Project #8: Design and Implement a DB

1 Overview

During the quarter you've had a chance to work with existing databases, do some database design within provided parameters, and create databases and tables. But this has always been about other people's data and projects, not your own. In this project you'll design something *you* are interested in, implement the table structure to support your design, populate the tables with sample data, and create some sample queries and views to make sure the database works for potential users.

2 Getting Started

2.1 Teams

You may work in team of two to three students. I may accept single-student work if it's impossible for you to collaborate (hard to imagine, these days, when it's so easy to stay connected).

2.2 Choosing a Project

Find a real-world scenario for which you'd like to design and implement a database. This needs to be straightforward enough that you can explain it to others in the class (i.e., don't get too esoteric or narrow), but complex enough to require multiple tables (at least *four* main tables plus any linking tables required). This must not be closely related to examples from the text or class lectures/exams; pick something *you* are interested in or know something about.

2.3 Submit a Plan

By the specified date, submit a written plan (Word document, perhaps) that includes:

- Your name(s)
- A description of the project
- A draft EER diagram, created in MySQL Workbench, submitted as an .mdb file

Once your plan is approved, begin work.

3 Schedule

There are three key dates to keep in mind:

- Plan submission date (see the syllabus/calendar)
- Project due date (see the syllabus/calendar)
- Presentation date (one of the last two class periods before the final)

4 Project Deliverables

On the project due date, zip up and submit these deliverables:

- A final EER in MySQL model format (.mwb)
- One SQL script that…
  - Creates the database, tables, indexes, and constraints
  - Populates the tables with sample data, with enough records that the sample queries will yield meaningful proof-of-concept results
  - Creates at least two useful views
  - Contains at least four sample queries, with at least two of them joining data from two or more tables

5 Presentation

Prepare a presentation of no more than 10 minutes, to be delivered during one our last two class periods together. In this presentation you should show your EER, demonstrate a couple of key queries and views, give a quick synopsis of what you learned while completing the project, tell how you divided the work, describe any lessons you learned, and answer any questions your classmates may have. Team members should all participate in the presentation.

6 Notes

You may use MySQL to generate the table structure from the EER, but do not turn in the unedited script; review it to make it readable, changing constraint names to match a naming scheme your team chooses, removing unnecessary code, adding comment banners, including other project requirements like queries and view creation, etc.

7 Grading

Most project are worth 10 points; this one is worth 20. Here's how this one will be graded:

Area	**Points**
EER	4
Database/table creation	4
Sample data	4
Queries	2
Views	2
Presentation	4
TOTAL	**20**