

This exercise is on lab4

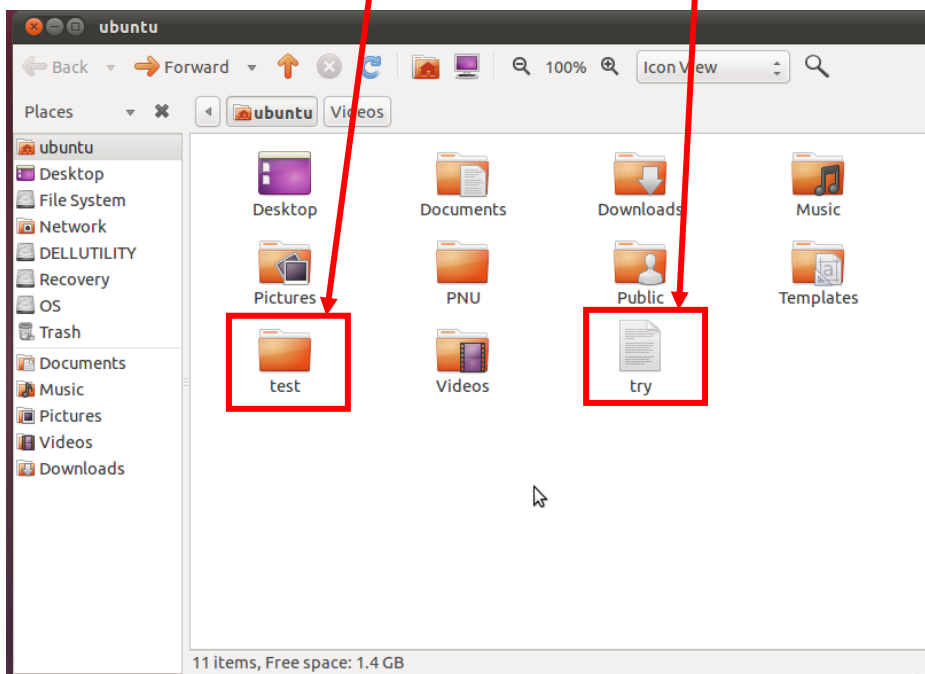
using the GUI (Graphical User Interface) create the following directories and files.

As you do in Windows : right click ➔ Create Folder

right click ➔ Create Document ➔ Empty File

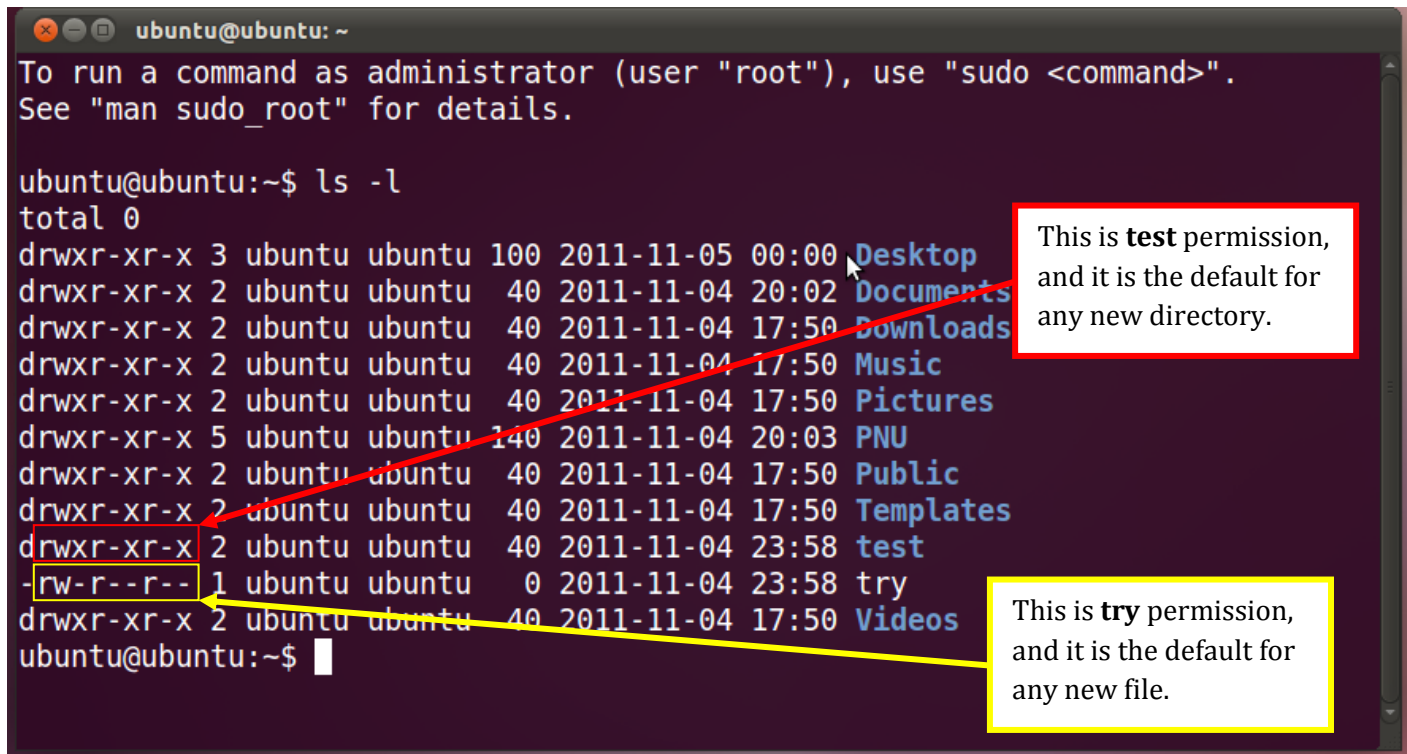
inside the home directory create:

