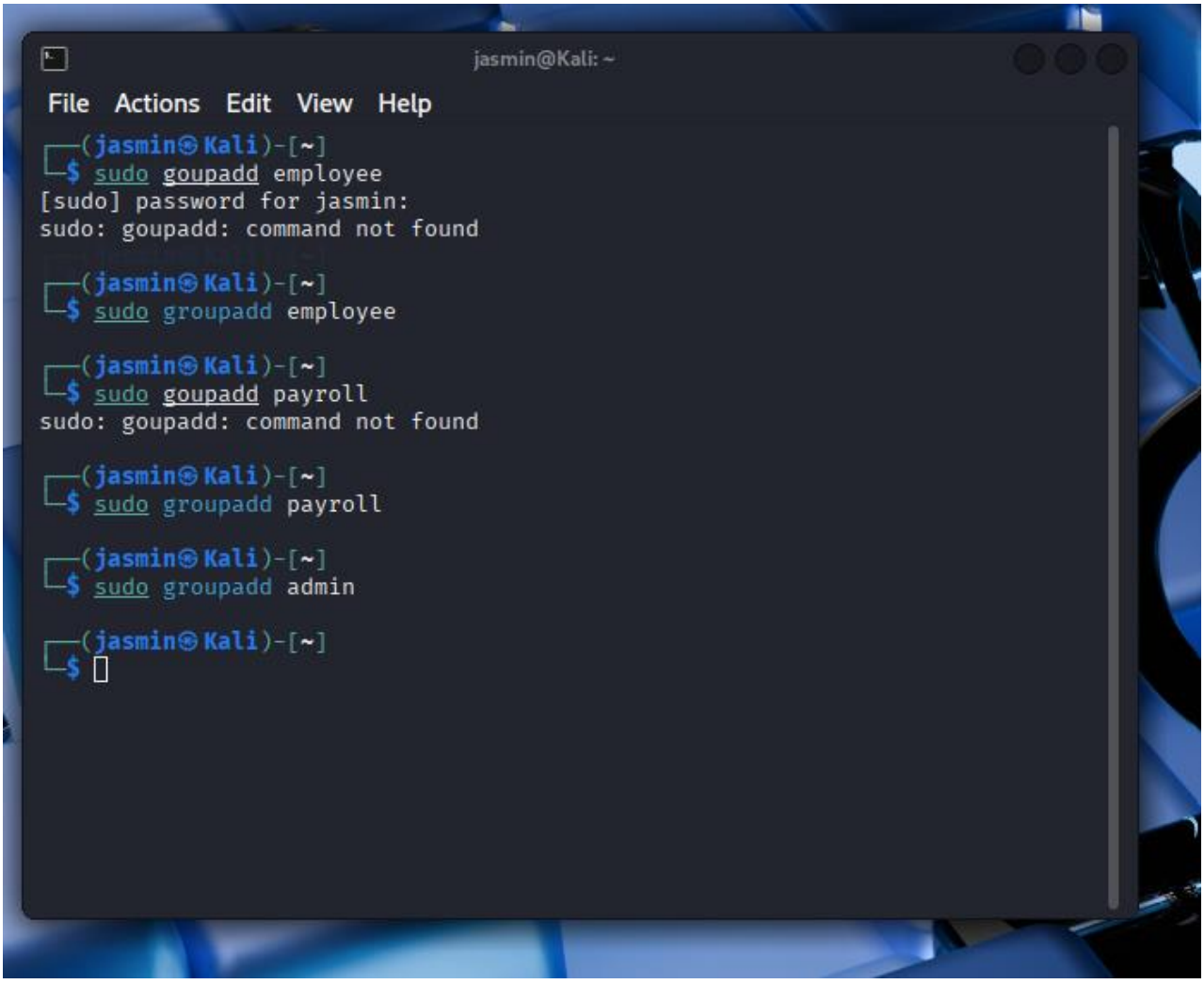
