Challenge 10 – ER diagram with SQL queries

For this week's challenge:

You need to model an ER diagram for a movie industry database. In the database, we need to store the following information for each movie: name of the movie, premiere city, genre, country of origin and name of the production company.

For each movie there are actors, and for each actor we must store their first name, last name, nickname, date of birth and a code for the agent that represents them. Each actor can play in multiple movies, and we need to know how much they have been paid for each movie.

Within the movie industry, there are two types of movies – TV-series and films. For the films, we keep information such as: in which city do they premiere, how much money they make during the first week of premiere, and the format of the premiere (2D or 3D).

For the TV-series, we keep information for the TV channel on which they first aired, the number of episodes and number of expected seasons.

Some of the actors are Oscar winners and we need to know for which movie they have won an Oscar, for what role, and the year in which they won the Oscar. The Oscar winners act only in films, while the rest of the actors act in films and TV-series (careful with the relations between entities according to this last sentence).

The films are directed by directors for which we know their first name, last name, genre in which they mostly direct and their expertise. One film can only be directed by one director, and we need to know how much the director

is getting paid for that specific film.

The films can have multiple sequels, and we need to know which movie is a sequel to which.

In the movie industry there are also critics who critique the films. For each critic we must store their first name, last name, username and password. The movies are critiqued by the critics, and we need to know which critic has given a critique for which film, and how have they rated that film.
Additionally, the critics can critique the actors in the films, specifically their acting in a specific film. Each critique for the actors must have a grade for the acting, the expression, the naturalness and the devotion of the actor.

Evaluation system:

1 point - Draw the diagram and create the database. Fill each table with at least 5 rows (so that for the actors and movies there are at least 10 rows in total)

- List all information from each table separately

3 points - Execute the following queries:

- List information about the movies (name of film, premiere date, genre, country of origin, production, number of actors)
- List all information for the actors (first name, last name, nickname, date of birth, agent code and number of movies in which have acted)
- List all films with their information (premiere city, how much money they have made during the first week of premiere, and premiere format (2D - 3D), ordered by premiere format)
- List all information about the Oscar winners (for which movie they have won an Oscar, for which role in that movie and in which year, as well as the first name of the actor, last name, nickname, date of birth and agent code). List all this information sorted by the year in which they have won the Oscar, so that the newest will be first

5 points - Execute the following queries:

- List all information about the films, along with the actors that have acted in them and the directors who have directed them, ordered by the directors' names

- List all information about the actors who have a lower-than average grade given by the critics, and order them from highest to lowest

- List all Oscar winners who are older than the average age of all actors

Make screenshots from the database, make screenshots for each table, make screenshots for each query (how you have written in and what result has it returned), and upload them on Git.

Deadline:

Two weeks after its presentation, 23:59h end of the day.