directory called test, and a file called try.



- How to view the permission of test and try?

`$ls -l` → list the content of the home directory using long listing.



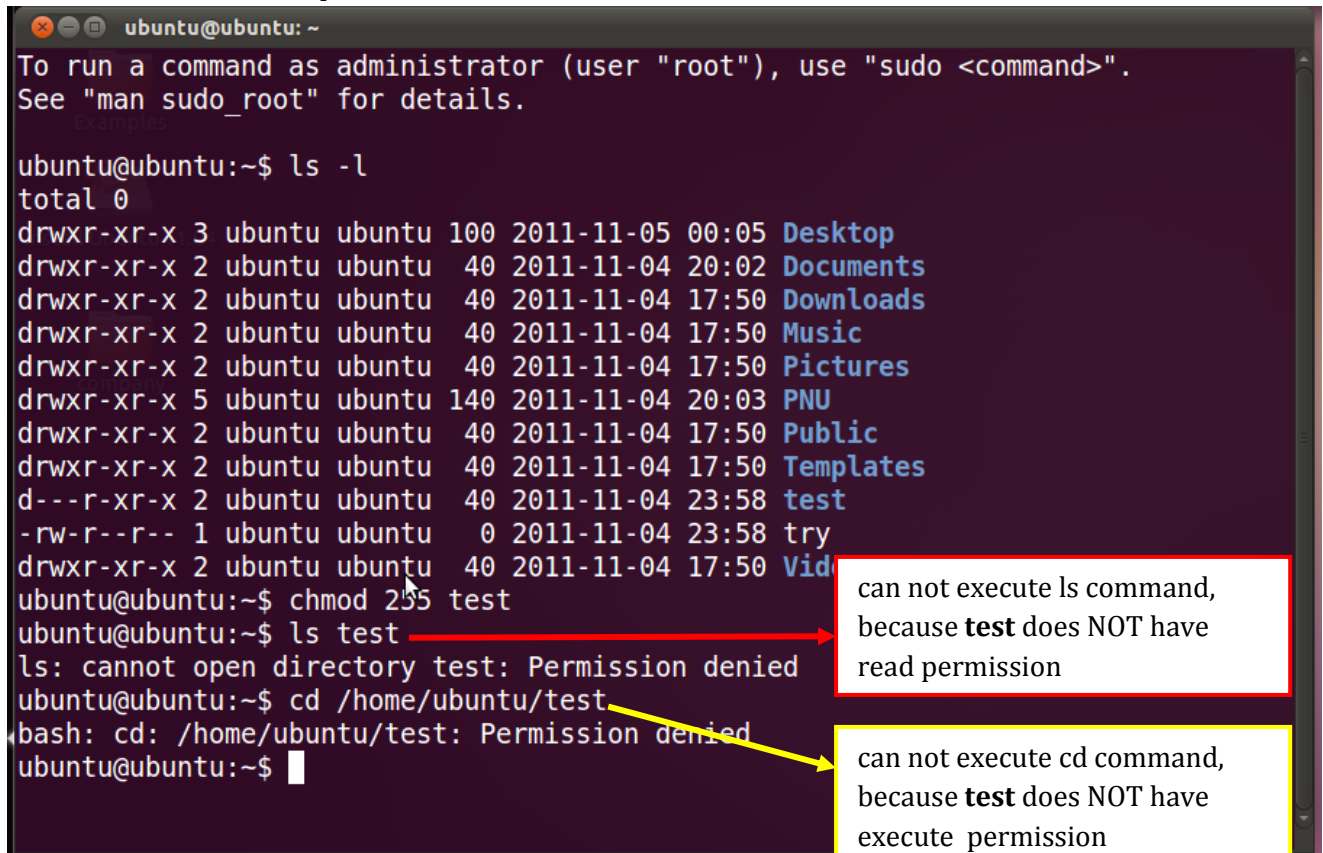
```
ubuntu@ubuntu: ~  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
ubuntu@ubuntu:~$ ls -l  
total 0  
drwxr-xr-x 3 ubuntu ubuntu 100 2011-11-05 00:00 Desktop  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 20:02 Documents  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Downloads  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Music  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Pictures  
drwxr-xr-x 5 ubuntu ubuntu 140 2011-11-04 20:03 PNU  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Public  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Templates  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 23:58 test  
-rw-r--r-- 1 ubuntu ubuntu 0 2011-11-04 23:58 try  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Videos  
ubuntu@ubuntu:~$
```

