

University of Asia Pacific

Department of CSE

Course Code : CSE 212

Course Title : Database Systems Lab

Project Name : MovieFlex: A database design for
User interaction with movies.

Submitted By,

Group 5

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Introduction : This report is based on the creation of a database called “MovieFlex” where we made connection with users interface with movies. For this creation, we created some tables. And for checking the connection, we use some basic functions like update, alter, delete, where, when...then, join, group by, order by.

Lastly we added queries to analyze the complexity of these tables.

Tables : We have used 5 tables to complete the database.

These are :

- 1) Users (for keeping track of the users),
- 2) Genres,

3)Movies (all movies will store here including their release date),

4)WatchHistory(to keep the record of users viewed movies),

5) Ratings (keeping users rating)

Used Data Types :

Total 7 types of data are used in these tables, here is list of it

1. Users Table:

- **user_id: INTEGER (Primary Key)**
- **name: VARCHAR(100)**
- **email: VARCHAR(100)**

- join_date: DATE
- Limit_Time: VARCHAR(20)
- subscription_type: VARCHAR(50)
- Location: VARCHAR(50)

2. Genres Table:

- genre_id: INTEGER (Primary Key)
- genre_name: VARCHAR(300)

3. Movies Table:

- movie_id: INTEGER (Primary Key)
- title: VARCHAR(100)
- release_year: INT
- genre_id: INT (Foreign Key)
- duration_mins: INT
- director: VARCHAR(100)
- Box_office_revenue: DECIMAL(12, 2)

4. WatchHistory Table:

- watch_id: INTEGER (Primary Key)
- user_id: INT (Foreign Key)
- movie_id: INT (Foreign Key)
- watch_date: DATE
- device_used: VARCHAR(50)

5. Ratings Table:

- rating_id: INTEGER (Primary Key)
- user_id: INT (Foreign Key)
- movie_id: INT (Foreign Key)
- rating: INT
- review: TEXT

Relationships between tables:

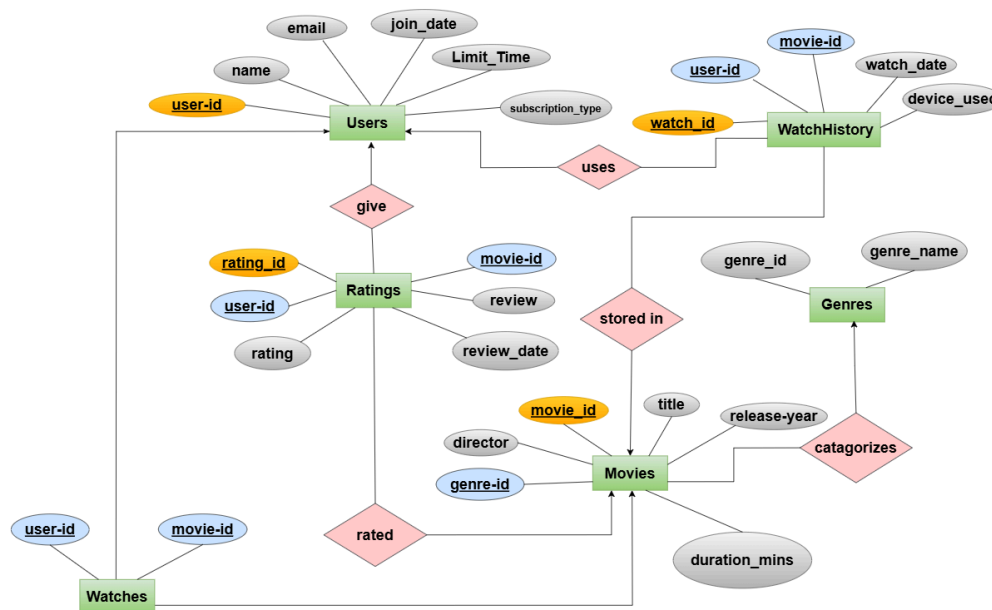
- Users → WatchHistory : One-to-Many
(A user can have multiple watch history)

records)

- Users → Ratings : One-to-Many (A user can provide multiple ratings)
- Movies → WatchHistory : One-to-Many (A movie can appear in multiple watch histories)
- Movies → Ratings : One-to-Many (A movie can have multiple ratings)
- Genres → Movies : One-to-Many (A genre can encompass multiple movies)

Entity Diagram for “MovieFlex” diagram:

Entity Relationship (ER Diagram) :



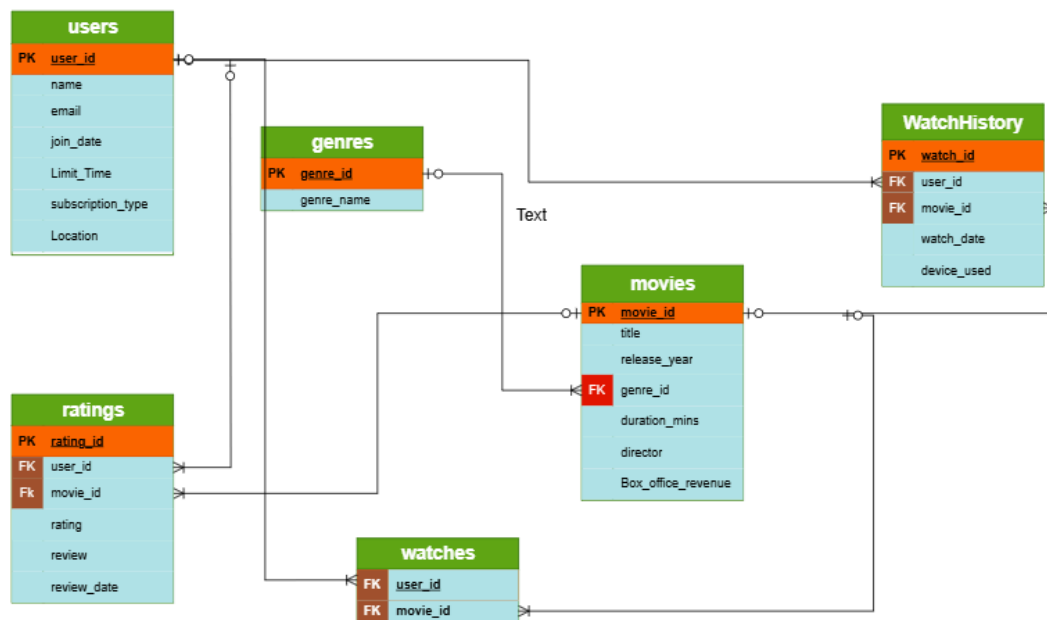
For checking in draw.io , here is the link:

<https://app.diagrams.net/?title=Copy%20of%20MovieFlex.drawio&dark=0#Uhttps%3A%2F%2Fdrive.google.com%2Fuc%3Fid%3D1emHWBrsXHuN>

[4qYT2MKDGBI7-j-uocK0q%26export%3Ddownload](#)

Relational Schema for “MovieFlex” diagram:

Relational Schema :



For checking in [draw.io](#) , here is the link:

https://app.diagrams.net/?title=Relational_Schema.drawio&dark=auto#Uhttps%3A%2F%2Fdrive.google.com%2Fuc%3Fid%3D17j0DzyfE8hRgjdbziD9n_Q8dEu7T-zDU%26export%3Ddownload