**Assignment: Movie Streaming Service Database Design**

## **1. Overview**

**Objective:**Design a MySQL database schema for a movie streaming service. The primary deliverables include:

* An SQL script that defines the schema (tables, keys, and relationships). This can be exported from workbench.
* An Enhanced Entity-Relationship (EER) diagram illustrating the complete design.

**Focus:**The assignment emphasizes proper database design, normalization, and the clear illustration of entity relationships through an EER diagram.

## **2. Project Requirements**

### **Minimum Tables (at least 5):**

1. **Movies**
2. **Users**
3. **Subscriptions**
4. **Watch History**
5. **Ratings**

*Note:* Additional tables (e.g., Genres, Reviews, Actors) are welcome if they enhance the design, but the above five are required.

### **Deliverables:**

* **SQL Schema Script:** A file (e.g., schema.sql) containing all CREATE TABLE statements, primary and foreign keys, and constraints.
* **EER Diagram:** A diagram (exported as mwb) created using a tool such as MySQL Workbench(recommended), Lucidchart, or a similar diagramming tool.

## **3. Detailed Entities and Attributes**

### **Ex: Movies Table**

* **Purpose:** Stores information about each movie available on the streaming service.
* **Suggested Attributes:**
  + movie\_id (Primary Key, INT)
  + title (VARCHAR)
  + release\_year (YEAR)
  + genre (VARCHAR)  
    *(Optionally, create a separate Genres table and use a foreign key.)*
  + director (VARCHAR)
  + description (TEXT)
  + duration (INT, minutes)

## **4. EER Diagram Guidelines**

* **Diagram Requirements:**
  + Clearly depict all five (or more) tables.
  + Show primary keys, foreign keys, and any unique constraints.
  + Indicate the cardinality of relationships (e.g., one-to-many between Users and Watch History, Movies and Ratings).
  + Use an EER diagramming tool of your choice (e.g., MySQL Workbench, Lucidchart).
* **Submission:**
  + Include a .mwb of your diagram with your final submission.
  + The diagram should be neat, well-organized, and annotated to explain relationships and constraints.

## **5. Additional Guidelines**

* **Normalization:**Ensure that the schema adheres to normalization rules (3NF for full makrs) to minimize redundancy.
* **Naming Conventions:**Use clear and consistent naming conventions for tables, columns, and constraints.
* **Documentation:**Write a brief explanation (1-2 pages) covering:
  + The design decisions made.
  + The relationships between entities.
  + Any assumptions or special considerations in your design.
* **Submission Format:**
  + SQL script file (e.g., schema.sql)
  + EER diagram file (PDF/PNG)
  + Sample CSV file (e.g., movies.csv)
  + Design documentation (PDF or Word document)

## **6. Grading Criteria**

* **Schema Design:**Accuracy, normalization, and the appropriate use of keys and relationships.
* **EER Diagram Quality:**Clarity, completeness, and correctness of the relationships depicted.
* **Overall Presentation:**Organization, adherence to naming conventions, and thoroughness of the explanation of design decisions.