This is **test** permission, and it is the default for any new directory.

This is **try** permission, and it is the default for any new file.

- change the permission of test, and remove read and execute permission from the owner, using numeric notation.

`$chmod 255 test` → then press ENTER



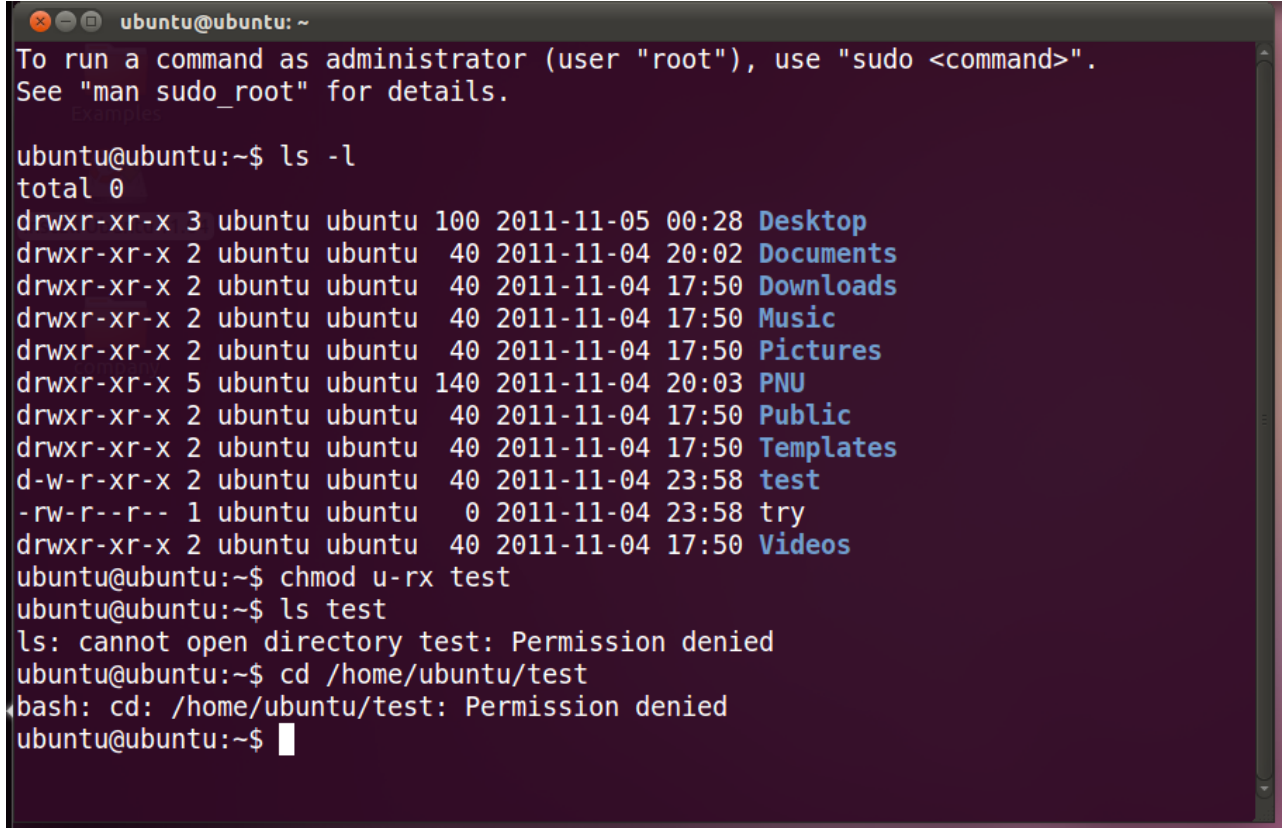
```
ubuntu@ubuntu: ~  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
ubuntu@ubuntu:~$ ls -l  
total 0  
drwxr-xr-x 3 ubuntu ubuntu 100 2011-11-05 00:05 Desktop  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 20:02 Documents  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Downloads  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Music  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Pictures  
drwxr-xr-x 5 ubuntu ubuntu 140 2011-11-04 20:03 PNU  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Public  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Templates  
d---r-xr-x 2 ubuntu ubuntu 40 2011-11-04 23:58 test  
-rw-r--r-- 1 ubuntu ubuntu 0 2011-11-04 23:58 try  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Videos  
ubuntu@ubuntu:~$ chmod 255 test  
ubuntu@ubuntu:~$ ls test  
ls: cannot open directory test: Permission denied  
ubuntu@ubuntu:~$ cd /home/ubuntu/test  
bash: cd: /home/ubuntu/test: Permission denied  
ubuntu@ubuntu:~$
```

can not execute ls command, because **test** does NOT have read permission

can not execute cd command, because **test** does NOT have execute permission

- change the permission of test, and remove read and execute permission from the owner, using symbolic notation.

