

## Project Proposal

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### 1 Top Level Description

The project is a NBA data statistics website for one specific season. The data domains contain games, teams and players related data. The user can do the following things in our website:

1. Display the statistical data of players and teams in one game, as well as player and team information.
2. Insert new players and new teams.
3. Update the information of games, teams and players.
4. Delete one specific game, team or player.
5. Query the data using multiple filter, e.g. Search for the team which can average score more than 100 and have less than 10 average turnovers each game.

### 2 SQL vs NO SQL storage

We choose relational database(SQL) as our main storage. The reason is that our data is structural and well-formed, and many RDBMS have a good balance between durability and performance when doing ACID. For RDBMS, we choose MySQL which is most used by us.

### 3 Hardware and Software

DBMS: MySQL

Visual database design tool: MySQL Workbench

Software: Sublime & IntelliJ

Front-end web framework: Angular

Back-end development: Java (JDBC)

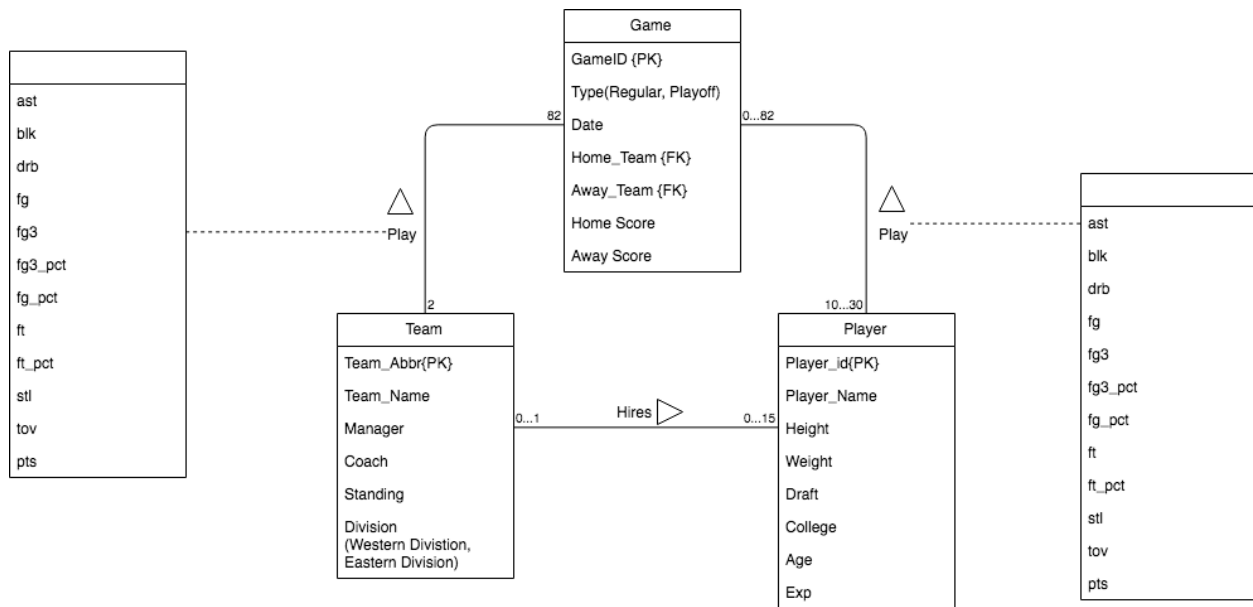
All of above are cross-platform and open-source.

