**Linux Basics**

ls-> list the name of the files in the current directory

ls -la -> provides the complete details regarding the files

-rw-r—r—1 root root 46 may 22 10:51 abc.txt

Here -indicates file and d indicates directory

**Permissions**

Owner

Group

Other users

All

r->read ,w->write, x-> execute

**Chmod**

To change the security of the certain file

chmod [options][mode][filename]

Eg:

chmod o+x abc.txt

here, o indicates other users and + indicates adding permission , x indicates the execution persmission and abc is the file name

0-> ---

1-> --x

2-> -w-

3-> -wx

4-> r—

5-> r-x

6-> rw-

7-> rwx

**Ownership**

To change the ownership of the file and special access

Chown [options] [newowner] filename

Here,

Options -> -c it notifies regarding the change

-v it notifies with more details

-r it changes the ownership for all the files in the directory

-f it overrides if there any errors during this process

Chown :newowner filename -> changes special access

Chown newowner: filename -> changes ownership

**To save the file in terminal**

a,i -> insert

:wq -> save

:q! -> exit without saving





Linux shell -> used to communicate the program

**Basic commands**

mv-> rename the file

cp-> to copy the file cp -r -> to copy the complete directory with all files

rmdir-> delete the directory

mkdir-> create the directory

change password->passwd

disk usage-> du -h

users ->shows the user names

ls -l->shows only non hidden files with details

ls -la->shows with hidden files with details

ls -a-> shows only name of the files

cd ~ ->back to the home directory

cd - -> shows the previous path of the file which is used

cat -> shows the file contents

wc filename ->show the count of words in the file as line count word count charactercount+(1 for each line)

ln -s filename linkname ->soft link

ln filename linkname ->hardlink

ping ip address-> to usage under current ip address

ftp ipaddress-> transfer files

telnet websitename ->communication

ENVIRONMENT VARIABLES

$test= “unix”

$echo $test

$path=/bin:/user/bin

GREP

Grep [options] “pattern” [filename]

Top-> like task manager shows all workings

Kill -9 (PID number) eg:kill -9 3784 (it kills that process)

NANO

Nano file name

Ctrl+o

Enter

Ctrl+x

su - -> switchuser root(main user)

whoami -> to know the current user

ifconfig,

if a -> ip address

# -> root account

$ -> normalaccount

clear ->ctrl+l

hostname -> name of current linux system

stop -> ctr+c

man ls -> shows the command uses(man)\_\_\_\_\_\_ 'q' to exit

passwd,

passwd (username)-> change password

ls -> shows the files in that directory

cd ->change directory(cd /usr/bin)

pwd ->print working directory

cd .. ->move to back folder from current

.filename ->these files are hidden files

ls -R ->shows the file name in downward direction

ls -l -> shows with extra details

ls -l my\* -> \*is used for filtering the file name with starting letters my

ld -l myscrit?t ->wildcard character(?)

touch filename ->create file

cp soucefile destfile ->copying file

ln -s filename linkfilename -> symbolic link creation

ln filename linkfilename -> hardlink creation

mv oldname newname (ifneeded)path->rename file

rm filename ->remove file

rm -i filename ->remove file (yes or no)

