

Checkpoint

Objective

You decide to join a very large known gym chain. When you arrive, you go to the reception. You find the owner arguing with a member who wants to attend a session he has not registered for. Your turn finally arrives, the owner apologizes for letting you wait so long. He explains that his employee, in charge of registrations, made a mistake in choosing the member's session.

You are surprised that such a recognized gymnasium still uses the cards to manage its large number of clients. So you're talking to the owner to fix this problem. Interested in your knowledge, he asks you to find him a solution, in return he will offer you a free 3-months inscription.

The owner informs you that:

- he has several gymnasiums which are distinguished by their names, addresses and telephone number.
- Members can register at one of these gymnasiums, so they must provide the following information: unique identifier, last name, first name, address, date of birth and gender.
- Each session is characterized by a type of sport and a schedule and can accommodate a maximum of 20 members.
- The sessions are led by a maximum of two coaches who have a last name, first name, age and specialty.

Instructions

Given the above mentioned text, try to create the according Entity relationship model.

Solution

Entities:

- **Gymnasium:** This entity represents each gymnasium location and has the attributes of name, address, and telephone number. It has a one-to-many relationship with the Session entity.
- **Member:** This entity represents the gym's clients and has the attributes of unique identifier, last name, first name, address, date of birth, and gender. It has a many-to-many relationship with the Session entity.
- **Session:** This entity represents each type of sport and schedule that the gym offers and has the attributes of type of sport, schedule, and maximum capacity of 20 members. It has a many-to-many relationship with the Member entity and a many-to-one relationship with the Gymnasium entity.

- Coach: This entity represents the gym's coaches and has the attributes of last name, first name, age, and specialty. It has a many-to-one relationship with the Session entity.

Relationships:

- Each Gymnasium can have many Sessions, but each Session can only be associated with one Gymnasium.
- Each Member can attend many Sessions, and each Session can have many Members attending.
- Each Session can have up to two Coaches, but each Coach can be associated with many Sessions.

Module conceptual