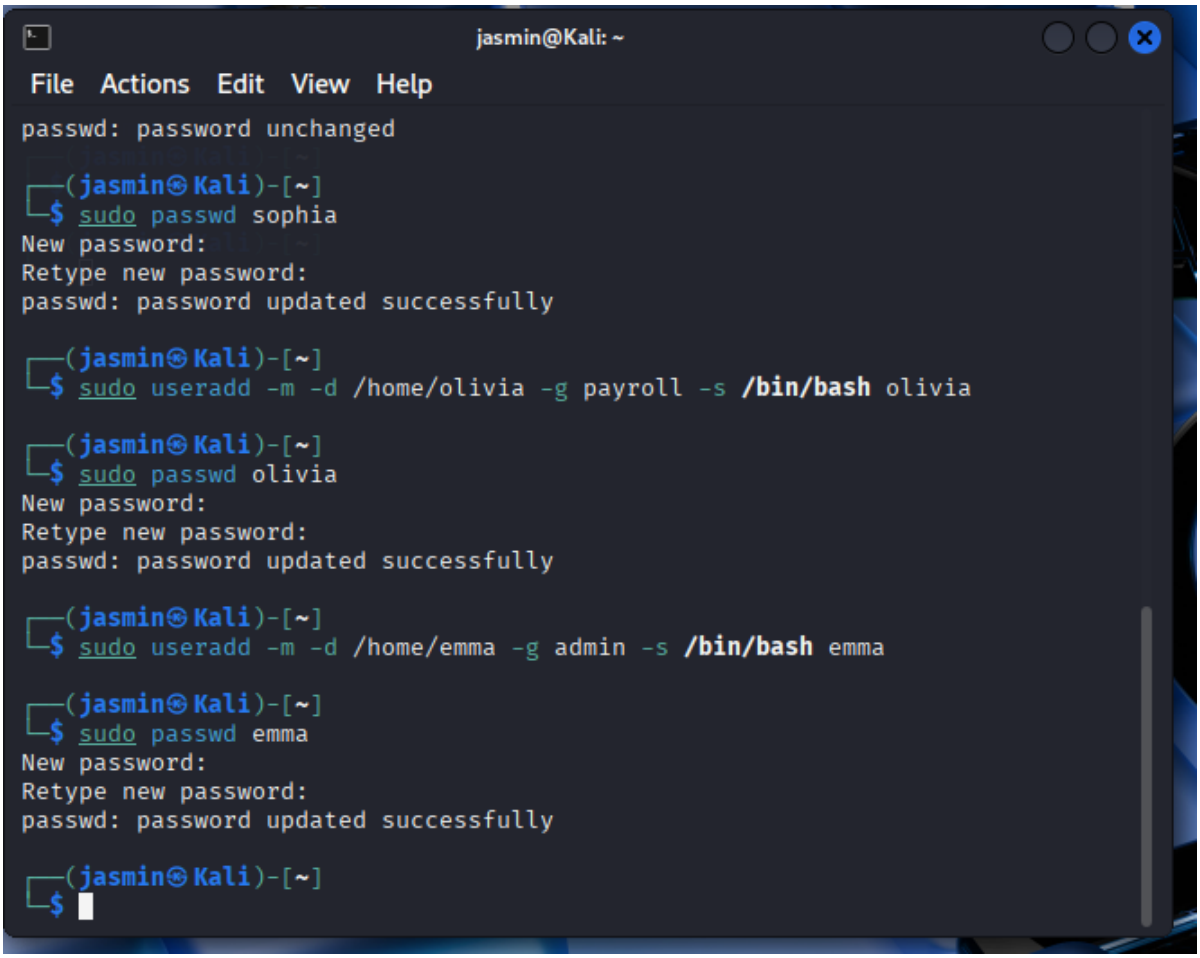
Lab 6- File Permission