Hardware: No restrictions

### 4 Why does this project or this data domain interest you?

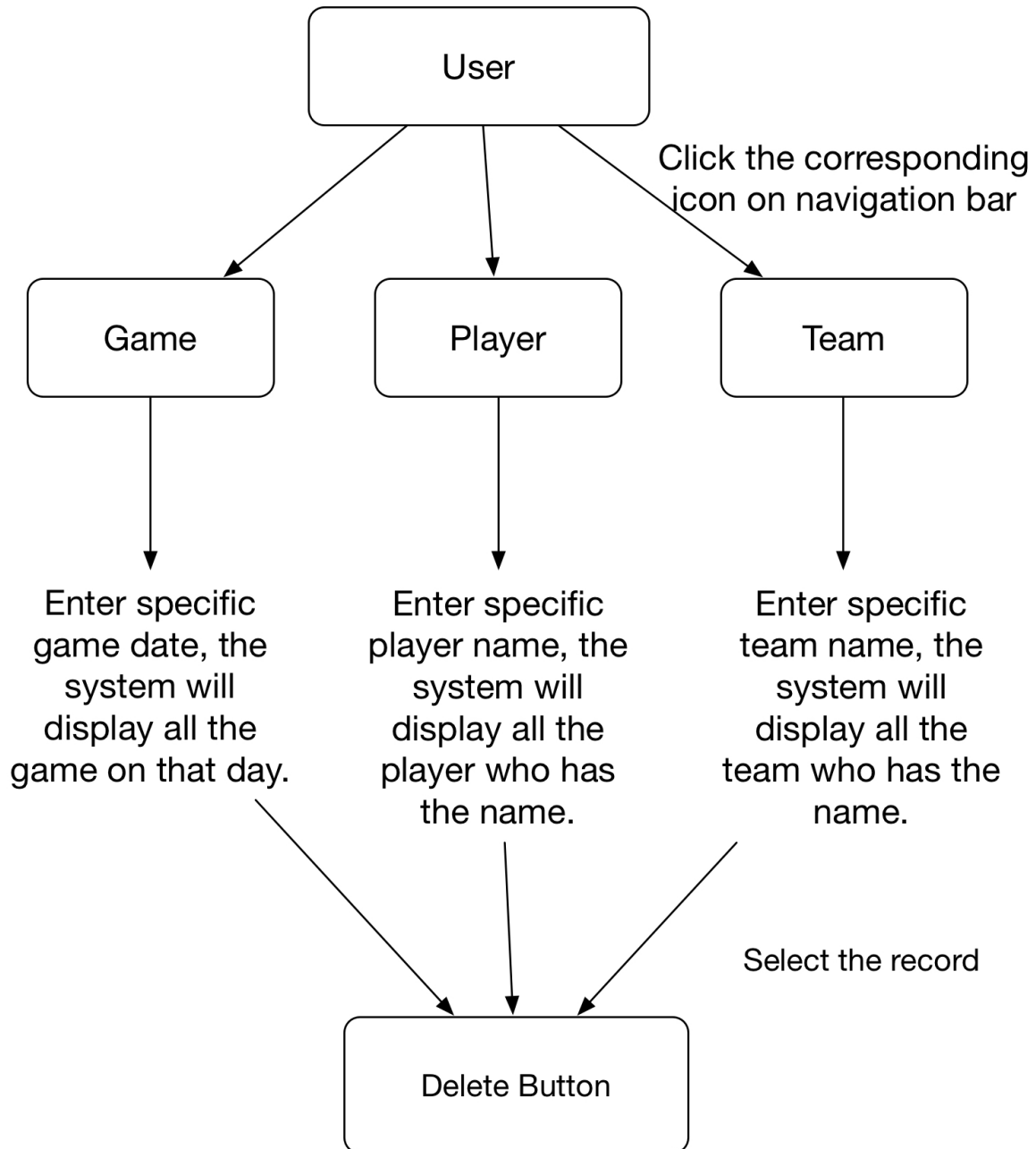
- a. NBA is one of the most popular sports around the world. NBA fans need an easy way to obtain the up-to-date information of the league and customize their query. At the same time, the manager of the team require an easy way to query and maintain the data.
- b. NBA is the best sport league in the world, it has rich data for us to explore.
- c. Our favorite sport is basketball, we want to conduct a project related to this field.

