SQL Worksheet

Assignment

This worksheet is worth 5% of your course. Submit a single document (readable either by MS-Word or notepad) named YOURUSERNAME to I:\COURSES\AITEIT3\Assessments Swallow Box\IN605DB2-SQLAssignment by April 5th 11:59pm with the statements to do the tasks listed below. This is a week later than in the Course Directive given on the first day.

Movie Rating Database

You've started a new movie-rating website. You've been collecting data on reviewers' ratings of various movies. There's not much data yet, but you can still try out some interesting queries. The scripts to create this database in SQLite are on the I: drive. A printout of the data is on the last page

Schema:

Movie (mID, title, year, director) Explanation: There is a movie with ID number mID, a title, a release year, and a director.

Reviewer (rID, name) Explanation: The reviewer with ID number rID has a certain name.

Rating (rID, mID, stars, ratingDate) Explanation: The reviewer rID gave the movie mID a number of stars rating (1-5) on a certain ratingDate.

Tasks

Create SQL statements to achieve the following:

Queries

1. Find the titles of all movies directed by Steven Spielberg.

2. Find all years that have a movie that received a rating of 4 or 5, and sort them in increasing order.

3. Find the titles of all movies that have no ratings.

4. Some reviewers didn't provide a date with their rating. Find the names of all reviewers who have ratings with a NULL value for the date.

5. Write a query to return the ratings data in a more readable format: reviewer name, movie title, stars, and ratingDate. Also, sort the data, first by reviewer name, then by movie title, and lastly by number of stars.

6. For all cases where the same reviewer rated the same movie twice and gave it a higher rating the second time, return the reviewer's name and the title of the movie.

7. For each movie that has at least one rating, find the highest number of stars that movie received. Return the movie title and number of stars. Sort by movie title.

8. For each movie, return the title and the 'rating spread', that is, the difference between highest and lowest ratings given to that movie. Sort by rating spread from highest to lowest, then by movie title.

9. Find the difference between the average rating of movies released before 1980 and the average rating of movies released after 1980. (Make sure to calculate the average rating for each movie, then the average of those averages for movies before 1980 and movies after. Don't just calculate the overall average rating before and after 1980.)

Modification

10. Add the reviewer Roger Ebert to your database, with an rID of 209.

11. Insert 5-star ratings by James Cameron for all movies in the database. Leave the review date as NULL.

12. For all movies that have an average rating of 4 stars or higher, add 25 to the release year. (Update the existing Rows; don't insert new Rows.)

Data

Movie

mID	title	Year	Director
101	Gone with the Wind	1939	Victor Fleming
102	Star Wars	1977	George Lucas
103	The Sound of Music	1965	Robert Wise
104	E.T.	1982	Steven Spielberg
105	Titanic	1997	James Cameron
106	Snow White	1937	<null>
107	Avatar	2009	James Cameron
108	Raiders of the Lost Ark	1981	Steven Spielberg

Reviewer

rID	Name
201	Sarah Martinez
202	Daniel Lewis
203	Brittany Harris
204	Mike Anderson
205	Chris Jackson
206	Elizabeth Thomas
207	James Cameron
208	Ashley White

Rating

rID	mID	stars	ratingDate
201	101	2	2011-01-22
201	101	4	2011-01-27
202	106	4	<null>
203	103	2	2011-01-20
203	108	4	2011-01-12
203	108	2	2011-01-30
204	101	3	2011-01-09
205	103	3	2011-01-27
205	104	2	2011-01-22
205	108	4	<null>
206	107	3	2011-01-15
206	106	5	2011-01-19
207	107	5	2011-01-20
208	104	3	2011-01-02