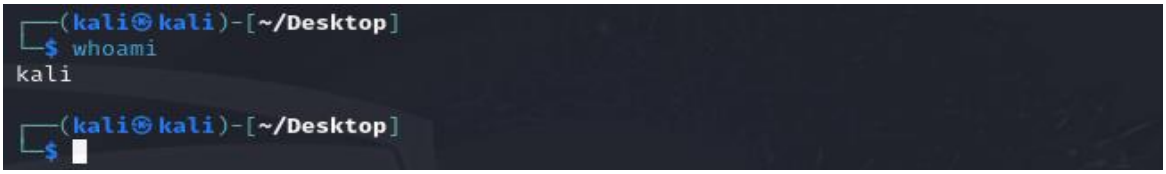
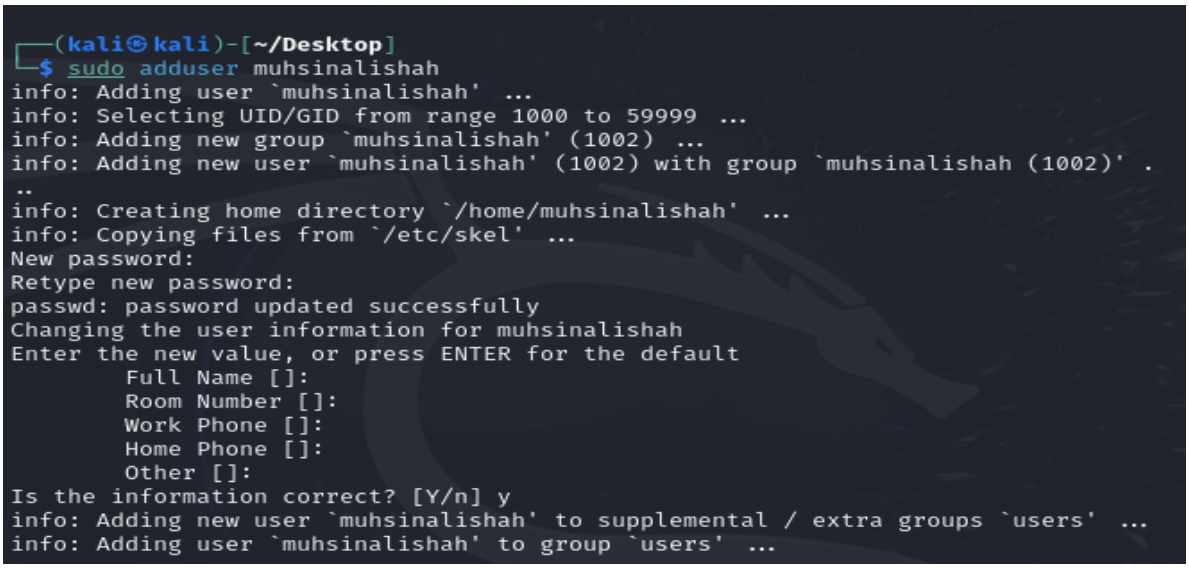
# Linux Assignment 1:

## User creation:

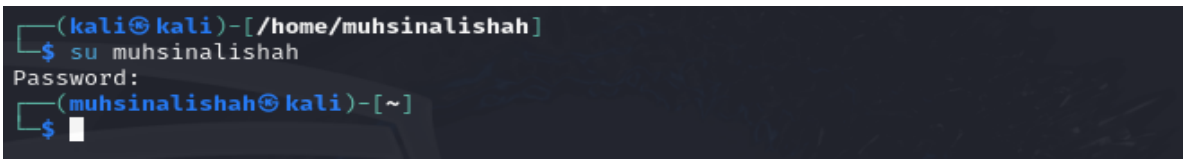
To create a new user with our name we use the following commands :
First of All, check which user I am by typing **whoami**




After that we will create a new user by our name & will login it for creating a new user we will use **Sudo adduser** "**username**" as shown in this image.




