Q.1 Create group and user as given below
Red
            apple
            banana
            cat
            dog
            elephant
Blue
            fish
            gun
            horse
            icecream
green
            jelly
            kitkat
            lolipop
            marshmallow
orange
            new
            oppo
            vivo
            china

a. create directory named EVERYONE in /home. Give all permission to EVERYONE
b. Create a file with every user (whoami >> username.txt)

oppo -> primary group change -> one
vivo -> primary group change -> two

jelly,kitkat, lolipop, marshmallow -> add these users to sudo group

fish,gun -> add these users to one group as well (secondary group)

```
dbda@dbda-VirtualBox:~$ sudo -s
root@dbda-VirtualBox:/home/dbda# ls
Desktop  Documents  Downloads  Music  Pictures  Public  snap  Templates  Videos
root@dbda-VirtualBox:/home/dbda# cd ..
root@dbda-VirtualBox:/home# ls -l
total 76
drwxr-x---   2 apple        red     4096 Mar 11 19:33 apple
drwxr-x---   2 banana       red     4096 Mar 11 19:58 banana
drwxr-x---   2 cat          red     4096 Mar 11 19:58 cat
drwxr-x---   2 china        orange  4096 Mar 11 19:57 china
drwxr-x--- 14 dbda         dbda    4096 Mar 11 19:08 dbda
drwxr-x---   2 dog          red     4096 Mar 11 19:58 dog
drwxr-x---   2 elephant     red     4096 Mar 11 19:58 elephant
drwxrwxrwx   2 root         root    4096 Mar 11 19:25 everyone
drwxr-x---   2 fish         blue    4096 Mar 11 19:58 fish
drwxr-x---   2 gun          blue    4096 Mar 11 19:58 gun
drwxr-x---   2 horse        blue    4096 Mar 11 19:58 horse
drwxr-x---   2 icecream     blue    4096 Mar 11 19:58 icecream
drwxr-x---   2 jelly        green   4096 Mar 11 19:58 jelly
drwxr-x---   2 kitkat       green   4096 Mar 11 19:58 kitkat
drwxr-x---   2 lolipop      green   4096 Mar 11 19:57 lolipop
drwxr-x---   2 marshmallow  green   4096 Mar 11 19:57 marshmallow
drwxr-x---   2 new          orange  4096 Mar 11 19:57 new
drwxr-x---   2 oppo         one     4096 Mar 11 19:57 oppo
drwxr-x---   2 vivo         orange  4096 Mar 11 19:57 vivo
root@dbda-VirtualBox:/home#
```

```
apple@dbda-VirtualBox:~$ whoami >> apple.txt
apple@dbda-VirtualBox:~$ ls
apple.txt
apple@dbda-VirtualBox:~$ su banana
Password:
banana@dbda-VirtualBox:/home/apple$ cd
banana@dbda-VirtualBox:~$ whoami >> banana.txt
banana@dbda-VirtualBox:~$ ls
banana.txt
banana@dbda-VirtualBox:~$ su cat
Password:
cat@dbda-VirtualBox:/home/banana$ cd
cat@dbda-VirtualBox:~$ whoami >> cat.txt
cat@dbda-VirtualBox:~$ ls
cat.txt
cat@dbda-VirtualBox:~$ su dog
Password:
dog@dbda-VirtualBox:/home/cat$ cd
dog@dbda-VirtualBox:~$ whoami >> dog.txt
dog@dbda-VirtualBox:~$ ls
dog.txt
dog@dbda-VirtualBox:~$ su elephant
Password:
elephant@dbda-VirtualBox:/home/dog$ cd
elephant@dbda-VirtualBox:~$ whoami >> elephant.txt
elephant@dbda-VirtualBox:~$ cat elephant.txt
elephant
elephant@dbda-VirtualBox:~$
```

