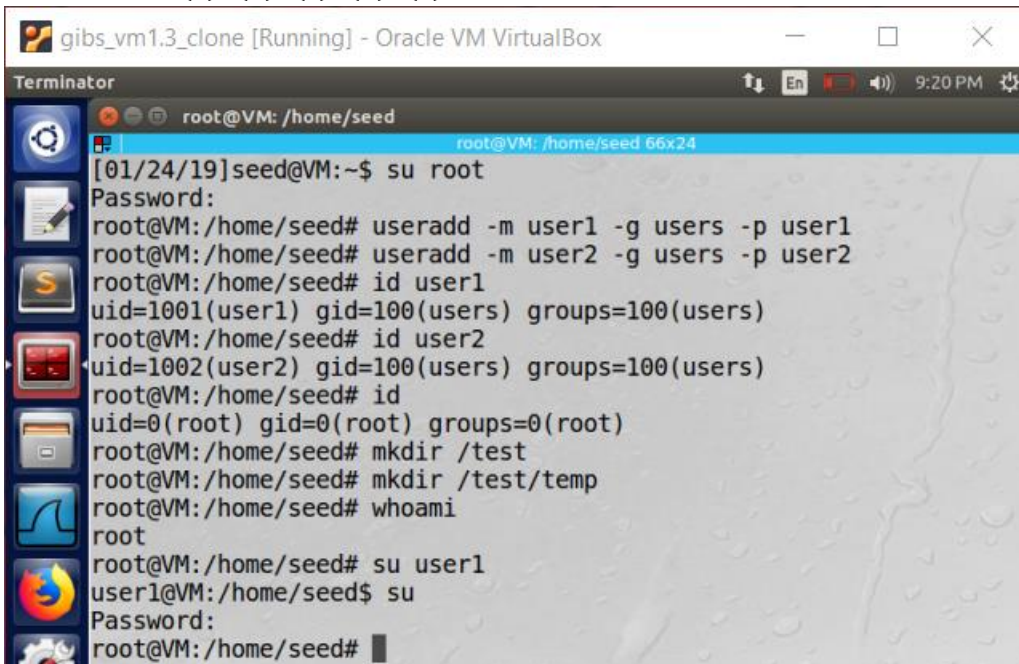


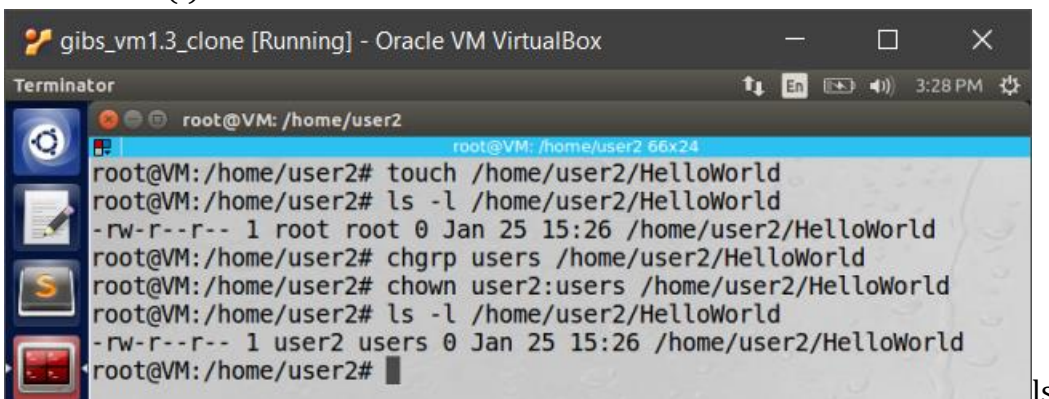
Unix Lab Procedures

1. Parts (a), (b), (c), (d), (e)



```
[01/24/19]seed@VM:~$ su root
Password:
root@VM:/home/seed# useradd -m user1 -g users -p user1
root@VM:/home/seed# useradd -m user2 -g users -p user2
root@VM:/home/seed# id user1
uid=1001(user1) gid=100(users) groups=100(users)
root@VM:/home/seed# id user2
uid=1002(user2) gid=100(users) groups=100(users)
root@VM:/home/seed# id
uid=0(root) gid=0(root) groups=0(root)
root@VM:/home/seed# mkdir /test
root@VM:/home/seed# mkdir /test/temp
root@VM:/home/seed# whoami
root
root@VM:/home/seed# su user1
user1@VM:/home/seed$ su
Password:
