubuntu virtual machine. The terminal title is "scarknight@X-Retsu: ~/Desktop/A5". The prompt is "scarknight@X-Retsu:~/Desktop/A5\$". The command "rm -r friends family" has been entered and executed. The terminal shows the command being typed and then the prompt returning. The background of the terminal is dark purple. The window is titled "Terminal" and shows system icons at the top right and a taskbar at the bottom.

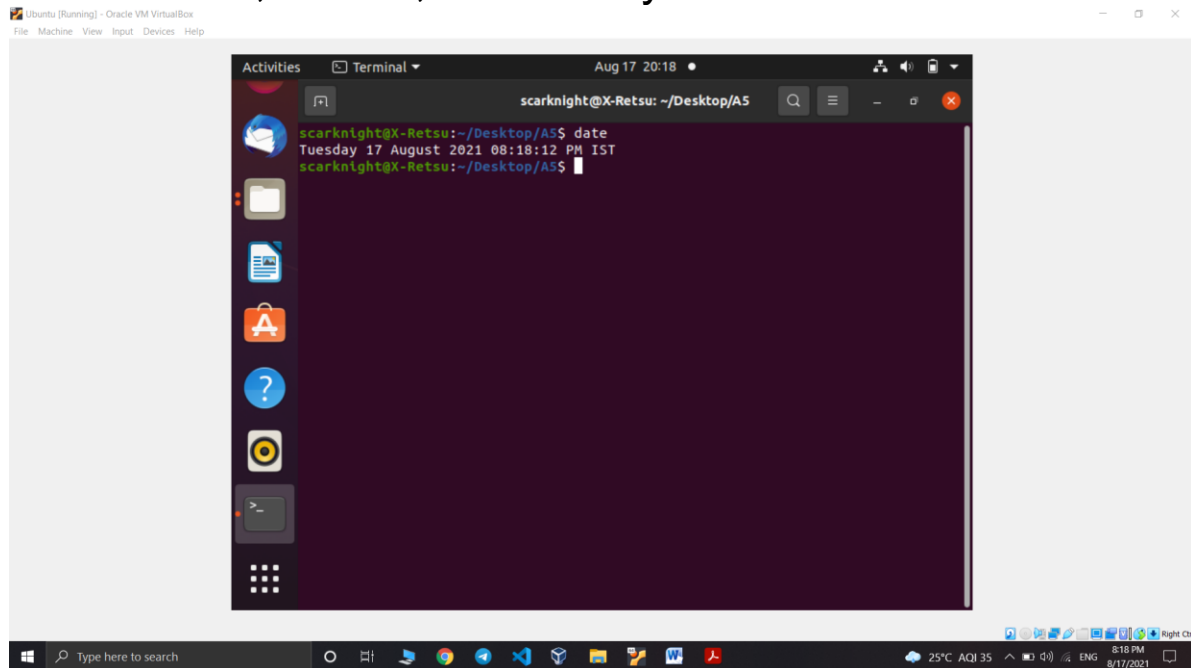
```
scarknight@X-Retsu:~/Desktop/A5$ rm -r friends family
scarknight@X-Retsu:~/Desktop/A5$
```

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 screenshot of a terminal window within an Ubuntu virtual machine. The terminal title is "scarknight@X-Retsu: ~/Desktop/A5". The prompt is "scarknight@X-Retsu:~/Desktop/A5\$". The command "ls -a > allfiles.txt" has been entered and executed. The terminal shows the command being typed and then the prompt returning. The background of the terminal is dark purple. The window is titled "Terminal" and shows system icons at the top right and a taskbar at the bottom.

```
scarknight@X-Retsu:~/Desktop/A5$ ls -a > allfiles.txt
scarknight@X-Retsu:~/Desktop/A5$
```

