7.20 User Management Exercises

1. *Configure* `sudo`

   (a) Configure `sudo` as discussed in section 7.16 on page 183.

   (b) Also add the commands:

   ```
   Cmnd_Alias      CHOWN = /bin/chown
   Cmnd_Alias      CHMOD = /bin/chmod
   Cmnd_Alias      MDRD = /bin/mkdir, /bin/rmdir
   Cmnd_Alias      LS = /bin/ls
   ```

   then after your username at the bottom, add these commands so that the list looks something like this:

   ```
   nicku   ALL=(root) USER, CHOWN, CHMOD, MDRD, LS
   ```

   (c) Take care to get the syntax correct; `visudo` will quickly tell you if there is a mistake.

   (d) Perform all the remaining exercises as your own user account, *not* as root.

2. *Create four user accounts, and create two additional groups*, using `sudo useradd` and `sudo groupadd`. Set their passwords using `sudo passwd` *`username`*.

3. Add two users to one of the groups (make this their *secondary* group). Similarly, add the remaining 2 users to the other group (make it their secondary group).

4. Create a directory `/var/project`, using `sudo` of course.

5. Set the permissions and ownership as shown in 7.18 on page 185:

   ```
   $ ls -ld /var/project
   drwxrwx---    2 root     admin        4096 Jan  2 13:48 project
   ```

   Note: instead of `admin`, type the name of one of the groups you made in step 2.

6. Log in as one of the users who belongs to the same group as the one who owns the directory `/var/project` by typing:

   ```
   $ su - username
   ```

7. As the user that you logged in as in step 6, Create a file in the directory `/var/project`.

   - What are the permissions on that file?
   - Which user owns the file?
   - Which group owns the file?

8. In another window, log in as the *other* user who is *also* in the *same* group that owns the directory `/var/project`. Edit the *same file* as you created in step 7 and save it. Are you successful? Why or why not?

9. In another window, log in as the *other* user who is *not* in the group that owns the directory `/var/project`. Edit the *same file* as you created in step 7 and save it. Are you successful? Why or why not?

10. Now set the permissions on the directory to be SGID as shown in 7.19 on the preceding page. Create a second file as the first user, in the group that owns the directory. What are the permissions and ownership of the second file?

11. Can you edit and save the second file as the second user, who is also in the same group that owns the directory? Why or why not?

12. Can you edit and save the second file as a user who is also *not* in the same group that owns the directory? Why or why not? What access rights do you have as a user from a group that does not own the directory?