rm (pathtodirectory)\* -> remove all nopnhidden files

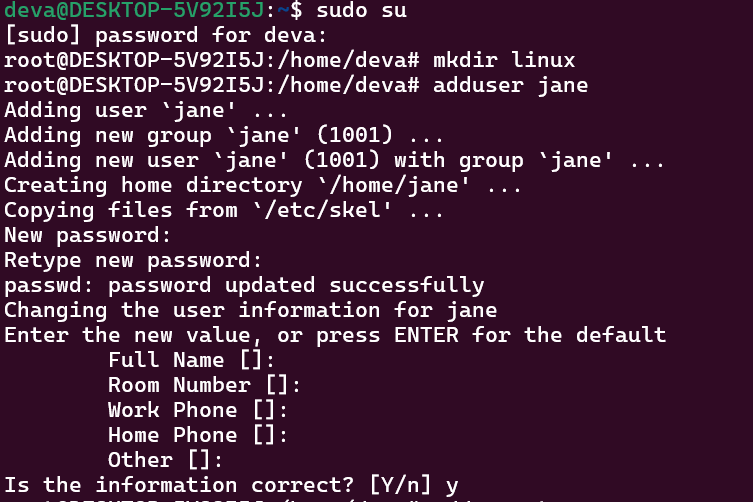
mkdir file name ->make directory

rmdir filename -> remove directory

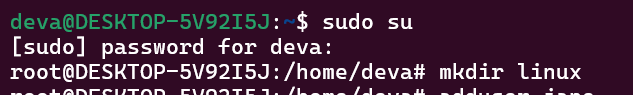
**Documentation for Linux Assessment**

**Problem Statement 1:**

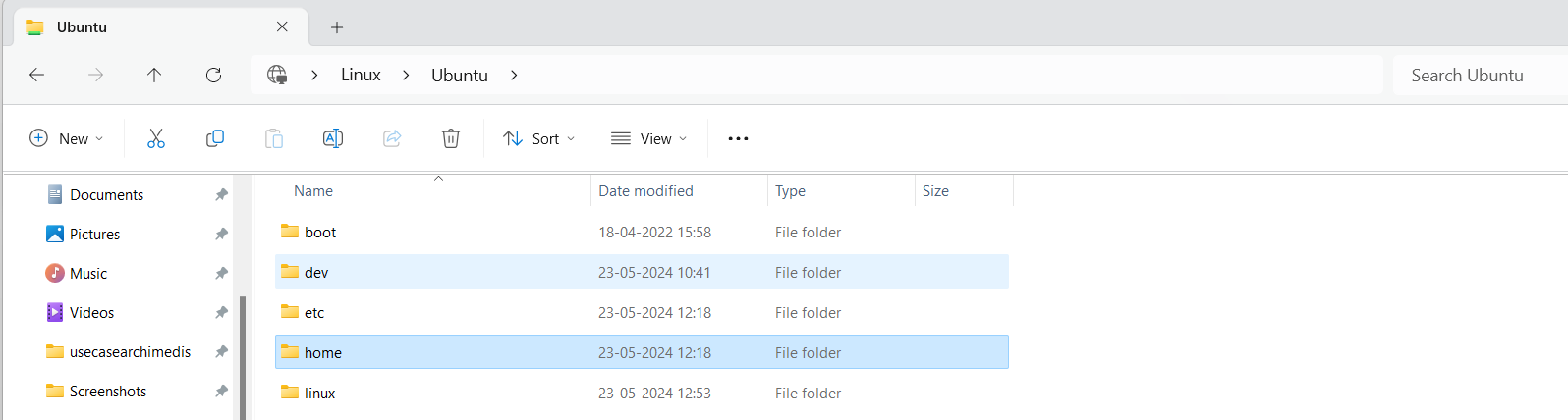
Your name is Jane.



Create a repository for your project named “Linux”.



The folder is created outside the home directory of Jane.

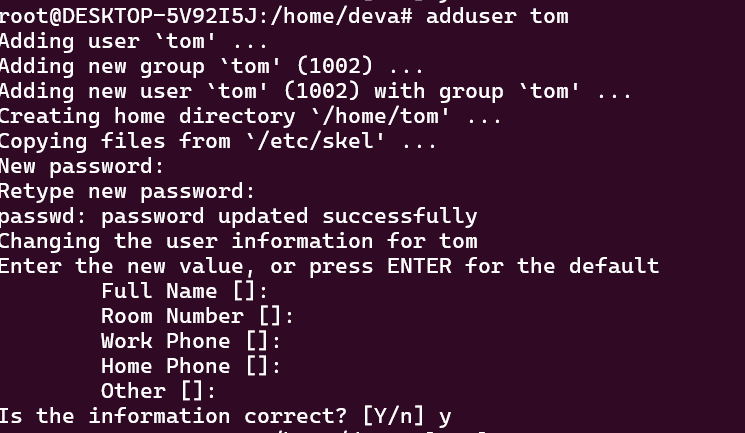


It is a group project and your friend Tom also has to have access to this repository.

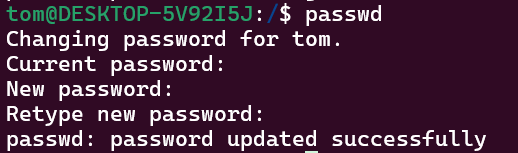


**Things to be noted:**

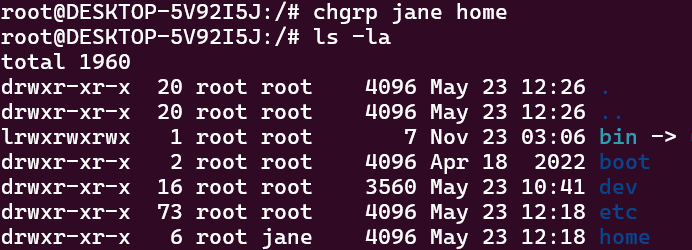
• You create a user Tom with short description and password and a home directory.



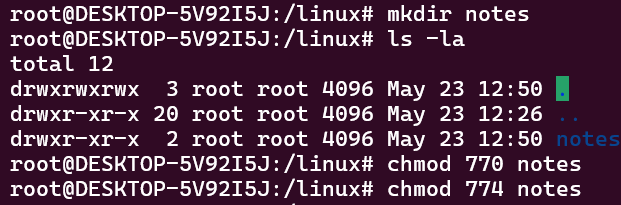
•Let Tom modify his shell and password.



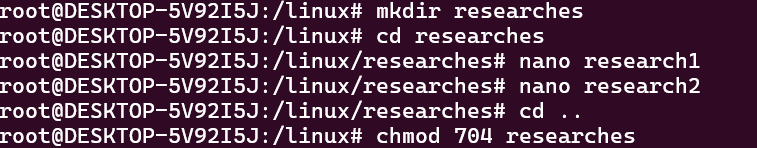
•Tom shouldn’t be able to access your home folder.