\$chmod u-rx test → then press ENTER

A terminal window titled 'ubuntu@ubuntu: ~' showing the output of 'ls -l' and the result of 'chmod u-rx test'. The 'ls -l' command lists various directories with permissions like 'drwxr-xr-x'. The 'test' directory is listed with permissions 'd-w-r-xr-x'. After running 'chmod u-rx test', the next 'ls test' command results in a 'Permission denied' error. Similarly, attempting to 'cd /home/ubuntu/test' also results in a 'Permission denied' error.

```
ubuntu@ubuntu: ~  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
Examples  
ubuntu@ubuntu:~$ ls -l  
total 0  
drwxr-xr-x 3 ubuntu ubuntu 100 2011-11-05 00:28 Desktop  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 20:02 Documents  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Downloads  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Music  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Pictures  
drwxr-xr-x 5 ubuntu ubuntu 140 2011-11-04 20:03 PNU  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Public  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Templates  
d-w-r-xr-x 2 ubuntu ubuntu 40 2011-11-04 23:58 test  
-rw-r--r-- 1 ubuntu ubuntu 0 2011-11-04 23:58 try  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Videos  
ubuntu@ubuntu:~$ chmod u-rx test  
ubuntu@ubuntu:~$ ls test  
ls: cannot open directory test: Permission denied  
ubuntu@ubuntu:~$ cd /home/ubuntu/test  
bash: cd: /home/ubuntu/test: Permission denied  
ubuntu@ubuntu:~$
```

- change the permission of test, and remove write permission from the owner, using numeric notation.