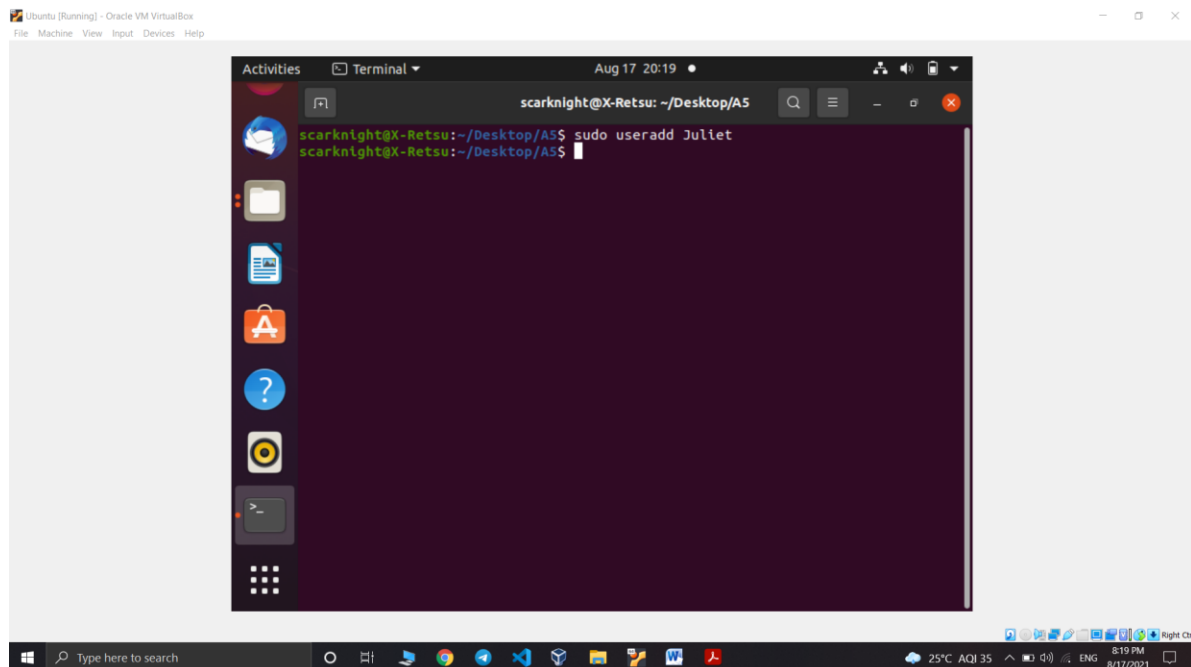
8. In the command window, display today's date with day of the week, month, date and year



The screenshot shows a terminal window titled "Terminal" with the prompt "scarknight@X-Retsu: ~/Desktop/A5". The user has entered the command `date`, and the output is `Tuesday 17 August 2021 08:18:12 PM IST`. The terminal is running on an Ubuntu virtual machine, as indicated by the title bar "Ubuntu [Running] - Oracle VM VirtualBox". The desktop environment includes a sidebar with application icons and a taskbar at the bottom with various system icons and a search bar.

```
scarknight@X-Retsu:~/Desktop/A5$ date
Tuesday 17 August 2021 08:18:12 PM IST
scarknight@X-Retsu:~/Desktop/A5$
```

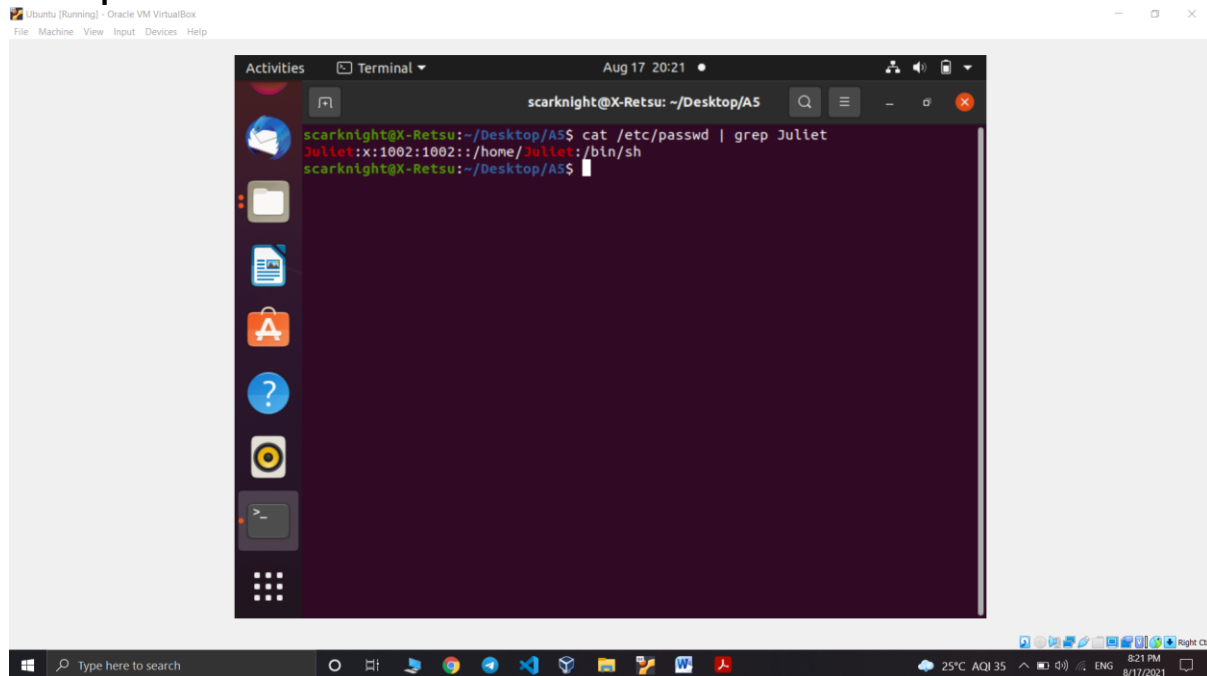
9. Add the user Juliet



The screenshot shows the same terminal window as before, but now the user has entered the command `sudo useradd Juliet`. The prompt is still `scarknight@X-Retsu:~/Desktop/A5$`. The terminal window title and the virtual machine's desktop environment are identical to the previous screenshot.

```
scarknight@X-Retsu:~/Desktop/A5$ sudo useradd Juliet
scarknight@X-Retsu:~/Desktop/A5$
```

