

Sports Team Management System

Milestone #: 2

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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. Our project goal is to create a management tool for a sports organization to track their many teams and individual performance across seasons to improve operation. The domain of this project would be team management and player optimization across any sports the organization is a part of. 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 season, create training schedules, choose the optimal team roster for a game etc.

3. (ER Diagram attached below)

We decided not to implement the suggestion about replacing the entity “Game” with a unary relationship. Our idea for this database is to make it cater to one organization only. In this case, for a match, the organization could potentially keep track of games where it does not need to have any information on the opposing team other than their name.

We also made some changes to add functional dependencies and make our examples clearer

- physicalCharacteristic is a physical history of a player by categorizing a unique instance of physical history by a key based on the player ID and a timestamp of when the history was recorded
- The key for the weak entity Performance was changed to (playerID, season) to record the performance points of a player each season
- A coach Type was added, which is dependent on the specialization, to allow for more descriptive coach specializations
- A schedule is identified by a schedule ID, and can either be a Game Schedule or a Training Schedule (total and disjoint)
- In a Game Schedule, the league the game is in determines the agenda
- In a Training Schedule, the goal of the session determines the agenda

4.

Entities:

Injury(timeOfOccurence: DateTime, cause: varchar(20), otherPartiesInvolved: varchar(20), type: varchar(20), treatment: varchar(20))

PK: timeOfOccurence, cause, otherPartiesInvolved

CK: None

FK: None

Other Constraints: None

Game(date: Date, time: Time, venue: varchar(20), opposingTeam: varchar(20))

PK: date, time, opposingTeam

CK: date, time, venue

FK: None

Other Constraints: Venue is UNIQUE

Team(type: varchar(20), name: varchar(20), division: varchar(20), numPlayers: int)

PK: type, name, division

CK: None

FK: None

Other Constraints: None

Coach(coachID: varchar(20), name: varchar(20), phoneNumber: varchar(20), specialization: varchar(20), type: varchar(20))

PK: coachId

CK: None (2 coaches can have the same name and specialization, phone number can be null)

FK: None

Other Constraints: None

Entities (Weak):

hasPhysicalCharacteristic(playerID: varchar(20) (FK), dateChecked: DateTime, age: int, weight: int, height: int)

PK: playerID, dateChecked

CK: None

FK: playerID

Other Constraints: None

displaysPerformance(playerID: varchar(20) (FK), season: varchar(20), performancePoints: int)

PK: playerID, season

CK: None

FK: playerID

Other Constraints: None

Entities (ISA):

SportsSchedule(sid: varchar(20), startTime: DateTime, endTime: DateTime, season: varchar(20))

PK: sid

CK: None

FK: None

Other Constraints: None

GameSchedule(sid: varchar(20) (FK), groupName: varchar(20), agenda: varchar(20), league: varchar(20))

PK: sid

CK: None

FK: sid

Other Constraints: sid NOT NULL

TrainingSchedule(**sid**: varchar(20) (FK), groupName: varchar(20), agenda: varchar(20), goal: varchar(20))

PK: sid

CK: None

FK: sid

Other Constraints: sid is NOT NULL

Relationships:

Sustains(**cause**: varchar(20) (FK), **timeOfOccurence**: DateTime (FK), **otherPartiesInvolved**: varchar(20) (FK), **playerID**: varchar(20) (FK))

PK: cause, timeOfOccurence, otherPartiesInvolved , playerID

CK: None

FK: cause, timeOfOccurence, otherPartiesInvolved , playerID

Other Constraints: None

Trains(**playerID**: varchar(20) (FK), **coachID**: varchar(20) (FK))

PK: playerID, coachID

CK:None

FK: playerID, coachID

Other Constraints: None

Contributes(**coachID**: varchar(20) (FK), **startTime**: DateTime(FK), **endTime**: DateTime(FK))

PK: coachID, startTime, endTime

CK: None

FK: coachID, startTime, endTime

Other Constraints: None

Plays(**type**: varchar(20) (FK), **name**: varchar(20) (FK), **division**: varchar(20) (FK), **date**: Date (FK), **time**: Time (FK), **opposingTeam**: varchar(20) (FK))