\$chmod 555 test → then press ENTER

```
ubuntu@ubuntu: ~/test
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ubuntu:~$ ls -l
total 0
drwxr-xr-x 3 ubuntu ubuntu 100 2011-11-05 00:37 Desktop
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 20:02 Documents
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Downloads
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Music
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Pictures
drwxr-xr-x 5 ubuntu ubuntu 140 2011-11-04 20:03 PNU
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Public
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Templates
d-w-r-xr-x 2 ubuntu ubuntu 40 2011-11-04 23:58 test
-rw-r--r-- 1 ubuntu ubuntu 0 2011-11-04 23:58 try
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Videos

ubuntu@ubuntu:~$ chmod 555 test
ubuntu@ubuntu:~$ cd /home/ubuntu/test
ubuntu@ubuntu:~/test$ pwd
/home/ubuntu/test
ubuntu@ubuntu:~/test$ mkdir d1
mkdir: cannot create directory `d1': Permission denied
ubuntu@ubuntu:~/test$ touch f1
touch: cannot touch `f1': Permission denied
ubuntu@ubuntu:~/test$
```

we can use cd, because the execute permission is given to test

mkdir → create a new directory called d1 in the current directory which is test
BUT: mkdir can not be executed because test has NO write permission

touch → create a new file called f1 in the current directory which is test
BUT: touch can not be executed because test has NO write permission

- change the permission of test, and give read,write, execute permission for the owner, using numeric notation.

\$chmod 755 test

using the GUI create a file called g inside test

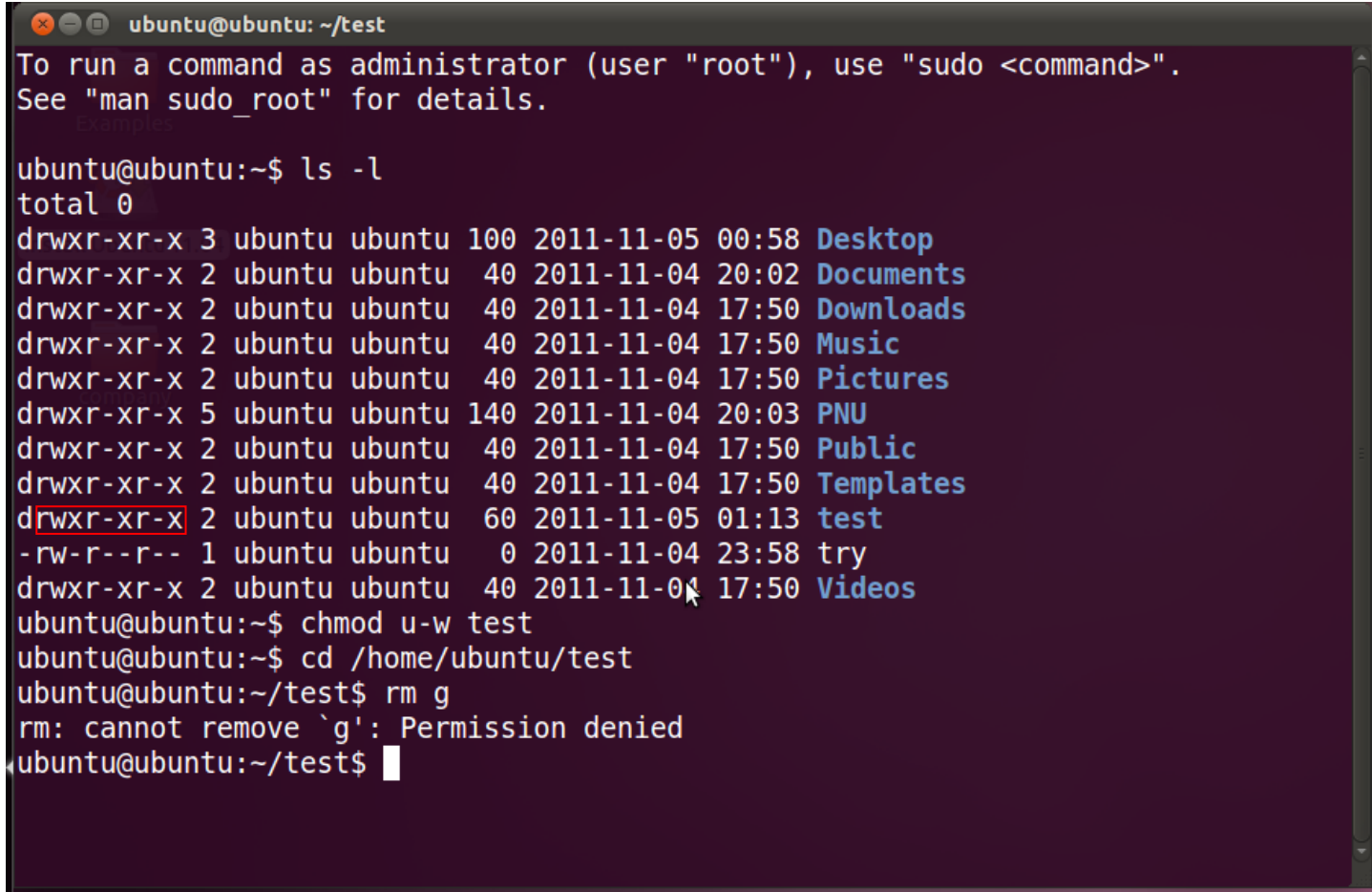
- change the permission of test, and remove the write permission from the owner, using symbolic notation.