root@VM:/home/seed#
```

Part (f)



```
root@VM:/home/user2# touch /home/user2/HelloWorld
root@VM:/home/user2# ls -l /home/user2/HelloWorld
-rw-r--r-- 1 root root 0 Jan 25 15:26 /home/user2/HelloWorld
root@VM:/home/user2# chgrp users /home/user2/HelloWorld
root@VM:/home/user2# chown user2:users /home/user2/HelloWorld
root@VM:/home/user2# ls -l /home/user2/HelloWorld
-rw-r--r-- 1 user2 users 0 Jan 25 15:26 /home/user2/HelloWorld
root@VM:/home/user2#
```

2. Questions

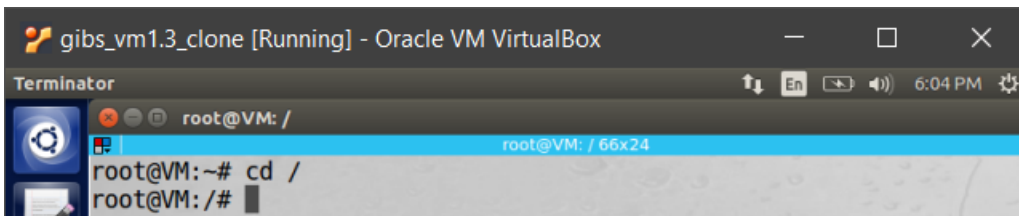
(a) Explain what chgrp and chown do?

chgrp changes the group, and chown changes the owner.

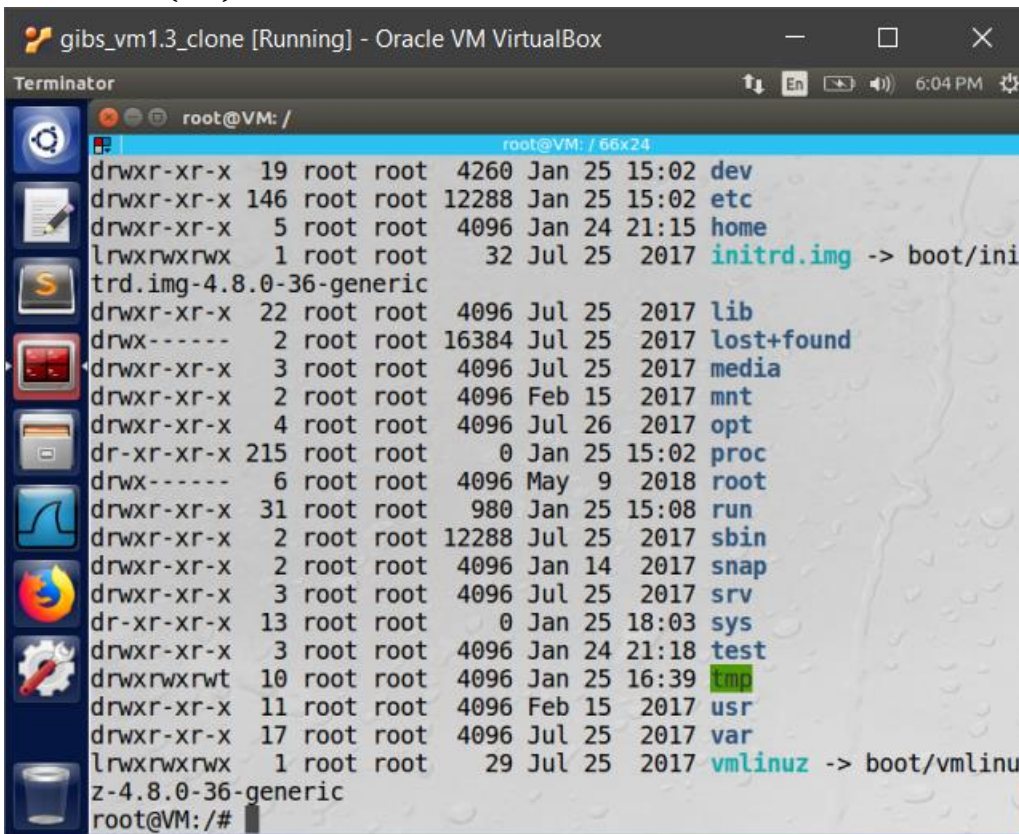
(b) What do -g and -p options mean?

