Lab 1

Step 1

First of all, we have to save the file un your home directory or a temporary folder

```
┌──(kali㉿kali)-[~]
└─$ mv ~/Downloads/noida.txt ~/
mv: cannot stat '/home/kali/Downloads/noida.txt': No such file or directory
```

Step 2

- Create a user account for Mr. Penney Johnson
- Create Project Directory and Move the File

```
┌──(kali㉿kali)-[~]
└─$ sudo adduser pjohnson

[sudo] password for kali:
info: Adding user `pjohnson' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group `pjohnson' (1002) ...
info: Adding new user `pjohnson' (1002) with group `pjohnson (1002)' ...
warn: The home directory `/home/pjohnson' already exists.  Not touching this directory.
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for pjohnson
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] Y
info: Adding new user `pjohnson' to supplemental / extra groups `users' ...
info: Adding user `pjohnson' to group `users' ...
```

```
┌──(kali㉿kali)-[~]
└─$ sudo mkdir /project
[sudo] password for kali:
mkdir: cannot create directory '/project': File exists

┌──(kali㉿kali)-[~]
└─$ sudo mv noida.txt /project/
```

Step 3

Install ACL Package

```
┌──(kali㊉kali)-[~]
└─$ sudo apt install acl
acl is already the newest version (2.3.2-2+b1).
Summary:
  Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 1281
```

```
┌──(kali㊉kali)-[~]
└─$ sudo mount -o remount,acl /
```

Step 4

Restrict Access to the file

```
┌──(kali㊉kali)-[~]
└─$ cd /project

┌──(kali㊉kali)-[/project]
└─$ sudo setfacl -m u:pjohnson:rw noida.txt

┌──(kali㊉kali)-[/project]
└─$ sudo setfacl -m o:── noida.txt

┌──(kali㊉kali)-[/project]
└─$ sudo setfacl -m u:root:rw noida.txt
```

- So we can verify the ACL using

```
┌──(kali㊉kali)-[/project]
└─$ getfacl noida.txt
# file: noida.txt
# owner: kali
# group: kali
user::rw-
user:root:rw-
user:pjohnson:rw-
group::rw-
mask::rw-
other::──
```

Step 5

- Create a new user – testuser

```
┌──(kali㉿kali)-[/project]
└─$ sudo adduser testuser

info: Adding user `testuser' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group `testuser' (1003) ...
info: Adding new user `testuser' (1003) with group `testuser (1003)' ...
warn: The home directory `/home/testuser' already exists.  Not touching this directory.
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for testuser
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] Y
info: Adding new user `testuser' to supplemental / extra groups `users' ...
info: Adding user `testuser' to group `users' ...
```

- Switch to testuser and try accessing the file

```
┌──(kali㉿kali)-[/project]
└─$ su testuser
Password:
┌──(testuser㉿kali)-[/project]
└─$ cd /project

┌──(testuser㉿kali)-[/project]
└─$ cat noida.txt
cat: noida.txt: Permission denied
```

Step 6

Now Switch to pjohnson and try accessing the file

```
┌──(testuser㉿kali)-[/project]
└─$ su pjohnson
Password:
┌──(pjohnson㉿kali)-[/project]
└─$ cd /project

┌──(pjohnson㉿kali)-[/project]
└─$ cat noida.txt
Carl
```

Lab 2

Step 1

First of all we have to create the new users as Stefi, Aravind, Jignesh in our kali Linux

```
┌──(kali㊀kali)-[~]
└─$ sudo adduser stefi
[sudo] password for kali:
info: Adding user `stefi' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group `stefi' (1002) ...
info: Adding new user `stefi' (1002) with group `stefi (1002)' ...
warn: The home directory `/home/stefi' already exists.  Not touching this directory.
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for stefi
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] Y
info: Adding new user `stefi' to supplemental / extra groups `users' ...
info: Adding user `stefi' to group `users' ...
```

```
┌──(kali㊀kali)-[~]
└─$ sudo adduser aravind
info: Adding user `aravind' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group `aravind' (1003) ...
info: Adding new user `aravind' (1003) with group `aravind (1003)' ...
info: Creating home directory `/home/aravind' ...
info: Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for aravind
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] Y
info: Adding new user `aravind' to supplemental / extra groups `users' ...
info: Adding user `aravind' to group `users' ...
```

```
┌──(kali㊀kali)-[~]
└─$ sudo adduser jignesh
info: Adding user `jignesh' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group `jignesh' (1004) ...
info: Adding new user `jignesh' (1004) with group `jignesh (1004)' ...
info: Creating home directory `/home/jignesh' ...
info: Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for jignesh
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] Y
info: Adding new user `jignesh' to supplemental / extra groups `users' ...
info: Adding user `jignesh' to group `users' ...
```