\$chmod u-w test → then press ENTER

- let test the current directory, then remove(delete) the file g using the command rm.

\$cd /home/ubuntu/test → test is the current

\$rm g → can not be done, because test has NO write permission → can not remove(delete) g

A terminal window titled 'ubuntu@ubuntu: ~/test' showing a series of commands and their outputs. The window has a dark background with light-colored text. At the top, a message says: 'To run a command as administrator (user "root"), use "sudo <command>". See "man sudo_root" for details.' Below this, the user runs 'ls -l', which lists directory contents with permissions, owner, group, size, date, time, and name. The 'test' directory is highlighted with a red box. Then, the user runs 'chmod u-w test'. Next, the user runs 'cd /home/ubuntu/test'. Finally, the user runs 'rm g', which results in an error message: 'rm: cannot remove `g': Permission denied'.

```
ubuntu@ubuntu: ~/test
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

Example:
ubuntu@ubuntu:~$ ls -l
total 0
drwxr-xr-x 3 ubuntu ubuntu 100 2011-11-05 00:58 Desktop
drwxr-xr-x 2 ubuntu ubuntu  40 2011-11-04 20:02 Documents
drwxr-xr-x 2 ubuntu ubuntu  40 2011-11-04 17:50 Downloads
drwxr-xr-x 2 ubuntu ubuntu  40 2011-11-04 17:50 Music
drwxr-xr-x 2 ubuntu ubuntu  40 2011-11-04 17:50 Pictures
drwxr-xr-x 5 ubuntu ubuntu 140 2011-11-04 20:03 PNU
drwxr-xr-x 2 ubuntu ubuntu  40 2011-11-04 17:50 Public
drwxr-xr-x 2 ubuntu ubuntu  40 2011-11-04 17:50 Templates
drwxr-xr-x 2 ubuntu ubuntu  60 2011-11-05 01:13 test
-rw-r--r-- 1 ubuntu ubuntu   0 2011-11-04 23:58 try
drwxr-xr-x 2 ubuntu ubuntu  40 2011-11-04 17:50 Videos
ubuntu@ubuntu:~$ chmod u-w test
ubuntu@ubuntu:~$ cd /home/ubuntu/test
ubuntu@ubuntu:~/test$ rm g
rm: cannot remove `g': Permission denied
ubuntu@ubuntu:~/test$
```

NOTE:

to see the permission again after chmod → use the command → \$ls -l

- change the permission of the file try, and remove read and write permission from the owner, using numeric notation.

