**Linux Command Exercise**

1. Make three directories “student12/exercise1/pubic”; “HOME/exercise1/protected”; “HOME/exercise1/private”. HOME stands for your home directory (i.e. HOME=/home/student/user1). Change working directory to “HOME/exercise1”.

2. Copy files “/etc/passwd” and “/etc/group” to “./private/passwd.txt” and “./private/group.txt”. Use cat, more and less to view the two files. Move “./private/passwd.txt” and “./private/group.txt” to “./protected/”.

3. Remove **other users**’ execute permission of “private”. Use man or --help to learn command **chown**. Use chown to change the owner of “public” to group “student”. All of the students in this class are included in group **student**. Therefore, other students also have read, write and execute permissions on directory “public”.

4. In directory “exercise1”, check the file permissions and save the information about permissions to “./private/permissions.txt” And change working directory to “./private”.

5. List lines including “grep” in the output of man grep and save these lines to “HOME/exercise/private/grep.txt”. Count the matching lines, and save the result to “matching.txt”. Count the non-matching lines, and save the result to “non-matching.txt”. (Instruction: list lines matching “count” of man grep, you can find the count option very soon.)

6. Use **gedit** to open grep.txt. Check the line number of the last line, to see if it is the same with output of the count of matching lines. Add the following personal information to the beginning of grep.txt:

*Name: <student name>*

*Email: <student email>*

*ID: <student ID to login the server>*

*Date: <date>*

Use gedit to open another two files: matching.txt and non-matching.txt. Add the content of these two files to the end of grep.txt.

Save the edited file and exit gedit.

7. Copy grep.txt to directory “./public”. Once your neighbor has finished this step, change the working directory to your neighbor’s public directory and view his/her grep.txt.

8. Use command apropos to search all commands related to “network”. In the outcome, find a command which is used to configure a network interface. Use this command to display all the available interfaces and save the result to “HOME/exercise1/private/interfaces.txt”.

9. Package and compress all the files in private to <Your Username>.tar.gz. Move <Your Username>.tar.gz to “HOME/exercise/protected”.