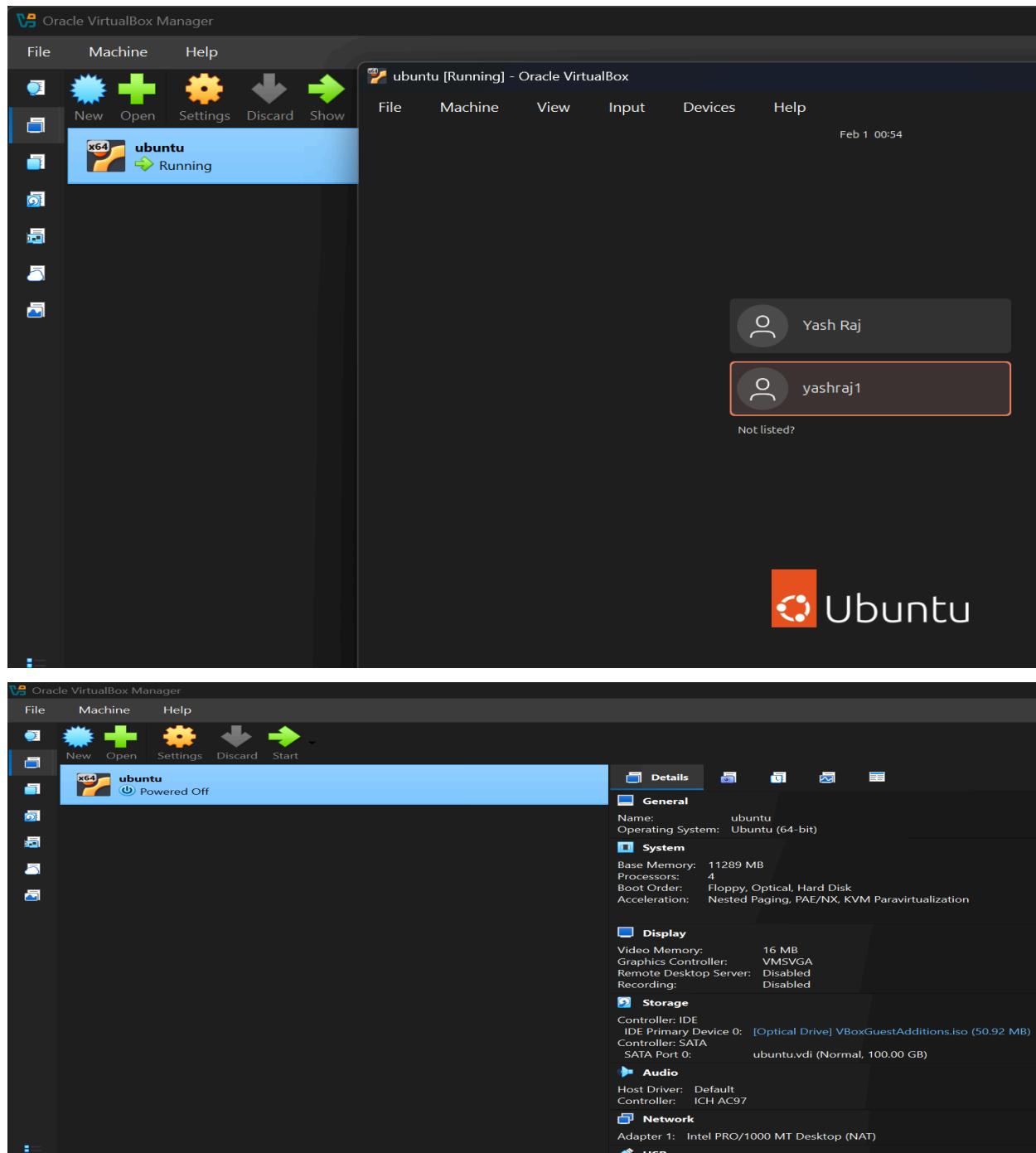


# OS Lab01 Tasks

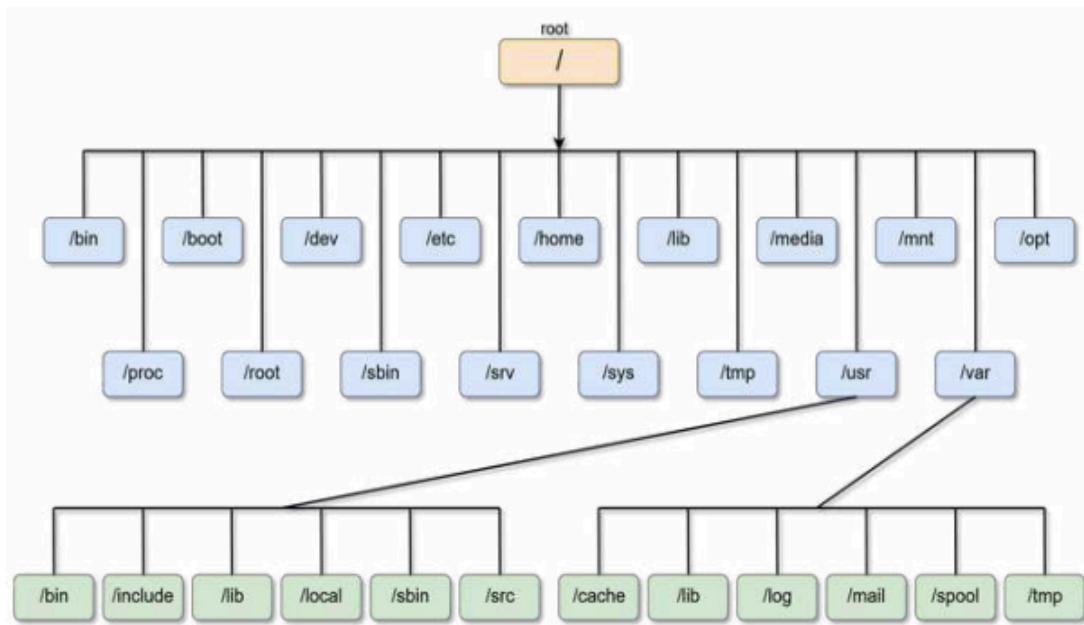
Name : Yash Raj

Roll Number: 24k-0737

## Task#1:



## Task#2:



**/: Parent Directory of Linux**

**/bin: Binary Directory holds the command and it is divided into two types:**

- **User Binary**
- **System Binary**

**/sbin: sbin stand for system binary which stores executable programs.**

**/etc: etc in Linux works like the C drive present in the windows.**

**/home: home Directory is the parent directory of the user created by the super user.**

**/root: Root Directory is the parent directory of the home Directory.**

**/usr: Holds files which are not essential for the initial boot.**

**/dev: contains files that represent the every piece of hardware.**

**/var: var directory contains log files having information of logged in user.