

Database Design, CSCI 340, Spring 2016
Conceptual Design Studio #2, Feb. 24

Jefferson Dance Club

The Jefferson Dance Club teaches social dancing and offers both private and group lessons. Jefferson charges \$45 per hour per student (or couple) for a private lesson and \$6 per hour per student for a group lesson. Private lessons are offered throughout the day, from noon until 10 P.M., six days a week. Private lessons are booked one lesson at a time and are booked for one person (even though a couple may actually be taking the lesson.) Group lessons are offered in the evenings, and generally span over several weeks. One teacher is responsible for each private lesson and each group lesson.

Jefferson employs two types of instructors: full-time salaried instructors and part-time teachers. The full-time instructors are paid a fixed amount per week, and the part-time instructors are paid a set amount for a private lesson and a set amount for a group lesson.

Jefferson would like to develop an information system to keep track of its lessons, customers, the lessons that each customer has taken, the instructors and the lessons the instructors have taught. The managers would like to get a monthly report that tells the number of group lessons and the number of private lessons taught by each instructor for that month, and a report showing, for each customer, all of the lessons that customer has taken and from whom.

Imagine that you are responsible for developing this db application. Begin by developing a conceptual model for it. In this model, underline primary key attributes and show partial primary keys with a {PPK}. Name all relationships and indicate how to interpret the name via a triangular arrow ► and ◄. Give the minimum and maximum cardinalities on the relationships. The company has made it clear that they do not allow multi-valued attributes to appear in any table.

As this is not a logical data model, do not include join tables or foreign keys. Use relationships to indicate foreign keys.

Feel free to ask me questions when the requirements for this database are not clear. Alternatively, you can make reasonable assumptions, but you must write what assumption you made with the answer.