Fall 2024 - P2: ER Diagram
Due : 25th September 2024, 12pm EST(before class)

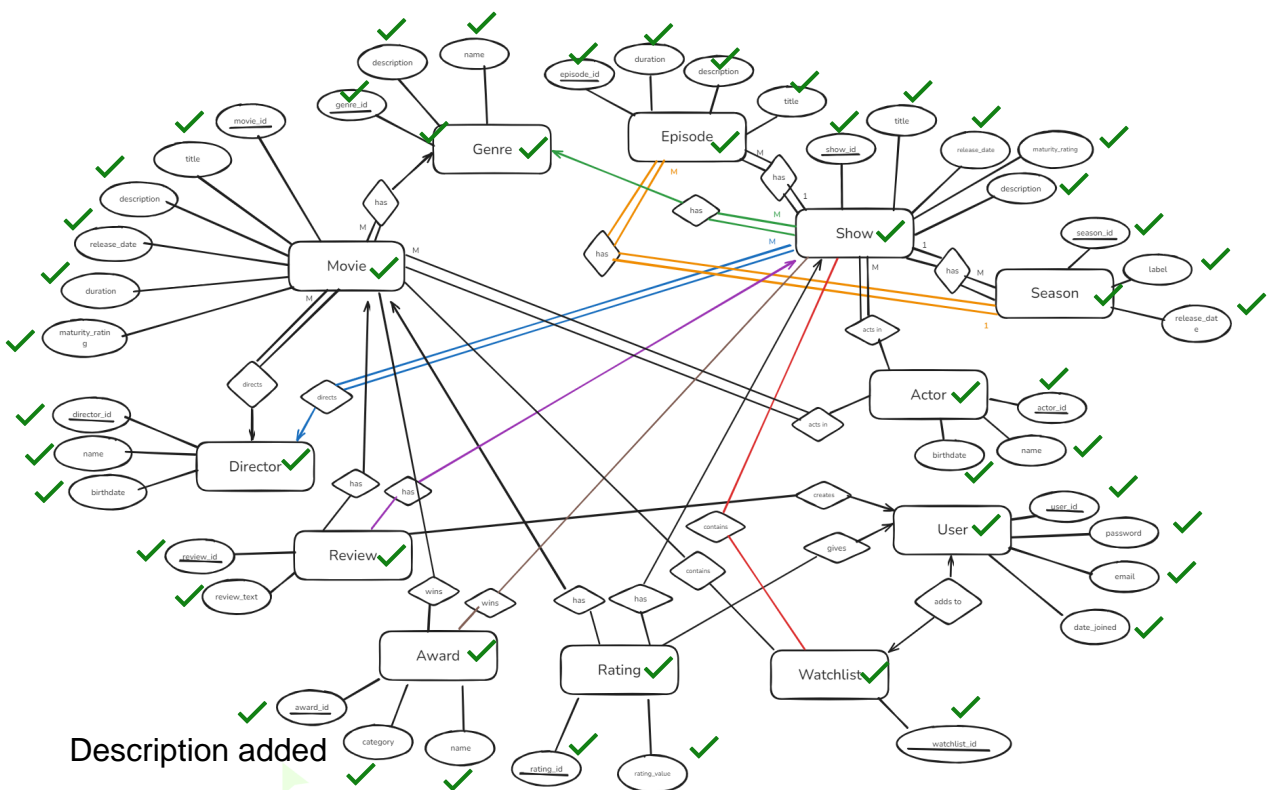| Christopher Joseph tbh7cm	Ryan Quiram zhe5qq	Ashley Sokol mqx4vk	Danie Nedialkov ddn4fw

For your selected project topic,
-   Define the business rules applicable to your system.
-   Identify 12 to 15 tables or relations, including both entities and their relationships.
-   Design a schema for each entity and create an ER diagram that illustrates the relationships among them.

Ensure that the ER diagram follows the appropriate structure and symbols discussed in class. Your business rules and ER diagram should identify any weak entities, and indicate the cardinalities of the relationships, specifying whether entities have partial or total participation.

If your business rules involve subclasses, explain how they are structured and indicate which attributes belong to which subclass. Additionally, describe the approach you used to design the schema for these subclasses.

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Description added

DateCreated added

Entities
●   User

- Movie
- Genre
- Director
- Actor
- Rating
- Review
- Watchlist
- Award
- Show
- Episode
- Season

<u>Business Rules</u>

User
- Each user consists of an email and password.
- A user can add movies or shows to their own watchlist
- A user can create multiple ratings and reviews
- A user can leave one single review and one rating per movie or show.
- The date a user is created will be saved

Movie
- Each movie has a title, a date released, a description, a maturity rating and a duration
- A movie must belong to one genre and one director.
- A movie can have multiple ratings and reviews from different users.
- A movie can receive multiple awards

Genre
- Each genre must have a name and description.
- A genre can be associated with multiple movies, but a movie or show can belong to only one genre.

Director
- Each director must have a name and date of birth.
- A director can be associated with multiple movies, but every movie must have one director.

Show
- A show must have at least one episode, season, actor
- Each show has a title and date released, description, and maturity rating
- A show can have multiple ratings and reviews from different users.
- A show is associated with genre and one director.
- A show can win multiple awards

Episode
- An episode must have one show and season
- An episode must have a title and duration and description

Season
- A season must have at least one episode
- A season must have exactly one show
- A season has a release date and a label which can be either a season title or a season number

Actor
- Each actor must have a unique name and date of birth.

- An actor can act in multiple shows and movies.

Rating
- Each rating must be associated with one user and one movie or show.
- A user can rate a show or movie only once.
- The rating value must be between 1 and 10 (or any defined scale).

Watchlist
- Every user can add movies or shows to their watchlist
- A user can add the same movie or show to their watchlist only once.

Review
- Each review must be associated with one user and one movie or show.
- Each review must contain review text
- A user can review a movie or show only once, and the review text can be updated.

Award
- Each award must have a name and category.
- An award can have multiple movies or shows associated with it distinguished by year

Database Schema

✓**User**: user_id, watchlist_id, email, password, date_joined,

✓**Movie**: movie_id, genre_id, director_id, title, release_date, description, duration, maturity_rating

✓**Genre**: genre_id, name, description

✓**Director**: director_id, name, birthdate

✓**Actor**: actor_id, name, birthdate

✓**Rating**: rating_id, user_id, movie_id, show_id, rating_value, date_created

✓**Watchlist**: watchlist_id, user_id

✓**Review**: review_id, user_id, movie_id, show_id, review_text, date_created

✓**Award**: award_id, name, category, description

✓**Show**: show_id, genre_id, director_id, title, release_date, description, maturity_rating, ~~release_date,~~

- ✓**Episode**: episode_id, show_id, season_id, title, episode_number, air_date, description, duration

fixed. ✓**Season**: season_id, show_id, label, releasedate

✓**Movie_Actor**: movie_id, actor_id, role

fixed. ✓**Movie_Award**: movie_id, award_id, year

fixed. ✓**Show_Award**: show_id, award_id, year

✓**Show_Actor**: show_id, actor_id, role

✓**Watchlist_Movies**: watchlist_id, movie_id, date_added

✓**Watchlist_Shows**: watchlist_id, show_id, date_added