# **Database Development**

# **Project 2: Conceptual Design**

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### **Part 1: Business Rules**

- Each Sport has a maximum of many sign-up time periods and a minimum of 1 sign-up time period. Each sign-up time period belongs to a maximum of 1 Sport and a minimum of 1 Sport.
- Each Facility Location offers a maximum of many Sports and a minimum of 1 Sport. Each Sport is offered by a maximum of many Facility Locations and a minimum of 1.
- Each Athlete designates a maximum of 1 home Facility Location and a minimum of 1. Each Facility Location can be the home for a maximum of many Athletes and a minimum of 0.
- Each Athlete participates in a maximum of 1 Team per Sport annually and a minimum of 0 Teams. Each Team can have a maximum of many Athletes and a minimum of 1 Athlete.
- Each Team designates a maximum of 1 home Facility Location and a minimum of 1. Each Facility Location can be the home for a maximum of many Teams and a minimum of 0.
- Each Team registers for a maximum of 1 Sport annually and a minimum of 1. Each Sport can have a maximum of many Teams registered and a minimum of 0.

- Each Team has a maximum of 1 name annually and a minimum of 1. No two Teams can have the same name within the same year.
- Each Athlete has a maximum of 1 name but multiple Athletes can have the same name.

# Part 2: Entities and their Attributes

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### 1. Sport

- Sport Name (e.g., Basketball, Volleyball)
- Year (e.g., 2023)
- Maximum Participants

### 2. Facility Location

- Facility Name (e.g., DBD North, DBD East)
- Address
- Contact Number

#### 3. Athlete

- Athlete ID (unique identifier for each athlete)
- Athlete Name
- Date of Birth

#### 4. Team

- Team ID (unique identifier for each team)
- Team Name
- Contact Name
- Contact Phone Number
- Home Facility
- Registered Sport

# **5.** Athletes on a Team (Team Membership)

- Athlete ID (foreign key)
- Team ID
- Year (e.g., 2023)

# 6. Sign-up Time Period

- Start Date
- End Date
- Associated Sport