CT230 DATABASE SYSTEMS

ASSIGNMENT: 6

LAB DATE:13TH, 15TH, 16TH NOVEMBER 2018

Due: (via Blackboard) by Friday 23rd November 2018

there is a penalty for late submissions

Learning Outcomes: Revision of SQL with a new database schema (taken from the Winter 2017 Exam) and practice working with phpMyAdmin.

SCHEMA

A movie streaming service stores information on movies which is displayed when suggesting movies to viewers. As outlined in the following ***movService*** schema, the information is stored across four tables:

movie(<u>id</u>, title, relYear, category, runTime, director, studioName, description, rating**)**

actor(<u>aID</u>, fName, surname, gender**)**

stars(<u>movieID, actorID</u>)

movGenre(<u>movieID, genre</u>)

The table **movie** holds details on each movie (with <u>id</u> the primary key): the title, the year of release of the movie (e.g., 2017), the age category of the movie (e.g., 12A, PG, 18, etc.), the run time of the movie (in minutes), the director of the movie, the studio which released the movie (e.g. MGM, Warner, etc.), a description of the movie and an average rating (real number) calculated based on the ratings given by people who have rated the movie. The **actor** table holds details on actors (with primary key aID) and includes actor name (fName and surname) and gender. The **stars** table holds details on the actors in each movie with movieID and actorID as the primary key. Note that a movie typically has many actors and an actor can act in many movies. movieID is a foreign key to id in the table movie. actorID is a foreign key to aID in the table actor. The **movGenre** table holds details on the genres of each movie with movieID and genre as the primary key. Note that a movie can have multiple genres (e.g., Horror, Sci-Fi, Thriller, etc.). movieID is a foreign key to id in the table movie.

TASK 1: Import Database

Create the partial database using movSchema.sql available on Blackboard. Note that the database is missing the actor and stars tables. Data for the four tables is also available on Blackboard and should be inserted as appropriate.

Note: You may wish to request a new database or export your timetable database (to save for future reference) and use that account for the dentist database.

TASK 2: SQL Select Queries

Using the *movService* schema, write SQL code and queries to satisfy the following information needs:

(a) Choosing suitable data types, write the SQL DDL code required to create the actor and stars tables. Once the tables are created insert the relevant data in to the tables actor and stars.

(b) List details (title, director, description, rating) of the movies released in 2014 or 2015 of category '12A'.

(c) Using an explicit join, list the genres of the movie with the title 'Blade Runner 2049'.

(d) Using a subquery method list the title and category of movies that star the actor 'Michael Fassbender'.

(e) Find the movie(s) (listing the title and rating) with the highest rating.

(f) Using the implicit join syntax, list the title and release year of all movies which were directed by Angelina Jolie or which star Angelina Jolie as an actor.

(g) For each genre, list the genre and the number of movies in the database, released since 2000, for that genre.

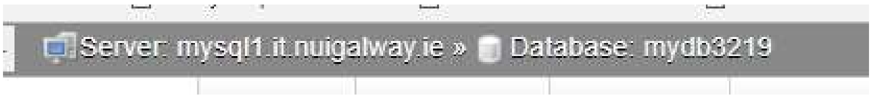
(h) List the names of actors who have starred in more than 1 movie.

HAND UP:

1. For each query include the SQL code (one screenshot of code only) and a screenshot of the results in your solution. To aid correction, please keep the SQL query code and the associated output (results) together (near each other) and label correctly (a-h).

2. Follow the assignment template guidelines given and ensure that all the specified outputs, the plagiarism declaration and the timestamp/database query name are included.

Note in phpMyAdmin, show the header ribbon with the database name for all screenshots. In phpMyAdmin this is grey and looks like:



Server: mysql1.it.nuigalway.ie » Database: mydb3219

NOTE: FINAL ASSIGNMENT AND LABS

- Assignment 6 is the final assignment for CT230
- The final lab sessions are on week 11, i.e., 20th, 22nd and 23rd November.