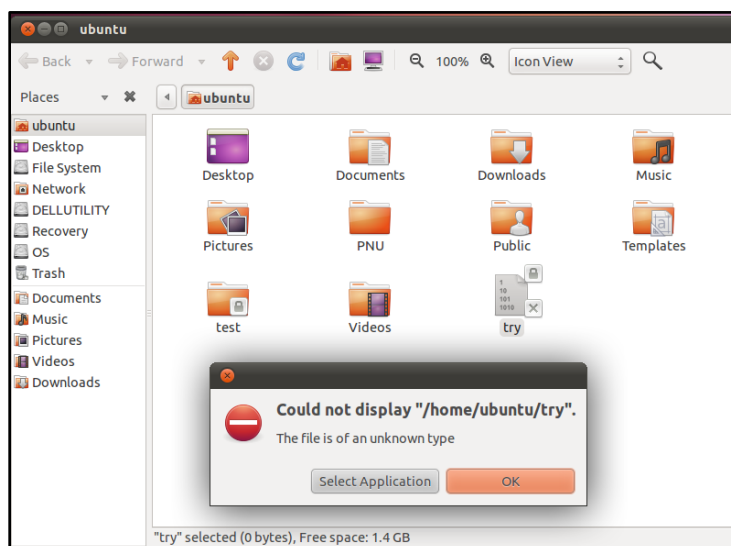
\$chmod 144 try

```
ubuntu@ubuntu: ~  
See "man sudo_root" for details.  
  
ubuntu@ubuntu:~$ ls -l  
total 0  
drwxr-xr-x 3 ubuntu ubuntu 100 2011-11-05 01:18 Desktop  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 20:02 Documents  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Downloads  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Music  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Pictures  
drwxr-xr-x 5 ubuntu ubuntu 140 2011-11-04 20:03 PNU  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Public  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Templates  
dr-xr-xr-x 2 ubuntu ubuntu 60 2011-11-05 01:13 test  
-rw-r--r-- 1 ubuntu ubuntu 0 2011-11-04 23:58 try  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Videos  
ubuntu@ubuntu:~$ chmod 144 try  
ubuntu@ubuntu:~$ ls -l  
total 0  
drwxr-xr-x 3 ubuntu ubuntu 100 2011-11-05 01:18 Desktop  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 20:02 Documents  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Downloads  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Music  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Pictures  
drwxr-xr-x 5 ubuntu ubuntu 140 2011-11-04 20:03 PNU  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Public  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Templates  
dr-xr-xr-x 2 ubuntu ubuntu 60 2011-11-05 01:13 test  
--xr--r-- 1 ubuntu ubuntu 0 2011-11-04 23:58 try  
drwxr-xr-x 2 ubuntu ubuntu 40 2011-11-04 17:50 Videos  
ubuntu@ubuntu:~$
```

