Intermediate Practice

1st Semester 2020

1. Instructions

- Practice is individual.
- It is due by Thursday May 28, 2020.
- You must write a report (in Spanish) and some code.
- The report (a PDF file) must describe the design of your database, including the following diagrams:
    - Modular diagram
    - Use case diagram. In this point, describe one specific case of your system.
    - Tables in a relational diagram, indicating the primary and foreign keys. The tables in this diagram must include the relationships among them, making the corresponding adjustments in case of many-to-many relationships. Also, the tables must be normalized; in case you do not apply a normal form, indicate the reason for that.
- The code must include:
    - SQL scripts (in MySQL) to generate the database and implement the previously designed tables.
    - Python code to implement a Mode-View-Controller architecture to perform the different cases and processes with the system
- Organize the report and the code in a directory *practice* as follow:

```
practice
   |  pratice.docx
   \---code
        +---mvc
        |     test.py
        |  +---controller
        |           controller.py
        |  +---model
        |           model.py
        |  \---view
        |           view.py
        \---sql
              code.sql
```

- Add more files in the structure as you need.
- Create a repository in GitHub and upload your directory there
- Additionally, create a short video (5-10 mins) where you explain the functionality of your system.
- Upload the link to your repository to Google Classroom.

2. Description

a. Do the design of a database for buying a ticket for a movie.
b. Consider the system is only for one single cinema (e.g. Cinemex Via Alta) with several halls. Each hall must contain different number of seats.
c. The system must control for movies, halls, seats, schedules (time and date for a movie in a specific hall), tickets and users.
d. There should be two types of users: administrators and general users.
e. The general user can only query the schedules for movies and buy a ticket.
f. You should allow the general user to see what movies are per day and the schedules of a specific movie.
g. The administrator can manipulate data for halls, seats, movies, schedules, and administrators.
h. Include any other queries and processes you consider necessary for making your system more robust or easy to use.