

TASK 1

The document is in the upload.

TASK 2

Attached image of the ER Diagram

TASK 3

STEP 1: Mapping of regular (strong) entity types

For entity USER_PROFILES create relation USERS.

Include all simple attributes of USER_PROFILES.

For entity MOVIE create relation MOVIES.

Include all simple attributes of MOVIE.

For entity SERIES create relation SERIES.

Include all simple attributes of SERIES.

For entity ACTOR create relation ACTORS.

Include all simple attributes of ACTOR.

For entity PRODUCTION_COMPANY create relation PRODUCTION_COMPANIES.

Include all simple attributes of PRODUCTION_COMPANY.

For entity EMPLOYEE create relation EMPLOYEES.

Include all simple attributes of EMPLOYEE.

For entity ACCOUNT_SUBSCRIPTION create relation SUBSCRIPTIONS.

Include all simple attributes of ACCOUNT_SUBSCRIPTION.

STEP 2: Mapping of weak entity types

For entity FAVOURITES create relation FAVOURITES.

Include all simple attributes of FAVOURITES.

Include primary keys of USER_PROFILE and SERIES/MOVIES

For entity CAST create relation CASTINGS.

Include all simple attributes of CAST.

Include primary keys of ACTORS and SERIES/MOVIES

STEP 3: Mapping of binary 1:1 relationships

For relationship HOLDS between USERS and SUBSCRIPTION include as foreign key in USERS the primary key of subscription.

STEP 4: Mapping of binary 1:N relationships

For the relationship EMPLOY'S the relation on the N side is EMPLOYEE.

Include in EMPLOYEE the primary key of PRODUCTION_COMPANY.

STEP 5: Mapping of binary M:N relationships

Create a new relation HANDLE to represent relationship HANDLE.

Include primary keys of USERS and EMPLOYEES.

Combine these into foreign key.

STEP 6: Mapping of multivalued attributes

Create relations Reviews.

Include seriesID/movieID as foreign key.

STEP 7: Mapping of multivalued relationships

Create new relation ACT and include all the primary keys of the participating relationships.

STEP 8: Mapping specialisation and generalisation

Choose option 8C:

Create superclass SUBSCRIPTION with type paymentMethod.

This is because the sub-classes are disjoint simple attributes.

STEP 9: Mapping unions

Create new relations DEVELOPER, POST_PRODUCTION and ACCOUNT_MANAGEMENT.

Use surrogate key employeeID.

This is because the sub-classes have attributes of their own.

TASK 4

Used myPhpAdmin to create a database based on the ER diagram and mapping steps.

TASK 5

User Registration and Login:

Users should be able to log in securely using their credentials (username/email and password).

Web application should be able to show series and movies pulled from the database.

Be able to manage actors and production companies (create a page showing production companies and actors page).

Have the ability to add, edit and delete movies for admin users.

Be able to add a movie to favourites (create a favourites page).

Be able to sort and filter listings.

Recommend the movies based on algorithms.

Be able to share favourites.

Users are able to review a movie or series.

TASK 6

Used a python script to parse the data into the database using an IMBD website. Randomly generated data used in edge cases. The IMBD website used relevant data which is constantly being updated.