

Documentation of the procedure to create a group, user, changing ownership and setting permission of a file

Part 1

Scenario

You are the system administrator for TechCorp Solutions, a growing technology company. You need to set up user accounts and file permissions for two departments:

Part 1: Marketing Department (Individual User Files)

Scenario:

The Marketing department has 5 new employees joining the team. Each employee

needs their own workspace with private files that only they can access.

Tasks:

1. Create a group called marketing

2. Create 5 users with the following usernames:

○ alice_m

○ bob_m

○ carol_m

○ david_m

○ emma_m

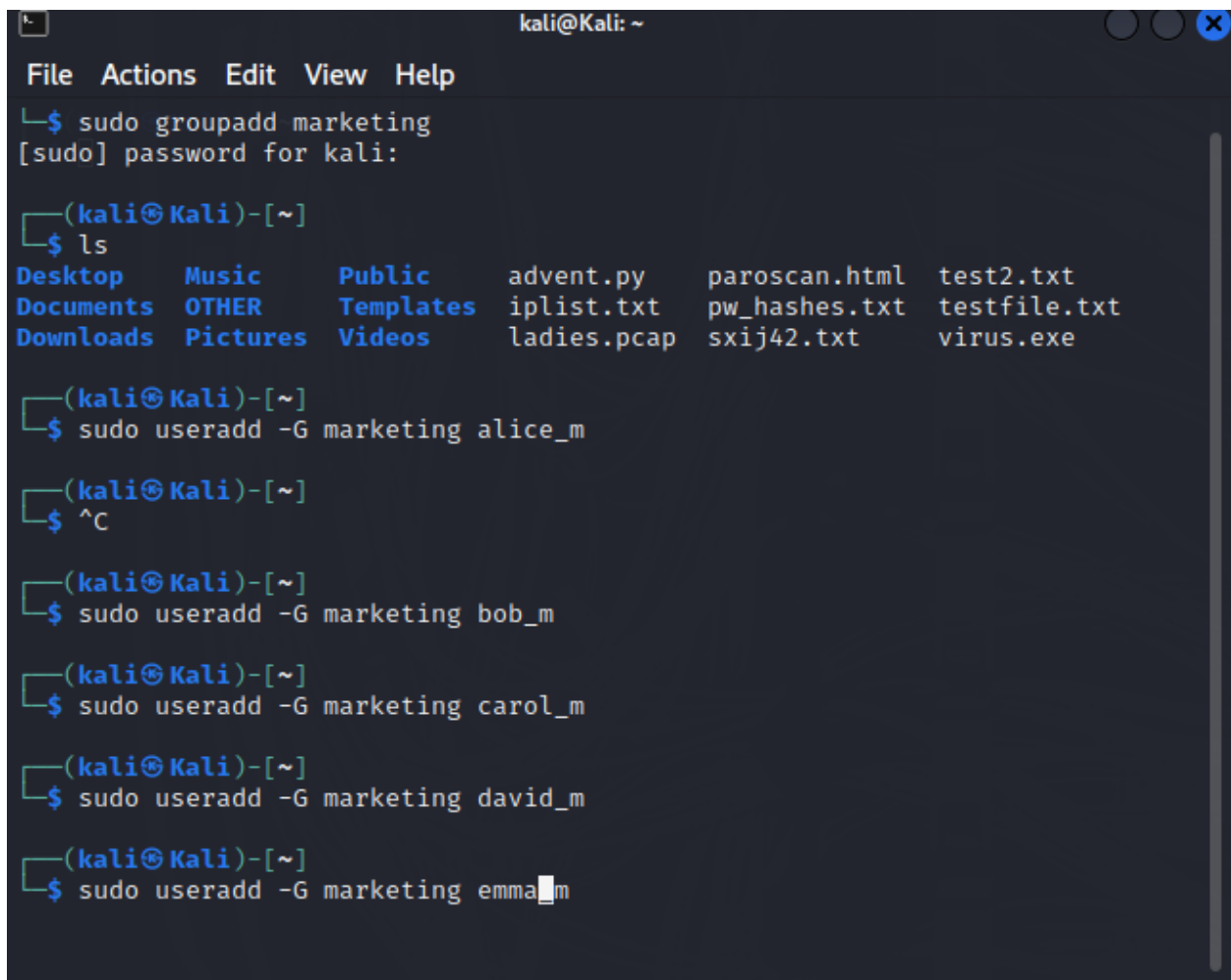
3. Add all 5 users to the marketing group