PK: type, name, ,division, date, time, opposingTeam

CK: None

FK: type, name, division, date, time, opposingTeam

Other Constraints: None

Entities + Relationships:

playerHasRankingIsInTeamFollows(playerID: varchar(20), name: varchar(20), position: varchar(20), playerNumber: int, phoneNumber: varchar(20), **rankNumber**: int (FK), : varchar(20) (FK), **rankType**: varchar(20) (FK), **teamType**: varchar(20) (FK), **teamName**: varchar(20) (FK), **division**: varchar(20) (FK), **startTime**: DateTime (FK), **endTime**: DateTime (FK))

PK: playerID

CK:

- playerNumber, teamName, division, teamType
- rankNumber, rankType, teamName, teamType, division

FK: rankNumber, rankType, teamType, teamName, division, startTime, endTime

Other Constraints:

- playerNumber, teamName, division, teamType is UNIQUE
- rankNumber, rankType, teamName, teamType, division is UNIQUE

5. Functional Dependencies (FDs):

Injury (2NF):

timeOfOccurence, otherPartiesInvolved, cause -> type, treatment

type -> treatment

Game:

date, time, opposingTeam -> venue

date, time, venue -> opposingTeam

Team (1NF):

type, name, division -> numberOfPlayers

type -> numOfPlayers

Coach (2NF):

coachID -> name, phoneNumber, specialization, type

specialization -> type

hasPhysicalCharacteristic:

playerID, dateChecked -> age, weight

displaysPerformance:

playerID, season -> performancePoints

SportsSchedule:

sid -> startTime, endTime, agenda

GameSchedule (2NF):

sid -> league, groupName

league -> agenda

TrainingSchedule (2NF):

sid -> agenda, groupName

goal -> agenda

Sustains: None

Trains: None

Contributes: None

Plays:

type, name, division -> date, time, opposingTeam

date, time, opposingTeam -> type, name, division

playerHasRankingIsInTeamFollows:

playerID -> name, position, playerNumber, phoneNumber

playerID -> rankNumber, rankType

playerID -> teamType, teamName, teamDivision

playerID -> startTime, endTime, Group

playerNumber, teamName, division, teamType -> playerID, name, position, rankNumber, rankType, startTime, endTime

rankNumber, rankType, teamName, teamType, division -> playerID, name, position, playerNumber, startTime, endTime

6.

Injury FD type -> treatment violation

Decompose into R1(A-b) & R2(X U b) where

A = {timeOfOccurence, cause, otherPartiesInvolved, type, treatment}

X = {type}

b = {treatment}

RESULT:

Injury(timeOfOccurence: DateTime, cause: varchar(20), otherPartiesInvolved: varchar(50), **type**: varchar(20) (FK))

PK: timeOfOccurence, cause, otherPartiesInvolved

CK: None

FK: type

Treatment(type: varchar(20), treatment: varchar(50))

PK: type
CK: None
FK: None

Game(date: Date, time: Time, venue: varchar(20), opposingTeam: varchar(20))
PK: date, time, opposingTeam
CK: date, time, venue
FK: None

Team FD type -> numPlayers violation

Decompose into R1(A-b) & R2(X U b) where
A = {type, name, division, numPlayers}
X = {type}
b = {numPlayers}

RESULT:

Team(type: varchar(20), name: varchar(20), division: varchar(20))
PK: type, name, division
CK: None
FK: type

NumPlayers(type: varchar(20), numPlayers: int)
PK: type
CK: None
FK: None

Coach FD specialization -> type violation

Decompose into R1(A-b) & R2(X U b) where
A = {coachID, name, phoneNumber, specialization, type}
X = {specialization}
b = {type}

RESULT:

Coach(coachID: varchar(20), name: varchar(20), phoneNumber: varchar(20), **specialization**: varchar(20) (FK))
PK: coachId
CK: None
FK: specialization

Specialization(specialization: varchar(20), type: varchar(20))

PK: specialization

CK: None

FK: None

hasPhysicalCharacteristic(**playerID**: varchar(20) (FK), dateChecked: DateTime, age: int, weight: int, height: int)

PK: playerID, dateChecked

CK: None

FK: playerID

displaysPerformance(**playerID**: varchar(20) (FK), season: varchar(20), performancePoints: int)

PK: playerID, season

CK: None

FK: playerID

SportsSchedule(sid: varchar(20), startTime: DateTime, endTime: DateTime, season: varchar(20))

PK: sid

CK: None

FK: None

GameSchedule FD league-> agenda violation

Decompose into R1(A-b) & R2(X U b) where

A = {sid, groupName, agenda, league}

X = {league}

b = {agenda}

RESULT:

