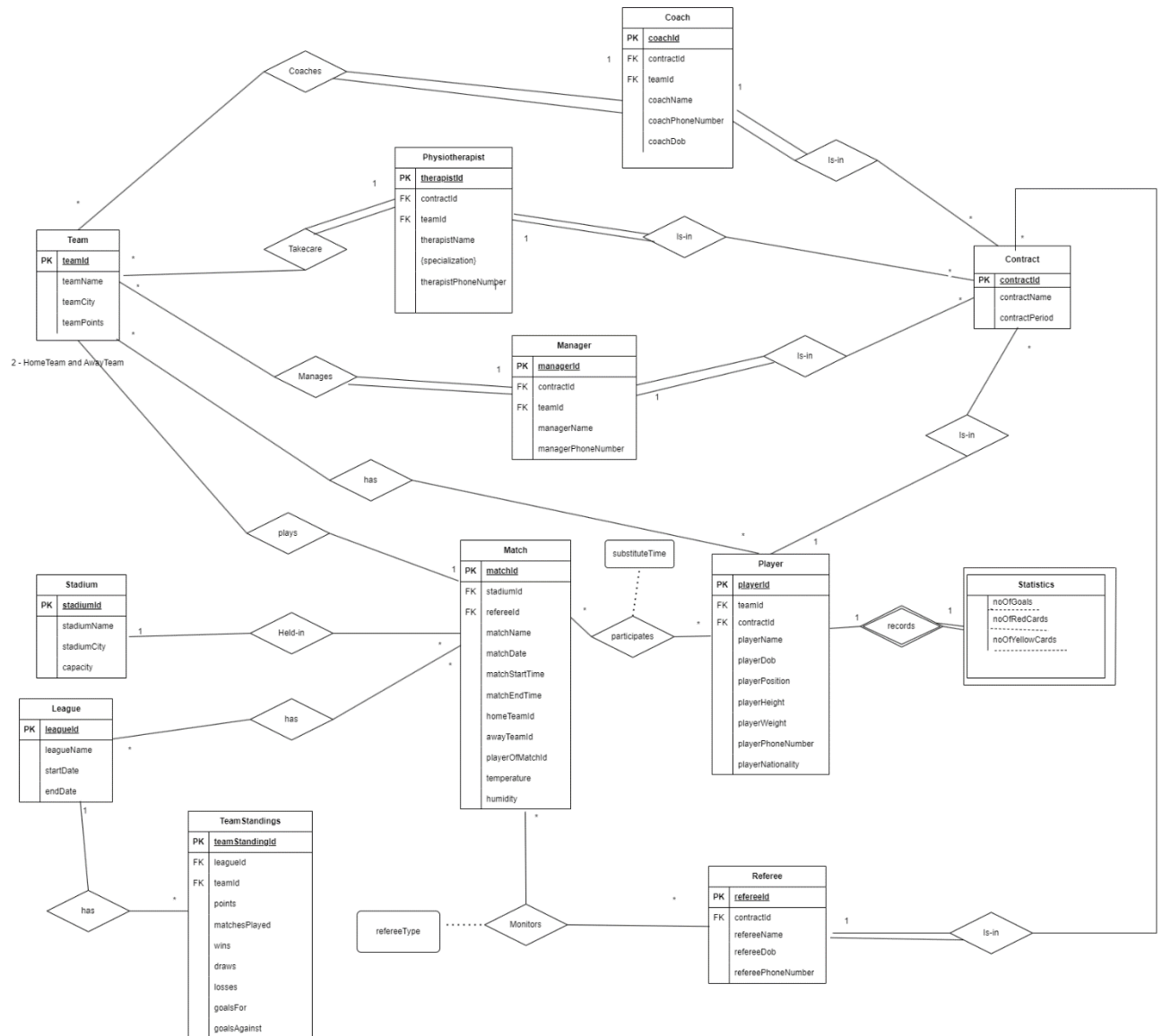


Soccer Management System database

Entity-Relationship diagram:



Any number of teams may compete, but only two teams may compete in a given match. The Match takes place in a single stadium. Any number of matches may be played in the stadium.

There must be at least one manager overseeing the team and there must be at least one physiotherapist to take care of team.

There should be at least one contract for the manager, coach, players, physiotherapist and referee.

Any number of players are on every team. The coach instructs the team. Match participants include players, and substitute time is determined per sub-player. There are numerous matches being watched by numerous referees.

