

# Basic Linux Commands

## Assignment 3

Firstly, we will create an ubuntu server inside VirtualBox.

1. Create user raisa within group raisa:

```
vboxsf:x:999:raisavbox
vboxdrmpc:x:998:
raisa:x:1001:
raisavbox@Ubuntu:~$ groups raisa
raisa : raisa
raisavbox@Ubuntu:~$ id raisa
uid=1001(raisa) gid=1001(raisa) groups=1001(raisa)
raisavbox@Ubuntu:~$
```

2. Set a password for user raisa.

Make home directory for user raisa (/home/raisa)

Change ownership for this directory to user raisa of group raisa.

```
raisavbox@Ubuntu:~$ sudo mkdir /home/raisa
[sudo] password for raisavbox:
raisavbox@Ubuntu:~$ ls
Desktop  Documents  Downloads  Music  Pictures  Public  snap  Templates  Videos
raisavbox@Ubuntu:~$ sudo chown raisa:raisa /home/raisa
raisavbox@Ubuntu:~$ sudo chmod 700 /home/raisa
raisavbox@Ubuntu:~$ cd ~
raisavbox@Ubuntu:~$ su raisa
Password:
$ ls
ls: cannot open directory '.': Permission denied
$ cd ~
$ pwd
/home/raisa
$
```

Create two directories named os-concepts and ubuntu-is-the-best.

```
$ pwd
/home/raisa
$ mkdir os-concepts
$ pwd
/home/raisa
$ mkdir ubuntu-is-the-best
$ ls
os-concepts  ubuntu-is-the-best
```

3. Create two .txt files in each directory:

```
$ ls
os-concepts  ubuntu-is-the-best
$ cd os-concepts
$ pwd
/home/raisa/os-concepts
$ touch file1.txt file2.txt
$ ls
file1.txt  file2.txt
$ cd ..
$ cd ubuntu-is-the-best
$ pwd
/home/raisa/ubuntu-is-the-best
$ touch file1.txt file2.txt
$ ls
file1.txt  file2.txt
```

4. Detailed list of files:

```
$ pwd
/home/raisa/os-concepts
$ ls -l
total 0
-rw-rw-r-- 1 raisa raisa 0 ডিসে 14 23:48 file1.txt
-rw-rw-r-- 1 raisa raisa 0 ডিসে 14 23:48 file2.txt
$ cd ..
$ cd ubuntu-is-the-best
$ pwd
/home/raisa/ubuntu-is-the-best
$ ls -l
total 0
-rw-rw-r-- 1 raisa raisa 0 ডিসে 14 23:50 file1.txt
-rw-rw-r-- 1 raisa raisa 0 ডিসে 14 23:50 file2.txt
```

5. Permission of .txt files updated so that owner can read, write and group can only read and others cannot do anything:

```
$ pwd
/home/raisa/ubuntu-is-the-best
$ chmod 640 file1.txt file2.txt
$ ls -l
total 0
-rw-r----- 1 raisa raisa 0 ডিসে 14 23:50 file1.txt
-rw-r----- 1 raisa raisa 0 ডিসে 14 23:50 file2.txt
$ cd ..
$ cd os-concepts
$ pwd
/home/raisa/os-concepts
$ chmod 640 file1.txt file2.txt
$ ls -l
total 0
-rw-r----- 1 raisa raisa 0 ডিসে 14 23:48 file1.txt
-rw-r----- 1 raisa raisa 0 ডিসে 14 23:48 file2.txt
```

6. Create another group called second\_group:

```
raisavbox@Ubuntu:~$ sudo groupadd second_group
[sudo] password for raisavbox:
```

7. Update ownership of previous .txt files to the newly created group second\_group:

```
$ cd os-concepts
$ ls -l
total 0
-rw-r----- 1 raisa second_group 0 ডিসে 14 23:48 file1.txt
-rw-r----- 1 raisa second_group 0 ডিসে 14 23:48 file2.txt
$ cd ..
$ cd ubuntu-is-the-best
sh: 7: cd: can't cd to ubuntu-is-the-best
$ cd ubuntu-is-the-best
$ ls -l
total 0
-rw-r----- 1 raisa second_group 0 ডিসে 14 23:50 file1.txt
-rw-r----- 1 raisa second_group 0 ডিসে 14 23:50 file2.txt
```

8. Add user raisa to second\_group::

```
raisavbox@Ubuntu:~$ sudo usermod -aG second_group raisa
[sudo] password for raisavbox:
raisavbox@Ubuntu:~$ getent group second_group
second_group:x:1002:raisa
```

9. Create a file called crash.in ( File should contain the word crash in it ) in different directories and then find the file in all the locations using find command:

```
raisavbox@Ubuntu:~$ sudo find / -type f -name "crash.in"
find: '/run/user/1000/doc': Permission denied
find: '/run/user/1000/gvfs': Permission denied
/home/raisavbox/test_dir/crash.in
/home/raisavbox/crash.in
/home/raisavbox/ubuntu-is-the-best/crash.in
```

10. Replace the lines with crash to broken to all crash.in files:

```
raisavbox@Ubuntu:~$ sudo find / -type f -name "crash.in" -exec sed -i 's/crash/broken/g' {} +
[sudo] password for raisavbox:
find: '/run/user/1000/doc': Permission denied
find: '/run/user/1000/gvfs': Permission denied
raisavbox@Ubuntu:~$ cat crash.in
broken

raisavbox@Ubuntu:~$ cd test_dir
raisavbox@Ubuntu:~/test_dir$ cat crash.in
broken
```