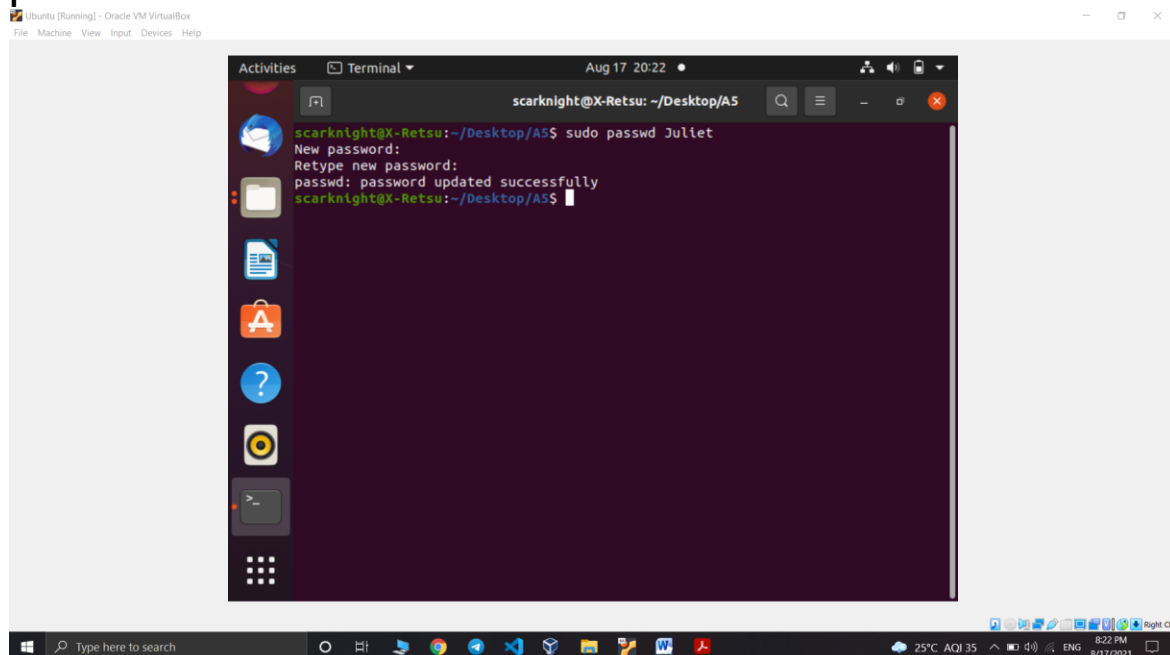
10. Confirm that Juliet has been added by examining the /etc/passwd file



A screenshot of a terminal window in an Ubuntu VM. The terminal title is "scarknight@X-Retsu: ~/Desktop/A5". The user "scarknight" is at the prompt. The command entered is `cat /etc/passwd | grep Juliet`. The output is `Juliet:x:1002:1002::/home/Juliet:/bin/sh`. The terminal is running on a desktop environment with a sidebar on the left and a taskbar at the bottom.

```
scarknight@X-Retsu:~/Desktop/A5$ cat /etc/passwd | grep Juliet
Juliet:x:1002:1002::/home/Juliet:/bin/sh
scarknight@X-Retsu:~/Desktop/A5$
```

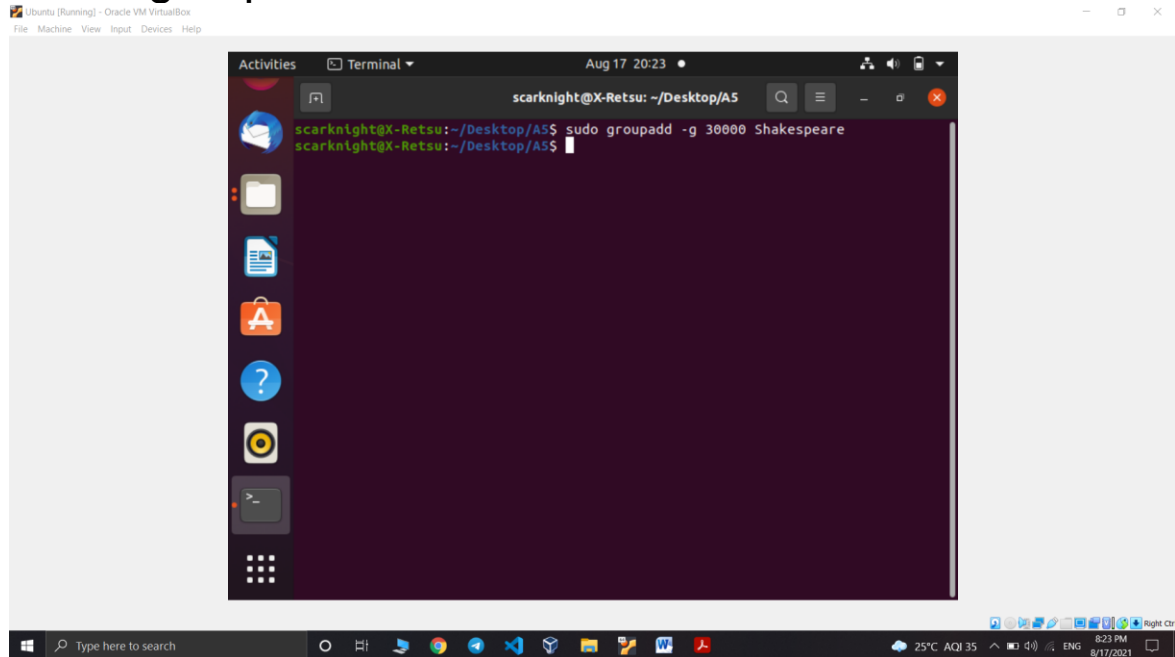
11. Use the passwd command to initialize Juliet's password



