DBMS Task 2

MOVIES INFORMATION MANAGEMENT

DESCRIPTION

The "movies_db" database is a comprehensive relational database designed to manage and organize information related to a diverse set of entities within the context of movies and entertainment. It encompasses tables for storing details about movies, directors, actors, genres, roles, users, customers, logins, and various associations among them. Users are assigned roles, and customers are linked to users, allowing for a role-based access control system. The database captures login sessions, tracks movie details, casts, ratings, and customer reviews. With a structured and normalized schema, the "movies_db" facilitates the efficient storage and retrieval of information, providing a robust foundation for managing a broad range of data related to the movie industry and user interactions.

TABLES

Movies:

- MovieID (Primary Key)
- Title
- ReleaseYear
- Duration
- Description

Directors:

- DirectorID (Primary Key)
- FirstName
- LastName

Actors:

- ActorID (Primary Key)

- FirstName

- LastName

- BirthDate

- Gender

- Country

Genres:

- GenreID (Primary Key)

- GenreName

Roles:

- RoleID (Primary Key)

- RoleName

UserRoles:

- UserRoleID (Primary Key)

- UserRoleName

Users:

- UserID (Primary Key)

- Email

- Username

- Password

Customers:

- CustomerID (Primary Key)

- Firstname

- Lastname

- Age

- Country

Login:

- LoginID (Primary Key)
- LoginDate
- LoginTime
- LogoutTime

Ratings:

- RatingID (Primary Key)
- RatingDescription

UserRoleMapping:

- UserRoleMapID (Primary Key)
- UserID (Foreign Key Referencing Users (UserID))
- UserRoleID (Foreign Key Referencing UserRoles (UserRoleID))

UserCustomer:

- UserCustomerID (Primary Key)
- UserID (Foreign Key Referencing Users (UserID))
- CustomerID (Foreign Key Referencing Customers (CustomerID))

UserLogin:

- UserLoginID (Primary Key)
- UserID (Foreign Key Referencing Users (UserID))
- LoginID (Foreign Key Referencing Login (LoginID))

MovieDetails:

- MovieDetailsID (Primary Key)
- MovieID (Foreign Key Referencing Movie (MovieID))

- DirectorID (Foreign Key Referencing Directors (DirectorID))
- GenreID (Foreign Key Referencing Genres (GenreID))

MovieCast:

- MovieCastID (Primary Key)
- MovieDetailsID (Foreign Key Referencing MovieDetails: MovieDetailsID)
- ActorID (Foreign Key Referencing Actors: ActorID)
- RoleID (Foreign Key Referencing Roles: RoleID)

MovieRatings:

- MovieRatingID (Primary Key)
- MovieDetailsID (Foreign Key referencing MovieDetails: MovieDetailsID)
- CustomerID (Foreign Key referencing Customers: CustomerID)
- RatingID (Foreign Key referencing Ratings: RatingID)
- ReviewTest

DETAILED INFORMATION

1. **Movies:**
   - Stores information about movies.
   - Attributes: MovieID (Primary Key), Title, ReleaseYear, Duration, Description.

2. **Directors:**
   - Contains details about movie directors.
   - Attributes: DirectorID (Primary Key), FirstName, LastName, BirthDate, Gender, Country.

3. **Actors:**
   - Holds information about actors.
   - Attributes: ActorID (Primary Key), FirstName, LastName, BirthDate, Gender, Country.

4. **Genres:**
   - Represents different genres that movies can belong to.

- Attributes: GenreID (Primary Key), GenreName.

5. **Roles:**

   - Defines roles that actors play in movies.

   - Attributes: RoleID (Primary Key), RoleName.

6. **UserRoles:**

   - Lists various user roles in the system.

   - Attributes: UserRoleID (Primary Key), UserRoleName.

7. **Users:**

   - Stores user details for accessing the system.

   - Attributes: UserID (Primary Key), Email, Username, Password.

8. **UserRoleMapping:**

   - Maps users to their respective roles.

   - Attributes: UserRoleMapID (Primary Key), UserID (Foreign Key), UserRoleID (Foreign Key).

9. **Customers:**

   - Contains information about customers.

   - Attributes: CustomerID (Primary Key), FirstName, LastName, Age, Country.

10. **UserCustomer:**

    - Maps users to their respective customers.

    - Attributes: UserCustomerID (Primary Key), UserID (Foreign Key), CustomerID (Foreign Key).

11. **Login:**

    - Records login and logout times for users.

