

Linux Basic Commands

DevOps Assignment No 3

1. Create a user with user group

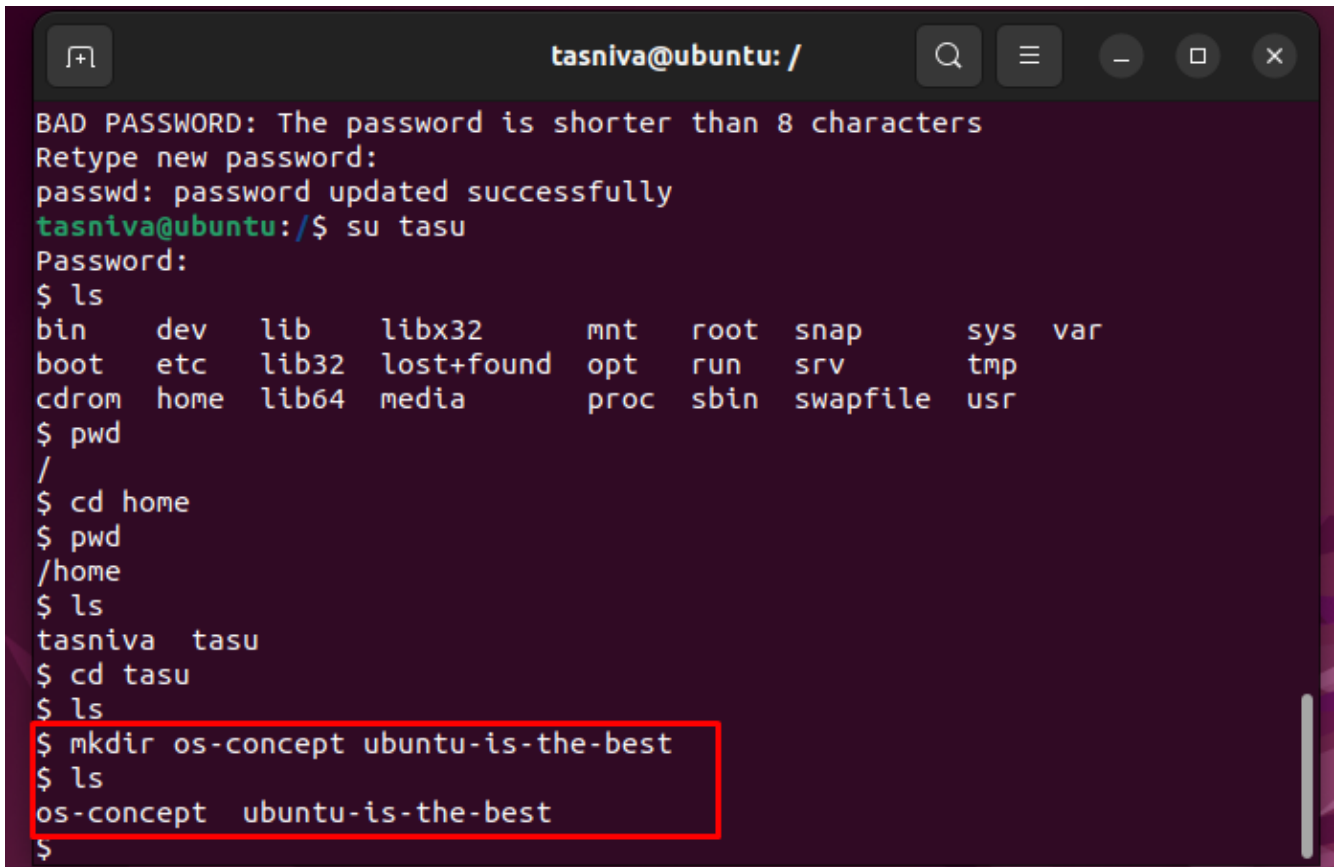
- sudo groupadd task1
- sudo useradd -g task1 -m tasu

```
tasniva@ubuntu: /
tasniva@ubuntu:/$ sudo groupadd task1
tasniva@ubuntu:/$ sudo useradd -g task1 -m tasu
tasniva@ubuntu:/$ id tasu
id: cannot open output file a.out: Permission denied
tasniva@ubuntu:/$ id tasu
uid=1004(tasu) gid=1004(task1) groups=1004(task1)
tasniva@ubuntu:/$
```

```
tasniva@ubuntu: /
:usr/sbin/nologin
rtkit:x:116:123:RealtimeKit,,,:/proc:/usr/sbin/nologin
whoopsie:x:117:124::/nonexistent:/bin/false
sssd:x:118:125:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin
speech-dispatcher:x:119:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
fwupd-refresh:x:120:126:fwupd-refresh user,,,:/run/systemd:/usr/sbin/nologin
nm-openvpn:x:121:127:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
saned:x:122:129::/var/lib/saned:/usr/sbin/nologin
colord:x:123:130:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:124:131::/var/lib/geoclue:/usr/sbin/nologin
pulse:x:125:132:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin
gnome-initial-setup:x:126:65534::/run/gnome-initial-setup:/bin/false
hplip:x:127:7:HPLIP system user,,,:/run/hplip:/bin/false
gdm:x:128:134:Gnome Display Manager:/var/lib/gdm3:/bin/false
tasniva:x:1000:1000:tasniva,,,:/home/tasniva:/bin/bash
vboxadd:x:999:1::/var/run/vboxadd:/bin/false
example1:x:1001:1001::/home/example1:/bin/sh
work1:x:1002:1002::/home/work1:/bin/sh
task:x:1003:1003::/home/task:/bin/sh
tasu:x:1004:1004::/home/tasu:/bin/sh
tasniva@ubuntu:/$
```