A screenshot of a terminal window in an Ubuntu VM. The terminal title is "scarknight@X-Retsu: ~/Desktop/A5". The user "scarknight" is at the prompt. The command entered is `sudo passwd Juliet`. The output is `passwd: password updated successfully`. The terminal is running on a desktop environment with a sidebar on the left and a taskbar at the bottom.

```
scarknight@X-Retsu:~/Desktop/A5$ sudo passwd Juliet
New password:
Retype new password:
passwd: password updated successfully
scarknight@X-Retsu:~/Desktop/A5$
```

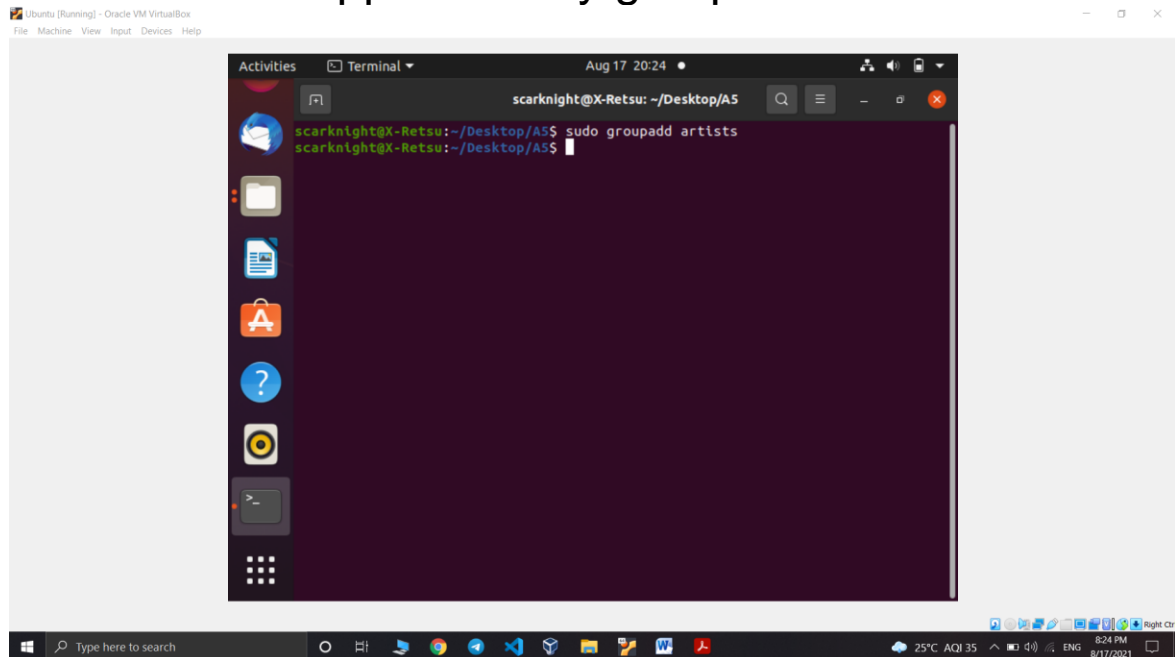

12. Create a supplementary group called Shakespeare with a group id of 30000



The screenshot shows a terminal window titled "Terminal" with the user "scarknight@X-Retsu" in the directory "~/Desktop/A5". The terminal displays the command `sudo groupadd -g 30000 Shakespeare` being entered. The background of the terminal is dark purple. The window is part of an Ubuntu desktop environment, with a sidebar on the left showing various application icons. The top of the window shows the date "Aug 17 20:23".

```
scarknight@X-Retsu: ~/Desktop/A5
scarknight@X-Retsu:~/Desktop/A5$ sudo groupadd -g 30000 Shakespeare
scarknight@X-Retsu:~/Desktop/A5$
```

