ChatGPT

Movie Streaming Platform Database Project

1. ER Diagram Overview

• Entities:
• User Account
• Movie
• Subscription
• Watch History
• Rating
• Relationships:
• One-to-many between users and subscriptions
• Many-to-many between users and movies (watch history & ratings)

2. Database Design Highlights

• **Normalized Tables** with Primary and Foreign Keys
• Enforced Constraints:
• NOT NULL, UNIQUE, CHECK, ENUM
• Auto-incremented Primary Keys
• Foreign Key Relationships

3. Sample Data Coverage

• 3 Users
• 3 Movies
• 2 Subscriptions
• 3 Watch History Records
• 3 Ratings with Reviews

4. Key SQL Queries

• Top 5 Most Watched Movies
• Users Who Haven’t Rated Any Movie
• Average Rating Per Movie
• Total Watch Duration Per User
• Users with Subscriptions Expiring in 30 Days

5. Performance Optimization

• Created Indexes on:
• watch_date (Watch History)
• genre (Movie)

- rating (Rating)

6. Automation & Security

- **Trigger** to deactivate users after subscription expiry
- **Stored Procedure** for safe rating insertion
- **Transaction Handling** for secure subscription updates
- **JSON Column** for user preferences

7. Learnings & Takeaways

- Applied full lifecycle of DBMS from schema to automation
- Practiced data integrity, optimization, and SQL best practices
- Gained real-world experience in building scalable database systems

8. Demo Ready

- Fully functioning SQL script
- Sample data and verified queries
- Ready to present live or submit for evaluation