**CPS510 Assignment 1**

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**CPS510 Section 7, Group number 100**

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**Soccer League DBMS**

1) Teams

* Team name / ID
* Points for the season(s)
* Matches played
* Matches won
* Matches lost
* Matches ended in draw
* Total goals scored
* Total goals taken
* Total goal average (scored minus taken)
* Home Stadiuım

2) Players

* Team ID
* Jersey number
* Player ID (Would be made from Team ID + Jersey no.)
* Name
* Surname
* Position
* Goals in season (Number of saves if Goalkeeper)
* Assists in season

3) Matches

* Stadium
* Date
* Home Team ID
* Away Team ID
* Match ID (This is important)

4) Scores

* Match ID
* Player ID of scorer
* Player ID if score has an assist
* Team ID (separate for Fixtures/ Results)
* Time of score in the match (minute and second)

5) Fixtures / Results

* Timespan(s) of season(s) divided into weeks
  + Match IDs with corresponding timestamps
* Final score of a match pulled from Scores entity to tag to the Match ID
* Win/ Loss/ Draw status to tally onto the Teams entity.

The database will consist of seasonal data of teams and players in a soccer league throughout a season. In its simplest form, users will be able to identify both teams’ and individual players’ performance during the time period.

In the broadest aspect, the teams in the league will be tagged with ID numbers to keep track of them. Their seasonal information will be displayed in the Teams entity, with their final points, played matches, wins, losses, draws, and goals taken and scored. To facilitate tracking match info, we are going to implement their home stadium in Teams. This entity will be able to rank which team scored the highest, along with the others rankings.

The players themselves will be tagged with their respective Team IDs, and with their kits (Number on the back of their jerseys). Which will end up as their Player IDs for their own individual performance throughout the season (Ronaldo is in Man. United FC, Jersey no. 7. Let’s say Man. United is tagged as number 5 in the English Premier League. Ronaldo would be tagged as 0507. The goalkeepers can be tagged as GK for simplicity.) . For tracking their individual performances, the number of goals scored throughout the time period will be counted here, taken from the Score pool. As for goalkeepers, their performance will be separately recorded by their number of saves, and will be separately ranked.

The matches entity is for helping facilitate the chronological documentation of matches in the league. This entity exists to form a match ID, taken from the Stadium of the match, the date, the IDs of home and away teams. The scores themselves are separated from the matches themselves because of a need to filter individual scorers, team rankings, and match results further on in separate lists.

The scores entity is going to be the main pool of data for us to pull information from. From here we will put individual scores thanks to the Match ID which has dates, Player ID which has the scorer and the assist if it has one, and the time scored during the match. The player pool which would have a separate team id from the players’ own will be able to help the team rankings, making things easier. Basically a pool of who scored, when and where.

Finally, the Fixtures (AKA Match results) entity will pull match ID, and tally the number of scores in a match, thanks to their timestamps, and draw a win/loss result, which will be counted for the seasonal W/L Data in the Teams entity. Additionally, the end results, and matches held in certain weeks will be held and ready to display chronologically. Basically, this entity will serve as a filter/funnel for the database to further tally their data in their respective entities.