Task A: Get accounts and groups ready (70 points)

Step 1. To create the 3 groups: employee, payroll, and admin I used the **sudo groupadd command.** This command is used to create new groups.

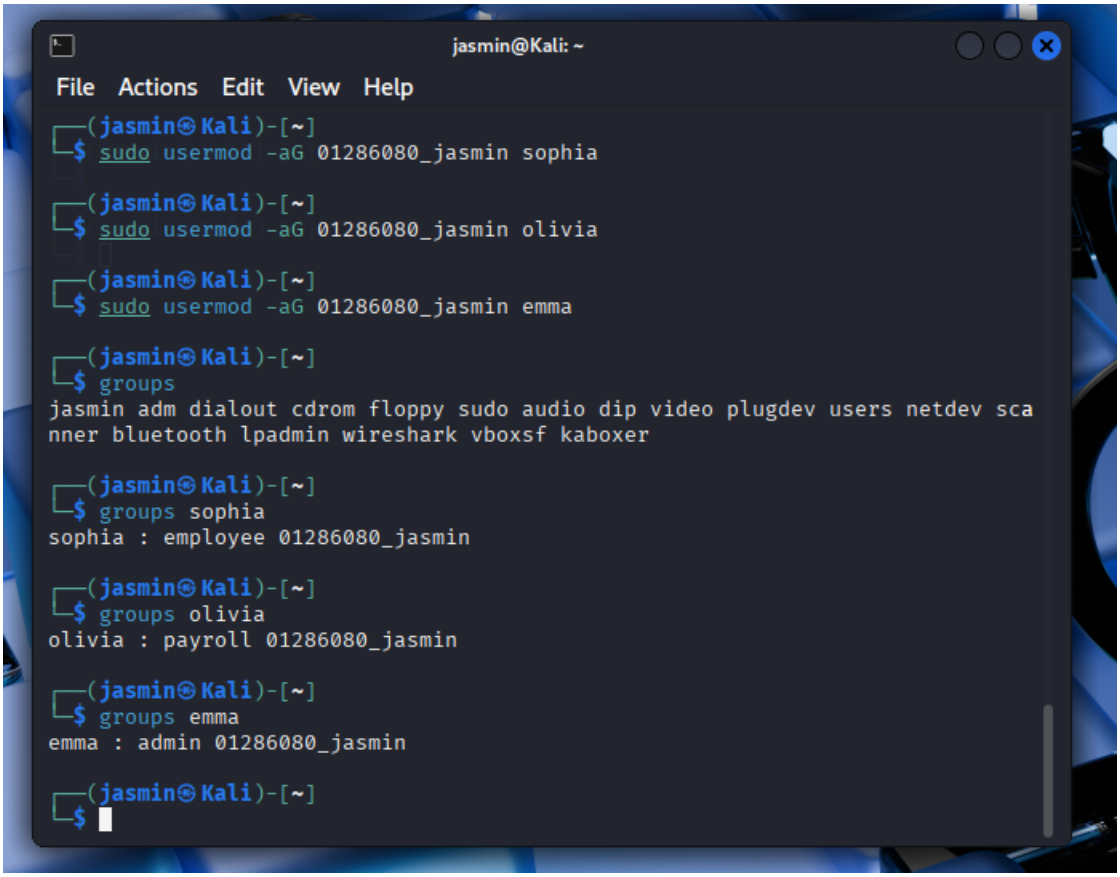


Step 2. To create accounts Sophia, Olivia, and emma under the home directory with a group set, I used the following command **sudo useradd -m -d /home/___ -g groupname -s /bin/bash ___.** To create a password for each account, I used the command **sudo passwd ___**.

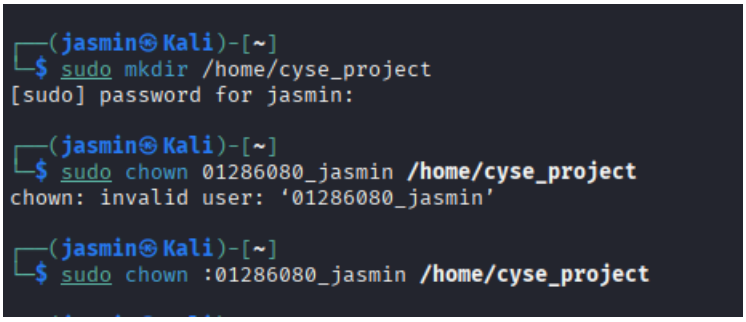


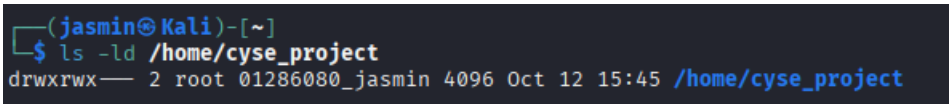
Step 3. To create a shared group I typed in the **command sudo group add 01286080_jasmin ___.** To add the users to the shared group, I used the command **sudo usermod -aG 01286080_jasmin ___**. To check and make sure the user was under the group I used the command **groups name**.

```
┌──(jasmin㉿Kali)-[~]
└─$ sudo groupadd 01286080_jasmin
```

