Premier League Project

Project Proposal

CS3200: Database Design

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Introduction

Our project is to build a website that provides users with information about the Premier League: a club based English soccer association. The website will provide users with a personalized page to store particular clubs and/or players of their choice. A single external view will provide this functionality whereas the conceptual level and internal level will hold the static information about the league. In particular, the Users entity (defined below) can create, read, update and delete data via relations to the Follows, Ratings and Comments entites.

The project is of interest to the group because we enjoy soccer as a sport and are followers of the Premier League. However, as a soccer fan, there is lacking personalized connection with the League which this project aims to resolve.

Methodology

The framework of the Premier League Project will be split up into three different parts. There will be a website to act as a user interface, a server to provide the website with the ability to interact with the database, and a database to store all of the information required by the project. This will allow for a demonstration of the team's ability to work with a system while using a database for storage.

The plan for the frontend is to use JavaScript, HTML, and CSS in order to provide a user friendly interface for an enjoyable experience. Some of this technology is new to the team, but as a three member team it should still be manageable within the scope of the project. The front end will access data via a server. The proposed library to make the front end organized and professional is Angular.js.

The server will act as the middle tier of the project and will provide the frontend with the ability to execute operations. It is proposed that a Java backend will be used to provide this functionality. The team plans to download and use a MySQL JDBC driver in order to connect between Java and SQL.

Finally, the team will use MySQL for the DBMS of the project. This will align with the topics in class and allow for a robust storage system. The database will have multiple entities, such as: Clubs, Players, Player_Contracts, Games, Events, Event_Types, Users, Follows, Ratings and Comments. The team has already started to look into the Entity Relationship modeling for the project; a simple prototype is shown in Figure 1.

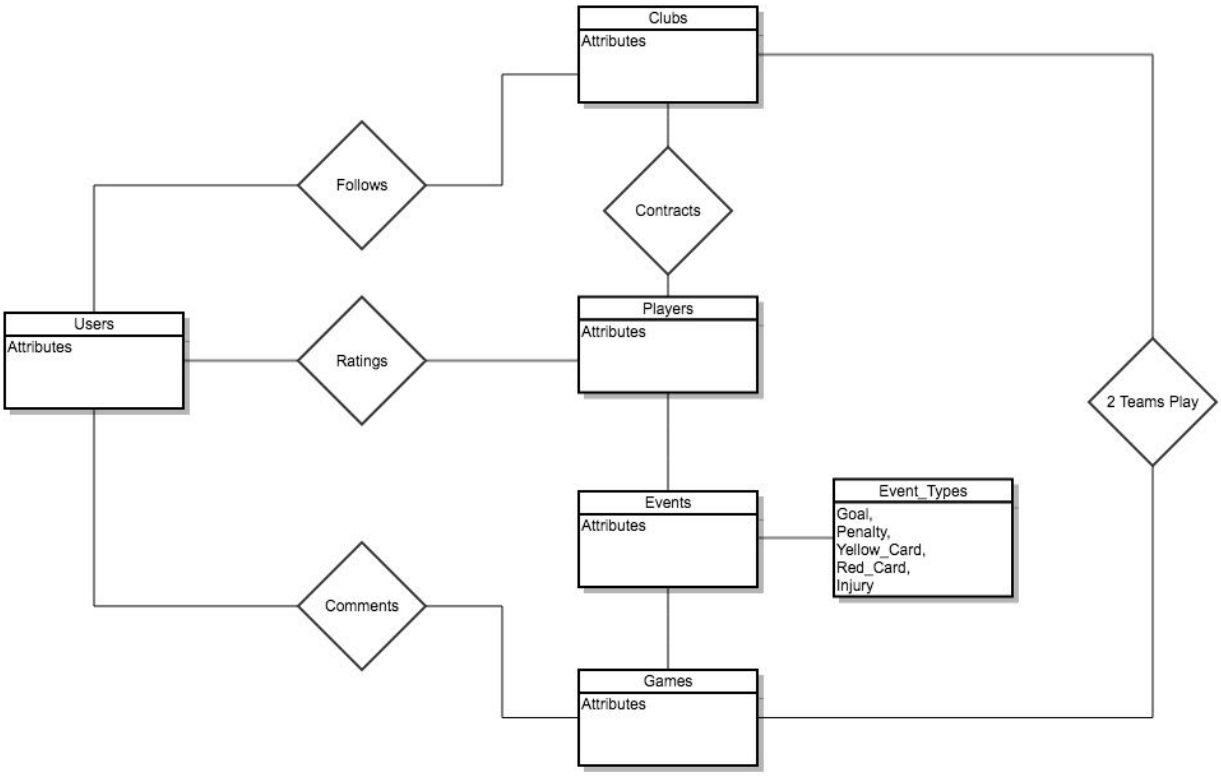

Figure 1: Prototype ER Diagram

This will allow for a holistic representation of the Premier League while following good database design practices. The model should allow for avoidance of data traps like the fan trap and chasm trap and it should help reduce duplication of data compared to other approaches. This model allows for user interactions with the data via following and rating different clubs or players. Additionally, users will be able to interact with the site by commenting on games to provide their thoughts.

Conclusion

Our group contains 3 people since the database we are going to design is large and we decided to design a website as well. There are also some new technologies we need to learn first like JavaScript for the website. For these reasons we think our group size is appropriate for the proposed Premier League project.