Database: NBA Game Finder

Description:

This project will be a database of current prominent NBA players, the games they have played in and the teams they have played for. The main purpose of the project is to allow the user to search with filters to pinpoint a game in history. Many times fans will remember certain moments from games and would like to find out which game it occurred in. To do this, they can input known parameters such as ‘steph curry scored at least 50 points’ and the database will return the results with this parameter. A very detailed search might be “Lebron scored at least 50 points while on the Miami Heat”. Searches like this would encompass all 3 ‘entities’ (players - player name: lebron, games - 50 points scored by lebron, teams - team name Miami Heat).

Explanation/assumptions:

My goal was to create the simplest ER diagram possible for the goal of my project, resulting in an efficient database, but still contain the necessary relations that can handle the information we need to extract. I have four entities: players, seasons, games, and teams. Players and teams are related to games with a N:N relationship, while season has a 1:n relationship because a game can only be played in one season. This resulted in all four entities being connected and since I store additional information in the relationships (such as points in the played_in relationship) I can derive all the necessary stats and information from a dataset of games, and basic information of the players, teams and seasons.

Application Requirements:

The following describe what is required from the application.

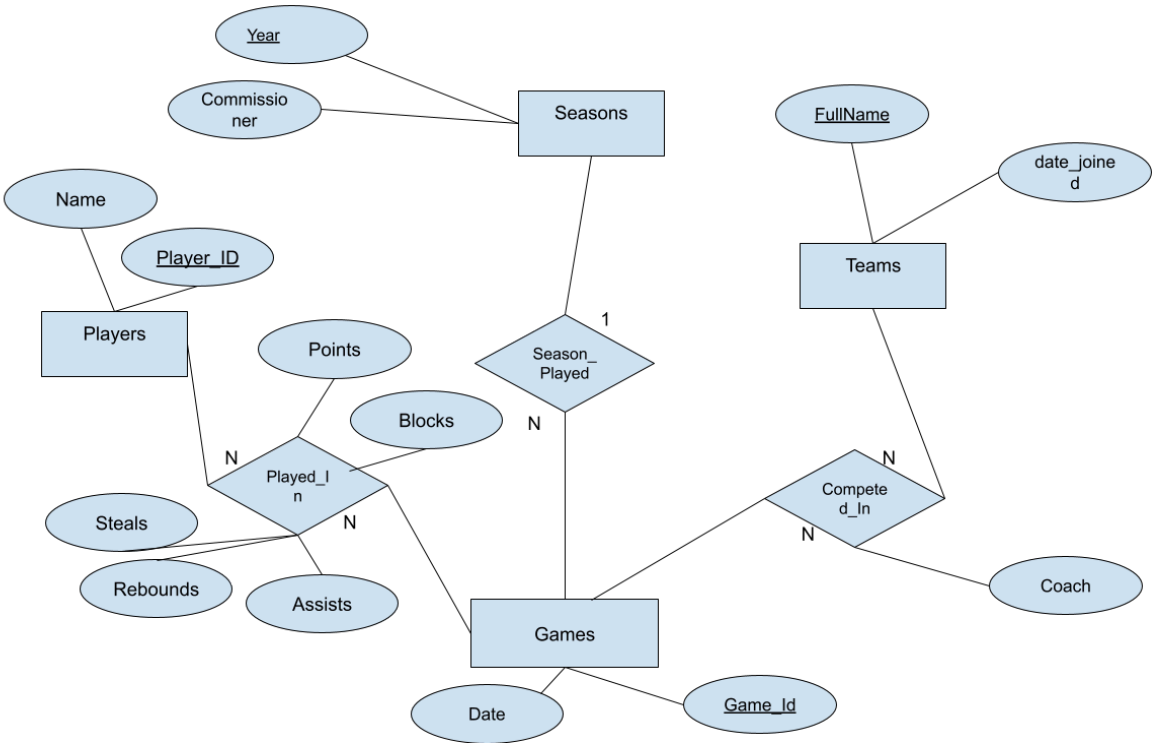
R1.1) Provide a database that contains current prominent players, the games and seasons they partook in, as well as all current NBA Teams. The database should be able to search for any specific game or games based on provided information about the conditions for the game.

R1.2) Allow searches for players by specifying their name or clicking their name through a search. This should bring up all the games stored in the database for this player.

R1.3) The target size of the database would be about 10 players, 30 teams, around 10 seasons and 25 games.

R1.4) Application hosting should be web-based with user interaction through any popular browser (e.g. chrome, firefox, edge, safari etc.).

ER Diagram:



Video Link:
https://youtu.be/_3LN0oajeSw