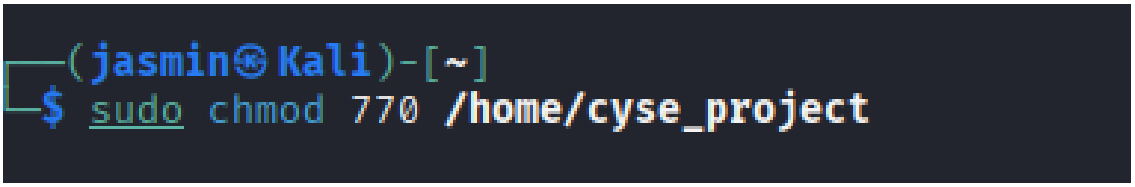


Step 4. To create a directory, I used used the command **sudo mkdir ___.** To have the group 01286080_jasmin take ownership, I used the command **sudo chown :01286080 jasmin /home/cyse_project**. To check the permissions, I typed the command **ls -ld /home/cyse_project**,

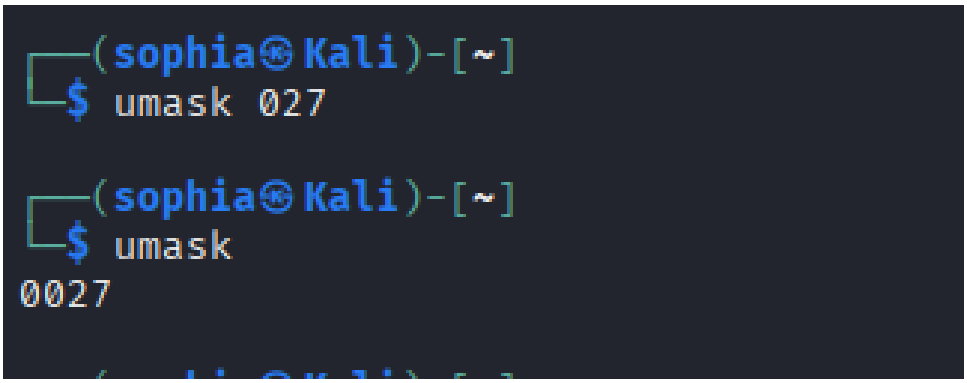




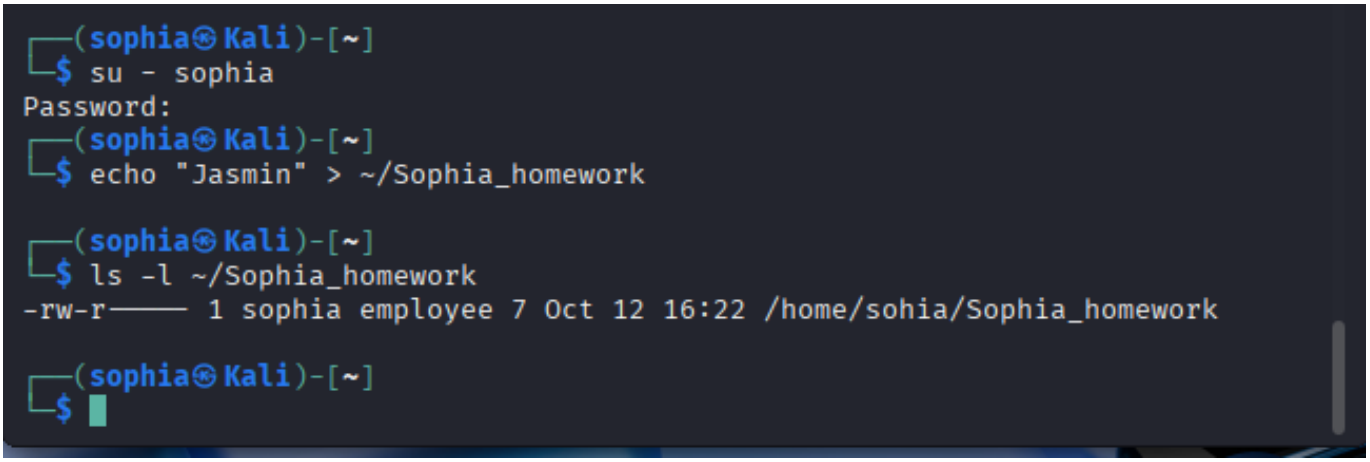
Step 5. To change the permissions of the /home/cyse_project directory to "rwxrwx---" using the octal method so that only the project group members have access to this directory I used the command **sudo chmod 770 /home/cyse_project**. The 2 7's mean read write execute and 0 means no permissions.



