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10/14/22

Problem Statement

**Definition of Problem**

An organization needs to keep track of various soccer stats for club competitions across different leagues.

**Contextualization**

Many complaints have come in from different sources, including the organization, coaches, and individual players about not having their specific needs being met. The organization has been struggling to keep track of stats and data spanning all of the different leagues they manage. The coaches need a system to track various stats for the team. Players have complained about not being able to know about more stats than just their own.

**Expected Information and Functionality**

This database can be utilized to help the organization better organize the leagues that they manage. Coaches can determine strengths and weaknesses throughout their team to help improve their team moving forward. Players will also be able to more easily keep track of their individual stats and be able to compare themselves to others to see their personal standings.

**Scope of the System**

Across the whole database there are five major entities; Player, Player Stats, Team, League, and Games. The attributes in Player are: Player ID, First Name, Last Name, Position, Jersey Number, Team Name. The attributes in Player Stats are: Player ID, Goals, Assists, and Saves. The attributes in Team are: Team Name and Season’s Record. The attributes in League are: League Name, Team Names, and Records. The attributes in Games are: Match ID, Date, Score, Opponent, and Team Name.

**Queries**

The list below contains 20 distinct queries to get different information from our database.

1. What team has the best record in their league?
2. Which player leads their team in goals?
3. List all of the teams in alphabetical order
4. Which player has the most goals out of all the teams in their league?
5. What teams played on mm/dd/yyyy?
6. Which teams will have 5 games remaining after mm/dd/yyyy?
7. How many times did Team A play Team B this year?
8. What players have the same jersey numbers?
9. What teams are not in the same league as team x?
10. What teams are under .5 win rate?
11. What teams have the same exact record?
12. What team has the most RW (position) players?
13. How many games had more than 5 total goals scored?
14. Does player A and Player B play the same position
15. What league has the largest number of teams?
16. Has this Player A played in any other league?
17. What teams played the most during the week of mm/dd/yyyy?
18. What two teams played in the last game of the season for a specific league?
19. What player assisted the first goal of the season in a specific league?
20. What league had the most saves in a specific year?