-g is the name or ID of the primary group of the new account, and -p encrypted password of the new account.

3. Part (a-a)

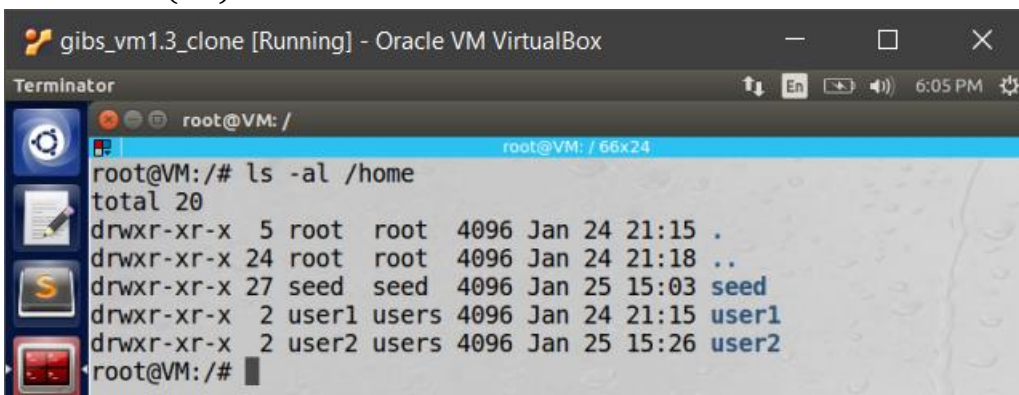


Part (a-b)



```
drwxr-xr-x 19 root root 4260 Jan 25 15:02 dev
drwxr-xr-x 146 root root 12288 Jan 25 15:02 etc
drwxr-xr-x 5 root root 4096 Jan 24 21:15 home
lrwxrwxrwx 1 root root 32 Jul 25 2017 initrd.img -> boot/init
trd.img-4.8.0-36-generic
drwxr-xr-x 22 root root 4096 Jul 25 2017 lib
drwx----- 2 root root 16384 Jul 25 2017 lost+found
drwxr-xr-x 3 root root 4096 Jul 25 2017 media
drwxr-xr-x 2 root root 4096 Feb 15 2017 mnt
drwxr-xr-x 4 root root 4096 Jul 26 2017 opt
dr-xr-xr-x 215 root root 0 Jan 25 15:02 proc
drwx----- 6 root root 4096 May 9 2018 root
drwxr-xr-x 31 root root 980 Jan 25 15:08 run
drwxr-xr-x 2 root root 12288 Jul 25 2017/sbin
drwxr-xr-x 2 root root 4096 Jan 14 2017/snap
drwxr-xr-x 3 root root 4096 Jul 25 2017/srv
dr-xr-xr-x 13 root root 0 Jan 25 18:03/sys
drwxr-xr-x 3 root root 4096 Jan 24 21:18/test
drwxrwxrwt 10 root root 4096 Jan 25 16:39/tmp
drwxr-xr-x 11 root root 4096 Feb 15 2017/usr
drwxr-xr-x 17 root root 4096 Jul 25 2017/var
lrwxrwxrwx 1 root root 29 Jul 25 2017/vmlinuz -> boot/vmlinu
z-4.8.0-36-generic
root@VM:/#
```