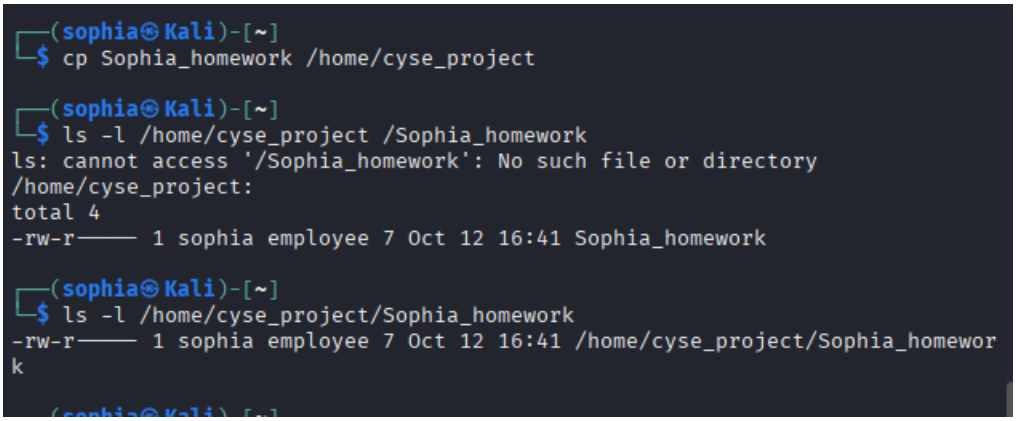
Step 6. To change the default permissions to “rw-r----” using the octal method, I typed **umask 027**. To check the permissions I typed **umask**.



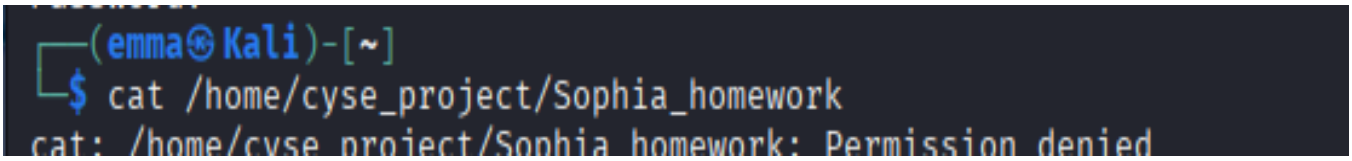
7. To create a new file called Sophia_homework under the home directory of Sophia, first I switched to sophia's account using the command **su -sophia**. Afterways I type **echo "Jasmin" > ~ Sophia_homework** to create the file and add my name as content. To check the file permissions I type **ls -l ~/Sophia_homework**.



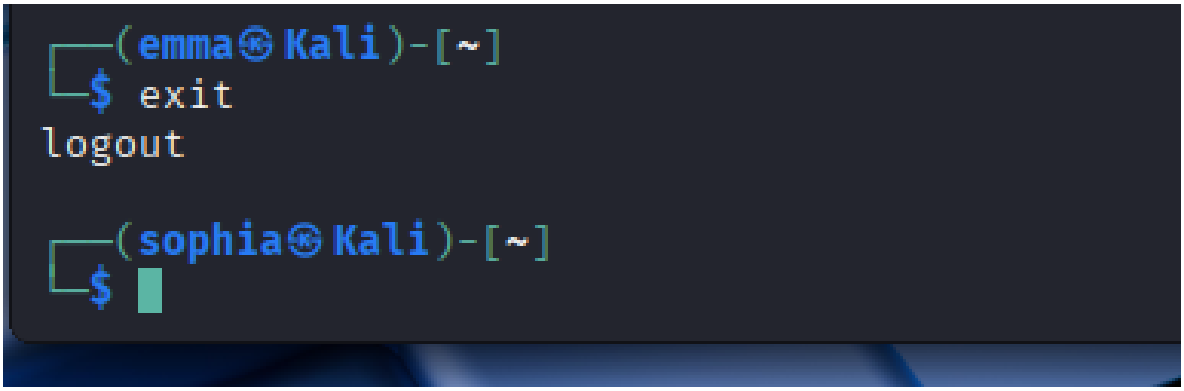
Step 8. To copy "Sophia_homework" to the /home/cyse_project directory. I used the command **cp Sophia_homework /home/cyse_project/**. To check permissions I used the command **ls -l /home/cyse_project/Sophia_homework**.



