SQL Database Description

Database Name:

Movie Recommendation and Rating System

Purpose:

This database will provide users with a platform to recommend movies to each other, track movie ratings, and analyze how different users rate the same movies. It will allow users to browse movies, check ratings, and provide personal feedback and recommendations. The platform will generate personalized movie recommendations based on user preferences and past ratings. The goal is to create a community-based recommendation system where users can discover movies based on the reviews and ratings of other like-minded individuals.

Background:

With the vast number of movies available across various streaming platforms, it can be overwhelming for users to find new movies to watch. By leveraging a crowd-sourced movie recommendation and rating system, users can explore movies based on the recommendations of others with similar tastes. This database provides a platform for users to rate movies, recommend them to friends, and receive personalized suggestions.

Application Requirements:

The system will provide the following features:

1. User Profiles: Users will have personal profiles where they can rate movies and see recommendations based on their preferences and viewing history. Profiles will store the user's preferences (e.g., favorite genres, preferred directors) and previous ratings.
2. Movie Search and Recommendations: Users can search for movies by title, genre, director, or actor. The system will also provide recommendations based on user ratings and preferences, ensuring each user gets personalized suggestions.
3. Rating System: Each user can rate movies they've watched, using a star rating system (e.g., 1 to 5 stars). The average rating of each movie will be updated in real-time based on user input.
4. Many-to-Many Relationships: The system will track which users recommend which movies, and multiple users can recommend the same movie. Additionally, users can

rate multiple movies, and a movie can receive ratings from multiple users, creating a many-to-many relationship between users and movies.

5. Watchlist Management: Users can maintain a watchlist of movies they plan to watch in the future. The system will allow users to add or remove movies from their watchlist and receive reminders or suggestions to watch them.
6. Web-Based Application: The system will be hosted as a web application accessible via popular browsers (e.g., Chrome, Firefox, Safari). Users can interact with the system from any device.

Due Diligence:

This project involves managing user-generated content related to movies (e.g., reviews, ratings, and recommendations). Given the nature of the data, the following intellectual property considerations apply:

1. Movie Metadata: The movie data, such as titles, genres, directors, and actors, will come from publicly available sources like IMDb or other databases. Since this data is factual, it is not subject to copyright protection. However, the system will not include any copyrighted content such as movie clips, posters, or summaries provided by third parties without proper licensing.
2. User-Generated Content: Users will generate their own reviews and ratings, which are not subject to copyright restrictions as long as they do not include material from copyrighted sources (e.g., copying reviews from IMDb or other sites). We will ensure that all content posted by users is original or properly credited to avoid copyright infringement.
3. Privacy Considerations: Since this system will handle user profiles, including ratings and recommendations, we will ensure compliance with privacy laws such as GDPR. User data will be stored securely, and users will have control over who can view their recommendations and ratings.

Sample Data or Documents: Here are examples of the type of data the database will manage:

Sample Movie Entry-

- Title: Inception
- Director: Christopher Nolan
- Genre: Science Fiction, Thriller

- Release Year: 2010
- Average Rating: 4.8/5
- User Recommendations:
    - User1: "Inception is a mind-bending thriller with incredible visuals."
    - User2: "Great movie! A must-watch for sci-fi fans."

Sample User Profile-

- Username: movieBuff123
- Favorite Genres: Science Fiction, Action
- Movies Rated:
    - Inception (5/5 stars)
    - The Matrix (4.5/5 stars)
    - Interstellar (5/5 stars)
- Watchlist:
    - The Godfather
    - Pulp Fiction

Sample Rating System Data-

For the movie Inception:

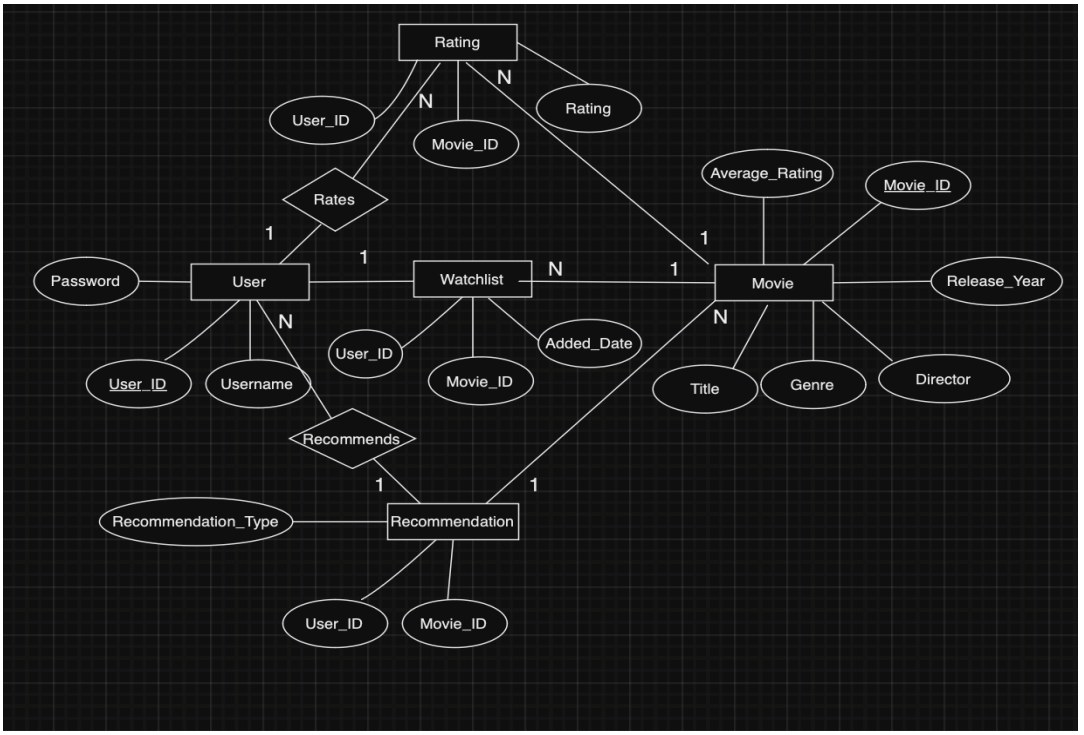
- User1: 5/5 stars
- User2: 4.5/5 stars
- User3: 5/5 stars

The system will calculate the average rating for each movie and store this information to be displayed whenever a user searches for that movie.

Conclusion:

The Movie Recommendation and Rating Database will provide users with a comprehensive platform to explore and rate movies, share recommendations, and receive personalized movie suggestions based on their preferences. With the combination of a user-friendly interface and robust rating and recommendation systems, this database will enhance the movie-watching experience for all users. By carefully considering intellectual property and privacy concerns, the platform will operate within legal boundaries, ensuring user-generated content is original and secure.

ER Model



Schema Diagram