

## A Relational Schema

user

```
(  
  id: INT [PK],  
  name: VARCHAR(50),  
  email: VARCHAR(255),  
  password_hash: VARCHAR(50),  
  role: ENUM('admin', 'user'),  
  funds_available: INT  
)
```

club

```
(  
  id: INT [PK],  
  name: VARCHAR(255),  
  url: VARCHAR(2048),  
)
```

player

```
(  
  id: INT [PK],  
  name: VARCHAR(255),  
  position: VARCHAR(255),  
  club_id: INT [FK to club.id],  
  country_of_citizenship: VARCHAR(255),  
  sub_position: VARCHAR(255),  
  date_of_birth: DATE,  
  current_market_value: INT,  
)
```

– team table

-- user id is unique as one user can only have one team -- can be changed later

team

```
(  
  id: INT [PK],  
  name: VARCHAR(50),  
  user_id: INT [FK to user.id],  
  logo_url: VARCHAR(2048),  
  created_at: DATE  
)
```

-- team\_id is unique as one team can only have one player

-- can be changed later

--player\_team is a relationship table

player\_team

```
(
  player_id: INT[PK, FK to player.id],
  team_id: INT[PK, FK to team.id],
  date_added: DATE
)
```

tournament

```
(
  id: INT[PK],
  name: VARCHAR(255),
  type: VARCHAR(255),
  location: VARCHAR(50),
  url: VARCHAR(2048)
)
```

game

```
(
  id: INT[PK],
  home_club_id: INT [FK to club.id],
  away_club_id: INT [FK to club.id],
  tournament_id: INT[FK to tournament.id],
  home_club_score: INT,
  away_club_score: INT,
  date_played: DATE,
  location: VARCHAR(50)
)
```

-- stats is created for each game

game\_player\_stats

```
(
  player_id: INT [PK, FK to player.id],
  game_id: INT [PK, FK to game.id],
  goals: INT,
  assists: INT,
  yellow_cards: INT,
  red_cards: INT
)
```

## Assumptions:

- A user can make any number of teams
- A player can belong to only one club
- A player can be present in any number of user-teams
- A tournament should have at least one game
- A game may or may not be a part of a tournament (like a friendly charity match between two clubs) .

## Constraints

- A team can have maximum of 15 players
- Each user will start with certain default amount of funds and can create a team

## Relationships

- **User-Team** - A user can create any number of teams with maximum of 15 players
- **Team-Player** - This relationship table stores ids of all players in a particular team.  
A Team can have a maximum of 15 players in total.
- **Clubs-Player** - Clubs are real world entities that a player belongs to. One player can serve for only one club at a given time. However a club can buy any number of players.
- **Player/Games-Stats** - Each player has one statistics for each game they played. This tells the number of goals scored, assists, yellow cards and red cards given to the player in that particular game.
- **Clubs-Games** - Games are played by 2 clubs with one of the clubs being the home team and the other being the away team.
- **Tournaments-Games** - Real-world tournaments have many games at various locations and for different leagues. Games may or may not be played in tournaments.