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Office Box Project Design

Purpose

The box office database program is created for people to get information about movies, production companies and teams that create the movies, and how well these movies perform in the box office. As movies are constantly being released and new information is being updated about how well these movies perform the office database helps keep the information organized and accessible to people who rely on the information and want to compare the movies based the certain attributes. The box office database project has three entities, movie, box office, and production team.
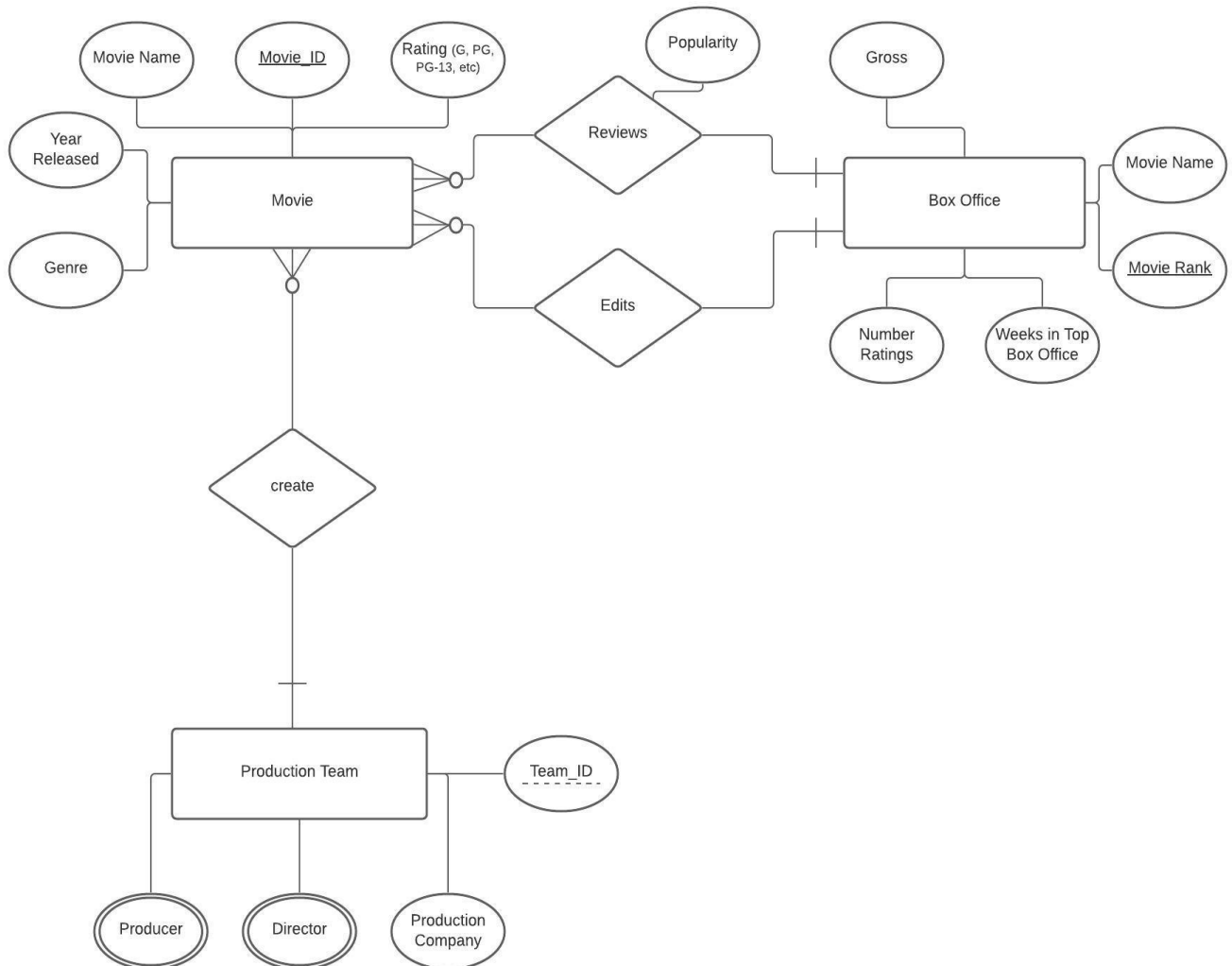
The Movie Entity
- The movie entity provides information about movie content and identification.
- The attributes of the movie entity include the movie's ID, name, rating (G, PG, PG-13, etc), genre, year the movie was released.
    - The movie ID is the primary key because each movie is required to have a unique id.
    - The movie name attribute is for people to know what movie is associated with the movie id and it is the most common way people will be able identify the movie.
    - The rating and genre attributes help people understand the audience the movie is targeting.
    - The year the movie was released help people understand how long the movie has been available to the public.

The Box Office Entity
- The box office entity keeps track of how the movies perform, which is why this entity has a relationship with the movie entity.
- The box office reviews and edits multiple movies.
- The box office has the attributes gross, movie name, movie rank, number ratings, weeks in the top of the box office.
    - The movie name attribute helps identify the movie.
    - The gross attribute gives users an idea of how much income the movie is bringing in.
    - The number ratings attribute gives users an idea of how many people are watching the movie.
    - The weeks in the top box office gives users an idea of which movies are performing in comparison to other movies.

The Production Team Entity
- The production team entity has a relationship with the movie entity that shows users which production team created which movie.
- A production team can be responsible for creating multiple movies.
- The production team entity has the attributes include:
  - the movie's production team id that is unique to each production company
  - the production company name
  - the director
  - the producer.

BOX OFFICE SCHEMA

Production Team(Team_ID, Company)
Box Office(Movie_rank, Movie_name, Gross, Number_rating, Weeks_in_top)
Movie(Movie_ID, name, Year, Rating, Genre, Team_ID, Rank)
Producer(Producer_name, Team_ID)
Director(Director_name, Team_ID)

Program

Python and SQLite3 are used to implement the box office database project. SQLite 3 is imported into python in order to create the database using SQL language. The features of the box office include:

- Add, Remove, and Update Movies
- Add, Remove, and Update Production Teams
- Add, Remove, and Update The Box Office
- Show which Movies have the same Production Team, Producers, and Directors
- Show Movies based on year they were released or the number of weeks in the box office
- Show Movies based on their rank
- Order Movies based on their gross income
- Watch a movie and increase the gross and number of ratings of that movie after watching
- Update movie rank based on number of ratings