## 5 UML diagram

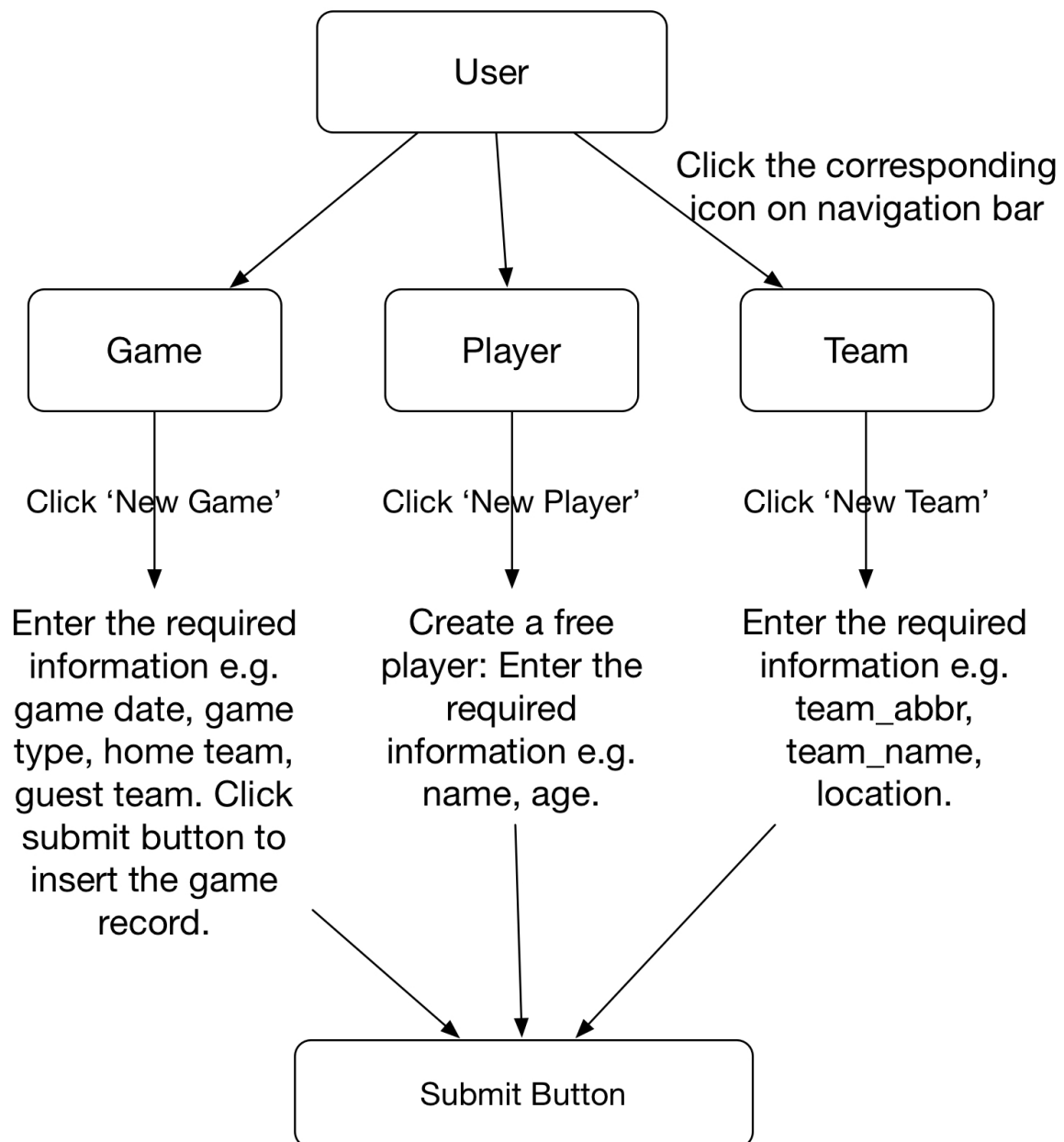


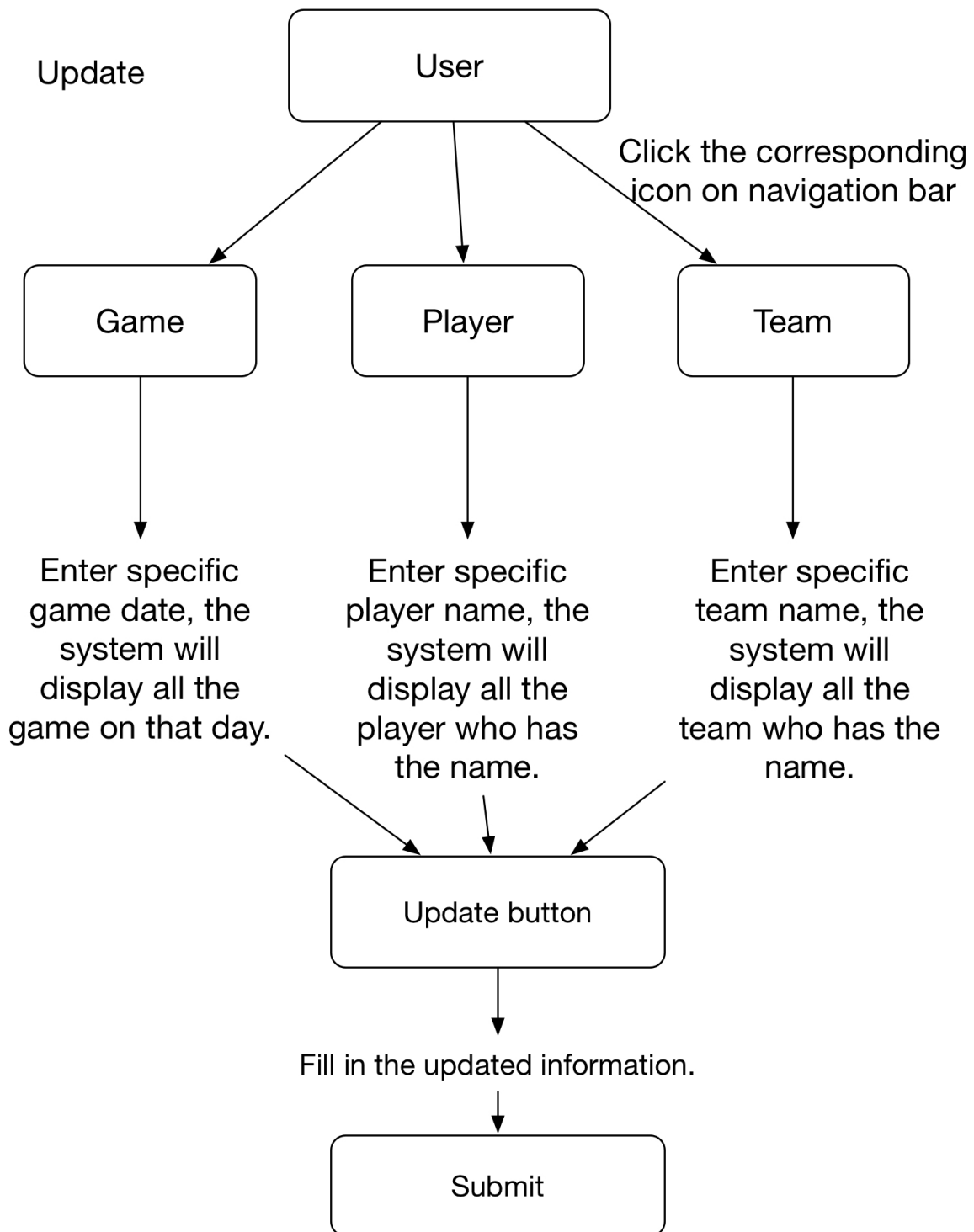
## 6 Step by step user interaction

### Delete



## Insert





## Query