2. Create two directories in user's home directory named os-concepts and ubuntu-is-the-best

➤ `mkdir os-concepts ubuntu-is-the-best`



```
tasniva@ubuntu: /
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
tasniva@ubuntu:/$ su tasu
Password:
$ ls
bin      dev      lib      libx32   mnt      root     snap     sys      var
boot     etc      lib32    lost+found  opt      run      srv      tmp
cdrom    home     lib64    media    proc     sbin     swapfile usr
$ pwd
/
$ cd home
$ pwd
/home
$ ls
tasniva  tasu
$ cd tasu
$ ls
$ mkdir os-concept ubuntu-is-the-best
$ ls
os-concept  ubuntu-is-the-best
$
```

3. Create two files on each directory

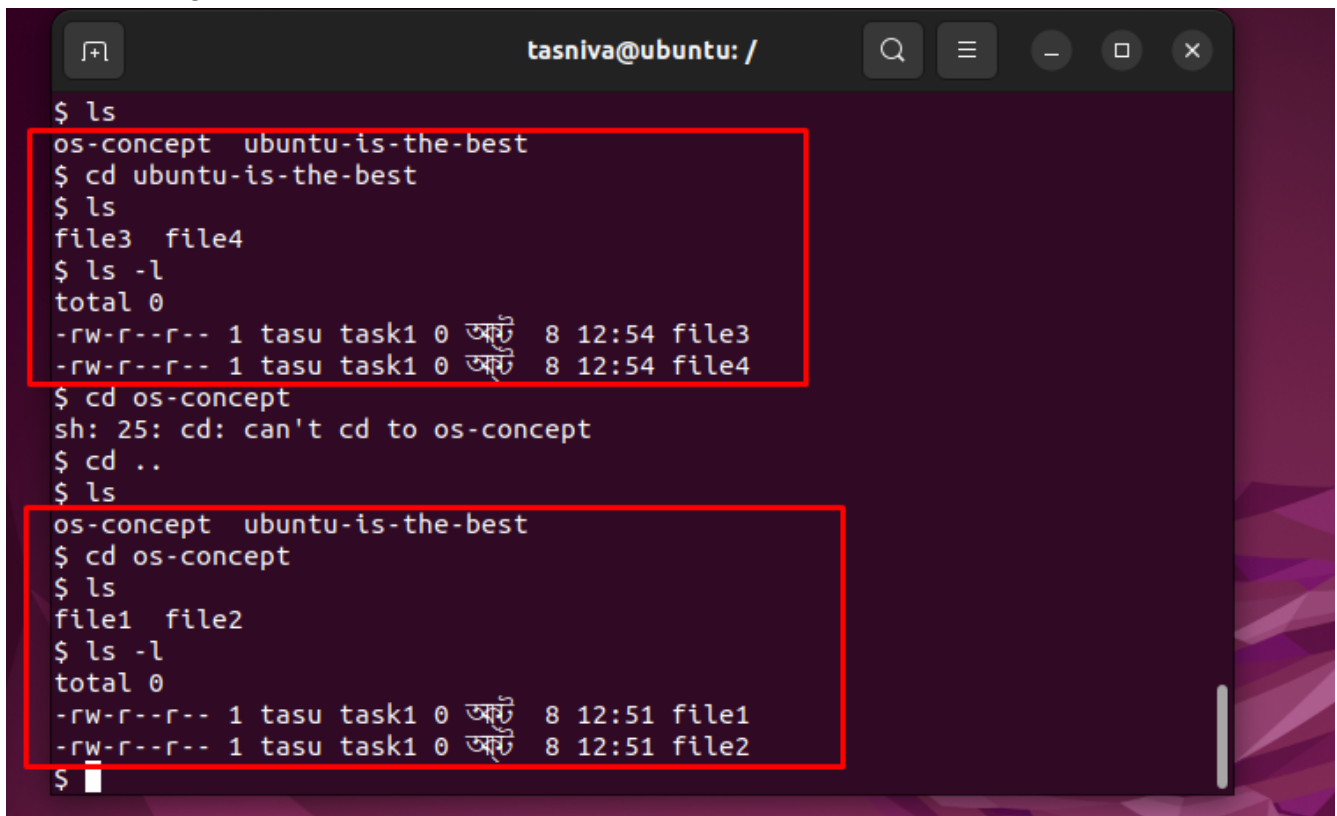
- touch file1 file2
- touch file3 file4

```
Retype new password:
passwd: password updated successfully
tasniva@ubuntu:/$ su tasu
Password:
$ ls
bin      dev      lib      libx32   mnt      root     snap     sys      var
boot    etc      lib32    lost+found  opt      run      srv      tmp
cdrom   home    lib64    media    proc     sbin     swapfile usr
$ pwd
/
$ cd home
$ pwd
/home
$ ls
tasniva  tasu
$ cd tasu
$ ls
$ mkdir os-concept ubuntu-is-the-best
$ ls
os-concept  ubuntu-is-the-best
$ cd os-concept
$ touch file1 file2
$ ls
file1  file2
$ cd ..
$ ls
os-concept  ubuntu-is-the-best
$ cd ubuntu-is-the-best
$ touch file3 file4
$ ls
file3  file4
```

