

Homework 03 - SQL

Regular Submission Deadline: Tuesday Feb 14 @ 11:59 to GradeScope

Extra Credit Early Submission Deadline: Sunday Feb 12 @ 11:59 to GradeScope

Name: _____

NUID: _____

Directions:

1. Download the zipped Sakila database linked > [here](#) < and save it to your 3200 folder. Unzip it.
2. Create a new datasource in DataGrip using the Sakila database file named 'sqlite-sakila.db'.
3. For each of the 7 questions that follow, you are to produce SQL select statements. Each query you submit must successfully execute in DataGrip against the SQLite Sakila Database linked above.

For each problem, you are provided the expected output. The results of executing your query solution must match the expected output **exactly**, including but not limited to column names and ordering of rows in the output.

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.

Each question is worth 14 points, which equates to 98 points total for the 7 problems. We will attribute the two remaining points to proper datasource creation in DataGrip, which is evidenced by you submitting queries.

Submission Info: (Updated Feb 6 2023)

You'll submit your solutions on GradeScope. You will submit individual SQL files, one file per problem. So you will submit a p1.sql, p2.sql, p3.sql and so on. Failure to follow this file naming convention may result in no credit. **It is important that you name your solution files with the proper question number based on this document before you upload to GradeScope.** The numbering might be a little confusing, but Problem X on GradeScope is associated with Problem X on this document. Ignore the GradeScope numbers.

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.

1. What is the average number of actors appearing in all movies?

"Average Number of Actors" ▾	
1	5.5

2. How many movies are there in each category? Order the list by category name alphabetically.

16 rows				
			"Category Name"	"Count in Category"
1	Action			64
2	Animation			66
3	Children			60
4	Classics			57
5	Comedy			58
6	Documentary			68
7	Drama			62
8	Family			69
9	Foreign			73
10	Games			61
11	Horror			56
12	Music			51
13	New			63
14	Sci-Fi			61
15	Sports			74
16	Travel			57

3. Which movies aren't currently in the inventory of any of the stores? Provide a list of film titles in alphabetical order along with the name of the category that each film belongs to.

42 rows		
	"Film Title"	"Category Name"
1	ALICE FANTASIA	Classics
2	APOLLO TEEN	Drama
3	ARGONAUTS TOWN	Animation
4	ARK RIDGEMONT	Action
5	ARSENIC INDEPENDENCE	Travel
6	BOONDOCK BALLROOM	Travel
7	BUTCH PANTHER	New
8	CATCH AMISTAD	Foreign
9	CHINATOWN GLADIATOR	New
10	CHOCOLATE DUCK	Foreign
11	COMMANDMENTS EXPRESS	Horror
12	CROSSING DIVORCE	Foreign
13	CROWDS TELEMAR	Sci-Fi
14	CRYSTAL BREAKING	Foreign
15	DAZED PUNK	Games
16	DELIVERANCE MULHOLLAND	Documentary
17	FIREHOUSE VIETNAM	Action
18	FLOATS GARDEN	Animation
19	FRANKENSTEIN STRANGER	Comedy
20	GLADIATOR WESTWARD	Family
21	GUMP DATE	Travel
22	HATE HANDICAP	Comedy
23	HOCUS FRIDA	Family
24	KENTUCKIAN GIANT	Horror
25	KILL BROTHERHOOD	Documentary
26	MUPPET MILE	Foreign
27	ORDER BETRAYED	Travel
28	PEARL DESTINY	Foreign
29	PERDITION FARGO	Sports
30	PSYCHO SHRUNK	Games
31	RAIDERS ANTITRUST	Documentary
32	RAINBOW SHOCK	Documentary
33	ROOF CHAMPION	Games
34	SISTER FREDDY	Children
35	SKY MIRACLE	Action
36	SUICIDES SILENCE	Sci-Fi
37	TADPOLE PARK	Classics
38	TREASURE COMMAND	Horror
39	VILLAIN DESPERATE	Documentary
40	VOLUME HOUSE	Classics
41	WAKE JAWS	New
42	WALLS ARTIST	Children

4. The company wants to start a VIP Customer Loyalty program. Any customer who has rented more than 35 movies will be invited to join. Generate a list of all customers that have rented more than 35 movies. Order the list in descending order by number of rentals.

24 rows			
	"Last Name"	"First Name"	"Number of Rentals"
1	HUNT	ELEANOR	46
2	SEAL	KARL	45
3	DEAN	MARCIA	42
4	SHAW	CLARA	42
5	SANDERS	TAMMY	41
6	BULL	WESLEY	40
7	PETERS	SUE	40
8	CARY	TIM	39
9	KENNEDY	RHONDA	39
10	SNYDER	MARION	39
11	BATES	DAISY	38
12	BROWN	ELIZABETH	38
13	COLLAZO	TOMMY	38
14	IRBY	CURTIS	38
15	CARROLL	JUNE	37
16	DOUGLAS	MARSHA	37
17	HUEY	BRANDON	37
18	KELLEY	ELSIE	37
19	BRINSON	RUSSELL	36
20	FENNELL	ALEXANDER	36
21	HERNANDEZ	ANGELA	36
22	NGO	JUSTIN	36
23	QUINTANILLA	ROGER	36
24	WADE	MARGIE	36

5. Which actors or actresses have starred in movies from every category of film in our inventory? The output should give the last name and first name of these actors alphabetically.

	"Last Name"	"First Name"
1	BOLGER	MICHAEL
2	DEGENERES	GINA
3	DUNST	GROUCHO
4	GARLAND	KEVIN
5	GOODING	EWAN
6	HOPE	HARVEY
7	TANDY	IAN
8	WAHLBERG	DARYL
9	WEST	REESE
10	WILLIAMS	SEAN
11	WOOD	UMA

Update Friday Feb 3, 2023: I've been convinced there are two interpretations of the way I stated the query. So, I'm providing an alternative output option for this problem. See below.

	"Last Name"	"First Name"
1	BOLGER	MICHAEL
2	DEGENERES	GINA
3	DUNST	GROUCHO
4	GARLAND	KEVIN
5	GOODING	EWAN
6	HOPE	HARVEY
7	WAHLBERG	DARYL
8	WEST	REESE
9	WOOD	UMA

6. Are there any actors or actresses that have the same first name and last name? If so, give the actors' id numbers and names.

	ID	Last	First
1	101	DAVIS	SUSAN
2	110	DAVIS	SUSAN

7. Help! One of our customers just called and is looking for the name of a particular movie. This customer was talking to her next door neighbor who was raving about this movie, but can't remember the name. The neighbor remembered that the movie was really long... over 3 hours, and they rented it sometime in the 2nd half of 2005. There was also an actor or actress in the movie with a last name similar to MacCallen or McKellen or McKallen or something like that... they couldn't really remember. Our customer's neighbor really only like Sci-fi and horror films. So, the movie is almost certainly in one of those two categories.

< < 1 row > >	
Title	
1	ANALYZE HOOSIERS