    - Attributes: LoginID (Primary Key), LoginDate, LoginTime, LogoutTime.

12. **UserLogin:**

    - Maps users to their respective login sessions.

    - Attributes: UserLoginID (Primary Key), UserID (Foreign Key), LoginID (Foreign Key).

13. **MovieDetails:**

    - Contains details about movies, directors, and genres.

- Attributes: MovieDetailsID (Primary Key), MovieID (Foreign Key), DirectorID (Foreign Key), GenreID (Foreign Key).

14. MovieCast:

- Maps actors and roles to specific movie details.
- Attributes: MovieCastID (Primary Key), MovieDetailsID (Foreign Key), ActorID (Foreign Key), RoleID (Foreign Key).

15. Ratings:

- Defines different ratings that can be assigned to movies.
- Attributes: RatingID (Primary Key), RatingDescription.

16. MovieRatings:

- Associate ratings and reviews with specific movies and customers.
- Attributes: MovieRatingID (Primary Key), MovieDetailsID (Foreign Key), CustomerID (Foreign Key), RatingID (Foreign Key), ReviewText.

ENTITY RELATIONSHIP DIAGRAM

movies
- 🔑 MovieID VARCHAR(255)
- ◇ Title VARCHAR(255)
- ◇ ReleaseYear INT
- ◇ Duration INT
- ◇ Description TEXT
- Indexes ▶

directors
- 🔑 DirectorID VARCHAR(255)
- ◇ FirstName VARCHAR(255)
- ◇ LastName VARCHAR(255)
- ◇ BirthDate DATE
- ◇ Gender VARCHAR(10)
- ◇ Country VARCHAR(255)
- Indexes ▶

actors
- 🔑 ActorID VARCHAR(255)
- ◇ FirstName VARCHAR(255)
- ◇ LastName VARCHAR(255)
- ◇ BirthDate DATE
- ◇ Gender VARCHAR(10)
- ◇ Country VARCHAR(255)
- Indexes ▶

genres
- 🔑 GenreID VARCHAR(255)
- ◇ GenreName VARCHAR(255)
- Indexes ▶

moviedetails
- 🔑 MovieDetailsID VARCHAR(255)
- ◇ MovieID VARCHAR(255)
- ◇ DirectorID VARCHAR(255)
- ◇ GenreID VARCHAR(255)
- Indexes ▶

moviecast
- 🔑 MovieCastID VARCHAR(255)
- ◇ MovieDetailsID VARCHAR(255)
- ◇ ActorID VARCHAR(255)
- ◇ RoleID VARCHAR(255)
- Indexes ▶

userroles
- 🔑 UserRoleID VARCHAR(255)
- ◇ UserRoleName VARCHAR(255)
- Indexes ▶

login
- 🔑 LoginID VARCHAR(255)
- ◇ LoginDate DATE
- ◇ LoginTime TIME
- ◇ LogoutTime TIME
- Indexes ▶

movieratings
- 🔑 MovieRatingID VARCHAR(255)
- ◇ MovieDetailsID VARCHAR(255)
- ◇ CustomerID VARCHAR(255)
- ◇ RatingID VARCHAR(255)
- ◇ ReviewText TEXT
- Indexes ▶

roles
- 🔑 RoleID VARCHAR(255)
- ◇ RoleName VARCHAR(255)
- Indexes ▶

userrolemapping
- 🔑 UserRoleMapID VARCHAR(255)
- ◇ UserID VARCHAR(255)
- ◇ UserRoleID VARCHAR(255)
- Indexes ▶

userlogin
- 🔑 UserLoginID VARCHAR(255)
- ◇ UserID VARCHAR(255)
- ◇ LoginID VARCHAR(255)
- Indexes ▶

usercustomer
- 🔑 UserCustomerID VARCHAR(255)
- ◇ UserID VARCHAR(255)
- ◇ CustomerID VARCHAR(255)
- Indexes ▶

ratings
- 🔑 RatingID VARCHAR(255)
- ◇ RatingDescription VARCHAR(255)
- Indexes ▶

customers
- 🔑 CustomerID VARCHAR(255)
- ◇ FirstName VARCHAR(255)
- ◇ LastName VARCHAR(255)
- ◇ Age INT
- ◇ Country VARCHAR(255)
- Indexes ▶

users
- 🔑 UserID VARCHAR(255)
- ◇ Email VARCHAR(255)
- ◇ Username VARCHAR(255)
- ◇ Password VARCHAR(255)
- Indexes ▶