GameSchedule(**sid**: varchar(20), groupName: varchar(20), **league**: varchar(20) (FK))

PK: sid

CK: None

FK: league, sid

GameGroupAgenda(league: varchar(20), agenda: varchar(20))

PK: league

CK: None

FK: None

TrainingSchedule goal -> agenda violation

Decompose into R1(A-b) & R2(X U b) where

A = {sid, groupName, agenda, goal}

X = {goal}

b = {agenda}

RESULT:

TrainingSchedule(**sid**: varchar(20), groupName: varchar(20), **goal**: varchar(20))

PK: sid

CK: None

FK: goal, sid

TrainingAgenda(**goal**: varchar(20), agenda: varchar(20))

PK: goal

CK: None

FK: None

Sustains(**cause**: varchar(20) (FK), **timeOfOccurence**: DateTime (FK),

otherPartiesInvolved: varchar(20) (FK), **playerID**: varchar(20) (FK))

PK: cause, timeOfOccurence, otherPartiesInvolved, playerID

CK: None

FK: cause, timeOfOccurence, otherPartiesInvolved, playerID

Trains(**playerID**: varchar(20) (FK), **coachID**: varchar(20) (FK))

PK: playerID, coachID

CK: None

FK: playerID, coachID

Contributes(**coachID**: varchar(20) (FK), **startTime**: DateTime(FK), **endTime**:
DateTime(FK))

PK: coachID, startTime, endTime

CK: None

FK: coachID, startTime, endTime

Plays(**type**: varchar(20) (FK), **name**: varchar(20) (FK), **division**: varchar(20) (FK), **date**:
Date (FK), **time**: Time (FK), **opposingTeam**: varchar(20) (FK))

PK: type, name, division, date, time, opposingTeam

CK: None

FK: type, name, division, date, time, opposingTeam

playerHasRankingIsInTeamFollows(**playerID**: varchar(20), name: varchar(20), position:
varchar(20), playerNumber: int, phoneNumber: varchar(20), **rankNumber**: int (FK), :
varchar(20) (FK), **rankType**: varchar(20) (FK), **teamType**: varchar(20) (FK), **teamName**:

varchar(20) (FK), **division**: varchar(20) (FK), **startTime**: DateTime (FK), **endTime**: DateTime (FK))

PK: playerID

CK:

- playerNumber, teamName, division, teamType
- rankNumber, rankType, teamName, teamType, division

FK:

- rankNumber, rankType, teamType, teamName, division, startTime, endTime
- playerNumber, teamName, division, teamType
- rankNumber, rankType, teamName, teamType, division

7.

```
CREATE TABLE Injury(  
    timeOfOccurence DateTime,  
    cause varchar(20),  
    otherPartiesInvolved varchar(50),  
    type varchar(20),  
    PRIMARY KEY (timeOfOccurence, cause, otherPartiesInvolved),  
    FOREIGN KEY (type) REFERENCES Treatment  
);
```

```
CREATE TABLE Treatment(  
    type varchar(20),  
    treatment varchar(50),  
    PRIMARY KEY (type)  
);
```

```
CREATE TABLE Game(  
    date Date,  
    time Time,  
    venue varchar(20),  
    opposingTeam varchar(20),  
    PRIMARY KEY (date, time, opposingTeam),  
    UNIQUE (venue)  
);
```

```
CREATE TABLE Team(  
    type varchar(20),  
    name varchar(20),  
    division varchar(20),
```

```
PRIMARY KEY (type, name, division)
FOREIGN KEY (type) REFERENCES NumPlayers
);
```

```
CREATE TABLE NumPlayers(
    type varchar(20),
    numPlayers int,
    PRIMARY KEY (type)
);
```

```
CREATE TABLE Coach(
    coachID      varchar(20),
    name          varchar(20),
    phoneNumber  varchar(20),
    specialization varchar(20),
    PRIMARY KEY(coachID)
    FOREIGN KEY(specialization) REFERENCES Specialization
);
```

```
CREATE TABLE Specialization(
    specialization varchar(20),
    type            varchar(20),
    PRIMARY KEY(specialization)
);
```

```
CREATE TABLE hasPhysicalCharacteristic(
    dateChecked DateTime,
    age int,
    weight int,
    height int,
    playerID varchar(20),
    PRIMARY KEY (playerID, dateChecked),
    FOREIGN KEY (playerID) REFERENCES playerHasRankingIsInTeamFollows(playerID)
);
```

```
CREATE TABLE displaysPerformance(
    season varchar(10),
    performancePoints int,
    playerID varchar(20),
    PRIMARY KEY (playerID, performancePoints),
    FOREIGN KEY (playerID) REFERENCES playerHasRankingIsInTeamFollows(playerID)
);
```

```

CREATE TABLE SportsSchedule(
    sid          varchar(20),
    startTime    DateTime,
    endTime      DateTime,
    season       varchar(20),
    PRIMARY KEY (sid),
);