4. For each user, create a personal file in /home/shared/marketing/:(Each user will be the owner of the corresponding file)

- **alice_m → alice_report.txt**
- **bob_m → bob_report.txt**
- **carol_m → carol_report.txt**
- **david_m → david_report.txt**
- **emma_m → emma_report.txt**5. Set permissions to {700}:
- **Each user has read, write, and execute (rwx) permissions on their own file**
- **The group has no permissions (---) on the file**
- **Others have no permissions (---) on the file**

- Objective: creation of group, users and setting of file ownership and permissions
- Tools Used: Kali linux
- Step-by-Step Process: below is the process as shown in the titled screenshots below

Below is the screenshot of the prompt in creating a group and adding users to the group

A terminal window titled 'kali@Kali: ~' with a menu bar (File, Actions, Edit, View, Help). The terminal shows the following commands and output:

```
kali@Kali: ~  
$ sudo groupadd marketing  
[sudo] password for kali:  
  
(kali@Kali)-[~]  
$ ls  
Desktop      Music      Public      advent.py    paroscan.html  test2.txt  
Documents    OTHER      Templates   iplist.txt   pw_hashes.txt  testfile.txt  
Downloads    Pictures   Videos     ladies.pcap  sxij42.txt     virus.exe  
  
(kali@Kali)-[~]  
$ sudo useradd -G marketing alice_m  
  
(kali@Kali)-[~]  
$ ^C  
  
(kali@Kali)-[~]  
$ sudo useradd -G marketing bob_m  
  
(kali@Kali)-[~]  
$ sudo useradd -G marketing carol_m  
  
(kali@Kali)-[~]  
$ sudo useradd -G marketing david_m  
  
(kali@Kali)-[~]  
$ sudo useradd -G marketing emma_m
```

