Great! With no limitations on tables, we can dive into a truly comprehensive IMDb-like project. We’ll explore not only essential tables but also add layers of detail to enhance functionalities, covering diverse aspects of user experience, metadata, analytics, social features, and more. Here’s an expanded and enriched structure:

**Extended IMDb-like Database Project Structure**

**1. Core Tables**

* **Movies**: Basic details of each movie.
  + Fields: movie\_id (PK), title, release\_date, duration, synopsis, country, budget, box\_office, language\_id (FK), genre\_id (FK), production\_company\_id (FK), age\_rating, color\_type, format\_type (e.g., IMAX, 3D).
* **Genres**: Categorizes movies into types like drama, action, comedy.
  + Fields: genre\_id (PK), genre\_name.
* **Cast**: Information on actors.
  + Fields: cast\_id (PK), name, birthdate, biography, photo, birthplace, social\_media\_links.

**2. Expanded Relationship Tables**

* **Movie\_Genres**: Maps multiple genres to each movie.
  + Fields: movie\_id (FK), genre\_id (FK).
* **Movie\_Cast**: Connects movies to cast members, with their role in each movie.
  + Fields: movie\_id (FK), cast\_id (FK), character\_name, screen\_time.
* **Crew**: Similar to cast but for non-acting personnel.
  + Fields: crew\_id (PK), name, role, birthdate, biography, photo.
* **Movie\_Crew**: Maps crew members to movies, with specific roles.
  + Fields: movie\_id (FK), crew\_id (FK), specific\_role (e.g., cinematographer, editor).
* **Production\_Companies**: Lists details of production companies.
  + Fields: production\_company\_id (PK), name, country, establishment\_year, headquarters, website.

**3. User and Social Tables**

* **Users**: Details of users on the platform.
  + Fields: user\_id (PK), username, email, password, join\_date, profile\_photo, bio, location, date\_of\_birth, subscription\_status.
* **Reviews**: Stores user-written reviews with ratings.
  + Fields: review\_id (PK), user\_id (FK), movie\_id (FK), review\_text, review\_date, rating.
* **User\_Ratings**: Additional table just for user ratings, for granular statistics.
  + Fields: user\_id (FK), movie\_id (FK), rating.
* **User\_Watchlist**: Enables users to add movies to watch later.
  + Fields: watchlist\_id (PK), user\_id (FK), movie\_id (FK), added\_date.
* **User\_Following**: Allows users to follow cast, crew, and other users.
  + Fields: follower\_id (FK), followed\_id (FK), date\_followed, following\_type (e.g., user, actor, director).

**4. Detailed Movie Metadata**

* **Languages**: All languages supported by the platform.
  + Fields: language\_id (PK), language\_name.
* **Countries**: Country of production.
  + Fields: country\_id (PK), country\_name.
* **Movie\_Subtitles**: Lists available subtitle languages for each movie.
  + Fields: movie\_id (FK), subtitle\_language\_id (FK).
* **Trailers**: Stores URLs to trailers.
  + Fields: trailer\_id (PK), movie\_id (FK), trailer\_url, upload\_date.
* **Soundtracks**: Information about the soundtrack.
  + Fields: soundtrack\_id (PK), movie\_id (FK), title, artist, duration, label.
* **Awards**: Stores awards associated with each movie.
  + Fields: award\_id (PK), award\_name, year, winner, movie\_id (FK), award\_type (nomination or win).
* **Keywords**: Descriptive keywords associated with each movie.
  + Fields: keyword\_id (PK), movie\_id (FK), keyword.

**5. Advanced Interaction and User-Driven Content**

* **User\_Playlists**: Allows users to create playlists of favorite movies.
  + Fields: playlist\_id (PK), user\_id (FK), title, description, creation\_date.
* **User\_Favorites**: Tracks movies, actors, or directors marked as favorites.
  + Fields: favorite\_id (PK), user\_id (FK), item\_id (e.g., movie or person ID), item\_type.
* **User\_Comments**: Stores threaded comments under each review.
  + Fields: comment\_id (PK), review\_id (FK), user\_id (FK), comment\_text, timestamp.
* **Notifications**: Sends users notifications for new reviews, likes, or follows.
  + Fields: notification\_id (PK), user\_id (FK), message, link, timestamp, read\_status.