```

```

CREATE TABLE GameSchedule(
    sid          varchar(20),
    groupName    varchar(20),
    league       varchar(20),
    PRIMARY KEY (sid),
    FOREIGN KEY (sid) REFERENCES SportsSchedule(sid),
    FOREIGN KEY (league) REFERENCES GameGroupAgenda(league)
);

```

```

CREATE TABLE GameGroupAgenda(
    league       varchar(20),
    agenda       varchar(20),
    PRIMARY KEY(league)
);

```

```

CREATE TABLE TrainingSchedule(
    sid          varchar(20),
    goal         varchar(20),
    groupName    varchar(20),
    PRIMARY KEY (sid),
    FOREIGN KEY (sid) REFERENCES SportsSchedule(sid),
    FOREIGN KEY (goal) REFERENCES TrainingAgenda
);

```

```

CREATE TABLE Sustains(
    cause varchar(20),
    timeOfOccurence DateTime,
    otherPartiesInvolved varchar(20),
    playerID varchar(20),
    PRIMARY KEY (timeOfOccurence, cause, otherPartiesInvolved , playerID),
    FOREIGN KEY (playerID) REFERENCES playerHasRankingIsInTeamFollows(playerID),
    FOREIGN KEY (timeOfOccurence, cause, otherPartiesInvolved ) REFERENCES
Injury(timeOfOccurence, cause, otherPartiesInvolved)
);

```

```

CREATE TABLE Trains(
    playerID varchar(20),
    coachID varchar(20),
    PRIMARY KEY (playerID, coachID),
    FOREIGN KEY (playerID) REFERENCES playerHasRankingIsInTeamFollows(playerID),
    FOREIGN KEY (coachID) REFERENCES Coach(coachID)
);

```

```

CREATE TABLE Contributes(
    coachID varchar(20),
    startTime DateTime,
    endTime DateTime,
    PRIMARY KEY (coachID, startTime, endTime),
    FOREIGN KEY (coachID) REFERENCES Coach(coachID),
    FOREIGN KEY (startTime, endTime) REFERENCES GameSchedule(startTime,endTime),
    FOREIGN KEY (startTime, endTime) REFERENCES
TrainingSchedule(startTime,endTime)
);

```

```

CREATE TABLE Plays(
    type varchar(10),
    name varchar(20),
    division varchar(20),
    date Date,
    time Time,
    opposingTeam varchar(20),
    PRIMARY KEY (type, name, division, date, time, opposingTeam),
    FOREIGN KEY (date, time, opposingTeam) REFERENCES Game(date, time,
opposingTeam),
    FOREIGN KEY (type, name, division) REFERENCES Team(type, name, division)
);

```

```

CREATE TABLE playerHasRankingIsInTeamFollows(
    playerID      varchar(20),
    name          varchar(20),
    position      varchar(20),
    playerNumber  int          UNIQUE,
    phoneNumber   varchar(20),
    rankNumber    int          UNIQUE,
    rankType      varchar(20)  UNIQUE,
    teamType      varchar(20)  UNIQUE,
    teamName      varchar(20)  UNIQUE,

```

```
division    varchar(20)    UNIQUE,
startTime   DateTime,
endTime     DateTime,
PRIMARY KEY (playerID),
FOREIGN KEY (startTime, endTime) REFERENCES GameSchedule(startTime,
endTime),
FOREIGN KEY (startTime, endTime) REFERENCES TrainingSchedule(startTime,
endTime),
FOREIGN KEY (teamType, teamName, division) REFERENCES Team(type, name,
division)
);
// rankNumber and rankType isn't a FK because we don't have a separate table for it
```