Below is the screenshot of the prompt in creating a directory and creating files in the directory created

```
kali@Kali: /home/shared/marketing
File Actions Edit View Help

(kali@Kali)-[~]
$ sudo mkdir -p /home/shared/marketing
[sudo] password for kali:

(kali@Kali)-[~]
$ sudo touch /home/shared/marketing/alice_report.txt

(kali@Kali)-[~]
$ sudo touch /home/shared/marketing/bob_report.txt

(kali@Kali)-[~]
$ sudo touch /home/shared/marketing/carol_report.txt

(kali@Kali)-[~]
$ sudo touch /home/shared/marketing/david_report.txt

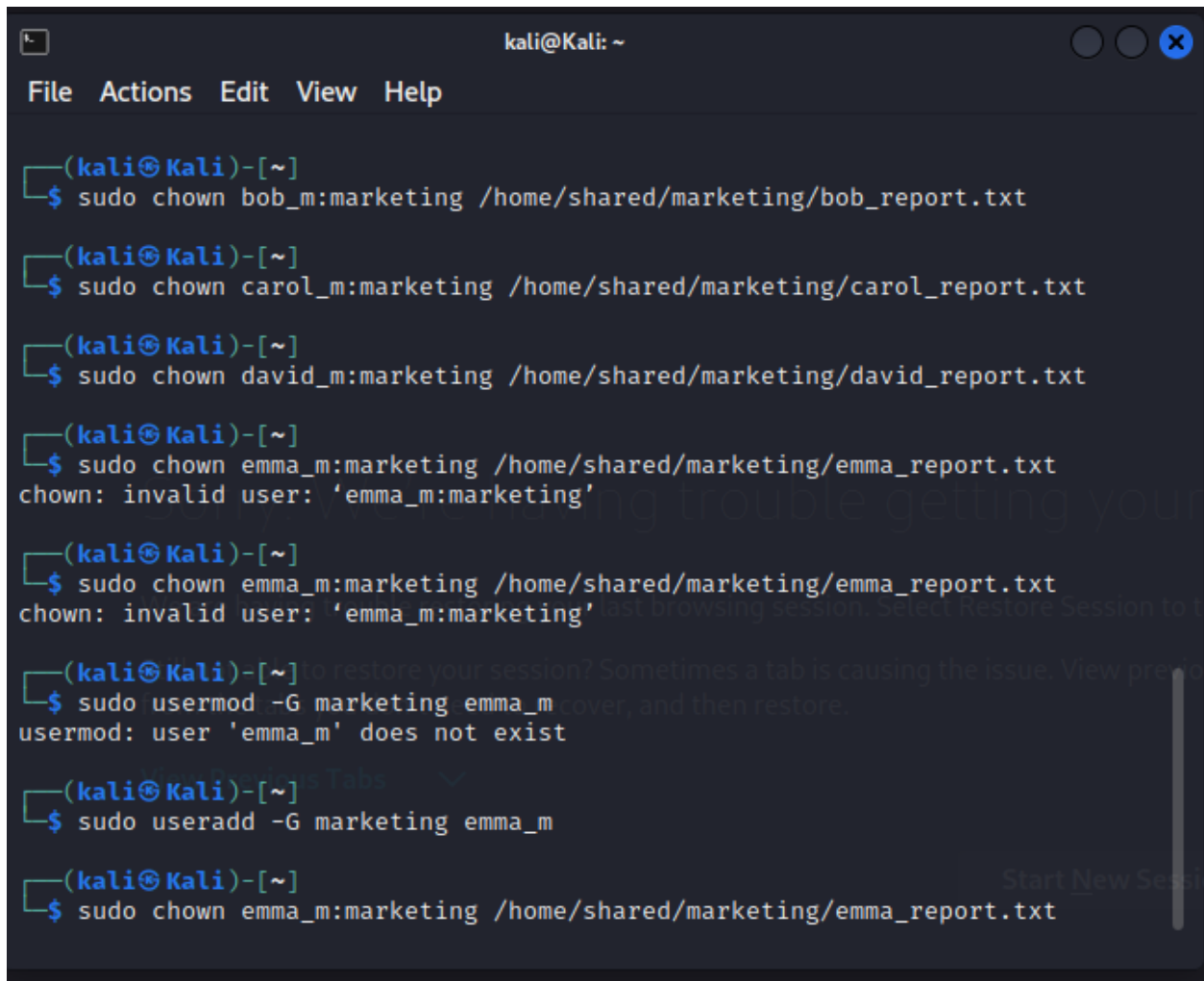
(kali@Kali)-[~]
$ sudo touch /home/shared/marketing/emma_report.txt

(kali@Kali)-[~]
$ cd marketing
bash: cd: marketing: No such file or directory

(kali@Kali)-[~]
$ cd /home/shared/marketing

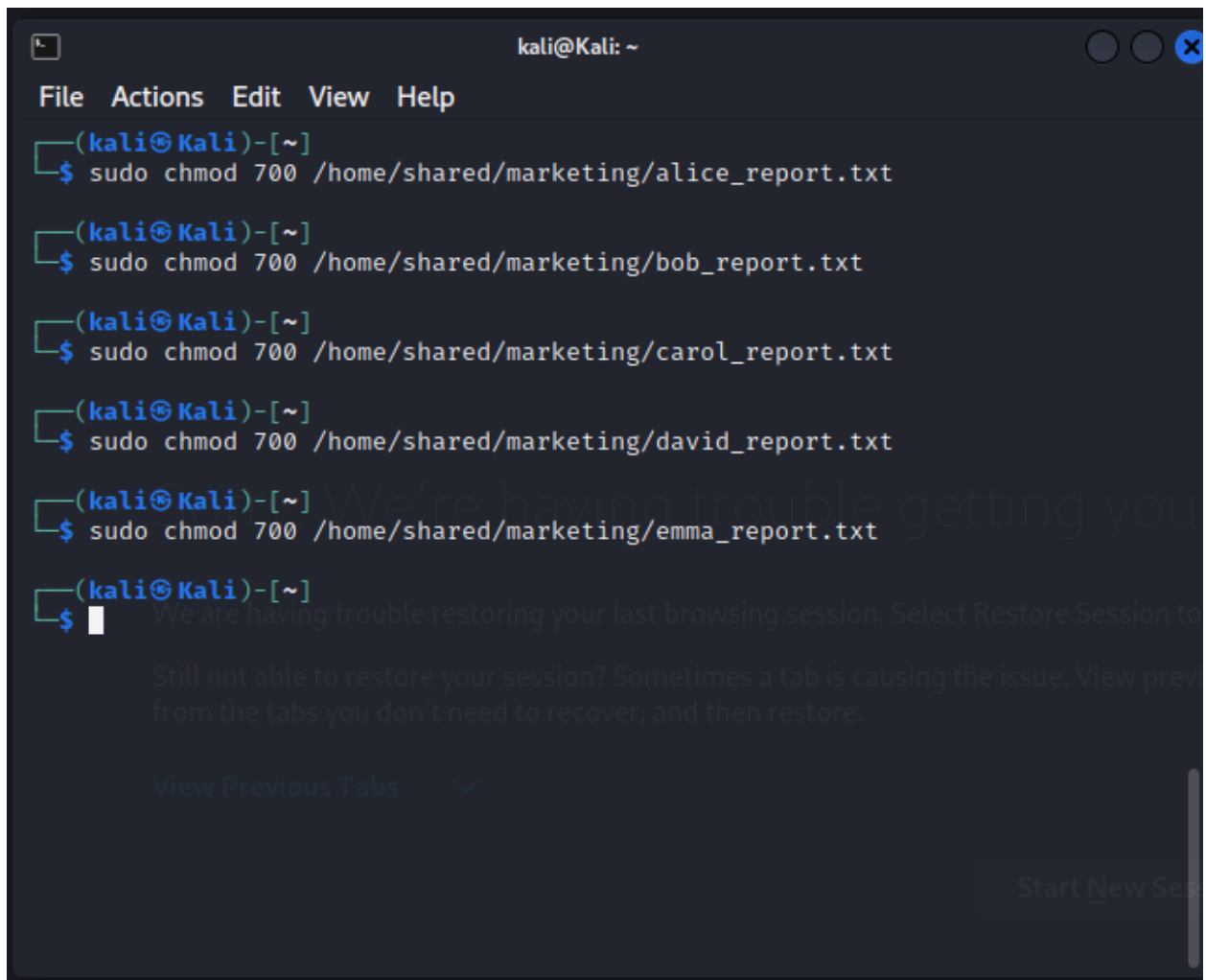
(kali@Kali)-[/home/shared/marketing]
```

