Exercise 34.1 Working with Groups

1. Create two new user accounts (`rocky` and `bullwinkle` in the below) and make sure they have home directories.

2. Create two new groups, `friends` and `bosses` (with a GID of 490). Look at the `/etc/group` file. See what GID was given to each new group.

3. Add `rocky` to both new groups.

   Add `bullwinkle` to group `friends`.

   Look in the `/etc/group` file to see how it changed.

4. Login as `rocky`. Create a directory called `somedir` and set the group ownership to `bosses`. (Using **chgroup** which will be discussed in the next session.)

   (You will probably need to add execute privileges for all on `rocky`'s home directory.)

5. Login as `bullwinkle` and try to create a file in `/home/rocky/somedir` called `somefile` using the **touch** command.

   Can you do this? No, because of the group ownership and the `chmod a+x` on the directory.

6. Add `bullwinkle` to the bosses group and try again. Note you will have to log out and log back in again for the new group membership to be effective. do the following:

Solution 34.1

1. ```
   $ sudo useradd -m rocky
   $ sudo useradd -m bullwinkle
   $ sudo passwd rocky

   Enter new UNIX password:
   Retype new UNIX password:
   passwd: password updated successfully

   $ sudo passwd bullwinkle

   Enter new UNIX password:
   Retype new UNIX password:
   passwd: password updated successfully

   $ ls -l /home

   total 12
   drwxr-xr-x  2 bullwinkle bullwinkle 4096 Oct 30 09:39 bullwinkle
   drwxr-xr-x  2 rocky      rocky      4096 Oct 30 09:39 rocky
   drwxr-xr-x 20 student    student    4096 Oct 30 09:18 student
   ```

2. ```
   $ sudo groupadd friends
   $ sudo groupadd -g 490 bosses
   $ grep -e friends -e bosses /etc/group

   friends:x:1003:
   bosses:x:490:
   ```

3. ```
   $ sudo usermod -G friends,bosses rocky
   $ sudo usermod -G friends bullwinkle

   $ grep -e rocky -e bullwinkle /etc/group

   rocky:x:1001:
   bullwinkle:x:1002:
   friends:x:1003:rocky,bullwinkle
   bosses:x:490:rocky

   $ groups rocky bullwinkle

   rocky : rocky friends bosses
   bullwinkle : bullwinkle friends
   ```

4.
```
$ ssh rocky@localhost
$ cd ~
$ mkdir somedir
$ chgrp bosses somedir
$ ls -l

total 16
-rw-r--r-- 1 rocky rocky  8980 Oct  4  2013 examples.desktop
drwxrwxr-x 2 rocky bosses 4096 Oct 30 09:53 somedir

$ chmod a+x .
```

5.
```
$ ssh bullwinkle@localhost
$ touch /home/rocky/somedir/somefile

touch: cannot touch /home/rocky/somedir/somefile: Permission denied

$ exit
```

6.
```
$ sudo usermod -a -G bosses bullwinkle
$ ssh bullwinkle@localhost
$ touch /home/rocky/somedir/somefile
$ ls -al /home/rocky/somedir
```

(note ownership of files)

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