**

**/lib: lib Directory holds the essential libraries.**

**/tmp: tmp Directory holds the temporary program files which can be used by the user.**

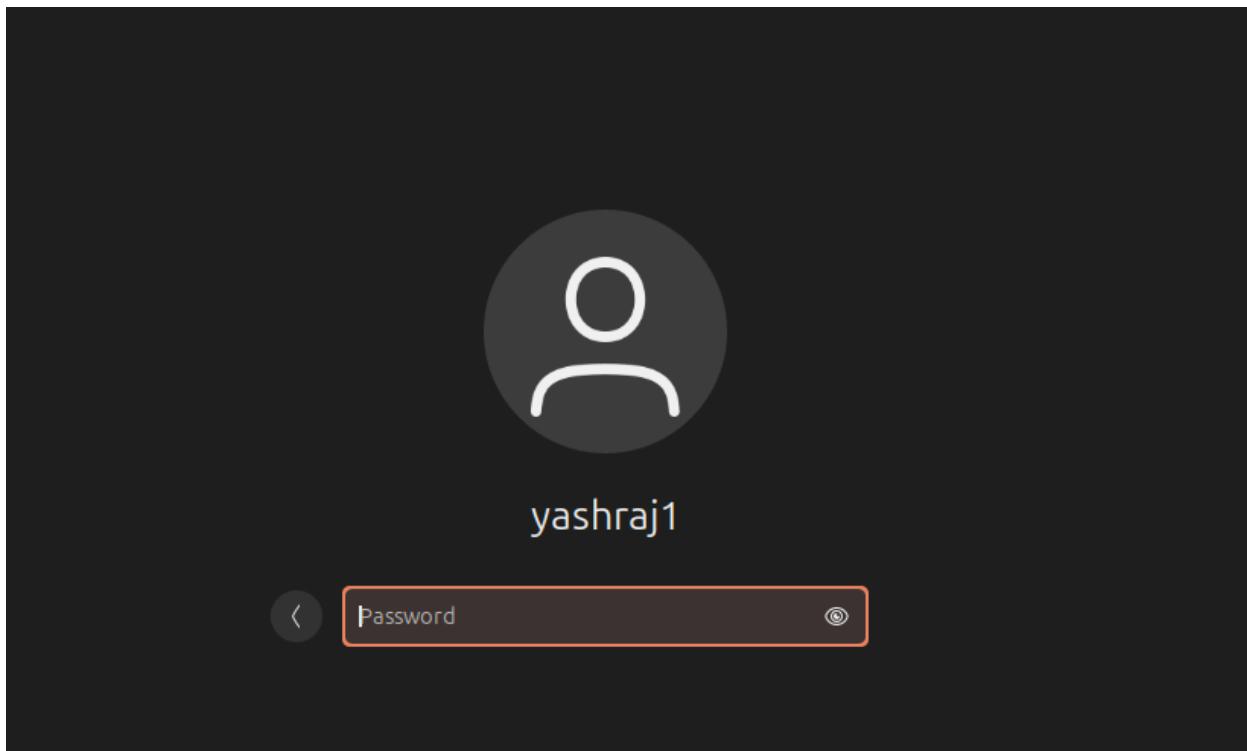
**/proc: A Virtual fileSystem , a fake file system that is stored in the RAM.**

### **Task#3:**

#### **1. New User :**

```
yash-raj@yash-raj-VirtualBox:~$ sudo adduser yashraj1
info: Adding user `yashraj1' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group `yashraj1' (1001) ...
info: Adding new user `yashraj1' (1001) with group `yashraj1 (1001)' ...
info: Creating home directory `/home/yashraj1' ...
info: Copying files from `/etc/skel' ...
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
Changing the user information for yashraj1
Enter the new value, or press ENTER for the default
      Full Name []:
      Room Number []:
      Work Phone []:
      Home Phone []:
      Other []:
Is the information correct? [Y/n] y
info: Adding new user `yashraj1' to supplemental / extra groups `users' ...
info: Adding user `yashraj1' to group `users' ...
```

#### **2. Login :**



### **3. New Folder in Home Directory named by roll number :**

```
yash-raj@yash-raj-VirtualBox:~$ mkdir OS_Lab_24k-0737
yash-raj@yash-raj-VirtualBox:~$ ls
Desktop    Downloads  OS_Lab_24k-0737  Public  Templates
Documents  Music      Pictures        snap     Videos
```

### **4. Text File including my roll number :**

```
yash-raj@yash-raj-VirtualBox:~/OS_Lab_24k-0737$ cd OS_Lab_24k-0737
yash-raj@yash-raj-VirtualBox:~/OS_Lab_24k-0737$ touch 24k-0737.txt
yash-raj@yash-raj-VirtualBox:~/OS_Lab_24k-0737$ ls
24k-0737.txt
```

