Debbie Lu

Final Report: Movie Database

**The Problem**

There are a vast number of movies across various different streaming platforms, but because some movies are only accessible through one platform or another, users are forced to use all the different platforms to access said movies. Furthermore, for users who like keeping a personal list of what they have already watched or plan to watch, this makes it more difficult for them to keep track as some movies are available on multiple platforms while some are not. Additionally, most (if not all) major streaming platforms do not have a personal rating and/or review feature that hypothetically would allow others to see the average ratings and reactions after watching the movie(s). Netflix, a very popular streaming platform, removed this feature in 2018 and replaced it with a “like” or “dislike” button to indicate whether the user liked it or not. For users rating a watched movie a 5 (on a scale of 1 to 10), the “like” and “dislike” button does not provide the user with any middle ground to work with; in other words, streaming platforms are assuming that users either like it or dislike it. Other popular streaming platforms, such as Disney+, do not have this feature at all.

**The Solution**

To improve on these issues, I created a database with information regarding the user(s), their watchlist, and movies as well as certain genres and streaming platforms. Users will be able to search through information specific to the movie and track what they plan to watch and have already watched in one place. The database also allows users to rate the watched movie(s) on a scale of 1 to 10.

**Database and Framework**

For the front-end framework of this application, I used Python as a console application. The database was created using Google Cloud Platform: MySQL. Since manually inputting factually correct data would be time-consuming, the faker package was used to generate fake data that is relatively correct in terms of what the variable data type is. The database consists of 6 tables: Movie, User, Genre, StreamingService, UserPlanned, and UserWatched, with 3 different views to query and pull information in one place and a number of stored procedures. For more specific information regarding the tables, the Movie table has information including the title of the movie, the year it was made, the genre, content rating, the director, the running time, the main cast (4 actors/actresses), and if the movie is available on a streaming service platform. For the Genre and StreamingService tables, these had pre-set values as there are quite a number of genres that would end up being too specific and streaming platforms also varied quite a bit, including niche platforms, such as Crunchyroll, which is widely regarded as a platform for watching anime only. As such, I limited the streaming platforms to ones that are more popular and/or widely-known, such as Netflix, Hulu, HBO Max, Disney+, Amazon Prime, etc. For the stored procedures, most of them were for querying through the database and ensuring that the search function was working as intended. I added additional stored procedures to create/add new records and update certain records as well.

**Running the Database**

Text

Description automatically generatedMain Menu:

Text

Description automatically generatedSearch Options:

Text

Description automatically generatedSpecific Search Option for Actor/Actress and Flexible User Input

A screenshot of a computer

Description automatically generated with medium confidence**Schema Diagram**