

Project Two: SQL

You may work on these problem sets together (citing your collaborators), but the write up must be your own. Assignments must be submitted digitally by the beginning of class; late assignments will receive a grade of zero (0).

1. (10 Points) Using the **VideoGameSystems** database:
 - a. Insert three video games from your favorite video game series into the **VideoGameSystems** database.
 - b. Ensure that all foreign key constraints are satisfied, and all relevant data is inserted into the proper tables.
2. (40 Points) Please write the following SQL queries, using the **VideoGameSystems** database:
 - a. (5 Points) What games were released on the first game console you ever owned (if you never owned one of the consoles, just pick one)?
 - b. (5 Points) Pick four games, and update their NumPlayers field using an update statement
 - c. (5 Points) What games were released on the consoles released before 2000?
 - d. (5 Points) What are the names of the games, their consoles and their series that were released between January 1, 1995 and January 1, 2018?
 - i. Remember that in MySQL, dates should be in quotes, and the format of a Date is 'YYYY-MM-DD'.
 - ii. You are welcome to use any of the Date functions in MySQL, or to just compare the full dates within quotes.
 - e. (5 Points) How many games were released on all of the Playstation consoles?
 - f. (5 Points) What games were not released on a PlayStation console?
3. (10 Points) The **VideoGameSystem** database is a bit old. Please do the following:
 - a. Update the database creation script to allow video games released prior to **November, 2023**.
 - b. Insert a video game that was released in 2023 into the **VideoGameSystem** database.
4. (20 Points) Using the **MealPlanning** database:
 - a. (10 Points) How many ingredients are needed to make each recipe?
 - i. Ensure that your result set includes the name of the recipe, the name of the associated cookbook, and how many ingredients needed.
 - ii. Sort your results by the number of ingredients, followed by the recipe name and then the cookbook name.

- b. (10 Points) What recipes do not use some sort of pepper?
 - i. Make sure you tell me the name of the recipe and what cookbook it can be found in.
- 5. (20 Points) The ***MealPlanning*** database does not currently take into account food allergies. Please design a solution to this problem, and update the database content as required to implement your solution. You must:
 - a. (10 Points) Provide a new database creation script for the ***MealPlanning*** database with your design changes
 - b. (10 Points) Provide a new database design for your solution, using the reverse engineering feature of MySQLWorkbench