4. List the files with detailed information (including file permission)

➤ ls -l

➤ ls -l

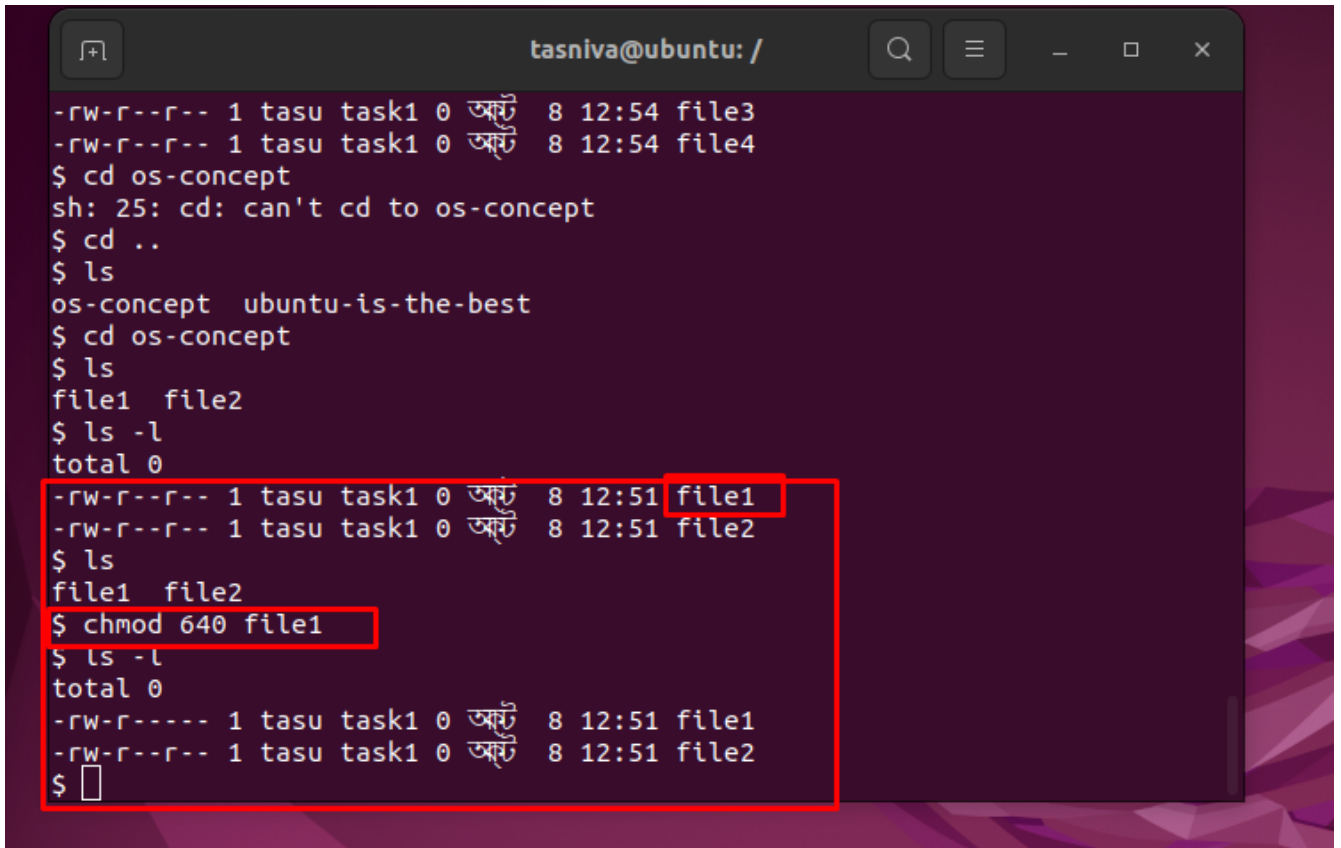


A terminal window titled 'tasniva@ubuntu: /' with standard Ubuntu window controls. The terminal shows a sequence of commands and their outputs. Two sections of the output are highlighted with red rectangles. The first section shows the current directory listing and the contents of the 'ubuntu-is-the-best' subdirectory. The second section shows the contents of the 'os-concept' subdirectory. The terminal output is as follows:

```
$ ls
os-concept  ubuntu-is-the-best
$ cd ubuntu-is-the-best
$ ls
file3  file4
$ ls -l
total 0
-rw-r--r-- 1 tasu task1 0 আট 8 12:54 file3
-rw-r--r-- 1 tasu task1 0 আট 8 12:54 file4
$ cd os-concept
sh: 25: cd: can't cd to os-concept
$ cd ..
$ ls
os-concept  ubuntu-is-the-best
$ cd os-concept
$ ls
file1  file2
$ ls -l
total 0
-rw-r--r-- 1 tasu task1 0 আট 8 12:51 file1
-rw-r--r-- 1 tasu task1 0 আট 8 12:51 file2
$
```