Below is the screenshot of the prompt in changing the ownership of a file



```
kali@Kali: ~  
File Actions Edit View Help  
  
(kali@Kali)-[~]  
$ sudo chown bob_m:marketing /home/shared/marketing/bob_report.txt  
  
(kali@Kali)-[~]  
$ sudo chown carol_m:marketing /home/shared/marketing/carol_report.txt  
  
(kali@Kali)-[~]  
$ sudo chown david_m:marketing /home/shared/marketing/david_report.txt  
  
(kali@Kali)-[~]  
$ sudo chown emma_m:marketing /home/shared/marketing/emma_report.txt  
chown: invalid user: 'emma_m:marketing'  
  
(kali@Kali)-[~]  
$ sudo chown emma_m:marketing /home/shared/marketing/emma_report.txt  
chown: invalid user: 'emma_m:marketing'  
  
(kali@Kali)-[~]  
$ sudo usermod -G marketing emma_m  
usermod: user 'emma_m' does not exist  
  
(kali@Kali)-[~]  
$ sudo useradd -G marketing emma_m  
  
(kali@Kali)-[~]  
$ sudo chown emma_m:marketing /home/shared/marketing/emma_report.txt
```

Below is the screenshot of the prompt in setting permission on a particular file

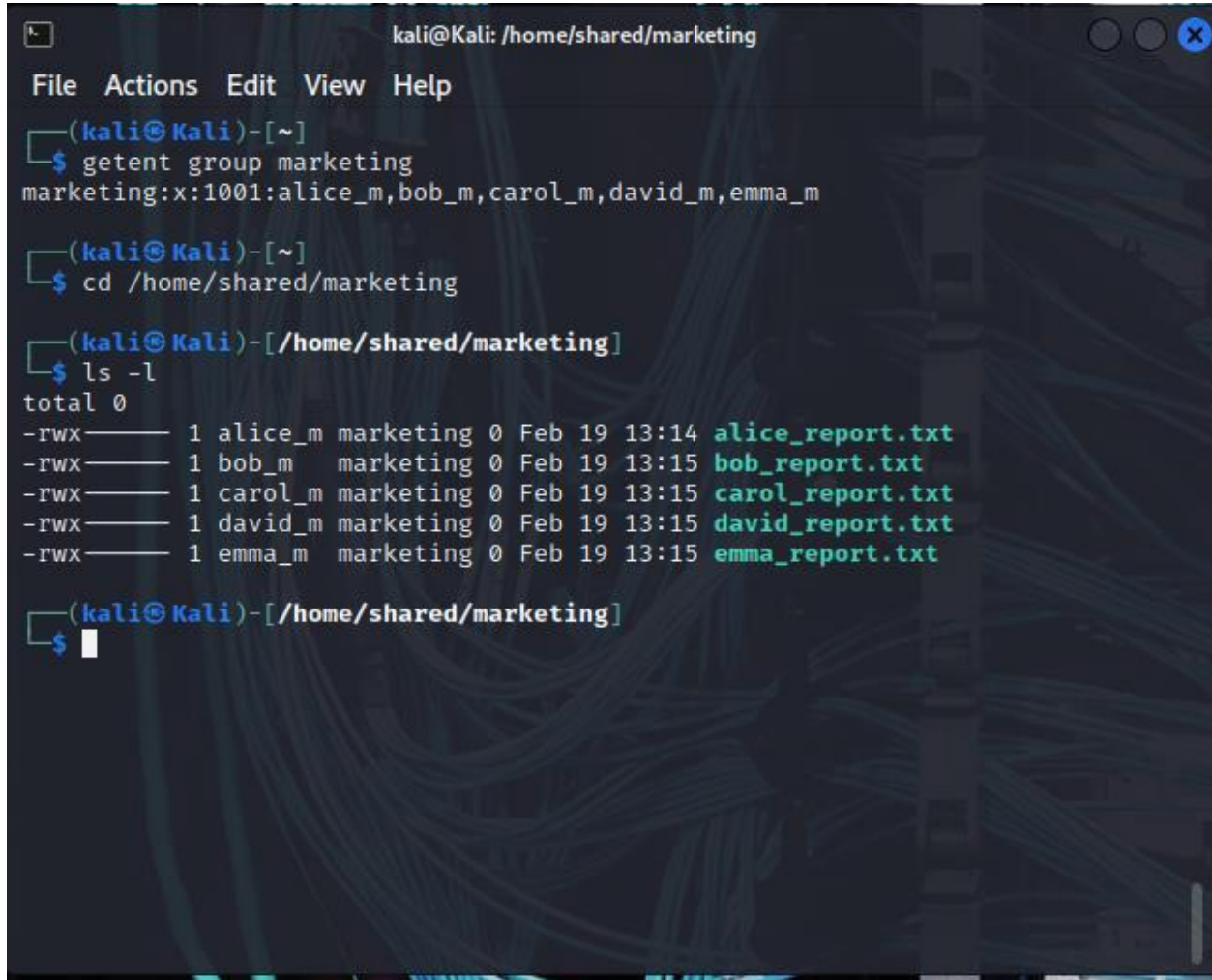


A terminal window titled 'kali@Kali: ~' with a menu bar containing 'File', 'Actions', 'Edit', 'View', and 'Help'. The terminal shows a series of commands to set permissions (chmod 700) on five report files in the directory /home/shared/marketing/. The files are alice_report.txt, bob_report.txt, carol_report.txt, david_report.txt, and emma_report.txt. The prompt is (kali@Kali)-[~]. A message at the bottom indicates a problem restoring the browsing session, with options to 'View Previous Tabs' and 'Start New Session'.

```
(kali@Kali)-[~]  
$ sudo chmod 700 /home/shared/marketing/alice_report.txt  
  
(kali@Kali)-[~]  
$ sudo chmod 700 /home/shared/marketing/bob_report.txt  
  
(kali@Kali)-[~]  
$ sudo chmod 700 /home/shared/marketing/carol_report.txt  
  
(kali@Kali)-[~]  
$ sudo chmod 700 /home/shared/marketing/david_report.txt  
  
(kali@Kali)-[~]  
$ sudo chmod 700 /home/shared/marketing/emma_report.txt  
  
(kali@Kali)-[~]  
$
```

We're having trouble getting you
We are having trouble restoring your last browsing session. Select Restore Session to
Still not able to restore your session? Sometimes a tab is causing the issue. View prev
from the tabs you don't need to recover, and then restore.
View Previous Tabs
Start New Session

