CS 450 - Database Systems

Fall 2021

Instructor: Dr. Jessica Lin

Homework 4 Part 1 – Due Nov 5 at 11:59pm

*** Note: This is an INDIVIDUAL assignment ***

Consider the following schemas for the online movie streaming company. This is the same as your last assignment.

Member(member_ID, first_name, last_name)

Profile(member_ID, profile_name)

Movie(movie_ID, title, movie_year, producer, avg_rating)

Actor(actor_ID, first_name, last_name)

Starred_By(movie_ID, actor_ID)

Watch(member_ID, profile_name, movie_ID, rating)

For each relation, the attribute(s) of the primary key is(are) underlined. In addition, the following foreign key constraints hold:

In *Profile*,
Foreign Key: member_ID references Member(member_ID)

In *Starred_By*,
Foreign Key: movie_ID references Movie(movie_ID)
Foreign Key: actor_ID references Actor(actor_ID)

In *Watch*,
Foreign Key: (member_ID, profile_name) references Profile(member_ID, profile_name)
Foreign Key: movie_ID references Movie(movie_ID)

Write the following queries in SQL.

Note: A testbed will be provided for you to test your queries. Run the testbed script to create and populate the relations, and test your queries. You should insert more tuples into the database to make sure that your queries return correct results, since a different testbed will be used to grade your homework.

1. Print the names of all actors in the movie titled “The Last Jedi.”
2. Find the members (member_ID) who has not watched any movie.
3. Print the names of actors who have not starred in any movie since 2015.
4. Print the names (just names, no member IDs) of all members who watched both “The Last Jedi” and “The Rise of Skywalker”, and rated both movies higher than 3 stars. Hint: Use nested query.
5. Find the members (member_ID) who watched “The Last Jedi” from at least two different profiles, and gave different ratings.

Submission instruction:

Please submit two files: (a) a SQL script (.sql) containing your queries, and (b) a PDF file containing the query results using the testbed provided. Please follow the same instructions from HW2 when you prepare your SQL script. You will only receive full credit for queries that execute successfully (with no error) AND return correct results on both the testbed provided to you and the modified testbed for grading.