Part (a-c)



```
total 20
drwxr-xr-x 5 root root 4096 Jan 24 21:15 .
drwxr-xr-x 24 root root 4096 Jan 24 21:18 ..
drwxr-xr-x 27 seed seed 4096 Jan 25 15:03 seed
drwxr-xr-x 2 user1 users 4096 Jan 24 21:15 user1
drwxr-xr-x 2 user2 users 4096 Jan 25 15:26 user2
root@VM:/#
```

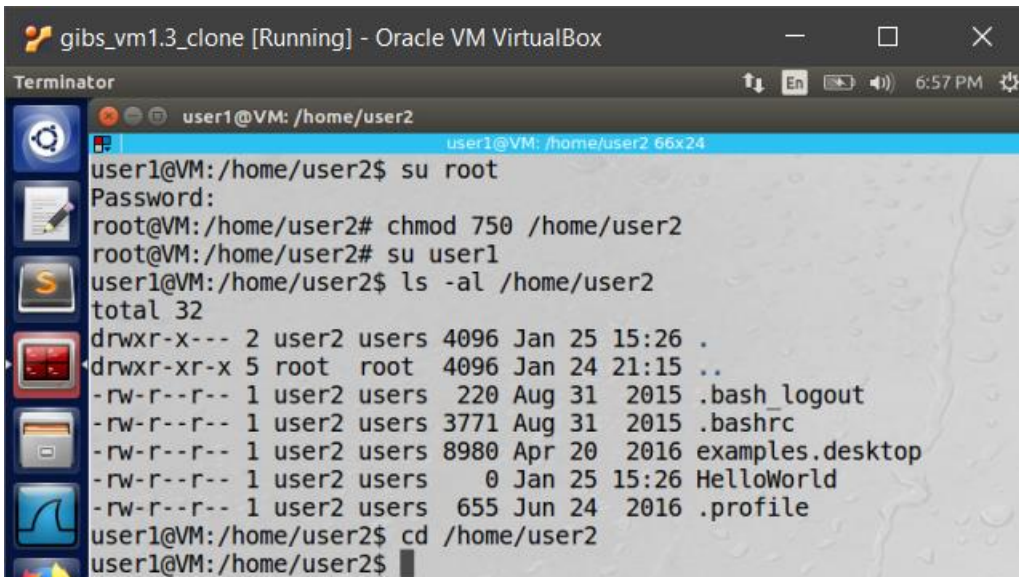
Parts (a-d), (a-e), (a-f)


```
gibs_vm1.3_clone [Running] - Oracle VM VirtualBox
Terminator
user1@VM: /home/user2
user1@VM: /home/user2 66x24
root@VM:/# su user1
user1@VM:/$ ls -al /home/user2
total 32
drwxr-xr-x 2 user2 users 4096 Jan 25 15:26 .
drwxr-xr-x 5 root  root  4096 Jan 24 21:15 ..
-rw-r--r-- 1 user2 users  220 Aug 31 2015 .bash_logout
-rw-r--r-- 1 user2 users 3771 Aug 31 2015 .bashrc
-rw-r--r-- 1 user2 users 8980 Apr 20 2016 examples.desktop
-rw-r--r-- 1 user2 users   0 Jan 25 15:26 HelloWorld
-rw-r--r-- 1 user2 users  655 Jun 24 2016 .profile
user1@VM:/$ cd /home/user2
user1@VM:/home/user2$
```

Parts (b-a), (b-b), (b-c)

