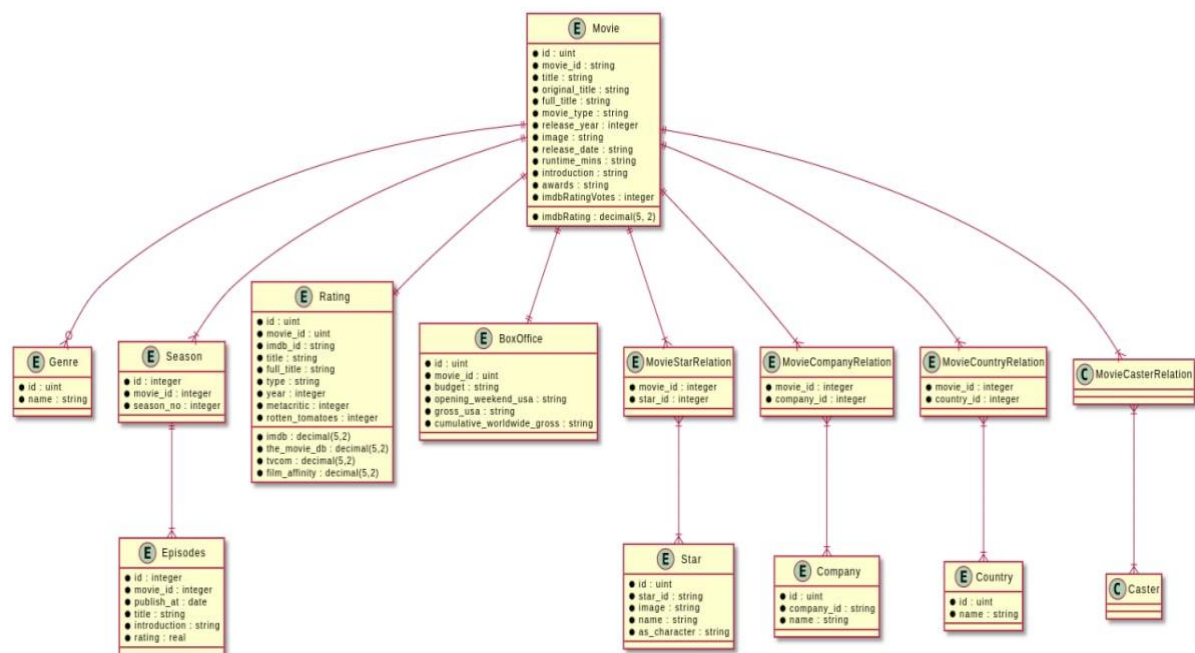


Part I. Data Summary and SQL

At the outset, our team tried to use Statistic Canada as our resource. However, the subject of the table on Statistic Canada is widely dispersed, which means it is hard to join multiple tables together since most attributes are not the same.

Therefore, we choose IMDB as our data resource because other than being open to the public, it provides a friendly API for developers to get data. Also, we further collected some data on Boxofficemojo and rotten tomatoes which are also included in IMDB API thus can have a comparison (movie rating) on data we collected.

These consist of 23 movies and 50 actors and 50 movie company entry records in the database since there is a request limit on the IMDB API. Created SQL table according to the entity-relationship diagram below.



Part II. Frontend overview and query explanation

The user cannot directly run SQL on the browser. But with given input space and dropdown menu, they can search the name of the movie or TV with the condition. Not only a general display of table data but also return a calculated result (an aggregate function).

Movie





title

imdb rating

0

>=

Search

The Godfather	The Godfather (1972)	Movie		1972-03-24 Drama	1994	9.30000019
The Godfather: Part II	The Godfather: Part II (1974)	Movie		1974-12-18 Drama	1994	9.30000019
Schindler's List	Schindler's List (1993)	Movie		1993-12-15 Drama	1994	9.30000019
The Shawshank	The Shawshank					

¹ The photo of album is not stored in database, but from api of IMDB

The Godfather: Part II

Title: The Godfather: Part II

Full Title: The Godfather: Part II (1974)

Release Year: 1974



Award: Top Rated Movies #3 | Won 6 Oscars. Another 11 wins & 20 nominations.