Type here to search

```
fish@dbda-VirtualBox:~$ whoami >> fish.txt
fish@dbda-VirtualBox:~$ cat fish.txt
fish
fish@dbda-VirtualBox:~$ su gun
Password:
gun@dbda-VirtualBox:/home/fish$ cd
gun@dbda-VirtualBox:~$ whoami >> gun.txt
gun@dbda-VirtualBox:~$ cat gun.txt
gun
gun@dbda-VirtualBox:~$ su horse
Password:
horse@dbda-VirtualBox:/home/gun$ cd
horse@dbda-VirtualBox:~$ whoami >> horse.txt
horse@dbda-VirtualBox:~$ cat horse.txt
horse
horse@dbda-VirtualBox:~$ su icecream
Password:
icecream@dbda-VirtualBox:/home/horse$ cd
icecream@dbda-VirtualBox:~$ whoami >> icecream.txt
icecream@dbda-VirtualBox:~$ cat icecream.txt
icecream
icecream@dbda-VirtualBox:~$
```

```
icecream@dbda-VirtualBox:~$ su jelly
Password:
jelly@dbda-VirtualBox:/home/icecream$ cd
jelly@dbda-VirtualBox:~$ whoami >> jelly.txt
jelly@dbda-VirtualBox:~$ cat jelly.txt
jelly
jelly@dbda-VirtualBox:~$ su kitkat
Password:
kitkat@dbda-VirtualBox:/home/jelly$ whoami
kitkat
kitkat@dbda-VirtualBox:/home/jelly$ cd
kitkat@dbda-VirtualBox:~$ whoami >> kitkat.txt
kitkat@dbda-VirtualBox:~$ cat kitkat.txt
kitkat
kitkat@dbda-VirtualBox:~$ su lolipop
Password:
lolipop@dbda-VirtualBox:/home/kitkat$ cd
lolipop@dbda-VirtualBox:~$ whoami >> lolipop.txt
lolipop@dbda-VirtualBox:~$ cat lolipop.txt
lolipop
lolipop@dbda-VirtualBox:~$ su marshmallow
Password:
marshmallow@dbda-VirtualBox:/home/lolipop$ cd
marshmallow@dbda-VirtualBox:~$ whoami >> marshmallow.t
marshmallow@dbda-VirtualBox:~$ cat marshmallow.txt
marshmallow
marshmallow@dbda-VirtualBox:~$
```

```
new@dbda-VirtualBox:~$ whoami >> new.txt
new@dbda-VirtualBox:~$ cat new.txt
new
new@dbda-VirtualBox:~$ su oppo
Password:
oppo@dbda-VirtualBox:/home/new$ cd
oppo@dbda-VirtualBox:~$ whoami >> oppo.txt
oppo@dbda-VirtualBox:~$ cat oi
cat: oi: No such file or directory
oppo@dbda-VirtualBox:~$ cat oppo.txt
oppo
oppo@dbda-VirtualBox:~$ su vivo
Password:
vivo@dbda-VirtualBox:/home/oppo$ cd
vivo@dbda-VirtualBox:~$ whoami >> vivo.txt
vivo@dbda-VirtualBox:~$ cat vivo.txt
vivo
vivo@dbda-VirtualBox:~$ su china
Password:
china@dbda-VirtualBox:/home/vivo$ cd
china@dbda-VirtualBox:~$ whoami >> china.txt
china@dbda-VirtualBox:~$ cat china.txt
china
china@dbda-VirtualBox:~$
```

```
ubuntu@ip-172-31-12-171:/home$ cd
ubuntu@ip-172-31-12-171:~$ sudo addgroup one
Adding group `one' (GID 1005) ...
Done.
ubuntu@ip-172-31-12-171:~$ sudo addgroup two
Adding group `two' (GID 1006) ...
Done.
ubuntu@ip-172-31-12-171:~$
```

```
ubuntu@ip-172-31-12-171:~$ sudo usermod -g two vivo
ubuntu@ip-172-31-12-171:~$ cd /home
ubuntu@ip-172-31-12-171:/home$ ls -l
total 76
drwxr-x--- 2 apple       red    4096 Mar 11 16:19 apple
drwxr-x--- 2 banana      red    4096 Mar 11 16:19 banana
drwxr-x--- 2 cat         red    4096 Mar 11 16:20 cat
drwxr-x--- 2 china       orange 4096 Mar 11 16:26 china
drwxr-x--- 2 dog         red    4096 Mar 11 16:20 dog
drwxr-x--- 2 elephant    red    4096 Mar 11 16:20 elephant
drwxr-xr-x 2 root        root   4096 Mar 11 16:27 everyone
drwxr-x--- 2 fish        blue   4096 Mar 11 16:21 fish
drwxr-x--- 2 gun         blue   4096 Mar 11 16:21 gun
drwxr-x--- 2 horse       blue   4096 Mar 11 16:21 horse
drwxr-x--- 2 icecream    blue   4096 Mar 11 16:22 icecream
drwxr-x--- 2 jelly       green  4096 Mar 11 16:23 jelly
drwxr-x--- 2 kitkat      green  4096 Mar 11 16:23 kitkat
drwxr-x--- 2 lolipop     green  4096 Mar 11 16:24 lolipop
drwxr-x--- 2 marshmallow green  4096 Mar 11 16:24 marshmallow
drwxr-x--- 2 new         orange 4096 Mar 11 16:25 new
drwxr-x--- 2 oppo        one    4096 Mar 11 16:25 oppo
drwxr-x--- 4 ubuntu      ubuntu 4096 Mar 11 16:17 ubuntu
drwxr-x--- 2 vivo        two    4096 Mar 11 16:25 vivo
ubuntu@ip-172-31-12-171:/home$
```

```
ubuntu@ip-172-31-12-171:/home$ sudo usermod -aG sudo jelly
ubuntu@ip-172-31-12-171:/home$ sudo usermod -aG sudo kitkat
ubuntu@ip-172-31-12-171:/home$ sudo usermod -aG sudo lolipop
ubuntu@ip-172-31-12-171:/home$ sudo usermod -aG sudo marshmallow
ubuntu@ip-172-31-12-171:/home$ cat /etc/group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog,ubuntu
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:ubuntu
fax:x:21:
voice:x:22:
cdrom:x:24:ubuntu
floppy:x:25:ubuntu
tape:x:26:
sudo:x:27:ubuntu,jelly,kitkat,lolipop,marshmallow
audio:x:29:ubuntu
dip:x:30:ubuntu
www-data:x:33:
backup:x:34:
operator:x:37:
list:x:38:
irc:x:39:
src:x:40:
gnats:x:41:
shadow:x:42:
utmp:x:43:
video:x:44:ubuntu
sasl:x:45:
plugdev:x:46:ubuntu
staff:x:50:
```

```
plugdev:x:46:ubuntu
staff:x:50:
games:x:60:
users:x:100:
nogroup:x:65534:
systemd-journal:x:101:
systemd-network:x:102:
systemd-resolve:x:103:
crontab:x:104:
messagebus:x:105:
systemd-timesync:x:106:
input:x:107:
sgx:x:108:
kvm:x:109:
render:x:110:
syslog:x:111:
tss:x:112:
uuidd:x:113:
tcpdump:x:114:
_ssh:x:115:
landscape:x:116:
fwupd-refresh:x:117:
admin:x:118:
netdev:x:119:ubuntu
lxd:x:120:ubuntu
_chrony:x:121:
ubuntu:x:1000:
red:x:1001:
blue:x:1002:
green:x:1003:
orange:x:1004:
one:x:1005:gun,fish
two:x:1006:
ubuntu@ip-172-31-12-171:/home$
```

