

Introduction to Database Management Systems (2017 Spring)

Homework 1

Group 2

1 Problem Statement

Consider a MOVIE database in which data is recorded about the movie industry. The data requirements are summarized as follows:

- Each movie is identified by title and year of release. Each movie has a length in minutes. Each has a production company, and each is classified under one or more genres (such as horror, action, drama, and so forth). Each movie has one or more directors and one or more actors appear in it. Each movie also has a plot outline. Finally, each movie has zero or more quotable quotes, each of which is spoken by a particular actor appearing in the movie.
- Actors are identified by name and date of birth and appear in one or more movies. Each actor has a role in the movie.
- Directors are also identified by name and date of birth and direct one or more movies. It is possible for a director to act in a movie (including one that he or she may also direct).
- Production companies are identified by name and each has an address. A production company produces one or more movies.

Design an entity-relationship diagram for the movie database and enter the design using a data modeling tool such as ERwin or Rational Rose.

2 Requirement

- Model has to be developed using software. **No handwritten models.** There are also several database-independent data modeling tools that support E-R diagrams and UML class diagrams. The drawing tool Dia, which is available as freeware, supports E-R diagrams and UML class diagrams. Commercial tools include IBM Rational Rose (www.ibm.com/software/rational), Microsoft Visio (see www.microsoft.com/office/visio), CA's ERwin (www.ca.com/us/data-modeling.aspx), Poseidon for UML (www.gentleware.com), and SmartDraw (www.smartdraw.com).
- **Do not copy/paste an online solution!**

3 Submission

Be sure to upload your file (png, jpg or pdf format) to e-Campus system by the due date and name your file as "Group2_XXXXXX", where XXXXXX is your student ID.

Due Date: 23:59, March 13, Monday, 2017

If you have any questions regarding homework, please contact me.

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