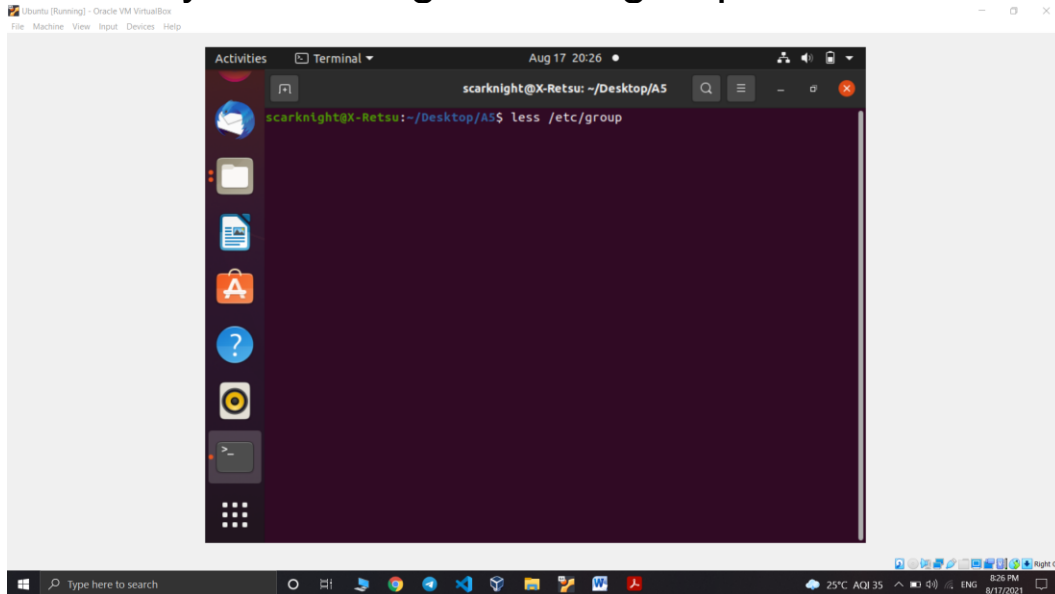
13. Create a supplementary group called artists



The screenshot shows a terminal window titled "Terminal" with the user "scarknight@X-Retsu" in the directory "~/Desktop/A5". The terminal displays the command `sudo groupadd artists` being entered. The background of the terminal is dark purple. The window is part of an Ubuntu desktop environment, with a sidebar on the left showing various application icons. The top of the window shows the date "Aug 17 20:24".

```
scarknight@X-Retsu: ~/Desktop/A5
scarknight@X-Retsu:~/Desktop/A5$ sudo groupadd artists
scarknight@X-Retsu:~/Desktop/A5$
```

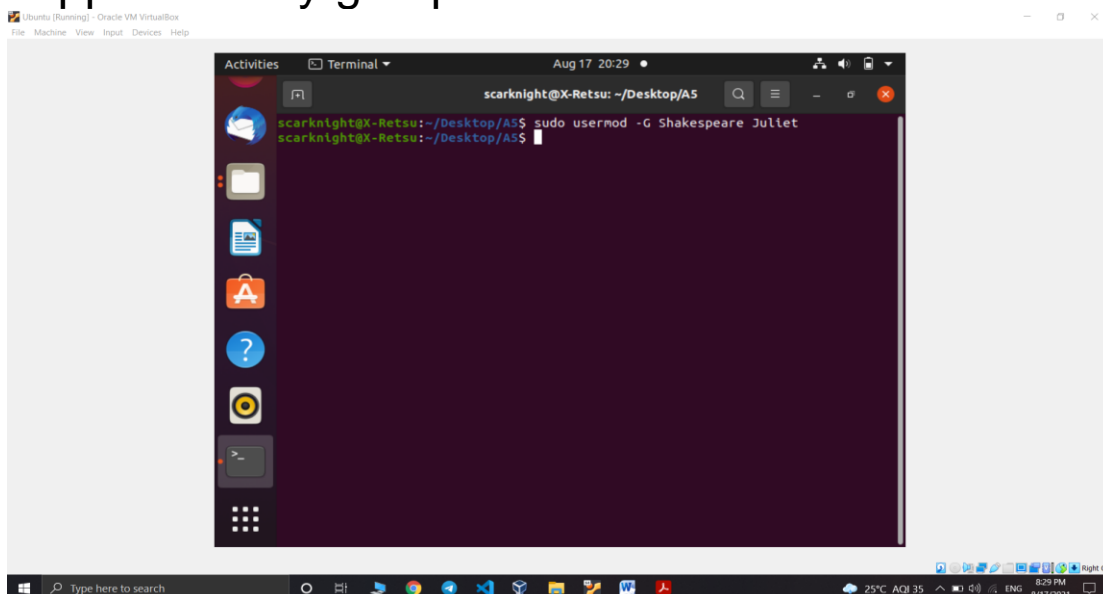
14. Confirm that Shakespeare and artists have been added by examining the `/etc/group` file.