8. Insert Statements

- Injury(timeOfOccurence: DateTime, cause: varchar(20), otherPartiesInvolved : varchar(20), type: varchar(20), treatment: varchar(20))

```
INSERT INTO Injury(timeOfOccurence, cause, otherPartiesInvolved, type, treatment)
VALUES ('2023-03-01 10:30:00', 'Impact', 'Opponent Player', 'Concussion');
```

```
INSERT INTO Injury (timeOfOccurence, cause, otherPartiesInvolved, type, treatment)
VALUES ('2023-02-28 15:00:00', 'Collision', 'N/A', 'Sprain');
```

```
INSERT INTO Injury (timeOfOccurence, cause, otherPartiesInvolved, type, treatment)
VALUES ('2023-02-27 19:15:00', 'Collision', 'Teammate', 'Fracture');
```

```
INSERT INTO Injury (timeOfOccurence, cause, otherPartiesInvolved, type, treatment)
VALUES ('2023-02-26 12:45:00', 'Strain', 'N/A', 'Muscle tear');
```

```
INSERT INTO Injury (timeOfOccurence, cause, otherPartiesInvolved, type, treatment)
VALUES ('2023-02-25 16:20:00', 'Twist', 'Opponent Player', 'Dislocation');
```

- Treatment

```
INSERT INTO Treatment(type, treatment)
VALUES('Concussion', 'Rest');
```

```
INSERT INTO Treatment(type, treatment)
VALUES('Sprain', 'Elevation');
```

```
INSERT INTO Treatment(type, treatment)
VALUES('Fracture', 'Surgery');
```

```
INSERT INTO Treatment(type, treatment)
VALUES('Muscle tear', 'Physiotherapy');
```

```
INSERT INTO Treatment(type, treatment)
VALUES('Dislocation', 'Surgery');
```

- Game(date: Date, time: Time, venue: varchar(20), opposingTeam: varchar(20))

```
INSERT INTO Game (date, time, venue, opposingTeam)
VALUES ('2023-03-05', '14:00:00', 'Stadium A', 'Team B');
```

```
INSERT INTO Game (date, time, venue, opposingTeam)
VALUES ('2023-03-10', '19:30:00', 'Gymnasium B', 'Team C');
```

```
INSERT INTO Game (date, time, venue, opposingTeam)
VALUES ('2023-04-02', '13:00:00', 'Field C', 'Team D');
```

```
INSERT INTO Game (date, time, venue, opposingTeam)
VALUES ('2023-04-15', '20:00:00', 'Arena D', 'Team E');
```

```
INSERT INTO Game (date, time, venue, opposingTeam)
VALUES ('2023-05-07', '15:30:00', 'Field F', 'Team G');
```


- Team(type: varchar(20), name: varchar(20), division: varchar(20), numPlayers: int)

```
INSERT INTO Team (type, name, division, numPlayers)
VALUES ('Soccer', 'The Lions', 'Premier League');
```

```
INSERT INTO Team (type, name, division, numPlayers)
VALUES ('Basketball', 'The Eagles', 'U14');
```

```
INSERT INTO Team (type, name, division, numPlayers)
VALUES ('Football', 'The Giants', 'North');
```

```
INSERT INTO Team (type, name, division, numPlayers)
VALUES ('Baseball', 'Based', 'National League');
```

```
INSERT INTO Team (type, name, division, numPlayers)
VALUES ('Hockey', 'Icebreakers', 'U21 Division');
```

- Numplayers

```
INSERT INTO Numplayers(type, numPlayers)
VALUES ('Soccer', 11)
```

```
INSERT INTO Numplayers(type, numPlayers)
VALUES (Basketball, 5)
```

```
INSERT INTO Numplayers(type, numPlayers)
VALUES ('Football', 11)
```

```
INSERT INTO Numplayers(type, numPlayers)
VALUES ('Baseball', 9)
```

```
INSERT INTO Numplayers(type, numPlayers)
VALUES ('Hockey', 6)
```

- Coach(coachID: varchar(20), name: varchar(20), phoneNumber: varchar(20), specialization: varchar(20), type: varchar(20))

```
INSERT INTO Coach (coachID, name, phoneNumber, specialization, type)
VALUES ('C001', 'John Smith', '555-1234', 'Offense');
```

```
INSERT INTO Coach (coachID, name, phoneNumber, specialization, type)
VALUES ('C002', 'Jane Doe', '555-5678', 'Pitching');
```

```
INSERT INTO Coach (coachID, name, phoneNumber, specialization, type)
VALUES ('C003', 'Mike Johnson', '555-2468', 'Shooting');
```

```
INSERT INTO Coach (coachID, name, phoneNumber, specialization, type)
VALUES ('C004', 'Sarah Lee', '555-1357', 'Goalkeeping');
```

```
INSERT INTO Coach (coachID, name, phoneNumber, specialization, type)
VALUES ('C005', 'David Kim', '555-7890', 'Skating');
```

