

Fundamentals of Relational Database Systems

Homework 3

[50 points overall]

You have been hired as a database consultant by Sony-MGM to work in the casting department for the next James Bond film. (They need a new Bond.) They need a database of actors, the movies they have appeared in, and who directed those movies. They have collected the following data for you to use:

Actor data

Name, address, birth date, hair color, eye color, height, weight.

Movie data

Name, year released, domestic box office sales, foreign box office sales, DVD sales.

Director data

Name, address, film school attended, home country.

You may add any fields you want or need in order to create a relational database.

Document your database with a fully decorated and aesthetically beautiful E/R diagram, the create statement for each table, and the functional dependencies for each table. Be sure that your database is in Boyce-Codd normal form (BCNF). Finally, write a query to list all the directors with whom actor "Daniel Craig" has worked.

Hints: This is not as straightforward as it sounds.

There are more than three tables.

Remember also that

- ... several actors can appear in the same movie under one or more directors
- ... actors can also be directors, and therefore directors can also be actors
- ... sometimes there is more than a single director for a movie

Impress me. Use entity subtypes to better represent the model.