Screenshot showing the group, users, files and their permission settings



A terminal window titled 'kali@Kali: /home/shared/marketing' with a menu bar (File, Actions, Edit, View, Help). The terminal shows the following commands and output:

```
(kali@Kali)-[~]  
$ getent group marketing  
marketing:x:1001:alice_m,bob_m,carol_m,david_m,emma_m  
  
(kali@Kali)-[~]  
$ cd /home/shared/marketing  
  
(kali@Kali)-[/home/shared/marketing]  
$ ls -l  
total 0  
-rwx----- 1 alice_m marketing 0 Feb 19 13:14 alice_report.txt  
-rwx----- 1 bob_m marketing 0 Feb 19 13:15 bob_report.txt  
-rwx----- 1 carol_m marketing 0 Feb 19 13:15 carol_report.txt  
-rwx----- 1 david_m marketing 0 Feb 19 13:15 david_report.txt  
-rwx----- 1 emma_m marketing 0 Feb 19 13:15 emma_report.txt  
  
(kali@Kali)-[/home/shared/marketing]  
$
```

Part 2

Scenario:

The IT department needs a collaborative workspace where all team members can

work on a shared project file together.

Tasks:

1. Create a group called itdept

2. Create 5 users with the following usernames:

○ **frank_it**

○ **grace_it**

○ **henry_it**

○ **iris_it**

○ **jack_it**

3. Add all 5 users to the itdept group

4. Create ONE shared file in /home/shared/itdept/:

○ **project_specs.txt**

5. Set ownership and permissions (700) so that:

○ **Change the ownership so the itdept group owns the file**

○ **The group has read, write, and execute (rwx) permissions**

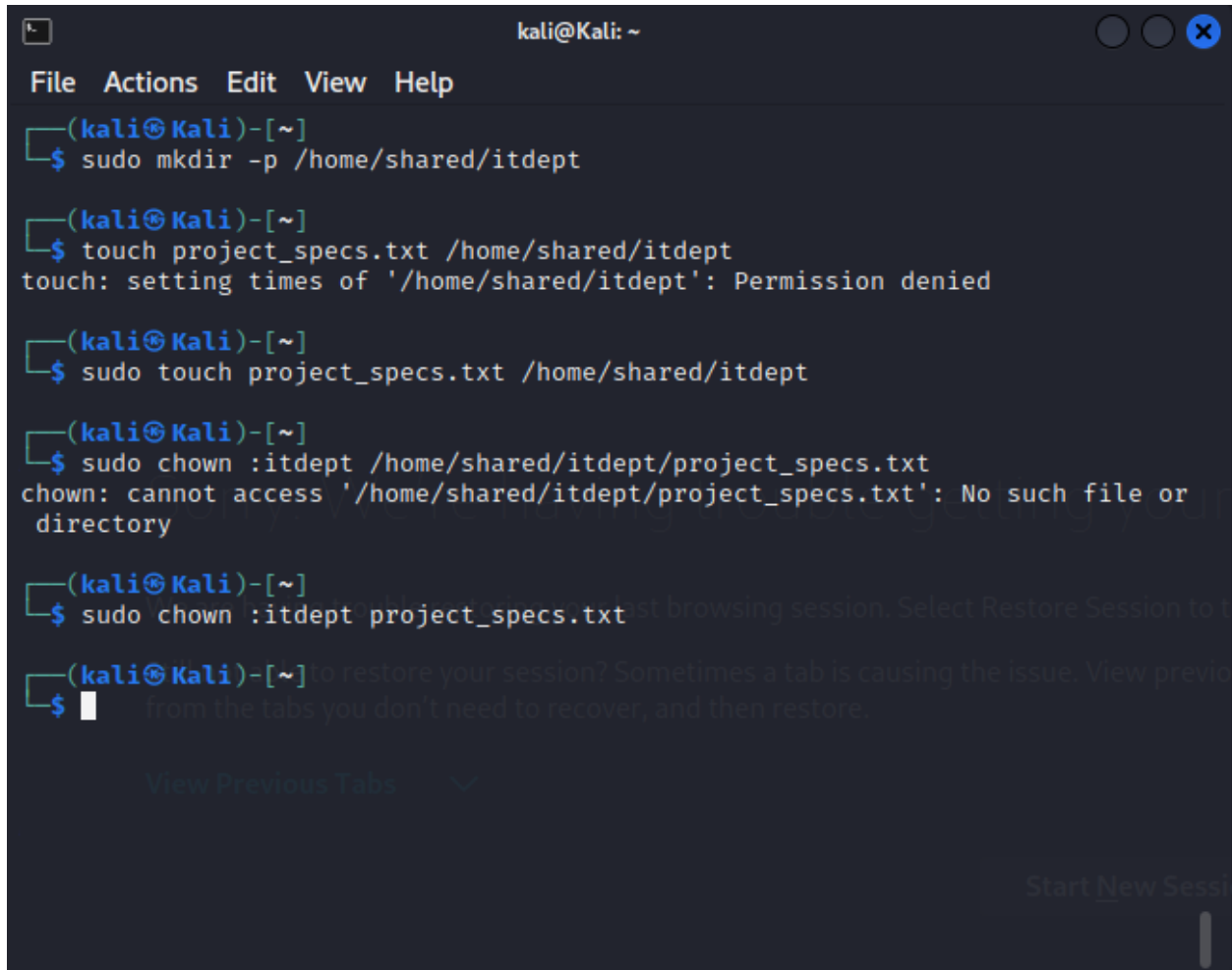
○ **The owner has read, write, and execute (rwx) permissions**