A terminal window titled "Terminal" with the prompt "scarknight@X-Retsu: ~/Desktop/AS". The command "less /etc/group" has been entered. The terminal output shows the contents of the `/etc/group` file, which includes the `Shakespeare` and `artists` groups.

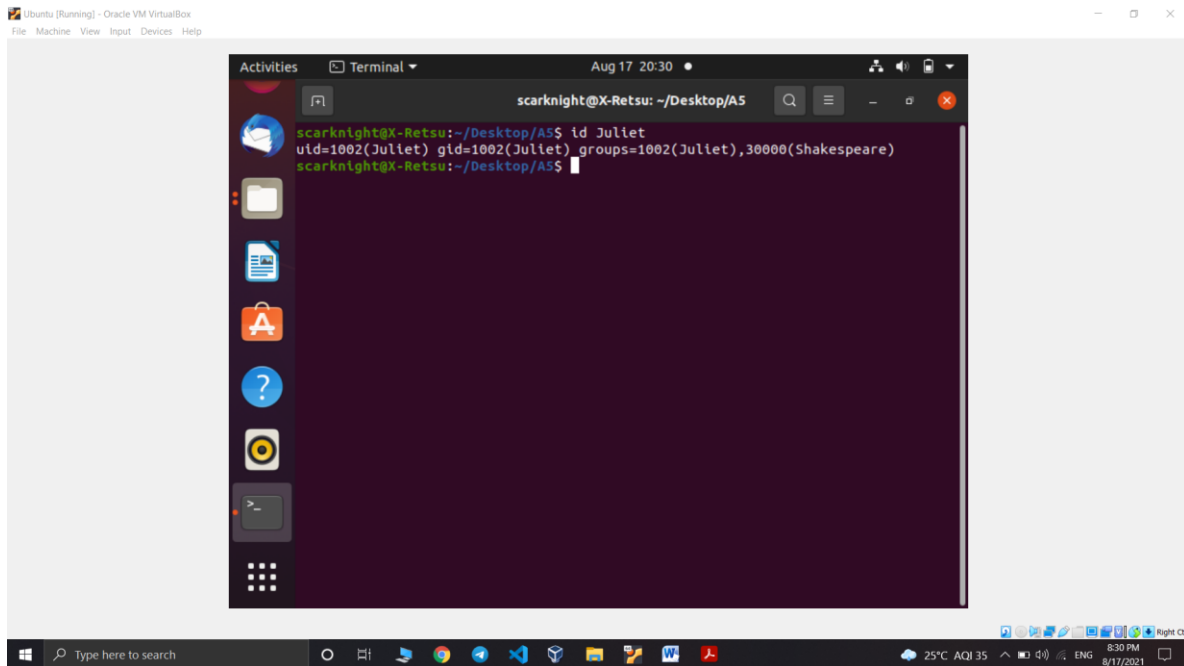
```
Shakespeare:x:30000:  
artists:x:30001:  
(END)
```

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



A terminal window titled "Terminal" with the prompt "scarknight@X-Retsu: ~/Desktop/AS". The command "sudo usermod -G Shakespeare Juliet" has been entered. The terminal output shows the command being executed successfully.

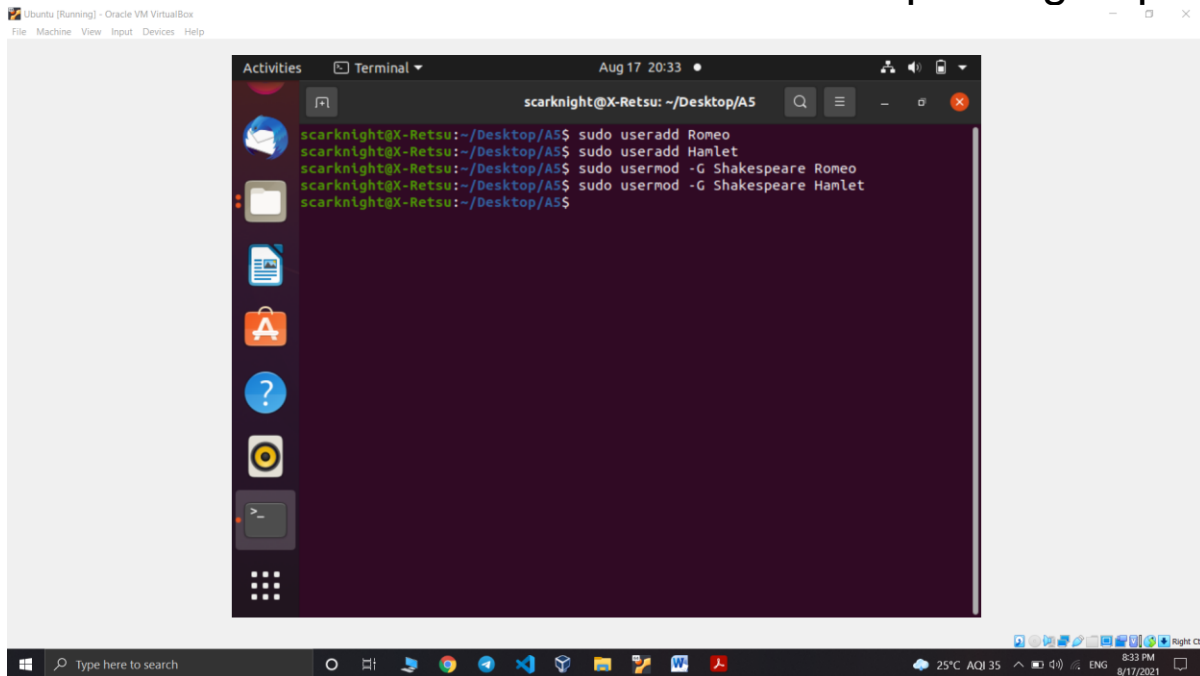
16. Confirm that Juliet has been added using the id command.