•Create another folder named ‘notes’ where you keep your study notes and Tom and may be other friends can also have same access to it. Guest shouldn’t be able to modify anything.



•Create another folder named ‘research’ where you keep the list of your researches. Others can have a look at list of researches in it but no one should be able to read, write it.

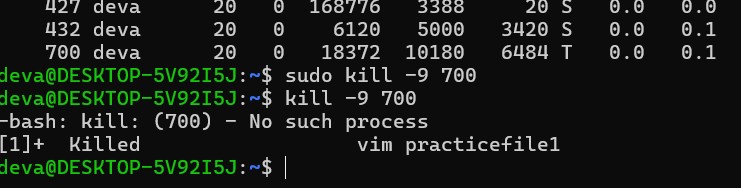


**Problem Statement 2:**

You are trying to access port 5432, but the system throwing an error by stating process 5432 is already. How do you restart the program in 5432.

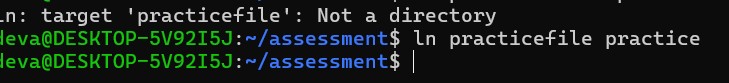
**Things to do:**

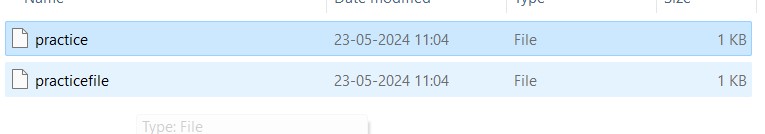
1. Check all the running process
2. Kill the selected process



**Problem Statement 3:**

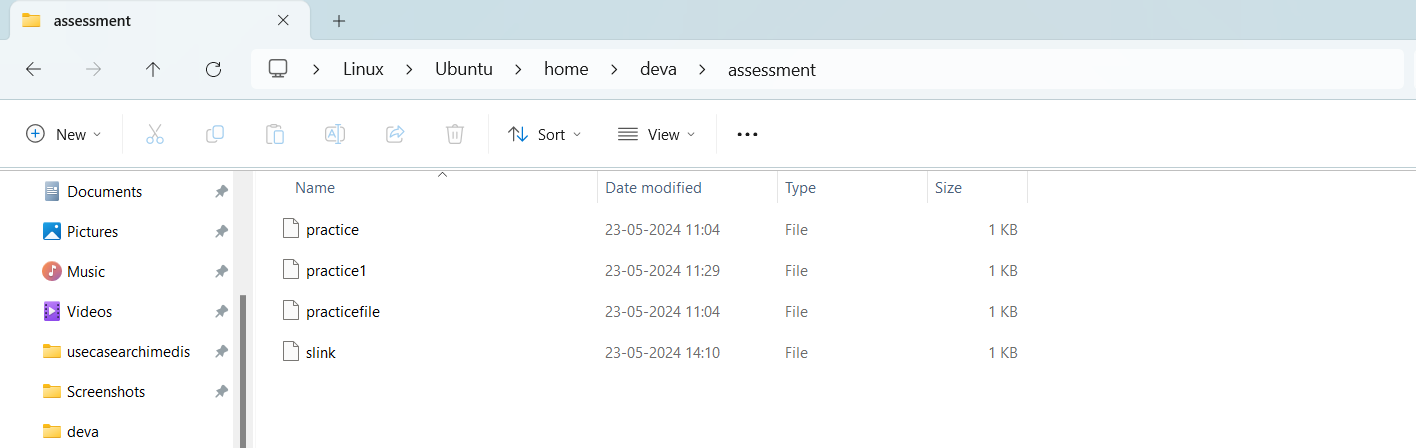
Demonstrate hard link .





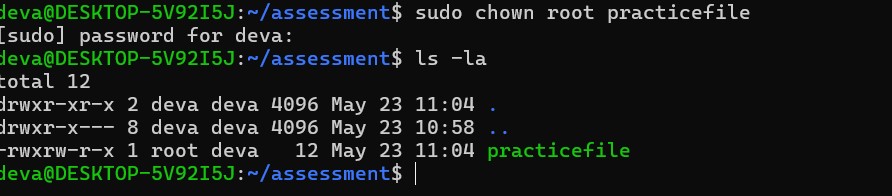
Demonstrate soft link .

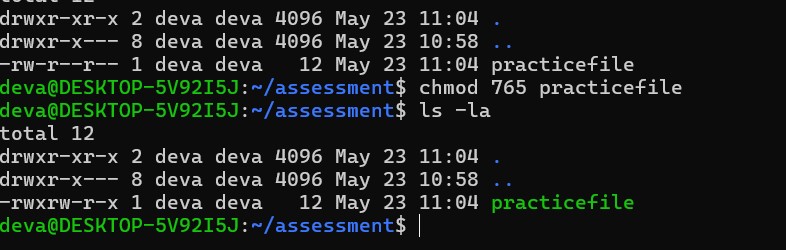




**Problem Statement 4:**

Demonstrate file permissions and group permissions





**Problem Statement 5:**

User needs to create a new file and copying to new location and rename the file before deleting the file.