After that we will use **su 'username**' to login that user and then enter the password.

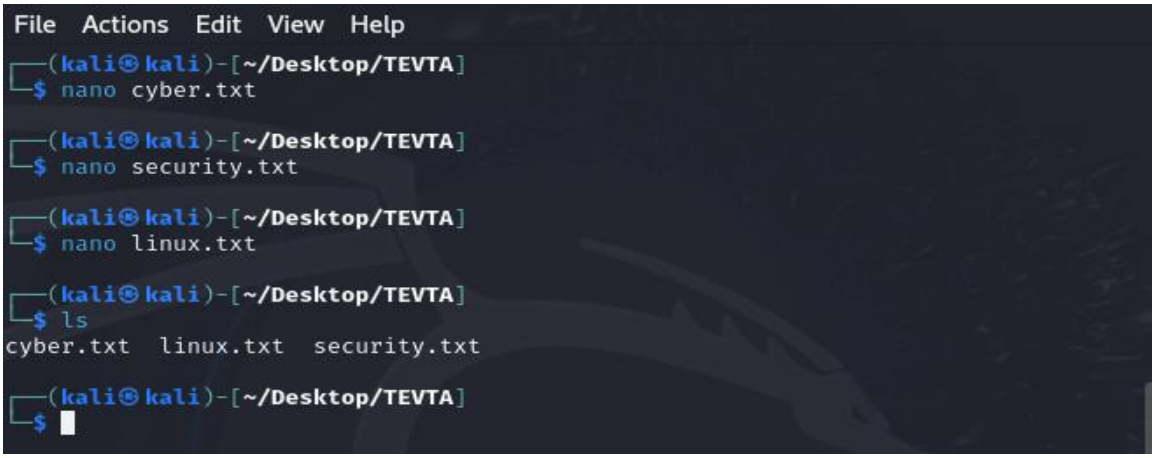


## Directory creation:

We use simply **mkdir "filename"** as default command to create a directory. And we will use **cd** command to open that directory

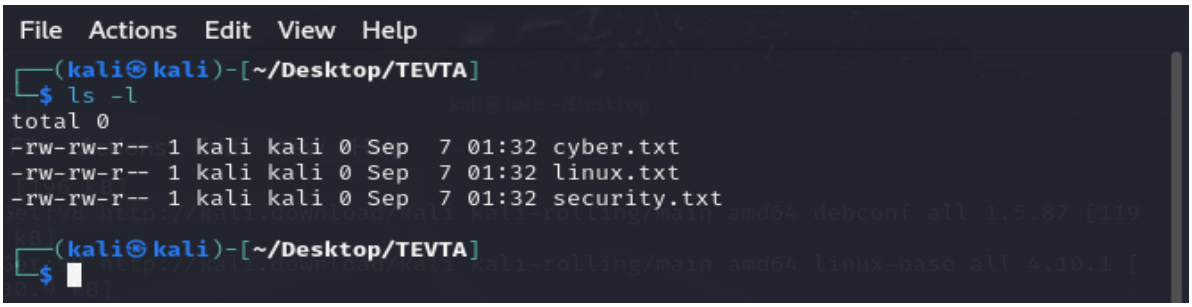

## File creation:

To create some text files in it we will use **nano "filename"** as shown in this image :