### **6. Text File Operations :**

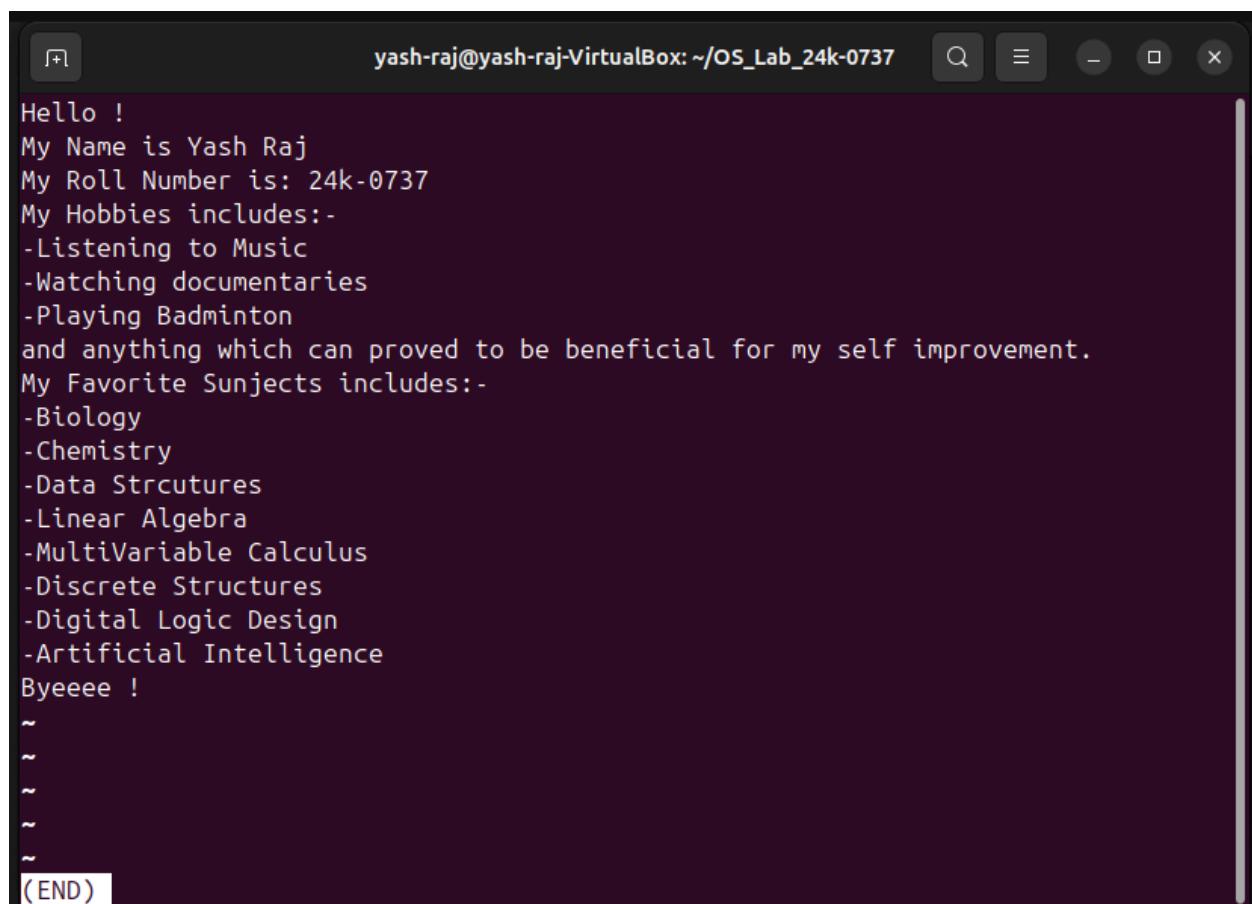
#### **Normal Content :**

```
yash-raj@yash-raj-VirtualBox:~/OS_Lab_24k-0737$ nano 24k-0737.txt
yash-raj@yash-raj-VirtualBox:~/OS_Lab_24k-0737$ cat 24k-0737.txt
Hello !
My Name is Yash Raj
My Roll Number is: 24k-0737
My Hobbies includes:-
-Listening to Music
-Watching documentaries
-Playing Badminton
and anything which can proved to be beneficial for my self improvement.
My Favorite Subjects includes:-
-Biology
-Chemistry
-Data Structures
-Linear Algebra
-MultiVariable Calculus
-Discrete Structures
-Digital Logic Design
-Artificial Intelligence
Byeeee !
```