- Specialization

```
INSERT INTO Specialization(specialization, type)
VALUES ('Offense', 'Football');
```

```
INSERT INTO Specialization(specialization, type)
VALUES ('Pitching', 'Baseball');
```

```
INSERT INTO Specialization(specialization, type)
VALUES ('Shooting', 'Basketball');
```

```
INSERT INTO Specialization(specialization, type)
VALUES ('Goalkeeping', 'Soccer');
```

```
INSERT INTO Specialization(specialization, type)
VALUES ('Skating', 'Hockey');
```

- hasPhysicalCharacteristic(**playerID**: varchar(20) (FK), **dateChecked**: DateTime, age: int, weight: int, height: int)

```
INSERT INTO hasPhysicalCharacteristic (playerID, dateChecked, age, weight, height)
VALUES ('P001', '2022-01-01 09:00:00', 23, 180, 72);
```

```
INSERT INTO hasPhysicalCharacteristic (playerID, dateChecked, age, weight, height)
VALUES ('P002', '2022-01-02 10:00:00', 27, 210, 76);
```

```
INSERT INTO hasPhysicalCharacteristic (playerID, dateChecked, age, weight, height)
VALUES ('P003', '2022-01-03 11:00:00', 21, 150, 66);
```

```
INSERT INTO hasPhysicalCharacteristic (playerID, dateChecked, age, weight, height)
VALUES ('P004', '2022-01-04 12:00:00', 25, 190, 74);
```

```
INSERT INTO hasPhysicalCharacteristic (playerID, dateChecked, age, weight, height)
VALUES ('P005', '2022-01-05 13:00:00', 29, 220, 80);
```

- displaysPerformance(**playerID**: varchar(20) (FK), **season**: varchar(20), performancePoints: int)

```
INSERT INTO displaysPerformance (playerID, season, performancePoints)
VALUES ('P001', '2022', 100);
```

```
INSERT INTO displaysPerformance (playerID, season, performancePoints)
VALUES ('P002', '2021', 80);
```

```
INSERT INTO displaysPerformance (playerID, season, performancePoints)
VALUES ('P003', '2020', 50);
```

```
INSERT INTO displaysPerformance (playerID, season, performancePoints)
VALUES ('P004', '2021', 120);
```

```
INSERT INTO displaysPerformance (playerID, season, performancePoints)
VALUES ('P005', '2022', 200);
```

- SportsSchedule(sid, startTime, endTime, season)

```
INSERT INTO SportSchedule(sid, startTime, endTime, season)
VALUES ('S001', '2022-05-01 09:00:00', '2022-05-01 11:00:00', 'Spring');
```

```
INSERT INTO SportSchedule(sid, startTime, endTime, season)
VALUES ('S002', '2022-05-08 10:00:00', '2022-05-08 12:00:00', 'Spring', 'Division B');
```

```
INSERT INTO SportSchedule(sid, startTime, endTime, season)
VALUES ('S003', '2022-05-15 11:00:00', '2022-05-15 13:00:00', 'Spring');
```

```
INSERT INTO SportSchedule(sid, startTime, endTime, season)
VALUES ('S004', '2022-05-22 12:00:00', '2022-05-22 14:00:00', 'Spring');
```

```
INSERT INTO SportSchedule(sid, startTime, endTime, season)
VALUES ('S005', '2022-05-29 13:00:00', '2022-05-29 15:00:00', 'Spring');
```

```
INSERT INTO SportSchedule(sid, startTime, endTime, season)
VALUES ('S006', '2022-01-01 09:00:00', '2022-01-01 11:00:00', 'Winter');
```

```
INSERT INTO SportSchedule(sid, startTime, endTime, season)
VALUES ('S007', '2022-01-02 09:00:00', '2022-01-02 11:00:00', 'Winter');
```

```
INSERT INTO SportSchedule(sid, startTime, endTime, season)
VALUES ('S008', '2022-01-03 09:00:00', '2022-01-03 11:00:00', 'Winter');
```

```
INSERT INTO SportSchedule(sid, startTime, endTime, season)
VALUES ('S009', '2022-01-04 09:00:00', '2022-01-04 11:00:00', 'Winter');
```

```
INSERT INTO SportSchedule(sid, startTime, endTime, season)
VALUES ('S010', '2022-01-05 09:00:00', '2022-01-05 11:00:00', 'Winter');
```