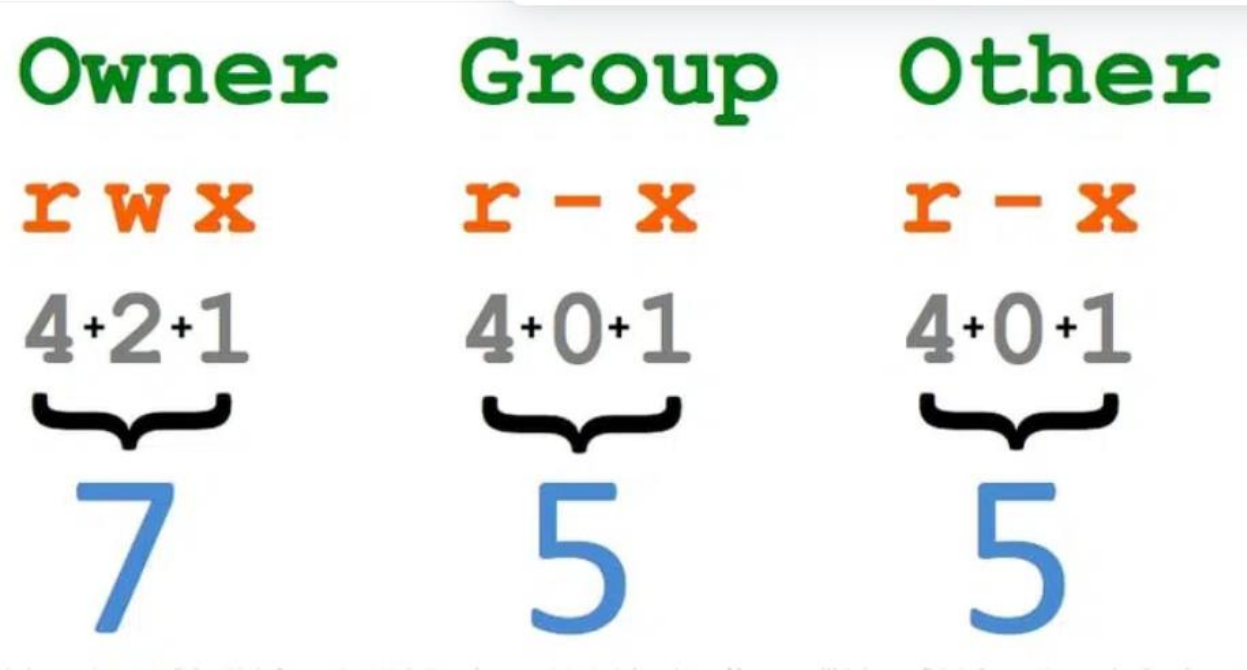



## Permission Setting for Files:

We will use **ls -l** to long list Format to change the permissions for the file. The default permission are :



**Note:** r means read, w means write, x means execute. Read value is 4, write value is 2 while value of execute is 1 and no permission value is 0. There are 3 Groups for permissions *Owner(have all permissions(r, w, x)),Group & Others.* Now we will change permissions for all these as shown in this image. if it starts with **d** it means it's a directory and if it shows --------- it means all permissions are denied.




## Changing Permission Setting for Files:

If we grant all permissions to **Owner** so sum of values will be **7** *(read =4 , write =2, execute =1).* We will have to grant permission for all 3 groups (owner, group, other).
We use **chmod** *(sum of values) "filename".*

```
┌──(kali㉿kali)-[~/Desktop/TEVTA]
└─$ chmod 760 cyber.txt

┌──(kali㉿kali)-[~/Desktop/TEVTA]
└─$ chmod 501 security.txt

┌──(kali㉿kali)-[~/Desktop/TEVTA]
└─$ chmod 750 linux.txt
```

## After Changing Permissions Setting for Files:

We can clearly see the difference of permissions as compare to the old.

```
┌──(kali㉿kali)-[~/Desktop/TEVTA]
└─$ ls -l
total 0
-rwxrw---- 1 kali kali 0 Sep  7 01:32 cyber.txt
-rwxr-x--- 1 kali kali 0 Sep  7 01:32 linux.txt
-r-x------x 1 kali kali 0 Sep  7 01:32 security.txt
```

## Verifications of File Permissions:

Permissions set for cyber.txt are:

- Owner: **-rwx**
- Group: **rw-**
- Others: **---**

Permissions For security.txt:

- Owner: -**r-x**
- Group: **---**
- Others: **--x**

Permissions For linux.txt:

- Owner**: -rwx**
- Group: **r-x**
- Others**: ---**