Movie Review and Recommendation Engine

Introduction:

This project aims to develop a movie review and recommendation engine by designing and implementing a relational database using MySQL. The database stores information about movies, users, ratings, and reviews. The system enables querying of movie ratings and user preferences to generate personalized recommendations.

Abstract:

The project involved creating a normalized database schema, inserting sample data, and writing complex queries and views to analyse movie ratings and generate recommendations. Key features include average rating calculations, top movie recommendations, user activity summaries, and genre-based analysis. MySQL Workbench was used for database management and query execution.

Tools Used:

- MySQL (MySQL Workbench)
- SQL (DDL, DML, Views, Queries)

Steps Involved:

1. Created database tables for Movies, Users, Ratings, and Reviews with appropriate keys and constraints.
2. Inserted sample data with realistic movie titles and user names.
3. Wrote SQL queries to calculate average ratings, rank movies, analyse user rating behaviours, and explore genre popularity.
4. Developed SQL views to simplify recommendations and generate dynamic reports such as top recommended movies, user's favourite movies, and genre average ratings.
5. Exported query results to Excel format for reporting purposes.

Conclusion:

The project successfully demonstrates a basic recommendation engine leveraging relational database capabilities. It provides a foundation for building more sophisticated recommendation algorithms by incorporating user behaviour and feedback. Future enhancements can include machine learning models or integrating a front-end for user interaction.