

Homework 02 - SQL #1

Extra Credit Early Submission Deadline: Sunday, Feb 9 @ 11:59 pm to GradeScope
Regular Submission Deadline: Tuesday, Feb 11 @ 11:59 pm to GradeScope

Directions:

1. Download the zipped Sakila database linked > [here](#) < and save it to your CS 3200 folder. Unzip it.
2. Make sure the MySQL Docker Container is running (check Docker Desktop).
3. In DataGrip, open the **sakila-schema.sql** file. Use Run > Edit Configurations from the context menu for the file or the Run menu (as we did in class with Northwind).
4. Still in DataGrip, open the **sakila-data.sql** file. Use the Run > Edit Configurations option to load this file (as we did in lecture with Northwind) as well.
5. In the File Explorer in the right panel of DataGrip, create a new file named **HW02-Fontenot.sql**, but replace my last name with yours. In that file, provide your solutions to each query prompt below. Be sure to use comments to clearly indicate the problem number that goes with a particular query in your file.

For each problem, you are either provided a screenshot of the full output OR a hint with the number of rows in output and a screenshot of the first row. The results of executing your query solution must match the structure of the provided output **exactly**, including but not limited to column names (with or without the quotes) and ordering of rows in the output or based on the description.

In solving each of these problems, you must rely only upon what is provided in the problem statement. You may NOT include any numerical IDs or other literal values that allow you to simplify the query. For example, if the problem statement asks for all movies that belong to the Horror category, you may not lookup the category_id for 'horror' and include that in the query directly. Any instances of "hard-coding" or attempting to "game the system" will result in no credit for that problem.

Submission Info: You'll submit your solutions on GradeScope **in a single .sql script file** based on the template provided. You will only submit one SQL file to GradeScope. **Do NOT submit a PDF**. Because you are submitting a SQL file, you will not have to associate your submission's answers with a question number.

Academic Collaboration Reminder:

Remember that you may not look at, copy, capture, screenshot, or otherwise take possession of any other students' solutions to any of these questions. Further, you may not provide your solutions in part or in whole to any other student. Doing any of the above constitutes a violation of academic honesty which could result in an F in this class and a referral to OSCCR. What is permissible? You are free and encouraged to talk to your peers about the conceptual material from the lectures or the conceptual material that is part of this assignment. You can get a round a white board and talk through the Sakila data model. You and your colleagues can work through sample SQL queries done in class or others that you dream up on the fly. I'm very confident that each of you knows where the line between collaborative learning and cheating sits. Please don't cross that line.

Sakila Database Overview

The Sakila sample database represents a DVD Rental shop. The database stores information about customers, their rental and payment history, the DVD library, and data about each film.

Additional Helpful Functions:

- DATE(...) - will return the date portion of a dateTime value.
- DAYOFWEEK(...) - will return the day of the week for a date value - 1 for Sunday, 2 for Monday, etc.
- DAYNAME(...) - will return the day name (Monday, Tuesday, etc) for a date value
- ROUND(<float value>, <# decimal places>) - will round to a particular number of decimal places. For example ROUND (gpa, 3) will round *gpa* to the third decimal place.

Your Task

Write SQL queries for each of the following prompts. When exact output is provided, the result of executing your query should result in exactly the same output. If a description of the output is provided, use it to guide your solution.

1. Because of the way Gradescope does question numbering, Question 1 is reserved for the autograder feature, which I do not use. So, you'll get a 10/10 on question 1 for submitting anything to GradeScope.

2. How many customers does Sakila have? [10 points]

`Num Customers`	
1	599

3. What is the total amount of revenue generated by Sakila since it has been using its current database? [10 points]

`Total Revenue`	
1	67406.56

4. What date was Sakila's first rental made? [10 points]

`First Rental Date`	
1	2005-05-24

5. Management wants to grow Sakila's library of films by focusing on categories where they are already leaders in the selection they offer. Provide management with a list of all film categories that contain more than 64 films. The largest category should be the first row of the list, and the smallest category should be the last row. If any two categories have the same number of films, sort by category name alphabetically. [15 points]

	Category Name	Number of Films
1	Sports	74
2	Foreign	73
3	Family	69
4	Documentary	68
5	Animation	66

6. It seems that some days are not great for rentals because people rent and return on the same day, known as a same-day return. And, sometimes films are just bad and so they are returned on the same day. Generate a list of films that were rented on the 2 most popular days for same-day returns. List the films in alphabetical order. [15 points]

	Film Title
1	CASABLANCA SUPER
2	CHEAPER CLYDE
3	DISCIPLE MOTHER
4	DYING MAKER
5	HEAD STRANGER
6	HOMeward CIDER
7	KISSING DOLLS
8	LAWLESS VISION
9	MARRIED GO
10	MASK PEACH
11	MILLION ACE
12	SCISSORHANDS SLUMS
13	SORORITY QUEEN
14	TOMATOES HELLFIGHTERS
15	VOLCANO TEXAS
16	WATERFRONT DELIVERANCE

7. What actors or actresses collaborated with Emily Dee on any Drama or Sci-Fi films? The results should include the first and last name of the collaborators (and should include Emily Dee herself) ordered by last name then first name. [15 points]

	first_name	last_name
1	RUSSELL	BACALL
2	GOLDIE	BRODY
3	EMILY	DEE
4	CHRIS	DEPP
5	HUMPHREY	GARLAND
6	WILLIAM	HACKMAN
7	CATE	HARRIS
8	RICHARD	PENN
9	GARY	PENN
10	SISSY	SOBIESKI
11	DUSTIN	TAUTOU
12	GROUCHO	WILLIAMS
13	JULIA	ZELLWEGER

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(There was an error in our original return, so if your output matches either of these, you will not be penalized.

8. The boss wants to send our most faithful customers a personal thank you note via email. So, management is asking for a list of all customers who generated more than \$165.00 in revenue for Sakila. Sort the list based on the total amount paid to the business in descending order. If there are any customers who are tied in their amounts paid, simply sort the list alphabetically by last name. [15 points]

	customer_id	first_name	last_name	email	Total
1	526	KARL	SEAL	KARL.SEAL@sakilacustomer.org	221.55
2	148	ELEANOR	HUNT	ELEANOR.HUNT@sakilacustomer.org	216.54
3	144	CLARA	SHAW	CLARA.SHAW@sakilacustomer.org	195.58
4	137	RHONDA	KENNEDY	RHONDA.KENNEDY@sakilacustomer.org	194.61
5	178	MARION	SNYDER	MARION.SNYDER@sakilacustomer.org	194.61
6	459	TOMMY	COLLAZO	TOMMY.COLLAZO@sakilacustomer.org	186.62
7	469	WESLEY	BULL	WESLEY.BULL@sakilacustomer.org	177.60
8	468	TIM	CARY	TIM.CARY@sakilacustomer.org	175.61
9	236	MARCIA	DEAN	MARCIA.DEAN@sakilacustomer.org	175.58
10	181	ANA	BRADLEY	ANA.BRADLEY@sakilacustomer.org	174.66
11	176	JUNE	CARROLL	JUNE.CARROLL@sakilacustomer.org	173.63
12	50	DIANE	COLLINS	DIANE.COLLINS@sakilacustomer.org	169.65
13	259	LENA	JENSEN	LENA.JENSEN@sakilacustomer.org	168.68
14	522	ARNOLD	HAVENS	ARNOLD.HAVENS@sakilacustomer.org	167.67
15	410	CURTIS	IRBY	CURTIS.IRBY@sakilacustomer.org	167.62
16	403	MIKE	WAY	MIKE.WAY@sakilacustomer.org	166.65