- GameSchedule(sid, groupName, league)

```
INSERT INTO GameSchedule (sid, groupName, league)
VALUES ('S001', 'Division A', 'MLS');
```

```
INSERT INTO GameSchedule (sid, groupName, league)
VALUES ('S002', 'Division B', 'EPL');
```

```
INSERT INTO GameSchedule (sid, groupName, league)
VALUES ('S003', 'Division C', 'TDB');
```

```
INSERT INTO GameSchedule (sid, groupName, league)
VALUES ('S004', 'Division D', 'HGF');
```

```
INSERT INTO GameSchedule (sid, groupName, league)
VALUES ('S005', 'Division E', 'CAC');
```

- GameGroupAgenda(league, agenda)

```
INSERT INTO GameGroupAgenda(league, agenda)
VALUES ('MLS', 'Friendly');
```

```
INSERT INTO GameGroupAgenda(league, agenda)
VALUES ('EPL', 'Finals');
```

```
INSERT INTO GameGroupAgenda(league, agenda)
VALUES ('TDB', 'Semifinals');
```

```
INSERT INTO GameGroupAgenda(league, agenda)
VALUES ('HGF', 'Championship');
```

```
INSERT INTO GameGroupAgenda(league, agenda)
VALUES ('CAC', 'Premiers');
```

- Training Schedule

```
INSERT INTO TrainingSchedule(sid, goal, groupName)
Values('S006', 'Group A', 'Pitching')
```

```
INSERT INTO TrainingSchedule(sid, goal, groupName)
Values('S007', 'Group B', 'Goalkeeping')
```

```
INSERT INTO TrainingSchedule(sid, goal, groupName)
Values('S008', 'Group C', 'Fielding')
```

```
INSERT INTO TrainingSchedule(sid, goal, groupName)
Values('S009', 'Group D', 'Cardio')
```

```
INSERT INTO TrainingSchedule(sid, goal, groupName)
Values('S010', 'Group E', 'Weight Training')
```

- TrainingAgenda(goal, agenda)

```
INSERT INTO TrainingAgenda(goal, agenda)
Values('Pitching', 'Accuracy')
```

```
INSERT INTO TrainingAgenda(goal, agenda)
```

Values('Goalkeeping', 'Tactics')

INSERT INTO TrainingAgenda(goal, agenda)
Values('Fielding', 'Strategy')

INSERT INTO TrainingAgenda(goal, agenda)
Values('Cardio', 'Endurance')

INSERT INTO TrainingAgenda(goal, agenda)
Values('Weight Training', 'Defense')

- Sustains(**cause**: varchar(20) (FK), **timeOfOccurence**: DateTime (FK),
otherPartiesInvolved: varchar(20) (FK), **playerID**: varchar(20) (FK))

INSERT INTO Sustains (cause, timeOfOccurence, otherPartiesInvolved, playerID)
VALUES ('Impact', '2023-03-01 10:30:00', 'Opponent Player', 'P001');

INSERT INTO Sustains (cause, timeOfOccurence, otherPartiesInvolved, playerID)
VALUES ('Collision', '2023-02-28 15:00:00', 'Teammate', 'P002');

INSERT INTO Sustains (cause, timeOfOccurence, otherPartiesInvolved, playerID)
VALUES ('Collision', '2023-02-27 19:15:00', 'Opponent', 'P003');

INSERT INTO Sustains (cause, timeOfOccurence, otherPartiesInvolved, playerID)
VALUES ('Strain', '2023-02-26 12:45:00', 'Teammate', 'P004');

INSERT INTO Sustains (cause, timeOfOccurence, otherPartiesInvolved, playerID)
VALUES ('Twist', '2023-02-25 16:20:00', 'Equipment', 'P005');

- Trains(**playerID**: varchar(20) (FK), **coachID**: varchar(20) (FK))

INSERT INTO Trains (playerID, coachID)
VALUES ('P002', 'C001');

INSERT INTO Trains (playerID, coachID)
VALUES ('P003', 'C002');

INSERT INTO Trains (playerID, coachID)
VALUES ('P004', 'C003');

```
INSERT INTO Trains (playerID, coachID)
VALUES ('P005', 'C004');
```

```
INSERT INTO Trains (playerID, coachID)
VALUES ('P001', 'C005');
```