Step 9. To switch to Emma's account and read "Sophia_homework" in the /home/cyse_project Directory I used the command **“su – emma”** to switch to emmas account and to read I typed in the command **cat /home/cyse_project/Sophia_homework**.

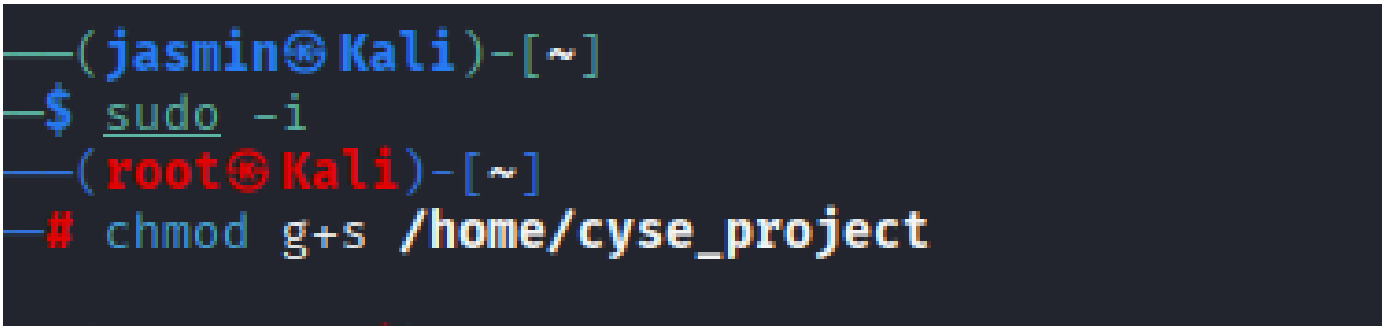


Step 10. To Exit out of Emma's account and Sophia's account I typed in the command **"exit"**