There should be a minimum of one stat for each player.

Relationships:

1. Any number of Team has any number of players.
2. There are any number of contracts. The Manager, Physiotherapist, Coach, Referee, Player should be in one contract.
3. One manager, Physiotherapist, Coach manages the team.
4. Any number of matches held in stadium.
5. Any number of players participates in any number of matches.
6. Each player should have one statistic.
7. Any number of Referee monitors any number of matches.

Relational Schemas:

1. Team (**teamId**, teamName, teamPoints)
teamId – Primary Key, int
teamName – varchar(25)
teamPoints - int
2. Stadium (**stadiumId**, stadiumName, capacity)
stadiumId – Primary Key, int
stadiumName – varchar(25)
capacity – int
3. Contract (**contractId**, contractName, contractPeriod)
contractId – Primary Key , int
contractName – varchar(25)
contractPeriod – varchar(25)
4. Manager (**managerId**, **contractId**, **teamId**, managerName, managerPhoneNumber)
managerId – Primary Key, int
contractId – Foreign Key, int
teamId – Foreign Key , int
managerName – varchar(25)
managerPhoneNumber – int
5. Physiotherapist (**therapistId**, **contractId**, **teamId**, therapistName, therapistPhoneNumber)
therapistId – Primary Key, int
contractId – Foreign Key, int
teamId – Foreign Key, int
therapistName – varchar(25)
therapistPhoneNumber – int
6. Specialization (**therapistId**, specialization)
therapistId – ForeignKey, int
specialization – varchar(25)
7. Coach (**coachId**, **contractId**, **teamId**, coachName, coachPhoneNumber, coachDob)
coachId – Primary Key, int

contractId – Foreign Key, int
teamId – Foreign Key, int
coachName – varchar(25)
coachPhoneNumber – int
coachDob – date

8. Referee (**refereeId**, **contractId**, refereeName, refereeDob, refereePhoneNumber)
refereeId – Primary Key, int
contractId – Foreign Key, int
refereeName – varchar(25)
refereeDob – date
refereePhoneNumber – int
9. Match (**matchId**, **stadiumId**, **refereeId**, playerOfMatchId, matchName, matchDate, matchStartTime, matchEndTime, homeTeamId, awayTeamId, temperature, humidity)
matchId – Primary Key, int
stadiumId – foreign key, int
refereeId – Foreign Key, int
playerOfMatchId – int
matchName – varchar(25)
matchDate – date
matchStartTime – varchar(25)
matchEndTime – varchar(25)
homeTeamId – int
awayTeamId – int
temperature – int
humidity – int
10. Player (**playerId**, **contractId**, playerName, playerDob, playerPosition, playerHeight, playerWeight, playerNationality, playerPhoneNumber)
playerId – Primary Key, int
contractId – Foreign Key, int
playerName – varchar(25)
playerDob – date
playerPosition – varchar(25)
playerHeight – int
playerWeight – int
playerNationality – varchar(25)
playerPhoneNumber – int
11. Statistic (**playerId**, **noOfRedCards**, **noOfYellowCards**, **noOfGoals**)
playerId – Primary Key, int
discriminator id's
noOfRedCards – int
noOfYellowCards – int
noOfGoals – int
12. Participates (sub-playerId, **playerId**, **matchId**, substituteTime, matchDate)
playerId – primary Key, int
matchId – Foreign Key, int
sub-playerId – int

matchDate – date

13. Monitors (**refereeId**, **matchId**, refereeType)

refereeId – Primary Key, int

matchId – Foreign Key, int

refereeType – varchar(25)

14. Plays (**matchId**, homeTeamId, awayTeamId, **stadiumId**)

matchId – Primary Key, int

stadiumId – Foreign Key, int

homeTeamId – int

awayTeamId - int

15. Team-Player (teamId, playerId)

teamId – Primary Key, int

playerId – Foreign Key, int

16. League (leagueId, leagueName, startDate, endDate)

leagueId (Primary Key, int)

leagueName (varchar(25))

startDate (date)

endDate (date)

17. TeamStandings (**teamStandingId**, **leagueId**, **teamId**, points, matchesPlayed, wins, draws, losses, goalsFor, goalsAgainst)

teamStandingId (Primary Key, int)

leagueId (Foreign Key, int)

teamId (Foreign Key, int)

points (int)

matchesPlayed (int)

wins (int)

draws (int)

losses (int)

goalsFor (int)

goalsAgainst (int)

