

Lab 2 – Part 2

13. Create a folder called myteam in your home directory and change its permissions to read only for the owner.

```
hamza@Hamza-Inspiron-5567: ~  
hamza@Hamza-Inspiron-5567:~$ mkdir myteam  
hamza@Hamza-Inspiron-5567:~$ ls -ld myteam  
drwxrwxr-x 2 hamza hamza 4096 Mar 18 13:08 myteam  
hamza@Hamza-Inspiron-5567:~$ chmod u-wx myteam  
hamza@Hamza-Inspiron-5567:~$ ls -ld myteam  
dr--rwxr-x 2 hamza hamza 4096 Mar 18 13:08 myteam  
hamza@Hamza-Inspiron-5567:~$
```

14. Log out and log in by another user

15. Try to access (by cd command) the folder (myteam)

```
hamza@Hamza-Inspiron-5567: ~  
hamza@Hamza-Inspiron-5567:~$ ls -ld myteam  
dr--rwxr-x 2 hamza hamza 4096 Mar 18 13:08 myteam  
hamza@Hamza-Inspiron-5567:~$ sudo su - Josef  
Josef@Hamza-Inspiron-5567:~$ cd /home/hamza/myteam  
Josef@Hamza-Inspiron-5567:/home/hamza/myteam$ sudo su - hamza  
hamza@Hamza-Inspiron-5567:~$ cd /home/hamza/myteam  
-bash: cd: /home/hamza/myteam: Permission denied  
hamza@Hamza-Inspiron-5567:~$
```

The owner “hamza” couldn’t access the directory, but the other user ‘Josef’ could access it. This happened because the permissions given to the owner is to read only the directory.

16. Using the command Line

- Change the permissions of oldpasswd file to give owner read and write permissions and for group write and execute and execute only for the others (using chmod in 2 different ways)

```
hamza@Hamza-Inspiron-5567: ~  
hamza@Hamza-Inspiron-5567:~$ ls -l oldpasswd  
-rw-r--r-- 1 hamza hamza 2937 Mar 15 20:27 oldpasswd  
hamza@Hamza-Inspiron-5567:~$ chmod u=rw,g=wx,o=x oldpasswd  
hamza@Hamza-Inspiron-5567:~$ ls -l oldpasswd  
-rw--wx--x 1 hamza hamza 2937 Mar 15 20:27 oldpasswd  
hamza@Hamza-Inspiron-5567:~$ chmod 631 oldpasswd  
hamza@Hamza-Inspiron-5567:~$ ls -l oldpasswd  
-rw--wx--x 1 hamza hamza 2937 Mar 15 20:27 oldpasswd  
hamza@Hamza-Inspiron-5567:~$
```

- Change your default permissions to be as above.
What is the maximum permission a file can have, by default when it is just created?
And what is that for directory.

```
hamza@Hamza-Inspiron-5567: ~
hamza@Hamza-Inspiron-5567:~$ umask
0002
hamza@Hamza-Inspiron-5567:~$ umask 146
hamza@Hamza-Inspiron-5567:~$
```

After applying the umask 146, the default permissions for a file will be as follows: -rw--w--- which means the owner has the read and write permissions , the group has the write permission only, and the others has no permissions.

- Change your default permissions to be no permission to everyone then create a directory and a file to verify.

```
hamza@Hamza-Inspiron-5567: ~
hamza@Hamza-Inspiron-5567:~$ umask 777
hamza@Hamza-Inspiron-5567:~$ mkdir locked_dir
hamza@Hamza-Inspiron-5567:~$ touch locked_file
hamza@Hamza-Inspiron-5567:~$ ls -ld locked*
d----- 2 hamza hamza 4096 Mar 18 13:36 locked_dir
----- 1 hamza hamza   0 Mar 18 13:36 locked_file
hamza@Hamza-Inspiron-5567:~$
```

17. What are the minimum permission needed for:

- Copy a directory
(permission for source directory and permissions for target parent directory)

I should have execute permissions for the parent.
I should have also read permission for the directory itself.

- Copy a file
(permission for source file and and permission for target parent directory)

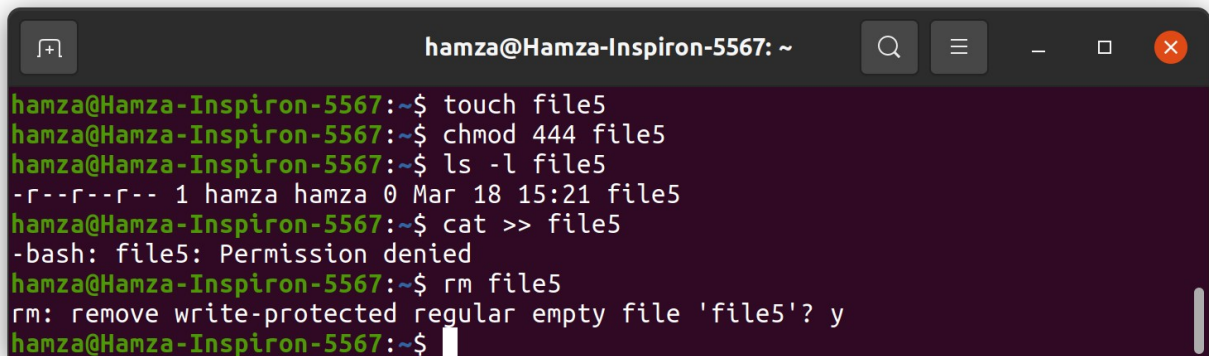
I should have execute permissions for the parent directory.
I should have also read permission for the file itself.

- Delete a file
I should have execute and write permissions for the parent directory.
No permissions are required for the file itself

- Change to a directory
I should have only execute permission for the directory and its parent.

- List a directory content (ls command)
I should have only read permission for the directory.
- View a file content (more/cat command)
I should have only read permission for the file.
- Modify a file content
I should have only write permission for the file.

18. Create a file with permission 444. Try to edit in it and to remove it?



```
hamza@Hamza-Inspiron-5567: ~  
hamza@Hamza-Inspiron-5567:~$ touch file5  
hamza@Hamza-Inspiron-5567:~$ chmod 444 file5  
hamza@Hamza-Inspiron-5567:~$ ls -l file5  
-r--r--r-- 1 hamza hamza 0 Mar 18 15:21 file5  
hamza@Hamza-Inspiron-5567:~$ cat >> file5  
-bash: file5: Permission denied  
hamza@Hamza-Inspiron-5567:~$ rm file5  
rm: remove write-protected regular empty file 'file5'? y  
hamza@Hamza-Inspiron-5567:~$
```

Note what happened.

The file couldn't be modified, but it could be removed successfully

19. What is the difference between the “x” permission for a file and for a directory?

For a directory, the execute permission means that I could enter the directory.

For a file, the execute permission means that I could run the script inside the file.