San José State University
Department of Computer Engineering

CMPE 226
Database Systems
Spring 2017
Instructor: Ron Mak

Assignment #3

Assigned: Tuesday, February 21
Due: Tuesday, February 28 at 11:59 pm
Team assignment, 100 points max

Relational database model

The purpose of this assignment is to give your team practice creating a
relational database model by mapping your entity-relationship diagram (ERD)
to a **relational schema**. You can make any changes to your ERD.

Map the ERD for your project to a relational schema. The relational schema is a visual
depiction of your relational database model. Consider it to be the first draft of the logical
data model for your data management project. You can use ERDPlus to automatically
draw the relational schema, but clean it up afterward and arrange the tables nicely. Be
sure to indicate foreign keys by drawing an arrow from each foreign key to the target
primary key. A nice table arrangement has few crossing arrows.

Next, implement your relational model as a physical model by creating an actual
MariaDB database. Your tables must be in **third normal form** (3NF). Populate the
tables with some sample data. You can use phpMyAdmin to create and populate the
database tables.

What to turn in

Create a zip file named after your team (e.g., `Supercoders.zip`) containing:

- The latest version of your ER diagram.
- Your relational schema.
- A dump of your MariaDB database created
  with phpMyAdmin or the mysqldump utility.

Submit to Canvas: **Assignment #3. Relational Database Model**

Rubrics

Criteria	Maximum points
Revised ER diagram	**10**
Relational schema	**65**
• Mapped from the revised ER diagram	• 20
• All tables in 3rd normal form (3NF)	• 20
• All primary keys underlined	• 10
• All foreign keys linked to targets	• 10
• Tables arranged well (few crossing arrows)	• 5
Physical database	**25**
• MariaDB database from schema	• 10
• Tables populated with sample data	• 10
• Database dump	• 5