

# Linux Task

1. Create a folder called /tmp/myteam.

```
(kali㉿kali)-[~]
$ pwd
/home/kali

(kali㉿kali)-[~]
$ ls
Desktop  Downloads  gobuster.common  key-1-of-3.txt  Pictures  reverse.exe  Templates  yarGen
Documents  fsociety.dic  hydra.restore  Music  Public  Sublist3r  Videos  yarGen.tar.gz

(kali㉿kali)-[~]
$ cd ..

(kali㉿kali)-[/home]
$ ls
kali

(kali㉿kali)-[/home]
$ cd ..

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

(kali㉿kali)-[/]
$ cd tmp
```

2. Change its permissions to read only for the owner.

```
(kali㉿kali)-[/tmp]
$ mkdir myteam

(kali㉿kali)-[/tmp]
$ chmod 400 myteam
```

3. Log out and log in by another user. Try to access the folder.

```
(suhaila㉿kali)-[/home]
$ cd ..

(suhaila㉿kali)-[/]
$ cd /tmp/myteam
-bash: cd: /tmp/myteam: Permission denied
```

4. Using the command Line Change the permissions of mycv 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).

```
(kali㉿kali)-[~]  
$ cd Desktop  
  
(kali㉿kali)-[~/Desktop]  
$ touch mycv  
  
(kali㉿kali)-[~/Desktop]  
$ chmod 631 mycv  
  
(kali㉿kali)-[~/Desktop]  
$ chmod u=rw,g=WX,o=X mycv
```

5. Change your default permissions to be as above (question 4).

```
(kali㉿kali)-[~/Desktop]  
$ umask 631  
  
(kali㉿kali)-[~/Desktop]  
$ touch mycv3  
  
(kali㉿kali)-[~/Desktop]  
$ ls -l  
total 68300  
drwxrwxr-x 2 kali kali 4096 Oct 11 07:49 malwareSamples  
-rw--wx--x 1 kali kali 0 Dec 13 08:04 mycv  
----- 1 kali kali 0 Dec 13 08:10 mycv2  
----- 1 kali kali 0 Dec 13 08:36 mycv3  
-rw-rw-r-- 1 kali kali 69929068 Sep 13 16:35 Nessus-10.8.3-ubuntu1604_amd64.deb  
-rw-rw-r-- 1 kali kali 2186 Oct 11 17:03 rule.yar
```

6. What is the maximum permission a file can have, by default when it is just created? And what is that for directory.

For Files:

- **Maximum Permissions:** 666 (Read and Write for Owner, Group, and Others)
  - Files do not have execute (x) permission by default for security reasons.

For Directories:

- **Maximum Permissions:** 777 (Read, Write, and Execute for Owner, Group, and Others)
  - Directories need execute (x) permission for users to traverse or access the contents.

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

```
(kali㉿kali)-[~/Desktop]
$ umask 0777

(kali㉿kali)-[~/Desktop]
$ mkdir dir1

(kali㉿kali)-[~/Desktop]
$ ls -l
total 68304
d----- 2 kali kali      4096 Dec 13 09:36 dir1
drwxrwxr-x 2 kali kali      4096 Oct 11 07:49 malwareSamples
-rw--wx--x 1 kali kali         0 Dec 13 08:04 mycv
----- 1 kali kali         0 Dec 13 08:10 mycv2
----- 1 kali kali         0 Dec 13 08:36 mycv3
-rw-rw-r-- 1 kali kali 69929068 Sep 13 16:35 Nessus-10.8.3-ubuntu1604_amd64.deb
-rw-rw-r-- 1 kali kali      2186 Oct 11 17:03 rule.yar
```

8. What is the minimum permission needed for:

- Copy a directory (source and target)  
Source: rx  
Target: wx
- Copy a file (source and target)  
Source: r  
Target: wx
- Delete a file: wx
- Change to a directory: x
- List a directory content: rx
- View a file content: r
- Modify a file content: w

9. Create a file with permission 444. Try to edit it and to remove it? Note what happened. (notice write protection in Linux).

```
(kali㉿kali)-[~/Desktop]
$ touch file1

(kali㉿kali)-[~/Desktop]
$ chmod 444 file1

(kali㉿kali)-[~/Desktop]
$ rm file1
rm: remove write-protected regular empty file 'file1'?
```