5. Update file permission so that owner can read,write and group can only read and others can not do anything

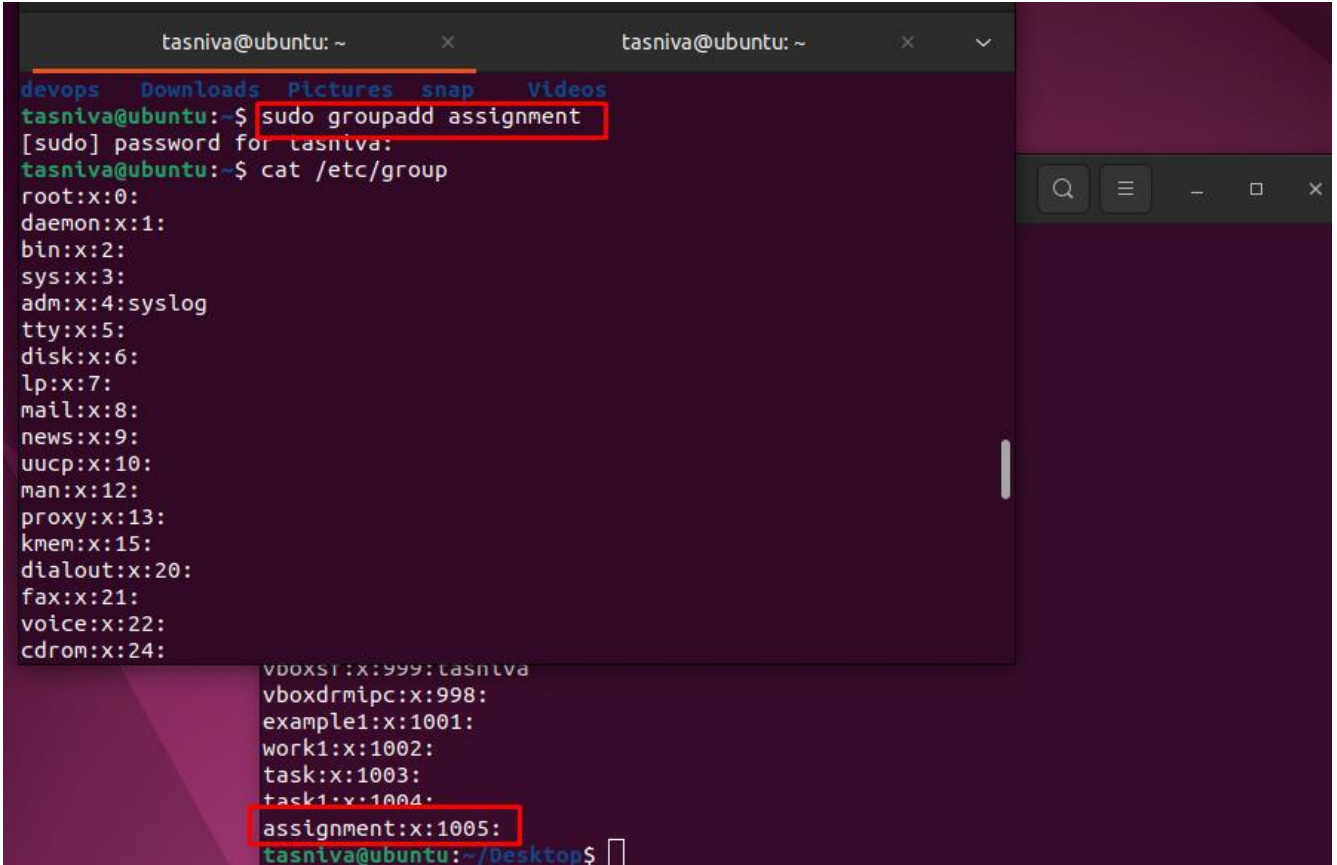
➤ `chmod 640 file3`



```
tasniva@ubuntu: /  
-rw-r--r-- 1 tasu task1 0 আট 8 12:54 file3  
-rw-r--r-- 1 tasu task1 0 আট 8 12:54 file4  
$ cd os-concept  
sh: 25: cd: can't cd to os-concept  
$ cd ..  
$ ls  
os-concept  ubuntu-is-the-best  
$ cd os-concept  
$ ls  
file1  file2  
$ ls -l  
total 0  
-rw-r--r-- 1 tasu task1 0 আট 8 12:51 file1  
-rw-r--r-- 1 tasu task1 0 আট 8 12:51 file2  
$ ls  
file1  file2  
$ chmod 640 file1  
$ ls -l  
total 0  
-rw-r----- 1 tasu task1 0 আট 8 12:51 file1  
-rw-r--r-- 1 tasu task1 0 আট 8 12:51 file2  
$
```

6. Create another group like as devops (root user) :

- groupadd devops

A terminal window with a dark purple background. The prompt is 'tasniva@ubuntu: ~'. The user enters 'sudo groupadd assignment', which is highlighted with a red box. The prompt changes to '[sudo] password for tasniva:'. The user then enters 'cat /etc/group'. The output lists system groups: