Jayden Goldsmith

CYSE 270: Linux System for Cybersecurity

Lab 6 – File Permission

Task A

1.

2.

typed directly after

Jayden Goldsmith

3.

```
┌──(jayden-goldsmith㉿kali)-[~]
└─$ sudo groupadd jgold033

┌──(jayden-goldsmith㉿kali)-[~]
└─$ sudo usermod -G jgold033 Sophia

┌──(jayden-goldsmith㉿kali)-[~]
└─$ sudo usermod -G jgold033 Olivia

┌──(jayden-goldsmith㉿kali)-[~]
└─$ sudo usermod -G jgold033 Emma

┌──(jayden-goldsmith㉿kali)-[~]
└─$ id Sophia
uid=1030(Sophia) gid=1035(employee) groups=1035(employee),1039(jgold033)

┌──(jayden-goldsmith㉿kali)-[~]
└─$ id Olivia
uid=1031(Olivia) gid=1036(payroll) groups=1036(payroll),1039(jgold033)

┌──(jayden-goldsmith㉿kali)-[~]
└─$ id Emma
uid=1032(Emma) gid=1037(admin) groups=1037(admin),1039(jgold033)
```

4.

```
┌──(jayden-goldsmith㉿kali)-[~]
└─$ sudo chgrp jgold033 /home/cyse_project

┌──(jayden-goldsmith㉿kali)-[~]
└─$ ls -ld /home/cyse_project
drwxr-xr-- 2 root jgold033 4096 Oct 12 22:59 /home/cyse_project
```

5.

```
┌──(jayden-goldsmith㉿kali)-[~]
└─$ sudo chmod 770 /home/cyse_project

┌──(jayden-goldsmith㉿kali)-[~]
└─$ ls -ld /home/cyse_project
drwxrwx--- 2 root jgold033 4096 Oct 12 22:59 /home/cyse_project
```

Jayden Goldsmith

6.

```
┌──(Sophia㉿kali)-[~]
└─$ su - jayden-goldsmith
Password:
┌──(jayden-goldsmith㉿kali)-[~]
└─$ su - Sophia
Password:
┌──(Sophia㉿kali)-[~]
└─$ umask 026

┌──(Sophia㉿kali)-[~]
└─$ touch step5temp.txt

┌──(Sophia㉿kali)-[~]
└─$ ls -l step5temp.txt
-rw-r───── 1 Sophia employee 0 Oct 13 21:46 step5temp.txt
```

7.

```
┌──(Sophia㉿kali)-[~]
└─$ touch Sophia_homework

┌──(Sophia㉿kali)-[~]
└─$ echo Jayden Goldsmith > Sophia_homework

┌──(Sophia㉿kali)-[~]
└─$ ls -l Sophia_homework
-rw-r───── 1 Sophia employee 17 Oct 13 22:36 Sophia_homework

┌──(Sophia㉿kali)-[~]
└─$ cat Sophia_homework
Jayden Goldsmith
```

8.

```
┌──(Sophia㉿kali)-[~]
└─$ cd /home/cyse_project

┌──(Sophia㉿kali)-[/home/cyse_project]
└─$ ls -l
total 4
-rw-r───── 1 Sophia employee 17 Oct 13 22:40 Sophia_homework
```

Jayden Goldsmith

9.

```
┌──(Sophia㊀kali)-[~]
└─$ su - Emma
Password:
┌──(Emma㊀kali)-[~]
└─$ cd /home/cyse_project

┌──(Emma㊀kali)-[/home/cyse_project]
└─$ cat Sophia_homework
cat: Sophia_homework: Permission denied
```

10

```
┌──(Emma㊀kali)-[/home/cyse_project]
└─$ exit
logout

┌──(Sophia㊀kali)-[/home/cyse_project]
└─$ exit
logout

┌──(jayden-goldsmith㊀kali)-[~]
└─$ ▮
```

Task B

1.

```
┌──(jayden-goldsmith㊀kali)-[~]
└─$ sudo su -
[sudo] password for jayden-goldsmith:
┌──(root㊀kali)-[~]
└─# chmod g+s /home/cyse_project

┌──(root㊀kali)-[~]
└─# ls -ld /home/cyse_project
drwxrws── 2 root jgold033 4096 Oct 13 22:40 /home/cyse_project
```

Jayden Goldsmith

2.

```
┌──(root💀kali)-[~]
└─# su - Sophia
┌──(Sophia💀kali)-[~]
└─$ cp Sophia_homework /home/cyse_project/Sophia_homework2
```

3.

```
┌──(Sophia💀kali)-[~]
└─$ su - Emma
Password:
┌──(Emma💀kali)-[~]
└─$ cat /home/cyse_project/Sophia_homework2
Jayden Goldsmith
```

Task C

1.

```
┌──(jayden-goldsmith💀kali)-[~]
└─$ sudo su -
[sudo] password for jayden-goldsmith:
┌──(root💀kali)-[~]
└─# chmod g-s /home/cyse_project
```

2.

```
┌──(root💀kali)-[~]
└─# su - Sophia
┌──(Sophia💀kali)-[~]
└─$ cp Sophia_homework /home/cyse_project/Sophia_homework3
```

3.

```
┌──(Sophia💀kali)-[~]
└─$ su - Olivia
Password:
┌──(Olivia💀kali)-[~]
└─$ cat /home/cyse_project/Sophia_homework3
cat: /home/cyse_project/Sophia_homework3: Permission denied
```

Extra Credit vvv

Jayden Goldsmith

Extra Credit

1.

2.

3.

It is because due to the sticky bit command that only the owner of the file can delete the file, and Olivia is not the owner of the file. Sophia created the original file "Sophia_homework" and copied it to make "Sophia_homework3", Sophia still being the owner of the file.