Imdb Rating Votes: 1147048

Genres: Crime

Imdb Rating: 9

metacritic: 90

Award: Top Rated Movies #3 | Won 6 Oscars. Another 11 wins & 20 nominations.

The movie DB Rating: 8.600000381469727

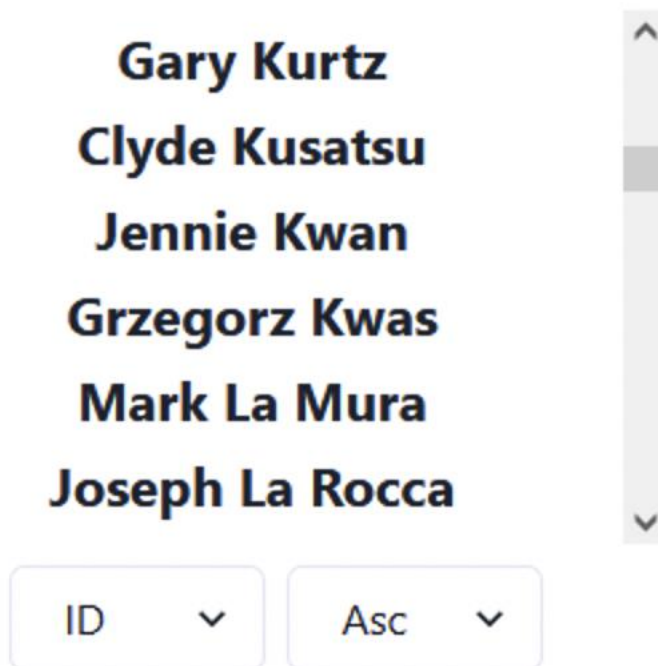
Rotton Yomatoes Rating: 96

Actor Detail

Tom Hanks

Total Movies	1
Average Imdb Rating	9.399999618530273
Average Imdb Rating Votes	400529
Average Metacritic	87
Average The Movie DB Rating	8.399999618530273
Average Rotten Tomatoes Rating	97
Average TVCOM Rating	0
Average Film Affinity	8.5

The interface also provides a sorting function to find the actor within a movie, using ID and name as the argument.



All the query is under the root of /src/Controllers.



Part III. Summary

The project is created by using react.js (frontend) and go-gin (backend). Using these two framework brings two advantages: 1. The data passed to the frontend does not need to use complex for-loop and HTML-table elements to display the data instead a map function can be done already.

```
{movies.map((movie) => (  
  <option value={movie.value}>{movie.label}</option>  
))}  
</Select>  
</HStack>  
{movieDetail && (  
  <VStack>  
    <p>Title: {movieDetail.title}</p>  
    <p>Full Title: {movieDetail.fullTitle}</p>  
    <p>Release Year: {movieDetail.releaseYear}</p>  
    <img src={movieDetail.image} alt="loading" style={{width: 200, height: 200}}/>  
    <p>Award: {movieDetail.awards}</p>  
    <p>Imdb Rating Votes: {movieDetail.imdbRatingVotes}</p>  
    <p>Genres: {movieDetail.genres}</p>  
    <p>Imdb Rating: {movieDetail.imdbRating}</p>  
    <p>metacritic: {movieDetail.metacritic}</p>  
    <p>Award: {movieDetail.awards}</p>  
    <p>The movie DB Rating: {movieDetail.theMovieDBRating}</p>  
    <p>Rotton Yomatoes Rating: {movieDetail.rottenTomatoesRating}</p>  
  </VStack>  
)
```

The GORM is also used to prevent SQL injection at the backend. As we write raw SQL in controllers, the library helps us automatically escape arguments to avoid SQL injection.

Instruction to open this app:

Prerequisites:

1. GCC
2. VS Code
3. Go lang

Make sure the version of go is the latest, check if GCC is added to the path otherwise the go file cannot comply.

After installing and re-open VS Code:

In terminal, type:

1. go install
2. go run main.go

Wait for patient until each command finished running, after that, the user can access the app via localhost:8080