+--------------+ +--------------+

| Gyms | | Sessions |

+--------------+ +--------------+

| gym\_id (PK) |<----->| session\_id (PK) |

| name | | sport\_type |

| address | | schedule |

| phone | | capacity |

+--------------+ | coach\_1\_id (FK) |

| coach\_2\_id (FK) |

+--------------+

+--------------+ +--------------+

| Members | | Coaches |

+--------------+ +--------------+

| member\_id (PK) |<---->| coach\_id (PK) |

| last\_name | | first\_name |

| first\_name | | last\_name |

| address | | age |

| date\_of\_birth | | specialty |

| gender | +--------------+

+--------------+

The diagram includes four main entities: Gyms, Sessions, Members, and Coaches.

The Gyms entity stores information about the gymnasiums, such as their unique identifier (gym\_id), name, address, and phone number.

The Sessions entity stores information about the sessions, including their unique identifier (session\_id), the type of sport, the schedule, and the capacity (maximum number of members). Each session can be led by up to two coaches, and therefore, two foreign keys (coach\_1\_id and coach\_2\_id) reference the Coaches entity.

The Members entity stores information about the gym members, including their unique identifier (member\_id), last name, first name, address, date of birth, and gender.

Finally, the Coaches entity stores information about the coaches, including their unique identifier (coach\_id), last name, first name, age, and specialty.

The relationships between the entities are represented using arrows. For example, a Gym can have many Sessions, so the relationship between Gyms and Sessions is one-to-many. Similarly, a Session can have many Members, and a Member can attend many Sessions, so the relationship between Sessions and Members is many-to-many. Finally, a Session can have up to two Coaches, and a Coach can lead multiple Sessions, so the relationship between Sessions and Coaches is many-to-many.