Junior Web Developer

Here are the company's welcome and motivational messages for the job candidate.

Environment Setting

You shall install an instance of mysql. For this test we advise you to use any version ahead of this one described below:

```
mysql  Ver 14.14 Distrib 5.6.49-89.0, for Linux (x86_64) using  6.2
```

Importing Structures

In the package you received, with this file, there is another file called `mysql.sql`. That file has the structures of the database, you shall import into your MySQL instance.

Database Description

There are two primary tables, users and projects.

There are two foreign tables, `emails` and `user_projects`. The first has a 1-N ratio and the second has an N-N ratio.

Test

You must comply with the checklist below, for each item it will generate one or more SQL commands. This list of commands should be saved, perhaps in a .sql file, and submitted for evaluation.

Try to mark your answers with a comment referring to the checklist item (1.2, 3.1 and etc).

1 - Structure
1.1 - Looking at the diagram, in the `users` table, there is the password column. What type of algorithm would you choose to save the user's password more securely?
1.2 - You can modify the number of characters or format of password column to adapt to your chosen algorithm.
1.3 - How would you create a random password for the password column which you will use on insert command?
1.4 - Between tables `users` and `emails`, you shall create a foreign key with action as when a user will be removed this foreign key must do remove any emails related with that user (1-N).
1.5 - **Bonus**. This item isn't required. But if this item is done, it will positively impact your rating:
1.5.1 - When creating a user, the registration pattern of an email follows item 2.3, you can optimize this in a trigger.

2 - Create Users
2.1 - Enter 6 new users: Moe Howard, Larry Fine, Curly Howard, Shemp Howard, Joe Besser and Joe DeRita with the password algorithm you chose in 1.1 e 1.3.
2.2 - Use the displayname above to compose the username replacing spaces by dot..
2.3 - Add an email into emails table for each new user. That email will be composed by `emails.username` + `"@columbia.com"`. If you done item 1.5 than forget this item.

3 - Create projects
3.1 - TV SHOW. It started in 1922 and ended in 1970.
3.2 - Idiots Deluxe. It started in 1944 and ended in 1945.
3.3 - Pardon My Clutch. It started in 1945 and ended in 1948.
3.3 - Hoofs and Goofs. It started in 1956 and ended in 1957.
3.5 - "Have Rocket, Will Travel" It started in 1958 and ended in 1959.

4 - Original formation from 1933
4.1 - Add users Moe Howard, Larry Fine and Curly Howard into TV SHOW.
4.2 - Add users Moe Howard, Larry Fine and Curly Howard into Idiots Deluxe.
4.3 - Disable user Curly Howard.

5 - Group formation from 1947
5 - Add users Shemp Howard into TV SHOW.
5 - Add users Moe Howard, Larry Fine e Shemp Howard into Pardon My Clutch
5 - Remove user Shemp Howard from Pardon My Clutch.

6 - Group formation from 1957
6 - Add users Joe Besserinto TV SHOW.
6 - Add users Moe Howard, Larry Fine and Joe Besser into "Hoofs and Goofs"
6 - Deactivate user Joe Besser from the TV SHOW project.

7 - Group formation from 1959
7 - Add users Joe DeRita into TV SHOW.
7 - Add users Moe Howard, Larry Fine e Joe DeRita into "Have Rocket, Will Travel"
7 - Remove users Curly Howard, Shemp Howard, Joe Besser, and Joe DeRita.