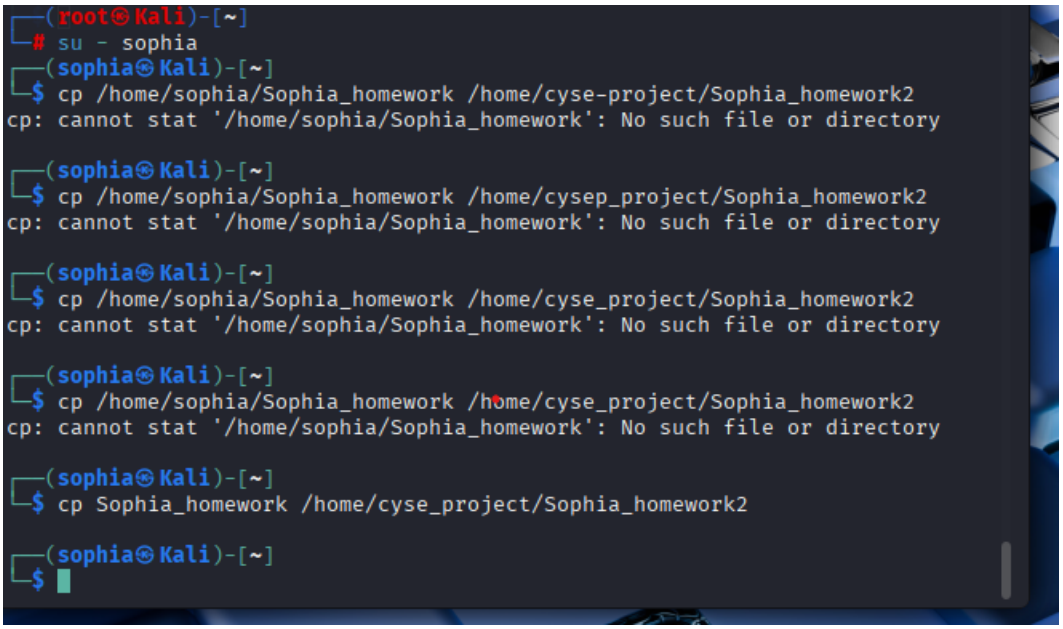


Task B: Set SGID permission

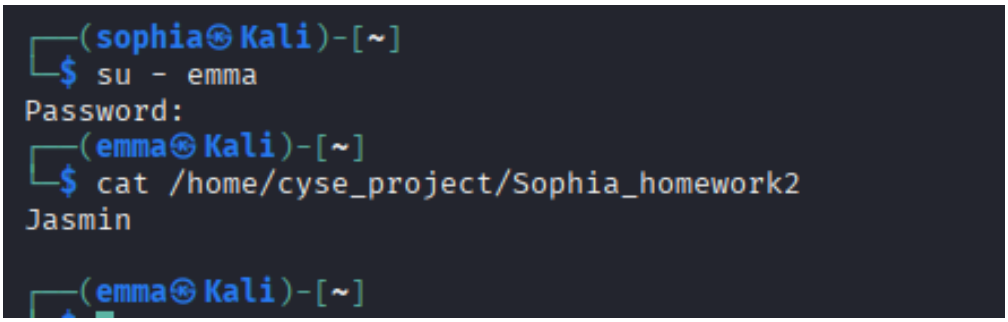
Step 1. To switch to the root account, I typed in the command **sudo -i**. To set SGID permission, I typed in the command **chmod g+s /home/cyse_project**.



Step 2. To switch to Sophia's account I typed in the command **sudo su – Sophia**. To copy Sophia_homework to the /home/cyse-project I typed in the command **cp Sophia_homework /home/cyse_project/Sophia_homework2**