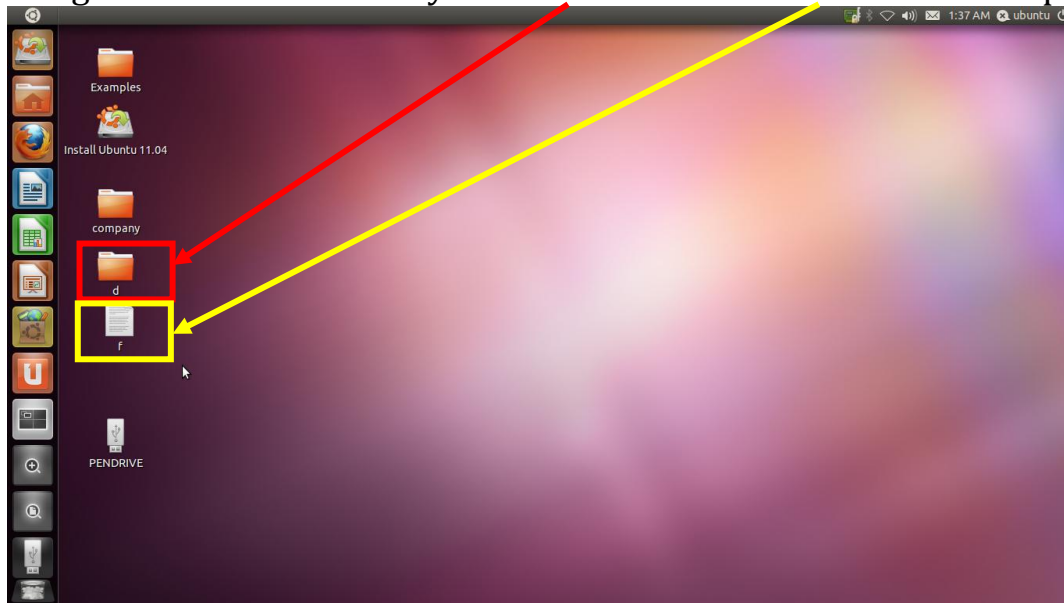
try permission before chmod

try permission after chmod

in the GUI, opening(double click) the file try gives this window, because try does NOT have read or write permission



- using GUI create a directory called **d** and file called **f** in the desktop



- change the permission of d, remove the write and execute permission from the owner, using symbolic notation.

\$chmod u-wx d → gives an error because d is not in the current

So, the correct is:

\$cd /home/ubuntu/Desktop → Desktop is the current

\$chmod u-wx d

```
ubuntu@ubuntu: ~/Desktop
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ubuntu:~$ chmod u-wx d
chmod: cannot access `d': No such file or directory
ubuntu@ubuntu:~$ cd /home/ubuntu/Desktop
ubuntu@ubuntu:~/Desktop$ chmod u-wx d
ubuntu@ubuntu:~/Desktop$ ls -l
total 12
drwxr-xr-x 5 ubuntu ubuntu 140 2011-11-04 20:06 company
d--r-xr-x 2 ubuntu ubuntu 40 2011-11-05 01:36 d
-rwxr-xr-x 1 ubuntu ubuntu 203 2011-11-04 17:51 examples.desktop
-rw-r--r-- 1 ubuntu ubuntu 0 2011-11-05 01:36 f
-rwxr-xr-x 1 ubuntu ubuntu 7672 2011-11-04 15:44 ubiquity-gtkui.desktop
ubuntu@ubuntu:~/Desktop$
```

gives an error because d is not in the current

Desktop is the current

d permission after chmod

- remove the read permission from the file f, using the numeric notation.

\$chmod 244 f

```
ubuntu@ubuntu: ~/Desktop
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ubuntu:~$ chmod u-wx d
chmod: cannot access `d': No such file or directory
ubuntu@ubuntu:~$ cd /home/ubuntu/Desktop
ubuntu@ubuntu:~/Desktop$ chmod u-wx d
ubuntu@ubuntu:~/Desktop$ ls -l
total 12
drwxr-xr-x 5 ubuntu ubuntu 140 2011-11-04 20:06 company
dr--r-xr-x 2 ubuntu ubuntu 40 2011-11-05 01:36 d
-rwxr-xr-x 1 ubuntu ubuntu 203 2011-11-04 17:51 examples.desktop
-rw-r--r-- 1 ubuntu ubuntu 0 2011-11-05 01:36 f
-rwxr-xr-x 1 ubuntu ubuntu 7672 2011-11-04 15:44 ubiquity-g
ubuntu@ubuntu:~/Desktop$ chmod 244 f
ubuntu@ubuntu:~/Desktop$ ls -l
total 12
drwxr-xr-x 5 ubuntu ubuntu 140 2011-11-04 20:06 company
dr--r-xr-x 2 ubuntu ubuntu 40 2011-11-05 01:36 d
-rwxr-xr-x 1 ubuntu ubuntu 203 2011-11-04 17:51 examples.desktop
-rw-r--r-- 1 ubuntu ubuntu 0 2011-11-05 01:36 f
-rwxr-xr-x 1 ubuntu ubuntu 7672 2011-11-04 15:44 ubiquity-g
ubuntu@ubuntu:~/Desktop$
```

f permission before chmod

f permission after chmod