root:x:0:, daemon:x:1:, bin:x:2:, sys:x:3:, adm:x:4:syslog, tty:x:5:, disk:x:6:, lp:x:7:, mail:x:8:, news:x:9:, uucp:x:10:, man:x:12:, proxy:x:13:, kmem:x:15:, dialout:x:20:, fax:x:21:, voice:x:22:, cdrom:x:24:, vboxst:x:999:tasniva, vboxdrmpc:x:998:, example1:x:1001:, work1:x:1002:, task:x:1003:, task1:x:1004:, and 'assignment:x:1005:', which is also highlighted with a red box. The prompt returns to 'tasniva@ubuntu:~/Desktop\$'.

```
tasniva@ubuntu: ~  
devops Downloads Pictures snap Videos  
tasniva@ubuntu:~$ sudo groupadd assignment  
[sudo] password for tasniva:  
tasniva@ubuntu:~$ cat /etc/group  
root:x:0:  
daemon:x:1:  
bin:x:2:  
sys:x:3:  
adm:x:4:syslog  
tty:x:5:  
disk:x:6:  
lp:x:7:  
mail:x:8:  
news:x:9:  
uucp:x:10:  
man:x:12:  
proxy:x:13:  
kmem:x:15:  
dialout:x:20:  
fax:x:21:  
voice:x:22:  
cdrom:x:24:  
vboxst:x:999:tasniva  
vboxdrmpc:x:998:  
example1:x:1001:  
work1:x:1002:  
task:x:1003:  
task1:x:1004:  
assignment:x:1005:  
tasniva@ubuntu:~/Desktop$
```

7. Update file ownership to the newly created group:

➤ `sudo chgrp devops file3`

8. Add the user to the new group

➤ `gpsswd -a kmhasan devops`

