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CYSE 270

10/11/25

<div align="center">Lab 6: File Permissions</div>

Task A

Step 1: Creating employee, payroll, and admin groups

```
File  Edit  View  Terminal  Tabs  Help
┌──(student㉿kali.example.com)-[~]
└─$ sudo groupadd employee

┌──(student㉿kali.example.com)-[~]
└─$ sudo groupadd payroll

┌──(student㉿kali.example.com)-[~]
└─$ sudo groupadd admin
```

Step 2: Adding Sophia, Olivia, and Emma to respective groups

```
┌──(student㉿kali.example.com)-[~]
└─$ sudo useradd -m -g employee -s /bin/bash Sophia

┌──(student㉿kali.example.com)-[~]
└─$ sudo useradd -m -g payroll -s /bin/bash Olivia

┌──(student㉿kali.example.com)-[~]
└─$ sudo useradd -m -g admin -s /bin/bash Emma
```

Step 3: Adding users to shared group

```
┌──(student㉿kali.example.com)-[~]
└─$ sudo groupadd 0129_4121

┌──(student㉿kali.example.com)-[~]
└─$ sudo usermod -aG 0129_4121 Sophia

┌──(student㉿kali.example.com)-[~]
└─$ sudo usermod -aG 0129_4121 Olivia

┌──(student㉿kali.example.com)-[~]
└─$ sudo usermod -aG 0129_4121 Emma
```

Step 4: Creating new directory

```
┌──(student☉kali.example.com)-[~]
└─$ sudo mkdir /home/cyse_project

┌──(student☉kali.example.com)-[~]
└─$ sudo chown :0129_4121 /home/cyse_project
```

Step 5: Changing permissions of directory

```
┌──(student☉kali.example.com)-[~]
└─$ sudo chmod 770 /home/cyse_project
```

Step 6: Switching accounts and changing default permissions

```
┌──(student☉kali.example.com)-[~]
└─$ su - Sophia
Password:
┌──(Sophia☉kali.example.com)-[~]
└─$ umask 007
```

Step 7: Creating file and checking permissions and contents of file

```
┌──(Sophia☉kali.example.com)-[~]
└─$ touch ~/Sophia_homework
```

```
┌──(Sophia☉kali.example.com)-[~]
└─$ ls -l Sophia_homework
-rw-rw---- 1 Sophia employee 6 Oct 11 14:56 Sophia_homework
```

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"Sophia_homework" 1L, 6B                                    1,1              All
```

Step 8: Copying file and checking status of it

```
┌──(Sophia☉kali.example.com)-[~]
└─$ cp ~/Sophia_homework /home/cyse_project/

┌──(Sophia☉kali.example.com)-[~]
└─$ ls -l /home/cyse_project/Sophia_homework
-rw-rw---- 1 Sophia employee 6 Oct 11 15:04 /home/cyse_project/Sophia_homework
```

Step 9: Switching to a different user and attempting to access it

```
┌──(Sophia☉kali.example.com)-[~]
└─$ su - Emma
Password:
┌──(Emma☉kali.example.com)-[~]
└─$ cat /home/cyse_project/Sophia_homework
cat: /home/cyse_project/Sophia_homework: Permission denied
```

Step 10: Logging out of all new users

```
┌──(Emma㊀kali.example.com)-[~]
└─$ exit
logout

┌──(Sophia㊀kali.example.com)-[~]
└─$ exit
logout

┌──(student㊀kali.example.com)-[~]
└─$ █
```

Task B

Step 1: Changing group permissions to access shared documents

```
┌──(student㊀kali.example.com)-[~]
└─$ sudo chmod g+s /home/cyse_project
```

Step 2: Copying file to try and access it

```
┌──(student㊀kali.example.com)-[~]
└─$ su - Sophia
Password:
┌──(Sophia㊀kali.example.com)-[~]
└─$ cp Sophia_homework /home/cyse_project/Sophia_homework2
```

Step 3: Switching to a new user and attempting to access it

```
┌──(Sophia㊀kali.example.com)-[~]
└─$ su - Emma
Password:
┌──(Emma㊀kali.example.com)-[~]
└─$ cat /home/cyse_project/Sophia_homework2
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```

Task C

Step 1: Changing group permissions to default

```
┌──(student㊀kali.example.com)-[~]
└─$ sudo chmod g-s /home/cyse_project
```

Step 2: Copying file to try and access it

```
┌──(student💀kali.example.com)-[~]
└─$ su - Sophia
Password:
┌──(Sophia💀kali.example.com)-[~]
└─$ cp Sophia_homework /home/cyse_project/Sohpia_homework3
```

Step 3: Switching to a new user and attempting to access it

```
┌──(Sophia💀kali.example.com)-[~]
└─$ su - Olivia
Password:
┌──(Olivia💀kali.example.com)-[~]
└─$ cat /home/cyse_project/Sophia_homework3
cat: /home/cyse_project/Sophia_homework3: No such file or directory
```