**6. Analytical and Tracking Data**

* **Viewing\_History**: Tracks each user’s viewing history.
  + Fields: history\_id (PK), user\_id (FK), movie\_id (FK), date\_watched.
* **Movie\_Popularity**: Keeps an updated score for each movie’s popularity.
  + Fields: movie\_id (FK), views, ratings\_count, review\_count, likes\_count, trending\_score.
* **User\_Analytics**: Stores user activity metrics for insights.
  + Fields: user\_id (FK), logins, reviews\_written, ratings\_given, average\_rating.

**7. Extended Media and Data Enrichment**

* **Image\_Galleries**: Stores multiple images related to a movie or actor.
  + Fields: gallery\_id (PK), related\_id (FK), image\_url, type (movie, actor, director), upload\_date.
* **Movie\_Releases**: Tracks each movie’s release date in different countries.
  + Fields: release\_id (PK), movie\_id (FK), release\_country\_id (FK), release\_date, platform (theater, digital).
* **Content\_Moderation**: Flags content that may need review or moderation.
  + Fields: content\_id (PK), user\_id (FK), reported\_content\_id, reason, status, date\_reported.

**8. Recommendations and AI-based Personalization**

* **Movie\_Recommendations**: Tracks algorithmically recommended movies for each user.
  + Fields: recommendation\_id (PK), user\_id (FK), movie\_id (FK), score, reason (e.g., genre match, user activity).
* **Similar\_Movies**: Based on genre, actor, and user behavior, links similar movies.
  + Fields: movie\_id (FK), similar\_movie\_id (FK), similarity\_score.

**9. Financial and Subscription Data**

* **Subscription\_Plans**: Information on subscription tiers.
  + Fields: plan\_id (PK), plan\_name, price, features, validity.
* **User\_Subscriptions**: Tracks individual user subscriptions.
  + Fields: subscription\_id (PK), user\_id (FK), plan\_id (FK), start\_date, end\_date, status.
* **Payment\_History**: Tracks payments made by users.
  + Fields: payment\_id (PK), user\_id (FK), plan\_id (FK), amount, date, method.

**Enhanced Functionality Examples**

1. **Advanced Recommendation System**: Recommendations based on user behaviors, preferences, and friends’ activities.
2. **Comprehensive User Profile Pages**: With stats on reviews, watchlists, followers, and favorite movies.
3. **Social and Community Features**: Comment threads, likes, follower updates, and custom watchlists.
4. **Detailed Insights and Analytics**: From movie popularity trends to user interaction data, aiding user engagement.
5. **Content Curation for Admins**: Moderation tools to monitor and control reviews, comments, and reported content.

With this structure, your IMDb-like project would have deep relational complexity, social interactions, analytical depth, and an impressive range of user-centric features—ideal for showcasing database expertise in a course project! Let me know if you’d like help detailing any specific tables further or modeling relationships.

1. Core Tables

|  |  |  |
| --- | --- | --- |
| **Table Name** | **Description** | **Fields** |
| **Movies** | Basic details of each movie. | movie\_id (PK), title, release\_date, duration, synopsis, country, budget, box\_office, language\_id (FK), genre\_id (FK), production\_company\_id (FK), age\_rating, color\_type, format\_type |
| **Genres** | Categorizes movies into types like drama, action, etc. | genre\_id (PK), genre\_name |
| **Cast(actors)** | Information on actors. | cast\_id (PK), name, birthdate, biography, photo, birthplace, social\_media\_links |

### ****Expanded Relationship Tables****

|  |  |  |
| --- | --- | --- |
| **Table Name** | **Description** | **Fields** |
| **Movie\_Genres** | Maps multiple genres to each movie. | movie\_id (FK), genre\_id (FK) |
| **Movie\_Cast(cast)** | Connects movies to cast members and their roles. | movie\_id (FK), cast\_id (FK), character\_name, screen\_time |
| **Crew** | Similar to cast but for non-acting personnel. | crew\_id (PK), name, role, birthdate, biography, photo |
| **Movie\_Crew** | Maps crew members to movies with specific roles. | movie\_id (FK), crew\_id (FK), specific\_role |
| **Production\_Companies** | Details of production companies. | production\_company\_id (PK), name, country, establishment\_year, headquarters, website |

