

# T-202-GAG1: Assignment 8

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## Readings

Ramakrishnan & Gehrke: Chapter 2 (excl. 2.8); Chapter 3.5.

## Preparation

None, aside from reading and attending/watching lectures.

## The Assignment

You must design a database for a soccer club. You need only maintain the current status, but not historical information aside from what is specifically asked for. The following information is given to you about the requirements for the database:

1. Information about all the players of the club is stored in the database. This information consists of ID, name, gender, salary, and biography, used for marketing by the club. The ID is naturally unique.
2. The database also contains information about coaches: ID, name, salary, name of coaching degree and its date of issue. A coach can train more than one team and each team can have more than one coach. The salary of coaches is registered specifically for each team trained.
3. Information about all the teams is stored in the database. The information is the team's nickname (unique), gender of players, and the year of foundation. Each player can only be registered for one team, but each team has many players. A team is always registered for some division.
4. For each division, the name of the division, gender of teams, and the sponsor. Each division has many teams, but each team can only play in one division. A single women's division can have the same name as a single men's division, but divisions of the same gender have unique names.
5. For each match of a team, you must store the date, time, venue, opponent and score. Each team can only play one match at the same date and time.

Draw an entity-relationship diagram with all the entities, relationships, attributes and keys. Show mandatory participation using very thick or double lines. Then write SQL commands to create the corresponding tables.

## Deliverables

**For this assignment, you may work in pairs.** Submit the following two files:

- a) A PDF file containing a (hand-drawn) ER diagram for the database.
- b) A text file (.txt) containing the SQL commands to create the tables.

A file is attached to the project (GAG1\_A7\_SolBase.jpg), which you can use as a starting point for the ER diagram if you wish. In this file, the entities are laid out in a way that will make your diagram readable 😊

## **Additional Exercises**

*Exercises: 2.3 and 3.13, 2.5 and 3.15, 2.7 and 3.17.*