Advanced Database Models
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Practical 4 - Conceptual Design Models

1. Conceptual design

The following application scenario is given:

> Car models (brand name, horsepower) by certain manufactures (name, home country) are build in possibly several subsidiaries (town, country, man-power) of the manufacturer. Several car models of one manufacturer may belong to a product line (name, description). The most common model types are passenger cars (number of seats, number of doors) and trucks (number of axes, max freight), where passenger cars may be limousines, station wagons, cabrios, or sports cars.

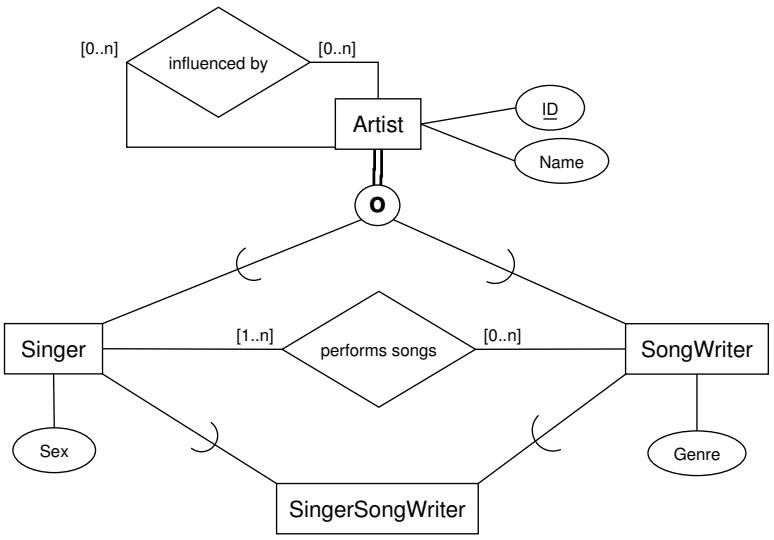
From this description derive diagrams for the conceptual schema using the

(a) basic ER model,

(b) ER model with object-oriented extensions, and

(c) UML!

2. Conceptual design to logical design



Given the ER diagram above describing the conceptual schema of a music database, derive

(a) a logical schema suitable for a relational database management system and

(b) an according schema for an application implemented using Java or C++!