The screenshot shows a terminal window titled "Terminal" with the prompt "scarknight@X-Retsu: ~/Desktop/AS". The user has entered the command "id Juliet", and the output is displayed in green text: "uid=1002(Juliet) gid=1002(Juliet) groups=1002(Juliet),30000(Shakespeare)". The terminal window is part of an Ubuntu desktop environment running in Oracle VM VirtualBox. The desktop includes a sidebar with application icons and a taskbar at the bottom with a search bar and system status indicators.

```
scarknight@X-Retsu:~/Desktop/AS$ id Juliet
uid=1002(Juliet) gid=1002(Juliet) groups=1002(Juliet),30000(Shakespeare)
scarknight@X-Retsu:~/Desktop/AS$
```

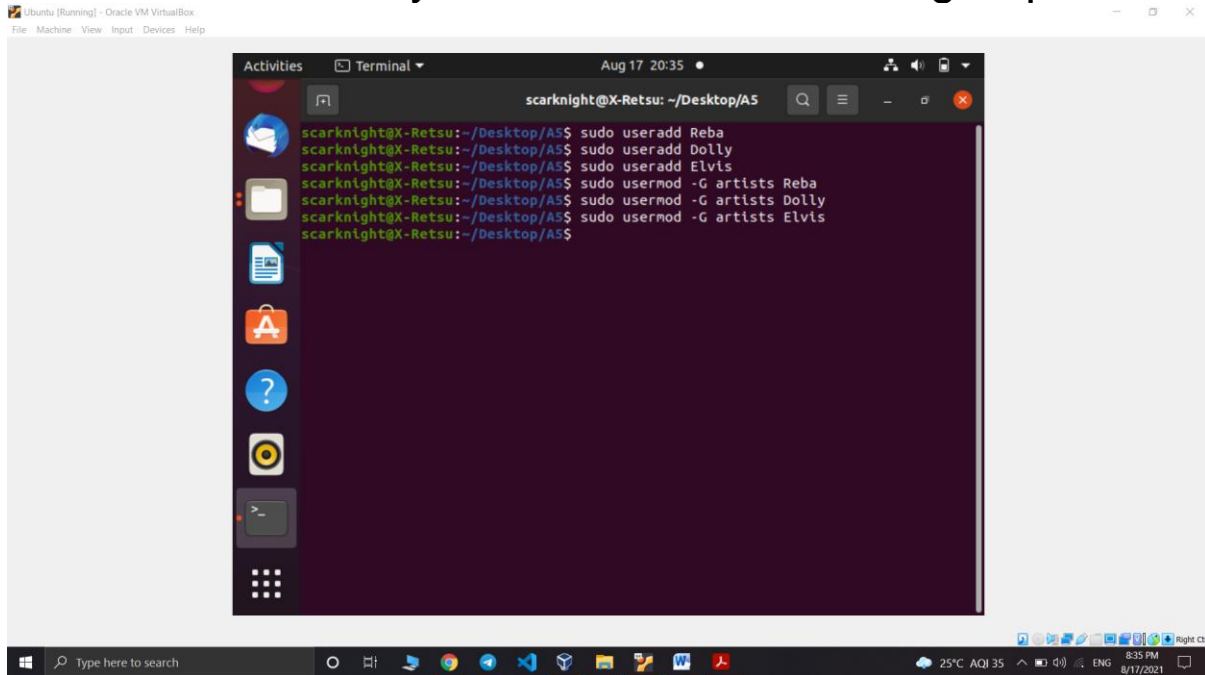
17. Add Romeo and Hamlet to the Shakespeare group.