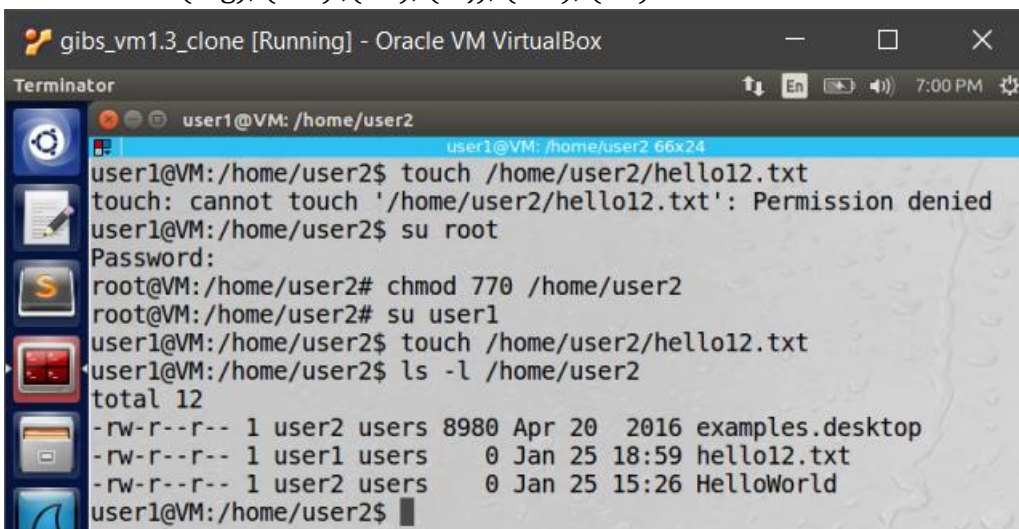
```
gibs_vm1.3_clone [Running] - Oracle VM VirtualBox
Terminator
user1@VM: /home/user2
user1@VM: /home/user2 66x24
user1@VM:/home/user2$ su root
Password:
root@VM:/home/user2# chmod 740 /home/user2
root@VM:/home/user2# su user1
user1@VM:/home/user2$ ls -al /home/user2
ls: cannot access '/home/user2/.bashrc': Permission denied
ls: cannot access '/home/user2/.profile': Permission denied
ls: cannot access '/home/user2/examples.desktop': Permission denied
ls: cannot access '/home/user2/.bash_logout': Permission denied
ls: cannot access '/home/user2/HelloWorld': Permission denied
ls: cannot access '/home/user2/.': Permission denied
ls: cannot access '/home/user2/..': Permission denied
total 0
d????????? ? ? ? ? ? ? ? ?
d????????? ? ? ? ? ? ? ? ?
-????????? ? ? ? ? ? ? ? ?
-????????? ? ? ? ? ? ? ? ?
-????????? ? ? ? ? ? ? ? ?
-????????? ? ? ? ? ? ? ? ?
-????????? ? ? ? ? ? ? ? ?
-????????? ? ? ? ? ? ? ? ?
user1@VM:/home/user2$
bash: cd: /home/user2: Permission denied
user1@VM:/home/user2$
```

Part (b-d), (b-e), (b-f)



```
user1@VM: /home/user2$ su root
Password:
root@VM: /home/user2# chmod 750 /home/user2
root@VM: /home/user2# su user1
user1@VM: /home/user2$ ls -al /home/user2
total 32
drwxr-x--- 2 user2 users 4096 Jan 25 15:26 .
drwxr-xr-x 5 root  root 4096 Jan 24 21:15 ..
-rw-r--r-- 1 user2 users 220 Aug 31 2015 .bash_logout
-rw-r--r-- 1 user2 users 3771 Aug 31 2015 .bashrc
-rw-r--r-- 1 user2 users 8980 Apr 20 2016 examples.desktop
-rw-r--r-- 1 user2 users  0 Jan 25 15:26 HelloWorld
-rw-r--r-- 1 user2 users  655 Jun 24 2016 .profile
user1@VM: /home/user2$ cd /home/user2
user1@VM: /home/user2$
```