Q.2 Create Numbers.txt which will contain numbers from 1-50

a. display first 15 numbers

b. display last 10 numbers

c. display numbers in reverse order.

d.display numbers which includes 4 in it

```
ubuntu@ip-172-31-12-171:~$ nano number.txt
ubuntu@ip-172-31-12-171:~$ head -n 15 number.txt
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
ubuntu@ip-172-31-12-171:~$ tail number.txt
41
42
44
43
45
46
47
48
49
50
ubuntu@ip-172-31-12-171:~$ 
```

```
ubuntu@ip-172-31-12-171:~$ tac number.txt
50
49
48
47
46
45
43
44
42
41
40
39
38
37
36
35
34
33
32
31
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
```

```
ubuntu@ip-172-31-12-171:~$ grep '4' number.txt
4
14
24
34
40
41
42
44
43
45
46
47
48
49
ubuntu@ip-172-31-12-171:~$ 
```

Q.3 create Student.txt file as given below

Rollno:name:marks

1111:Ram:87

2222:Sham:69

3333:Teena:58

4444:Priya:74

   a.   Display only details of sham
   b.   Display only marks of Priya
   c.   Display total number of lines in student.txt

```
ubuntu@ip-172-31-12-171:~$ nano student.txt
ubuntu@ip-172-31-12-171:~$ cat student.txt | grep 'Sham'
2222:Sham:69
ubuntu@ip-172-31-12-171:~$ cat student.txt |grep 'Priya' | cut -d ':' -f3
74
ubuntu@ip-172-31-12-171:~$ wc -l student.txt
5 student.txt
ubuntu@ip-172-31-12-171:~$ |
```