**User and Social Tables**

|  |  |  |
| --- | --- | --- |
| **Table Name** | **Description** | **Fields** |
| **Users** | Details of users on the platform. | user\_id (PK), username, email, password, join\_date, profile\_photo, bio, location, date\_of\_birth, subscription\_status |
| **Reviews** | Stores user-written reviews with ratings. | review\_id (PK), user\_id (FK), movie\_id (FK), review\_text, review\_date, rating |
| **User\_Ratings** | Separate table for user ratings. | user\_id (FK), movie\_id (FK), rating |
| **User\_Watchlist** | Users can add movies to watch later. | watchlist\_id (PK), user\_id (FK), movie\_id (FK), added\_date |
| **Amna** |  |  |
| **User\_Following** | Tracks relationships between users, cast, and crew. | follower\_id (FK), followed\_id (FK), date\_followed, following\_type |

**Detailed Movie Metadata**

|  |  |  |
| --- | --- | --- |
| **Table Name** | **Description** | **Fields** |
| **Languages** | Supported languages. | language\_id (PK), language\_name |
| **Countries** | Country of production. | country\_id (PK), country\_name |
| **Movie\_Subtitles** | Available subtitle languages for each movie. | movie\_id (FK), subtitle\_language\_id (FK) |
| **Trailers** | Stores URLs to trailers. | trailer\_id (PK), movie\_id (FK), trailer\_url, upload\_date |
| **Soundtracks** | Information about soundtracks. | soundtrack\_id (PK), movie\_id (FK), title, artist, duration, label |
| **Awards** | Stores awards associated with movies. | award\_id (PK), award\_name, year, winner, movie\_id (FK), award\_type |
| **Keywords** | Descriptive keywords associated with movies. | keyword\_id (PK), movie\_id (FK), keyword |

**. Advanced Interaction and User-Driven Content**

|  |  |  |
| --- | --- | --- |
| **Table Name** | **Description** | **Fields** |
| **User\_Playlists** | Users can create playlists of movies. | playlist\_id (PK), user\_id (FK), title, description, creation\_date |
| **User\_Favorites** | Tracks user favorites (movies, actors, etc.). | favorite\_id (PK), user\_id (FK), item\_id, item\_type |
| **User\_Comments** | Threaded comments under reviews. | comment\_id (PK), review\_id (FK), user\_id (FK), comment\_text, timestamp |
| **Notifications** | Sends user notifications for various events. | notification\_id (PK), user\_id (FK), message, link, timestamp, read\_status |

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**Analytical and Tracking Data**

|  |  |  |
| --- | --- | --- |
| **Table Name** | **Description** | **Fields** |
| **Viewing\_History** | Tracks user viewing history. | history\_id (PK), user\_id (FK), movie\_id (FK), date\_watched |
| **Movie\_Popularity** | Tracks movie popularity metrics. | movie\_id (FK), views, ratings\_count, review\_count, likes\_count, trending\_score |
| **User\_Analytics** | User activity metrics for insights. | user\_id (FK), logins, reviews\_written, ratings\_given, average\_rating |

**Extended Media and Data Enrichment**

|  |  |  |
| --- | --- | --- |
| **Table Name** | **Description** | **Fields** |
| **Image\_Galleries** | Stores images related to movies or actors. | gallery\_id (PK), related\_id (FK), image\_url, type, upload\_date |
| **Movie\_Releases** | Tracks movie release dates by country. | release\_id (PK), movie\_id (FK), release\_country\_id (FK), release\_date, platform |
| **Content\_Moderation** | Flags content for review. | content\_id (PK), user\_id (FK), reported\_content\_id, reason, status, date\_reported |

**8. Recommendations and AI-based Personalization**

|  |  |  |
| --- | --- | --- |
| **Table Name** | **Description** | **Fields** |
| **Movie\_Recommendations** | Algorithmic recommendations for users. | recommendation\_id (PK), user\_id (FK), movie\_id (FK), score, reason |
| **Similar\_Movies** | Links similar movies based on attributes. | movie\_id (FK), similar\_movie\_id (FK), similarity\_score |

**Financial and Subscription Data**

|  |  |  |
| --- | --- | --- |
| **Table Name** | **Description** | **Fields** |
| **Subscription\_Plans** | Subscription tier details. | plan\_id (PK), plan\_name, price, features, validity |
| **User\_Subscriptions** | Tracks user subscriptions. | subscription\_id (PK), user\_id (FK), plan\_id (FK), start\_date, end\_date, status |
| **Payment\_History** | Tracks user payments. | payment\_id (PK), user\_id (FK), plan\_id (FK), amount, date, method |