## **Reversed Content :**

```
yash-raj@yash-raj-VirtualBox:~/OS_Lab_24k-0737$ tac 24k-0737.txt
Byeeee !
-Artificial Intelligence
-Digital Logic Design
-Discrete Structures
-MultiVariable Calculus
-Linear Algebra
-Data Strcutures
-Chemistry
-Biology
My Favorite Sunjects includes:-
and anything which can proved to be beneficial for my self improvement.
-Playing Badminton
-Watching documentaries
-Listening to Music
My Hobbies includes:-
My Roll Number is: 24k-0737
My Name is Yash Raj
Hello !
```

## **Content In Scrolling View :**



A screenshot of a terminal window titled "yash-raj@yash-raj-VirtualBox:~/OS\_Lab\_24k-0737". The window contains the same text as the previous block, but it is displayed in reverse order from bottom to top. The text includes a list of subjects, hobbies, and personal information.

```
Hello !
My Name is Yash Raj
My Roll Number is: 24k-0737
My Hobbies includes:-
-Listening to Music
-Watching documentaries
-Playing Badminton
and anything which can proved to be beneficial for my self improvement.
My Favorite Sunjects includes:-
-Biology
-Chemistry
-Data Strcutures
-Linear Algebra
-MultiVariable Calculus
-Discrete Structures
-Digital Logic Design
-Artificial Intelligence
Byeeee !
~
~
~
~
~
(END)
```

### ***Beginning Content :***

```
yash-raj@yash-raj-VirtualBox:~/OS_Lab_24k-0737$ less 24k-0737.txt
yash-raj@yash-raj-VirtualBox:~/OS_Lab_24k-0737$ head 24k-0737.txt
Hello !
My Name is Yash Raj
My Roll Number is: 24k-0737
My Hobbies includes:-
-Listening to Music
-Watching documentaries
-Playing Badminton
and anything which can proved to be beneficial for my self improvement.
My Favorite Sunjects includes:-
-Biology
```

### ***Ending Content :***

```
yash-raj@yash-raj-VirtualBox:~/OS_Lab_24k-0737$ tail 24k-0737.txt
My Favorite Sunjects includes:-
-Biology
-Chemistry
-Data Strcutures
-Linear Algebra
-MultiVariable Calculus
-Discrete Structures
-Digital Logic Design
-Artificial Intelligence
Byeeee !
yash-raj@yash-raj-VirtualBox:~/OS_Lab_24k-0737$
```

### ***Overwriting :***

```
ls: cannot access .: No such file or directory
yash-raj@yash-raj-VirtualBox:~/OS_Lab_24k-0737$ echo "This is after overwriting
text" >> 24k-0737.txt
yash-raj@yash-raj-VirtualBox:~/OS_Lab_24k-0737$ cat 24k-0737.txt
This is after overwriting text
yash-raj@yash-raj-VirtualBox:~/OS_Lab_24k-0737$
```

### ***Creation, Compilation and Execution of C program File :***

```
yash-raj@yash-raj-VirtualBox:~/OS_Lab_24k-0737$ nano 24k-0737.c
yash-raj@yash-raj-VirtualBox:~/OS_Lab_24k-0737$ cat 24k-0737.c
#include<stdio.h>
int main(){
printf("My Name is Yash Raj\n Roll-No: 24k-0737\n");
return 0;
}
yash-raj@yash-raj-VirtualBox:~/OS_Lab_24k-0737$ gcc 24k-0737.c -o program
yash-raj@yash-raj-VirtualBox:~/OS_Lab_24k-0737$ ./program
My Name is Yash Raj
Roll-No: 24k-0737
```