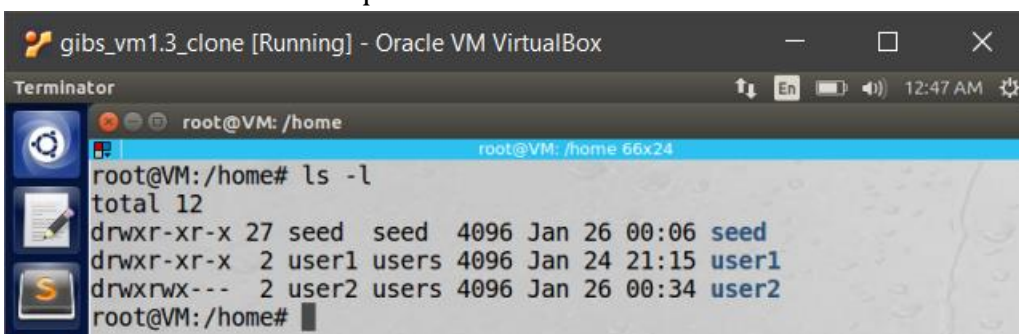
Parts (b-g), (b-h), (b-i), (b-j), (b-k), (b-l)



```
user1@VM: /home/user2$ touch /home/user2/hello12.txt
touch: cannot touch '/home/user2/hello12.txt': Permission denied
user1@VM: /home/user2$ su root
Password:
root@VM: /home/user2# chmod 770 /home/user2
root@VM: /home/user2# su user1
user1@VM: /home/user2$ touch /home/user2/hello12.txt
user1@VM: /home/user2$ ls -l /home/user2
total 12
-rw-r--r-- 1 user2 users 8980 Apr 20 2016 examples.desktop
-rw-r--r-- 1 user1 users  0 Jan 25 18:59 hello12.txt
-rw-r--r-- 1 user2 users  0 Jan 25 15:26 HelloWorld
user1@VM: /home/user2$
```

4. Question: What are the directory permissions for user1, user2 and test directories?

The answer to the question can be observed below.



```
root@VM: /home# ls -l
total 12
drwxr-xr-x 27 seed  seed 4096 Jan 26 00:06 seed
drwxr-xr-x  2 user1 users 4096 Jan 24 21:15 user1
drwxrwx---  2 user2 users 4096 Jan 26 00:34 user2
root@VM: /home#
```

5.

gibs_vm1.3_clone [Running] - Oracle VM VirtualBox

Terminator

root@VM: /home/user2

```
root@VM: /home/user2# touch hello.txt
root@VM: /home/user2# touch hello1.txt
root@VM: /home/user2# touch hello2.txt
root@VM: /home/user2# chmod 4754 hello.txt
root@VM: /home/user2# chmod u+srwx hello1.txt
root@VM: /home/user2# chmod g+rx hello1.txt
root@VM: /home/user2# chmod o+r hello1.txt
root@VM: /home/user2# chmod u=srwx hello2.txt
root@VM: /home/user2# chmod g=rx hello2.txt
root@VM: /home/user2# chmod o=r hello2.txt
root@VM: /home/user2# ls -l
total 12
-rw-r--r-- 1 user2 users 8980 Apr 20 2016 examples.desktop
-rwsr-xr-- 1 user1 users  0 Jan 25 18:59 hello12.txt
-rwsr-xr-- 1 root  root  0 Jan 26 00:35 hello1.txt
-rwsr-xr-- 1 root  root  0 Jan 26 00:35 hello2.txt
-rwsr-xr-- 1 root  root  0 Jan 26 00:35 hello.txt
-rw-r--r-- 1 user2 users  0 Jan 25 15:26 HelloWorld
root@VM: /home/user2#
```