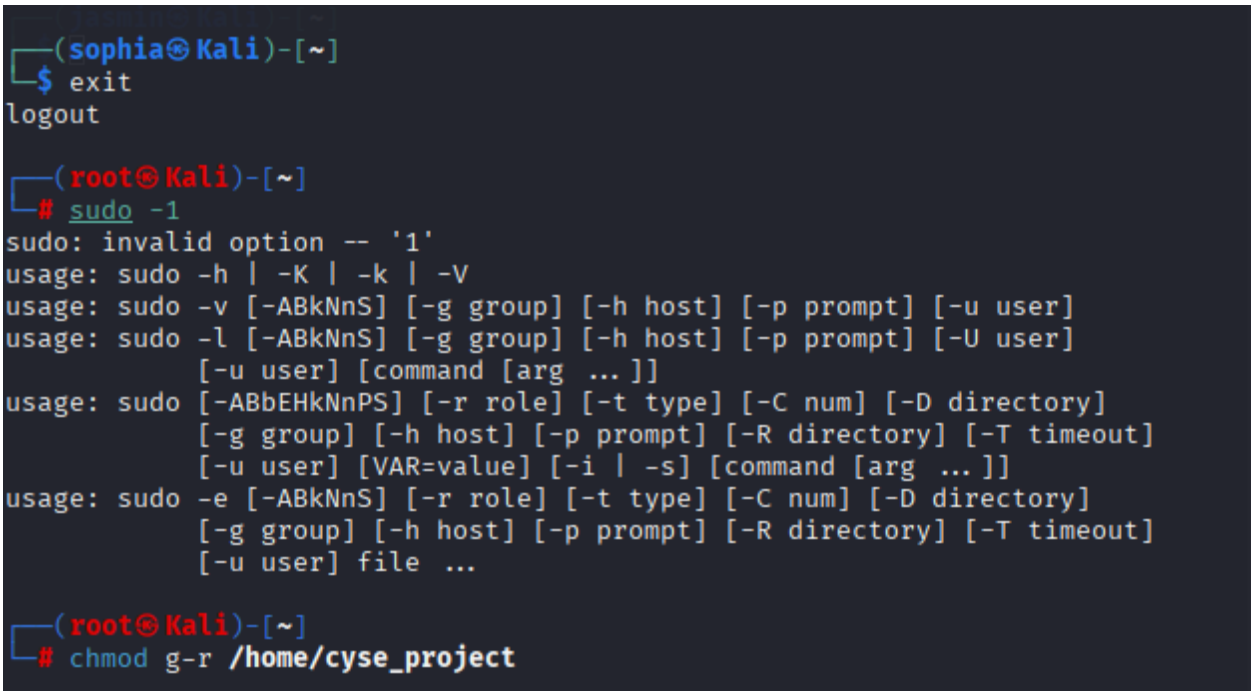


Step 3. To switch to Emma's account I typed in the command **su – emma**. To read it in the /home/cyse_project directory I typed in the comman **cat /home/cyse_project/Sophia_homework2.**

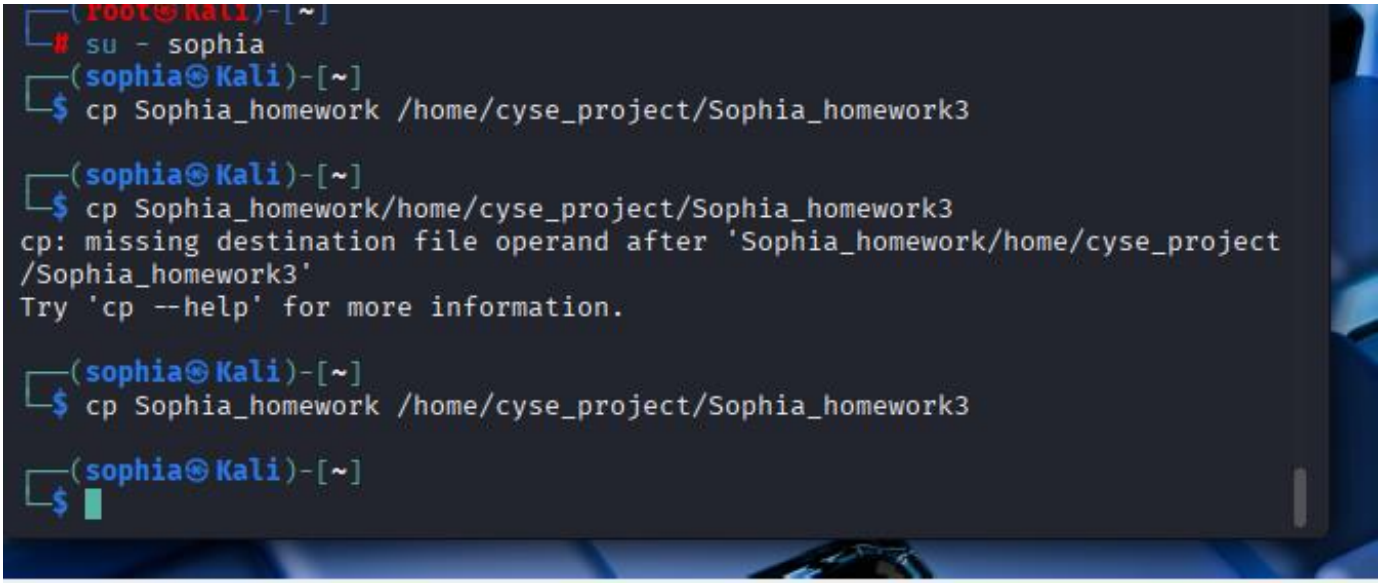


Task C: Unset SGID permissions (15 points)

Step 1. To return to root from the previous account, I typed **exit**. To disallow access to the shared folder for group members I typed the command **chmod g-r /home/cyse_project**



Step 2. To switch to Sophia's account I typed in the command **su – Sophia**. To copy Sophia_homework into /home/cyse_project/Sophia as homework3 I typed in the command **cp Sophia_homework /home/cyse_project/Sophia_homework3**



Step 3. To switch to Olivia I typed in command **su – Olivia**. To attempt to read the file, I typed in the command **cat /home/cyse_project/Sophia_homework3**.