

Databases Assignment 1:  
Internet Movie Database (IMDB.com)

DT228/4

BSc in Computer Science

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# Introduction

Imdb.com is a massive online database storing all information relative to film, television and video games. The web site displays the information on all actors, cast and staff related to each title. I have chosen to analyse and replicate only a small portion of the website’s functionality. The independent aspect I have developed encapsulates the data, entities and relationships to model the ability to:

* Login
* View user information
* View celebrities (actors, cast and crew, etc.)
* View the category of their involvement to a title (actor, writer, producer etc.)
* View titles they have been involved in
* view the characters they have played
* View what the other title the character has appeared in.
* View titles
* View the title’s genres
* Rate a title
* Review a title

The above information is stored below in the implemented ERD design (fig.1).

The application business process I have chosen to mimic using data entities, triggers and a set procedure is the ability for a user to rate a ‘Title’ which will update the Title’s average score.

Input: Primarily the tables are populated by means of hardcoded insert statements, otherwise tables which are dependant of User feedback (eg. The’ User\_Rating’ table, which records the User, title and the user’s score of that title) are populated via a set procedure.   
After Insert into the ‘User\_Rating’ table, a trigger is called which calculates the Title’s average score and outputs it into the Title table where the title score is recorded.

# ER Diagram

Figure 1: Conceptual

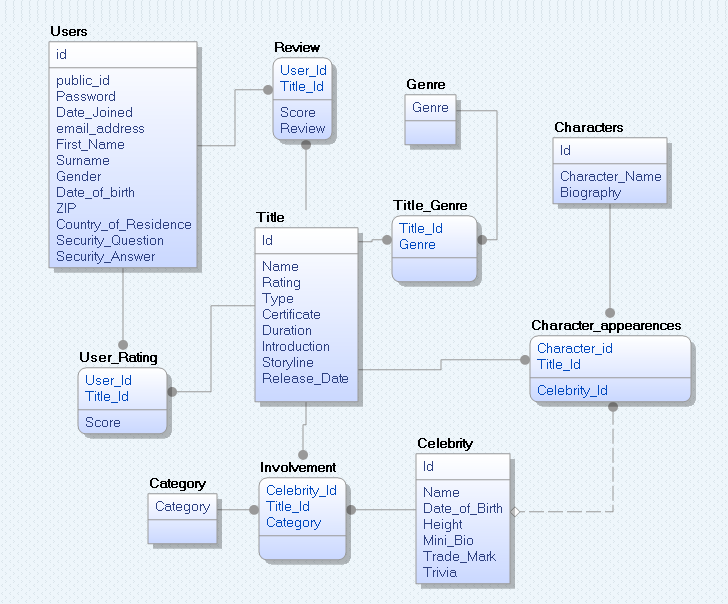


Figure 2: ER Diagram

# Implementation

The primary business function of this application is to allow the user to rate against a title.  
When a user rates against a title, a trigger is activated this will calculate the title’s average rating and update the stored attribute. Unfortunately due to non-disclosure of the weighted average calculation used by IMDB for calculating a title’s rating, I have opted to calculate the shows average rating.

Design of the system begun by studying and analysing the existing IMDB website. Once the target business aspect of the system was decided, it was then necessary to figure what data will be stored in which tables and the relationships between potential table entities. It was decided to develop the scheme to incorporate a fairly normalized table layout, to ensure less dependency and more maintainability