Step 2

Now we have to set the password of Stefi, Aravind, Jignesh as "India"

```
┌──(kali㉿kali)-[~]
└─$ sudo echo "india" | sudo passwd --stdin stefi
```

```
┌──(kali㉿kali)-[~]
└─$ sudo passwd stefi
New password:
Retype new password:
passwd: password updated successfully
┌──(kali㉿kali)-[~]
└─$ sudo passwd aravind
New password:
Retype new password:
passwd: password updated successfully
┌──(kali㉿kali)-[~]
└─$ sudo passwd jignesh
New password:
Retype new password:
passwd: password updated successfully
```

Step 3

Now we have to create a group called as Citizen and we have give the access to the download file so that all three Stefi, Aravind & Jignesh can give the permission of read, write & execute.

```
┌──(kali㉿kali)-[~]
└─$ sudo groupadd citizen
```

```
┌──(kali㉿kali)-[~]
└─$ cd Downloads

┌──(kali㉿kali)-[~/Downloads]
└─$ ls
government  kali-red-sticker.jpg
```

Step 4

Now the main part is that we have to give the permission for Gujarat so that Jignesh has full permission and Aravind has only read and execute permission

```
┌──(kali㉿kali)-[~/Downloads]
└─$ sudo chmod -R o-rwx government/gujarat

┌──(kali㉿kali)-[~/Downloads]
└─$ sudo chmod o+rwx government/gujarat

┌──(kali㉿kali)-[~/Downloads]
└─$ sudo chmod o+w government/gujarat

┌──(kali㉿kali)-[~/Downloads]
└─$ sudo chmod o+w government/gujarat/ahmedabad.txt

┌──(kali㉿kali)-[~/Downloads]
└─$ sudo chmod o-w government/gujarat/ahmedabad.txt

┌──(kali㉿kali)-[~/Downloads]
└─$ sudo chown jignesh government/gujarat/ahmedabad.txt

┌──(kali㉿kali)-[~/Downloads]
└─$ sudo chmod o+r government/gujarat
```

Step 5

Now we give the permission for Delhi in such a that Stefi has no access.

```
┌──(kali㊀kali)-[~/Downloads]
└─$ sudo chmod -R o-rwx government/delhi

┌──(kali㊀kali)-[~/Downloads]
└─$ sudo chmod o+rx government/delhi

┌──(kali㊀kali)-[~/Downloads]
└─$ sudo chmod -R o-r government/delhi

┌──(kali㊀kali)-[~/Downloads]
└─$ sudo chown aravind government/delhi
```

Step 6

Now we will give full grant to the citizen of Goa

```
──(kali㊀kali)-[~/Downloads]
─$ sudo chmod -R o+rwx government/goa

──(kali㊀kali)-[~/Downloads]
─$ sudo chmod o-rwx government/goa

──(kali㊀kali)-[~/Downloads]
─$ sudo chgrp -R citizen government/goa
```

Step 7

- Edit the right for goa/Anjuna

```
┌──(kali㊀kali)-[~/Downloads]
└─$ sudo chmod u=rw,go=r government/goa/anjuna.txt

┌──(kali㊀kali)-[~/Downloads]
└─$ sudo chmod u=w,go=r government/goa/anjuna.txt

┌──(kali㊀kali)-[~/Downloads]
└─$ sudo chown stefi government/goa/anjuna.txt
```

- Editing the right for Goa/Candolim

```
┌──(kali㊀kali)-[~/Downloads]
└─$ sudo chmod u=r,go=w government/goa/candolim.txt

┌──(kali㊀kali)-[~/Downloads]
└─$ sudo chmod u=w,go=r government/goa/candolim.txt

┌──(kali㊀kali)-[~/Downloads]
└─$ sudo chown jignesh government/goa/candolim.txt
```

