### **Entities and Attributes**

1. Gymnasium
   * GymID (Primary Key)
   * Name
   * Address
   * PhoneNumber
2. Member
   * MemberID (Primary Key)
   * LastName
   * FirstName
   * Address
   * DateOfBirth
   * Gender
   * GymID (Foreign Key)
3. Session
   * SessionID (Primary Key)
   * SportType
   * Schedule
   * MaxMembers (default: 20)
   * GymID (Foreign Key)
4. Coach
   * CoachID (Primary Key)
   * LastName
   * FirstName
   * Age
   * Specialty
5. SessionCoach
   * SessionID (Primary Key, Foreign Key)
   * CoachID (Primary Key, Foreign Key)
6. SessionMember
   * SessionID (Primary Key, Foreign Key)
   * MemberID (Primary Key, Foreign Key)

### **Relationships**

* **Gymnasium** has many **Members** (1 to many)
* **Gymnasium** has many **Sessions** (1 to many)
* **Session** can have up to 2 **Coaches** (many to many, resolved by **SessionCoach**)
* **Session** can have up to 20 **Members** (many to many, resolved by **SessionMember**)

|  |
| --- |
| Gymnasium |
| GymID (PK)  Name  Address  PhoneNumber |

|  |
| --- |
| Member |
| MemberID (PK)  LastName  FirstName  Address  DateOfBirth  Gender  GymID (FK) |

1-to many

|  |
| --- |
| Session |
| SessionID (PK)  SportType  Schedule  MaxMembers  GymID (FK) |

Many to many

|  |
| --- |
| SessionMember |
| SessionID (PK)  MemberID (PK) |

|  |
| --- |
| Session Coach |
| SessionID (PK)  CoachID (PK) |

Many to Many

|  |
| --- |
| Coach |
| CoachID (PK)  LastName  FirstName  Age  Speciality |

Many to Many