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SI 664: Final Project Proposal
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Proposed database application

For this final project I propose to build a full stack Django application that allows for the intuitive querying of films and TV shows throughout history. The backend database will include the following tables:

- Title (title, rating, description, etc)
- actors (many to many)
- directors (many to many)
- writers (many to many)
- genre (one to many)
- Type (Feature film, documentary, TV show) (one to many)
  Revision: removing the following two tables given the number of lookup tables (for handling many to many relationships) in the model (see next page)
- ~~Production company (one to many)~~
- ~~Producer type (independent, corporate) (one to many)~~

The audience for this application is **anyone with an interest in films and shows, and in need of help with choosing what to watch** free of the biased recommendations made by the likes of Netflix and Hulu. The vision of the application is that any user, regardless of technical background, will be able to query lists of movies or shows based on their citic/audience ratings, director, writer, genre, and producer type.

Additional Features

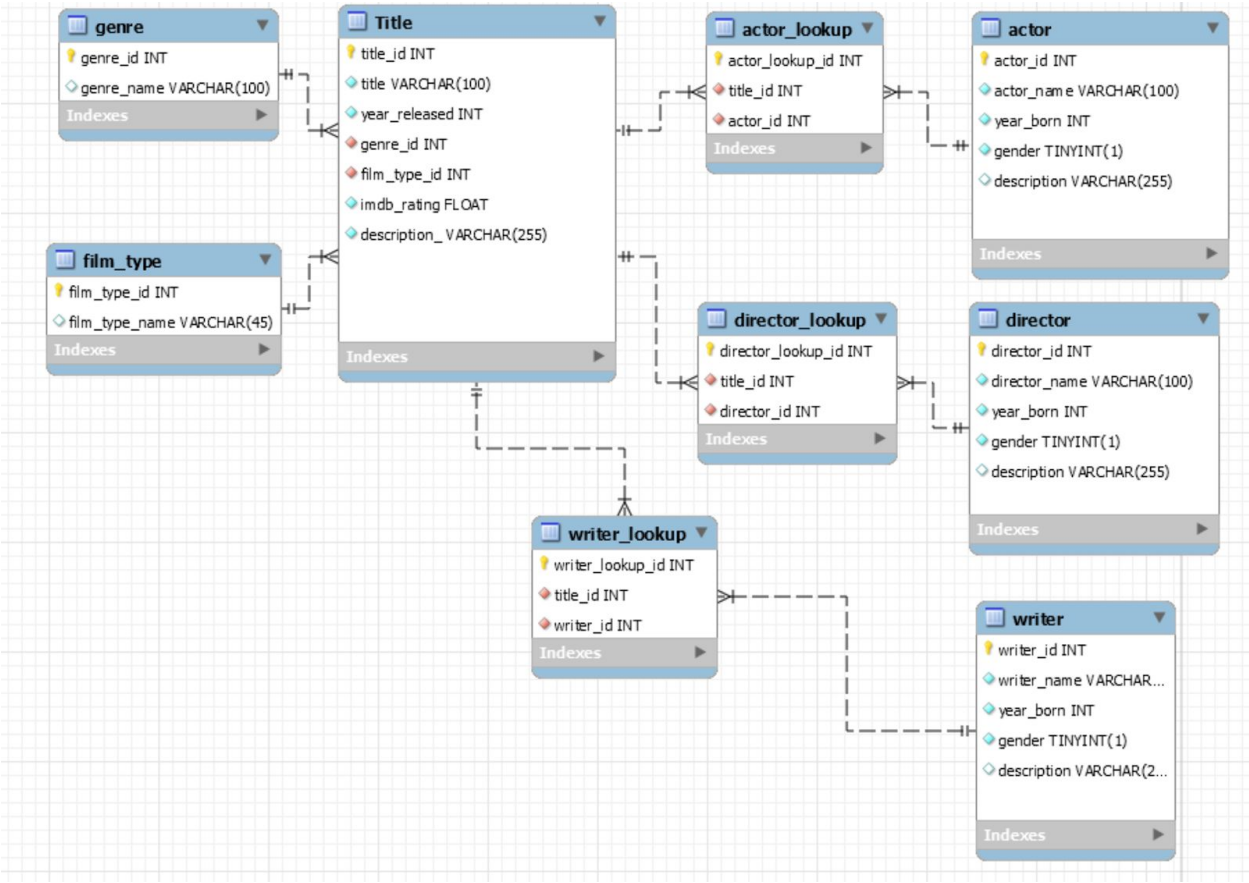
Time allowing, I would also like to include a feature that lists where each film/show in the user's query is available, (Hulu, Netflix, elsewhere). This would allow the application to extend its support of the user story of, "What should I watch" by directing the user to where exactly the film or show they're interested in is available.

If possible, I would like to also host this application on Heroku, running API pulls on a regular basis, so that application data stays consistently updated.

Data Sources

I plan to source data for this project from a combination of the Rotten Tomatoes API, and OMDb, the open movie database.

Data Model


genre
genre_id INT
genre_name VARCHAR(100)
Indexes
Title
title_id INT
title VARCHAR(100)
year_released INT
genre_id INT
film_type_id INT
imdb_rating FLOAT
description_ VARCHAR(255)
Indexes
actor_lookup
actor_lookup_id INT
title_id INT
actor_id INT
Indexes
actor
actor_id INT
actor_name VARCHAR(100)
year_born INT
gender TINYINT(1)
description VARCHAR(255)
Indexes
film_type
film_type_id INT
film_type_name VARCHAR(45)
Indexes
director_lookup
director_lookup_id INT
title_id INT
director_id INT
Indexes
director
director_id INT
director_name VARCHAR(100)
year_born INT
gender TINYINT(1)
description VARCHAR(255)
Indexes
writer_lookup
writer_lookup_id INT
title_id INT
writer_id INT
Indexes
writer
writer_id INT
writer_name VARCHAR...
year_born INT
gender TINYINT(1)
description VARCHAR(2...
Indexes