

Lab Sheet 5

Multi-Table Queries

The movies database we saw in lectures has the following schema:

```
movies(id, title, yr, score, votes, director)
actors(id, name)
castings(movieid, actorid)
```

Within the `movies` table, the `yr` attribute denotes the year the film was released (as a DECIMAL value) and the `score` and `votes` attributes capture the average rating by viewers (on a scale of zero to ten) and the number viewers who voted. Directors are identified by id number only. (The DB is a cut-down version of a larger one. Several tables, including the one containing directors' names have been omitted.)

Each actor has an id number and a name. The `castings` table records which actors appeared in which films.

The DB contains information about two thousand (mostly Hollywood) films from the 1920s until 2000 and around six thousand actors who were active during that period.

Formulate queries for each of the following. Try to use joins in preference to subqueries where possible. This is purely to force us to get as much practice working with joins as we can.

Problems below the dotted line are more challenging, especially if we don't use subqueries.

1. Determine how many films and how many actors are represented in the DB.
2. Determine how many films were released in 1975?
3. List the ids of all films in which Clint Eastwood appears.
4. List the names and years of all films in which Clint Eastwood appears. Order the films chronologically.
5. List all the actors who appeared in "Citizen Kane".
6. List all the actors who appeared in either "Vertigo" or "Rear Window".
7. List all the films made by the director with id number 28.
8. List all the films made by the director of "Godfather, The".
9. List all remakes, i.e. pairs of films with the same name; give the name and the year in each case.
10. List the names all obvious sequels with names like "Superman II" (Consider only the first four sequels i.e. II to V).
11. List all film-sequel pairs where the sequel has the same name of the original with the Roman numeral II appended. (Hint: SQLite uses the concatenation operator `||` to join strings together, so `"Superman" || " II" = "Superman II"`.)

12. List all pairs of films by the same director where one film received a good score (> 8) and another a poor score (< 3).
.....
13. List all the films in which both Clint Eastwood and Richard Burton appeared.
14. List all the actors who have appeared in a film with Al Pacino.
15. List all the actors who appeared in both “Big Sleep, The” and “Casablanca”.
16. List all the actors who made a film during the 1950s and also in the 1980s.
17. For each year during the 1960s, list the number of films made, and the first and last (alphabetically by title).
18. List all the actors who appeared in a least ten films and the names of his/her films.