Others have no permissions (---) on the file

Below is the screenshot of the prompt adding users to a group

```
kali@Kali: ~  
File Actions Edit View Help  
$ sudo useradd -G itdept frank_it  
(kali@Kali)-[~]  
$ sudo useradd -G itdept grace_it  
(kali@Kali)-[~]  
$ sudo useradd -G itdept henry_it  
(kali@Kali)-[~]  
$ sudo useradd -G itdept iris_it  
(kali@Kali)-[~]  
$ sudo useradd -G itdept jack_it  
(kali@Kali)-[~]  
$ mkdir /home/shared/itdept  
mkdir: cannot create directory '/home/shared/itdept': Permission denied  
(kali@Kali)-[~]  
$ sudo mkdir -p /home/shared/itdept  
(kali@Kali)-[~]  
$ touch project_specs.txt /home/shared/itdept  
touch: setting times of '/home/shared/itdept': Permission denied  
(kali@Kali)-[~]  
$ sudo touch project_specs.txt /home/shared/itdept
```

Below is the screenshot of the prompt in creating a directory, creating a file in the directory created and changing the ownership of the file to the group (itdept)

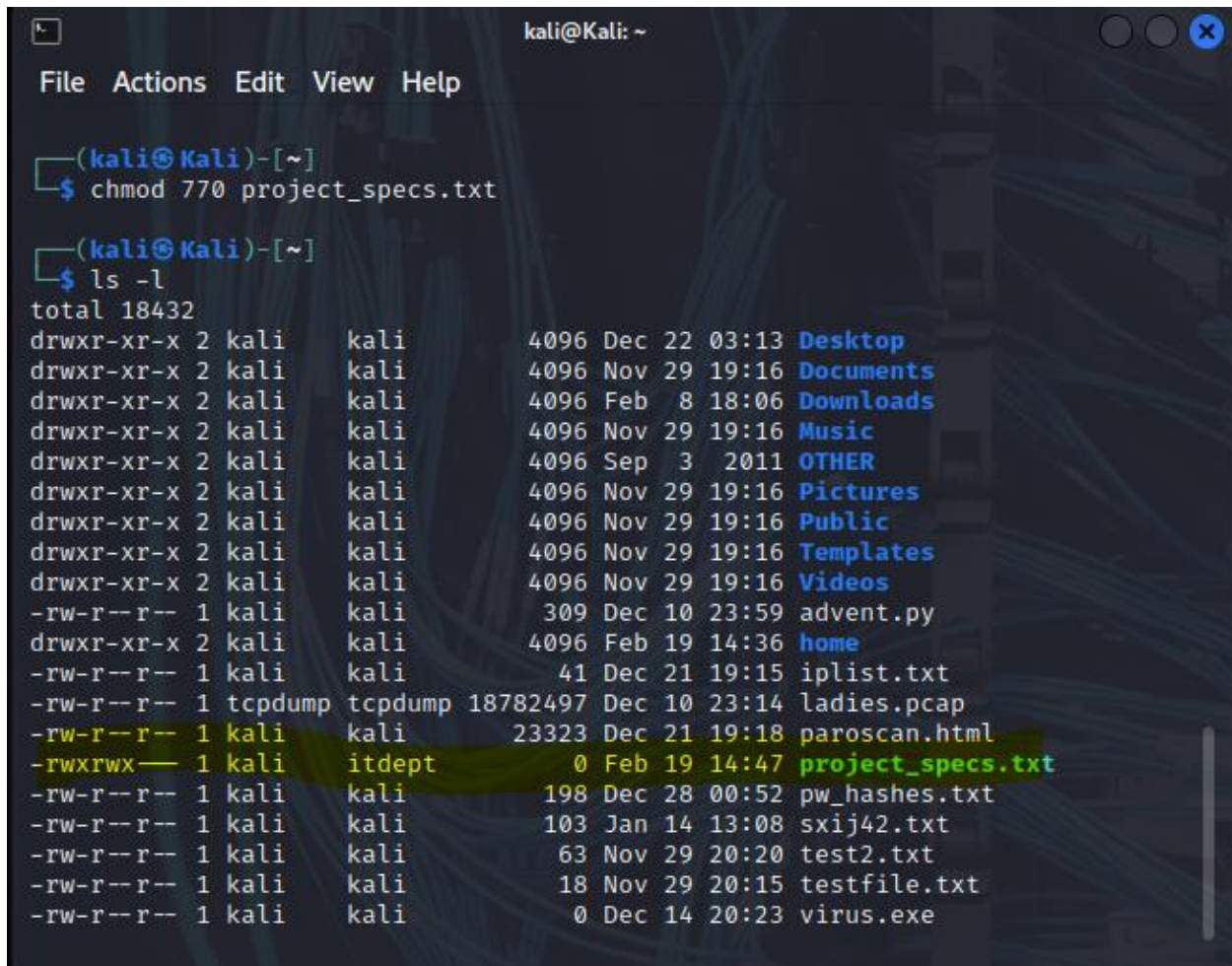


```
kali@Kali: ~  
File Actions Edit View Help  
(kali@Kali)-[~]  
$ sudo mkdir -p /home/shared/itdept  
  
(kali@Kali)-[~]  
$ touch project_specs.txt /home/shared/itdept  
touch: setting times of '/home/shared/itdept': Permission denied  
  
(kali@Kali)-[~]  
$ sudo touch project_specs.txt /home/shared/itdept  
  
(kali@Kali)-[~]  
$ sudo chown :itdept /home/shared/itdept/project_specs.txt  
chown: cannot access '/home/shared/itdept/project_specs.txt': No such file or directory  
  
(kali@Kali)-[~]  
$ sudo chown :itdept project_specs.txt  
  
(kali@Kali)-[~]  
$
```