- Contributes(**coachID**: varchar(20) (FK), **startTime**: DateTime(FK), **endTime**: DateTime(FK))

```
INSERT INTO Contributes(coachID, startTime, endTime)
VALUES ('C001', '2022-05-08 10:00:00', '2022-05-08 12:00:00');
```

```
INSERT INTO Contributes(coachID, startTime, endTime)
VALUES ('C002', '2022-01-01 09:00:00', '2022-01-01 11:00:00');
```

```
INSERT INTO Contributes(coachID, startTime, endTime)
VALUES ('C003', '2022-01-02 09:00:00', '2022-01-02 11:00:00');
```

```
INSERT INTO Contributes(coachID, startTime, endTime)
VALUES ('C004', '2022-05-29 13:00:00', '2022-05-29 15:00:00');
```

```
INSERT INTO Contributes(coachID, startTime, endTime)
VALUES ('C005', '2022-01-05 09:00:00', '2022-01-05 11:00:00');
```

- Plays(**type**: varchar(20) (FK), **name**: varchar(20) (FK), **division**: varchar(20) (FK), **date**: Date (FK), **time**: Time (FK), **opposingTeam**: varchar(20) (FK))

```
INSERT INTO Plays(type, name, division, date, time, opposingTeam)
VALUES ('Basketball', 'The Eagles', 'U14', '2023-03-05', '14:00:00', 'Stadium A', 'Team B');
```

```
INSERT INTO Plays(type, name, division, date, time, opposingTeam)
VALUES ('Soccer', 'Giants', 'Nationals', '2022-05-04', '11:00:00', 'Arena B', 'Team A');
```

```
INSERT INTO Plays(type, name, division, date, time, opposingTeam)
VALUES ('Hockey', 'Icebreakers', 'Little League', '2022-02-02', '09:00:00', 'Rink C', 'Team B');
```

```
INSERT INTO Plays(type, name, division, date, time, opposingTeam)
VALUES ('Badminton', 'Team B', 'Doubles Nationals', '2022-05-04', '11:00:00', 'Arena B', 'Team A');
```

```
INSERT INTO Plays(type, name, division, date, time, opposingTeam)
VALUES ('Cricket', 'Genovia', 'Genovian Open', '2022-01-02', '16:00:00', 'Stadium A', 'Lilliput');
```

- playerHasRankingIsInTeamFollows

```
INSERT INTO playerHasRankingIsInTeamFollows (playerID, name, position, playerNumber,
phoneNumber, rankNumber, rankType, teamType, teamName, division, startTime, endTime)
VALUES ('P001', 'John Doe', 'Forward', 7, '555-1234', 1, 'team', 'club', 'Club FC', 'Premier',
'2022-03-01 10:00:00', '2022-06-01 10:00:00');
```

```
INSERT INTO playerHasRankingIsInTeamFollows (playerID, name, position, playerNumber,
phoneNumber, rankNumber, rankType, teamType, teamName, division, startTime, endTime)
VALUES ('P002', 'Jane Smith', 'Defender', 5, '555-5678', 2, 'national', 'country', 'USA', 'National',
'2022-01-01 10:00:00', '2022-12-31 10:00:00');
```

```
INSERT INTO playerHasRankingIsInTeamFollows (playerID, name, position, playerNumber,
phoneNumber, rankNumber, rankType, teamType, teamName, division, startTime, endTime)
VALUES ('P003', 'Bob Johnson', 'Midfielder', 10, '555-9101', 3, 'state', 'state', 'California', 'State',
'2022-07-01 10:00:00', '2022-08-01 10:00:00');
```

```
INSERT INTO playerHasRankingIsInTeamFollows (playerID, name, position, playerNumber,
phoneNumber, rankNumber, rankType, teamType, teamName, division, startTime, endTime)
VALUES ('P008', 'John Smith', 'Forward', 16, '555-1234', 3, 'team', 'school', 'Central High', 'Division
A', '2023-01-15 09:00:00', '2023-03-01 12:00:00');
```

```
INSERT INTO playerHasRankingIsInTeamFollows (playerID, name, position, playerNumber,
phoneNumber, rankNumber, rankType, teamType, teamName, division, startTime, endTime)
VALUES ('P011', 'Emily Nguyen', 'Guard', 12, '555-5678', 1, 'national', 'club', 'Phoenix Elite', 'Elite
Division', '2022-11-01 16:00:00', '2023-05-30 20:00:00');
```