

Homework Assignment #1

In this homework assignment you are tasked with drawing multiple Entity/Relationship diagrams for hypothetical projects. I only require that you use knowledge acquired in the previous lecture. Imagine this to be a sort of open-ended essay.

Your score will depend on the amount of effort you put into the assignment—and not necessarily on its correctness—as these are open-ended questions which do not have exactly one answer. Put together, these tasks are worth only one (1) point total, but will (hopefully) provide you with some valuable feedback.

1. draw an E/R diagram for a courses database.

- Base your design on your own experience and intuition.
- Be creative, precise and parsimonious.
- Suggested entities: Courses, Students, Teachers.
- Examples of attributes: Courses have ids, titles, credits, ...
- Relationships: Courses have multiple sections that have time/room and exactly one teacher.
- We must track students' course schedules and transcripts including grades, semester taken, etc.
- We must track which classes a professor has taught.
- Database should work over multiple semesters.

2. draw a diagram for an online recipe book.

Users of your app probably want to:

- search recipes by ingredients
- compile a list of ingredients for a selected recipe
- find all ethnic recipes by country of origin
- limit their search to the low-calories recipes only
- ...

3. do you have an idea for a hypothetical personal project requiring a database? If so draw an E/R diagram of said database.

- Is there any data you care enough about to manage?
- What if you start a company?

4. consider: do any of your favorite apps use a database system? How can you tell?

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