CSCI UA.0060 Spring 2025

Assignment 1 – Conceptual Design

Deliverables

Produce a document with your conceptual Database Design (can be Word, Excel, Powerpoint or PDF) and upload it to the Github repository for this assignment.

Filename should be FirstInitialLastName-Ass1.pdf (or docx or ppt or xlsx). For example, John Smith’s file could be JSmith-Ass1.pdf

Overall Requirements

In this assignment, you will produce a conceptual design of a business of your choosing. There are no right or wrong answers to this assignment. It is intended to help you to start thinking of how to construct sets of data to represent an organization.

Specific Requirements

1. Think of a business of your choice. It could be somewhere that you work or have worked. It could be a company that you interact with. It could be something completely fictitious.
2. Consider what entities comprise the business (There should be at least three and no more than ten). They could be types of people or products. They could be concrete things, like books sold by a bookseller or abstract things like accounts at a bank.
3. Consider what attributes describe the entities. For a book, the attributes might be a title or author (For some entities, there may only be one or two attributes. For others, there may be many more. In this assignment, there is no enforced upper limit, but I doubt that there will be more than 10 for any single entity).
4. Draw a diagram that shows each of your entities. For each entity, show the attributes and a couple of rows of data, as shown below. If it’s important to you to show a few more rows, that’s OK:



writes

5) For entities that are related to each other, draw a line between them. If you can, put some words on the line to indicate the purpose of the relationship.

You do not have to replicate the formatting shown above (I did it in Excel!). Use whatever technique you feel comfortable with so long as you feel it represents the business that you are describing.

Please note that you must use a computer tool to generate the model. It is not OK to take a picture of a handwritten diagram.

Grading Rubric

See Brightspace for Grading Rubric

My Solution: Gym

Members

* Name
* Membership ID
* Contact Information
* Membership Type (Basic, Premium, VIP)
* Amount Paid
* Payment Date
* Payment Method (Credit Card, Cash, Online)

Trainers

* Name
* Trainer ID
* Specialization (Strength Training, Yoga, Cardio, etc.)
* Certifications

Equipment

* Equipment Name
* Equipment ID
* Type

Classes

* Class Name
* Instructor
* Time
* Capacity
* Difficulty Level

A diagram of a gym database

Description automatically generated