

CT230 DATABASE SYSTEMS 2022

PROBLEM SHEET 5

FOR LABS ON:

Mon 24/10/22; Tue 25/10/22 and 01/11/22; Thur 27/10/22 and 03/11/22

Learning Outcomes: To become familiar with implicit and explicit joins in addition to all the SQL SELECT constructs learned up to now

Goal: This assignment involves the **querying** across multiple tables in the movie timetable domain using the 6 clauses from the **SQL SELECT** command, sub-queries, aggregate functions and joins.

Resources: See lecture notes relating to SQL SELECT statement

Examining & Marking: This problem sheet allows you to practice the material and obtain help/explanation if necessary in the lab sessions. The material will be examined for marks via a Blackboard quiz – Test 4 - on Friday 11/11/2022.

SCHEMA:

The movie schema (see file on Blackboard for description of each table):

Information is held on movies, actors and directors in six tables.

movie (mID, title, relYear, category, runTime, studioName, description, rating)

actor (aID, fName, surname, nationality, gender)

director (dID, dfName, dSurname)

genres (movieID, genre)

directs (movieID, directorID)

stars (movieID, actorID)

TASKS: WRITE SQL CODE TO SATISY THE FOLLOWING INFORMATION NEEDS:

1. Using a join approach, list the genres of the movie with the title 'Belfast'.
2. Using an explicit inner join, list the names and release years, of all movies that star the actor 'Saoirse Ronan'.
3. Using an implicit inner join, list the names of all actors in the film with the title 'Spiderman No way home'.
4. Using a join, list the titles of all films, release year and description of all films which are directed by the director 'Anthony Russo'.
5. List the title of all films which were directed by Quentin Tarantino or starred Quentin Tarantino as an actor. (*Hint: a UNION query could be used as part pf the solution).
6. List the name of actors who starred in the same movies as the actor Brie Larson.
7. For each director, who has directed more than one movie, list the name of the director and the number of movies they have directed.
8. Find the number of movies starred in by each actor, listing the actor name and the number of movies they starred in, for all actors who stared in more than two movies in the database.
9. For each movie genre, list the number of movies with that genre, and the average rating received by movies of that genre, for genres that have more than 5 movies.
10. For the movie with the title 'Don't Look Up' list the names of the director(s) and actor(s) of the movie.