Step 8

Now checking all the command and right that has been assigned to the Gujarat, Delhi & Goa

```
┌──(kali㊀kali)-[~/Downloads]
└─$ logout
logout: not login shell

┌──(kali㊀kali)-[~/Downloads]
└─$ cd government/gujarat

┌──(kali㊀kali)-[~/Downloads/government/gujarat]
└─$ nano ahmedabad.txt

┌──(kali㊀kali)-[~/Downloads/government/gujarat]
└─$ logout
logout: not login shell

┌──(kali㊀kali)-[~/Downloads/government/gujarat]
└─$ cd government/delhi
cd: no such file or directory: government/delhi

┌──(kali㊀kali)-[~/Downloads/government/gujarat]
└─$ cd Downloads
cd: no such file or directory: Downloads

┌──(kali㊀kali)-[~/Downloads/government/gujarat]
└─$ logout
logout: not login shell

┌──(kali㊀kali)-[~/Downloads/government/gujarat]
└─$ cd
```

```
┌──(kali㊀kali)-[~/Downloads/government/gujarat]
└─$ cd

┌──(kali㊀kali)-[~]
└─$ ls
b.txt           Downloads                                noida.txt
capture.pcap    google-chrome-stable_current_amd64.deb   Pictures
c.txt           kali-red-sticker.jpg                     Project
Desktop         Music                                    Templates
Documents       mylogfile-20250610-13-47-41-1.kismet     Videos

┌──(kali㊀kali)-[~]
└─$ cd Downloads

┌──(kali㊀kali)-[~/Downloads]
└─$ cd government/delhi

┌──(kali㊀kali)-[~/Downloads/government/delhi]
└─$ ls
noida.txt

┌──(kali㊀kali)-[~/Downloads/government/delhi]
└─$ cd Downloads
cd: no such file or directory: Downloads

┌──(kali㊀kali)-[~/Downloads/government/delhi]
└─$ cd Downloads
cd: no such file or directory: Downloads
```

```
┌──(kali㊀kali)-[~/Downloads/government/delhi]
└─$ ls
noida.txt

┌──(kali㊀kali)-[~/Downloads/government/delhi]
└─$ cd

┌──(kali㊀kali)-[~]
└─$ ls
b.txt           Downloads                                noida.txt
capture.pcap    google-chrome-stable_current_amd64.deb   Pictures
c.txt           kali-red-sticker.jpg                     Project
Desktop         Music                                    Templates
Documents       mylogfile-20250610-13-47-41-1.kismet     Videos

┌──(kali㊀kali)-[~]
└─$ cd Downloads

┌──(kali㊀kali)-[~/Downloads]
└─$ ls goa
ls: cannot access 'goa': No such file or directory

┌──(kali㊀kali)-[~/Downloads]
└─$ ls
government  ie_cseh_additional_files_v1_cfc_pl6s60s.zip  noida.txt

┌──(kali㊀kali)-[~/Downloads]
└─$ ls -l goa
ls: cannot access 'goa': No such file or directory
```

```
┌──(kali㊀kali)-[~/Downloads]
└─$ cd /

┌──(kali㊀kali)-[/]
└─$ ls
bin    etc         initrd.img.old  lib64       mnt     project  sbin  tmp  vmlinuz
boot   home        lib             lost+found  opt     root     srv   usr  vmlinuz.old
dev    initrd.img  lib32           media       proc    run      sys   var

┌──(kali㊀kali)-[/]
└─$ cd

┌──(kali㊀kali)-[~]
└─$ cd Downloads

┌──(kali㊀kali)-[~/Downloads]
└─$ ls
government  ie_cseh_additional_files_v1_cfc_pl6s60s.zip  noida.txt

┌──(kali㊀kali)-[~/Downloads]
└─$ cd /goverment/goa
cd: no such file or directory: /goverment/goa

┌──(kali㊀kali)-[~/Downloads]
└─$ ls -l government
total 12
drwxrwx--x 2 aravind kali    4096 Jun 29 10:15 delhi
drwxrwx--- 2 kali    citizen 4096 Jun 29 10:15 goa
drwxrwxrwx 2 kali    kali    4096 Jun 29 10:42 gujarat
```

```
┌──(kali㊀kali)-[~/Downloads]
└─$ ls -l goa
ls: cannot access 'goa': No such file or directory

┌──(kali㊀kali)-[~/Downloads]
└─$ cd /government/goa
cd: no such file or directory: /government/goa

┌──(kali㊀kali)-[~/Downloads]
└─$ ls -l government
total 12
drwxrwx--x 2 aravind kali    4096 Jun 29 10:15 delhi
drwxrwx--- 2 kali    citizen 4096 Jun 29 10:15 goa
drwxrwxrwx 2 kali    kali    4096 Jun 29 10:42 gujarat

┌──(kali㊀kali)-[~/Downloads]
└─$ ls -l goa
ls: cannot access 'goa': No such file or directory

┌──(kali㊀kali)-[~/Downloads]
└─$ ls -l government/goa
total 12
--w-r--r-- 1 stefi    citizen 6 Aug 12  2022 anjuna.txt
--w-r--r-- 1 jignesh  citizen 5 Aug 12  2022 candolim.txt
-rw-rw-rwx 1 kali     citizen 6 Aug 12  2022 corlim.txt
```