# **Sports Team**

# **Management System**

Milestone #: 1

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Group Number: 62

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

2.

- a. Project Description: Our project goal is to create a management tool for a sports organization to track their many teams and individual performance across games to improve operation. The domain of this project would be team management and player optimization across any sports the organization is a part of.
- b. Our database models the aspects of team management and optimization of our domain by allowing the application to be used by both Coaches, Players, and the organization itself to see game history, player performance by game, create training schedules, choose the optimal team roster for a game etc.

3.

- a. Database functionality: we want the users of a database to be able to:
  - View player information
  - Add and change players for a team along with health, performance, injury, schedule and game data
  - Display information regarding teams, games, player information, performance, and injuries.
  - Create schedules for team, player, and game optimizations
  - Look at rankings
  - Delete unused records and unimportant data

4.

- a. We will be using and PHP the DBMS we will be using is oracle
- b. Our frontend will be built using React which will call our backend, built using PHP, via an API to serve data from the database.
- 5. ER Diagram: (see attached PDF)

### Database for a sports team

Create a management tool for a sports team to track player performance and health data to improve operation

#### **Entities:**

- 1. Player <u>playerID</u>, name, phone number, position, player number Weak entities:
  - Physical Characteristics height (dotted underline), weight, age
  - Performance performance points (dotted underline)
- 2. Coach <u>coachID</u>, name, phone number, specialization
- 3. Injury type, time of occurrence, cause, treatment, parties involved
- 4. Schedules start time, end time, tasklist

#### ISA:

- Training schedule goal
- Game schedule league
- 5. Ranking rank number, type
- 6. Game day, time, venue, opponent team
- 7. Team Name, Type, # of Players, division

### Relations:

- 1. Many to many relationship between players and coaches
- 2. Many to many relationship between player a injury
- 3. Many to one relationship between players and schedule
- 4. Many to many relationship between coach and schedule
- 5. Many to one relationship between player and team
- 6. One to one relationship between team and game
- 7. One to one relationship and total participation constraint between players and rankings
- 8. One to one relationship between team and game
  - Weak entity relationship between player and physical health data
  - Weak entity relationship between player and performance

ISA training and ISA game schedule

## User stories

- Add players to team along with health, performance, injury, training and game data
- View player information
- Coach can choose a team for a particular game based on player info, performance, injury status
- Create schedules for training based on capacity of venue
- Look at rankings