The screenshot shows a terminal window titled "Terminal" with the prompt "scarknight@X-Retsu: ~/Desktop/AS". The user has entered four commands to add Romeo and Hamlet to the Shakespeare group: "sudo useradd Romeo", "sudo useradd Hamlet", "sudo usermod -G Shakespeare Romeo", and "sudo usermod -G Shakespeare Hamlet". The output of these commands is not visible, indicating they were executed successfully. The terminal window is part of an Ubuntu desktop environment running in Oracle VM VirtualBox. The desktop includes a sidebar with application icons and a taskbar at the bottom with a search bar and system status indicators.

```
scarknight@X-Retsu:~/Desktop/AS$ sudo useradd Romeo
scarknight@X-Retsu:~/Desktop/AS$ sudo useradd Hamlet
scarknight@X-Retsu:~/Desktop/AS$ sudo usermod -G Shakespeare Romeo
scarknight@X-Retsu:~/Desktop/AS$ sudo usermod -G Shakespeare Hamlet
scarknight@X-Retsu:~/Desktop/AS$
```

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

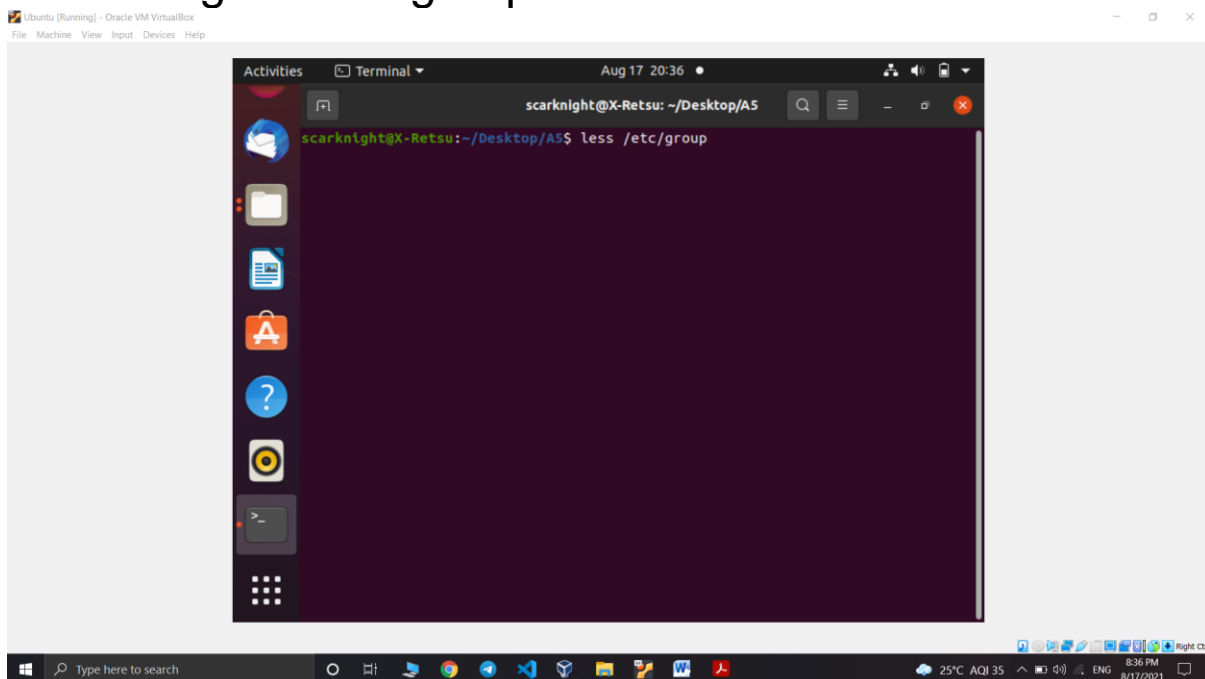


The screenshot shows a terminal window titled "Terminal" with the prompt "scarknight@X-Retsu: ~/Desktop/A5". The user has executed the following commands:

```
scarknight@X-Retsu:~/Desktop/A5$ sudo useradd Reba
scarknight@X-Retsu:~/Desktop/A5$ sudo useradd Dolly
scarknight@X-Retsu:~/Desktop/A5$ sudo useradd Elvis
scarknight@X-Retsu:~/Desktop/A5$ sudo usermod -G artists Reba
scarknight@X-Retsu:~/Desktop/A5$ sudo usermod -G artists Dolly
scarknight@X-Retsu:~/Desktop/A5$ sudo usermod -G artists Elvis
scarknight@X-Retsu:~/Desktop/A5$
```

The terminal window is part of a desktop environment with a taskbar at the bottom showing various application icons and system status information (25°C, AQI 35, 8:35 PM, 8/17/2021).

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



The screenshot shows a terminal window titled "Terminal" with the prompt "scarknight@X-Retsu: ~/Desktop/A5". The user has executed the following command:

```
scarknight@X-Retsu:~/Desktop/A5$ less /etc/group
```

The terminal window is part of a desktop environment with a taskbar at the bottom showing various application icons and system status information (25°C, AQI 35, 8:36 PM, 8/17/2021).

```
Juliet:x:1002:  
Shakespeare:x:30000:Juliet,Romeo,Hamlet  
artists:x:30001:Reba,Dolly,Elvis  
Romeo:x:30002:  
Hamlet:x:1004:  
Reba:x:1005:  
Dolly:x:1006:  
Elvis:x:1007:  
(END)
```

20. Attempt to remove user Dolly.

