

DBMS Lab - Assignment 4

The queries are to be evaluated on the database provided in the portal (`imdb.sql`).

Please refer to the document `DB_load_steps.txt` to find the steps to load the tables to your database.

1. Query set - 1..

- (a) List all the directors who directed a 'Comedy' movie in a leap year. (You need to check that the genre is 'Comedy' and year is divisible by 4.) Your query should return director name, the movie name, and the year.
- (b) List the names of all the actors who played in the movie 'Anand' (1971).
- (c) List all the actors who acted in a film before 1970 and also in a film after 1990. (That is: < 1970 and > 1990 .)
- (d) List all directors who directed 10 movies or more, in descending order of the number of movies they directed. Return the directors' names and the number of movies each of them directed.
- (e)
 - i. For each year, count the number of movies in that year that had only female actors.
 - ii. Now include a small change: report for each year the percentage of movies in that year with only female actors, and also the total number of movies made that year. For example, one answer will be:
1990 31.81 13522
meaning that in 1990 there were 13,522 movies, and 31.81 need to round your answer.
- (f) Find the film(s) with the largest cast. Return the movie title and the size of the cast. By "cast size" we mean the number of distinct actors that played in that movie: if an actor played multiple roles, or if it simply occurs multiple times in casts we still count her/him only once.
- (g) A decade is a sequence of 10 consecutive years. For example say in your database you have movie information starting from 1965. Then the first decade is 1965, 1966, ..., 1974; the second one is 1967, 1968, ..., 1976 and so on. Find the decade D with the largest number of films and the total number of films in D.
- (h) Find the actors that were never unemployed for more than 3 years at a stretch. (Assume that the actors remain unemployed between two consecutive movies).
- (i) Find all the actors that made more movies with Yash Chopra than any other director.
- (j) The Shahrukh number of an actor is the length of the shortest path between the actor and Shahrukh Khan in the "co-acting" graph. That is, Shahrukh Khan has Shahrukh number 0; all actors who acted in the same film as Shahrukh have Shahrukh number 1; all actors who acted in the same film as some actor with Shahrukh number 1 have Shahrukh number 2, etc. Return all actors whose Shahrukh number is 2.

2. Query set - 2..

- (a) List the title of 1970 films by order of cast list size.
- (b) List the name of actors featured in at least 13 films released after 1990.
- (c) List the name pair of actors who have worked together in more than 10 films.
- (d) List the title pair of movies which have the same lead star actor. Restrict result to movies with names starting with 'A' or 'S'.
- (e) Which were the busiest years for 'Amitabh Bachhan'. Busiest means that the actor performed in the maximum number of movies.
- (f) List the name of all actors who have worked with 'Om Puri'.
- (g) List the actor who has done the maximum number of movies from a (a) single director and (b) a single production house.
- (h) List names of actors who acted in every movie with titles starting with 'Dhoom'.