View Previous Tabs

Start New Session

Below is the screenshot of the prompt setting permission on a file



```
kali@Kali: ~  
File Actions Edit View Help  
(kali@Kali)-[~]  
$ chmod 770 project_specs.txt  
(kali@Kali)-[~]  
$ ls -l  
total 18432  
drwxr-xr-x 2 kali kali 4096 Dec 22 03:13 Desktop  
drwxr-xr-x 2 kali kali 4096 Nov 29 19:16 Documents  
drwxr-xr-x 2 kali kali 4096 Feb 8 18:06 Downloads  
drwxr-xr-x 2 kali kali 4096 Nov 29 19:16 Music  
drwxr-xr-x 2 kali kali 4096 Sep 3 2011 OTHER  
drwxr-xr-x 2 kali kali 4096 Nov 29 19:16 Pictures  
drwxr-xr-x 2 kali kali 4096 Nov 29 19:16 Public  
drwxr-xr-x 2 kali kali 4096 Nov 29 19:16 Templates  
drwxr-xr-x 2 kali kali 4096 Nov 29 19:16 Videos  
-rw-r--r-- 1 kali kali 309 Dec 10 23:59 advent.py  
drwxr-xr-x 2 kali kali 4096 Feb 19 14:36 home  
-rw-r--r-- 1 kali kali 41 Dec 21 19:15 iplist.txt  
-rw-r--r-- 1 tcpdump tcpdump 18782497 Dec 10 23:14 ladies.pcap  
-rw-r--r-- 1 kali kali 23323 Dec 21 19:18 paroscan.html  
-rwxrwx--- 1 kali itdept 0 Feb 19 14:47 project_specs.txt  
-rw-r--r-- 1 kali kali 198 Dec 28 00:52 pw_hashes.txt  
-rw-r--r-- 1 kali kali 103 Jan 14 13:08 sxij42.txt  
-rw-r--r-- 1 kali kali 63 Nov 29 20:20 test2.txt  
-rw-r--r-- 1 kali kali 18 Nov 29 20:15 testfile.txt  
-rw-r--r-- 1 kali kali 0 Dec 14 20:23 virus.exe
```

Lesson Learned

I learned that the work of IT admin include proper account management by creating appropriate users in the right group and also setting permission to files as necessary.