

CIS 550 Project ---- Milestone 2

1. Motivation

Our motivation for this project is to have a general view over past Olympics games. We focus on the relationship between countries and games to figure out how a country's culture and value will influence a game and how those cultures and values reflect back onto the game. To achieve this goal, we collect relevant information about each year's game, including the mascots, the stadiums, the themes and so on.

To make our project more fun, we are also going to build a schema which documents each Olympic Game's anecdotes for case users want to know some interesting things about each Olympics Games.

2. Features

Our team intends to develop a website to show users related information, including countries, Olympic games, sport events, as well as Olympic themes and mascots. In general, our application offers a variety of useful and interesting features:

- search for the host country of a specific Olympic game and the countries that participate in the game;
- search for the stadiums in the country for the Olympic game, and the specific use of them;
- search for the Olympic themes and mascots for a specific Olympic game;
- search for a country's performance in a specific Olympic game, such as the number of medals and the rank of the country;
- search for the sports events in a specific Olympic game;
- search for the interesting stories in a specific Olympic game;
- sign in with google or facebook accounts.

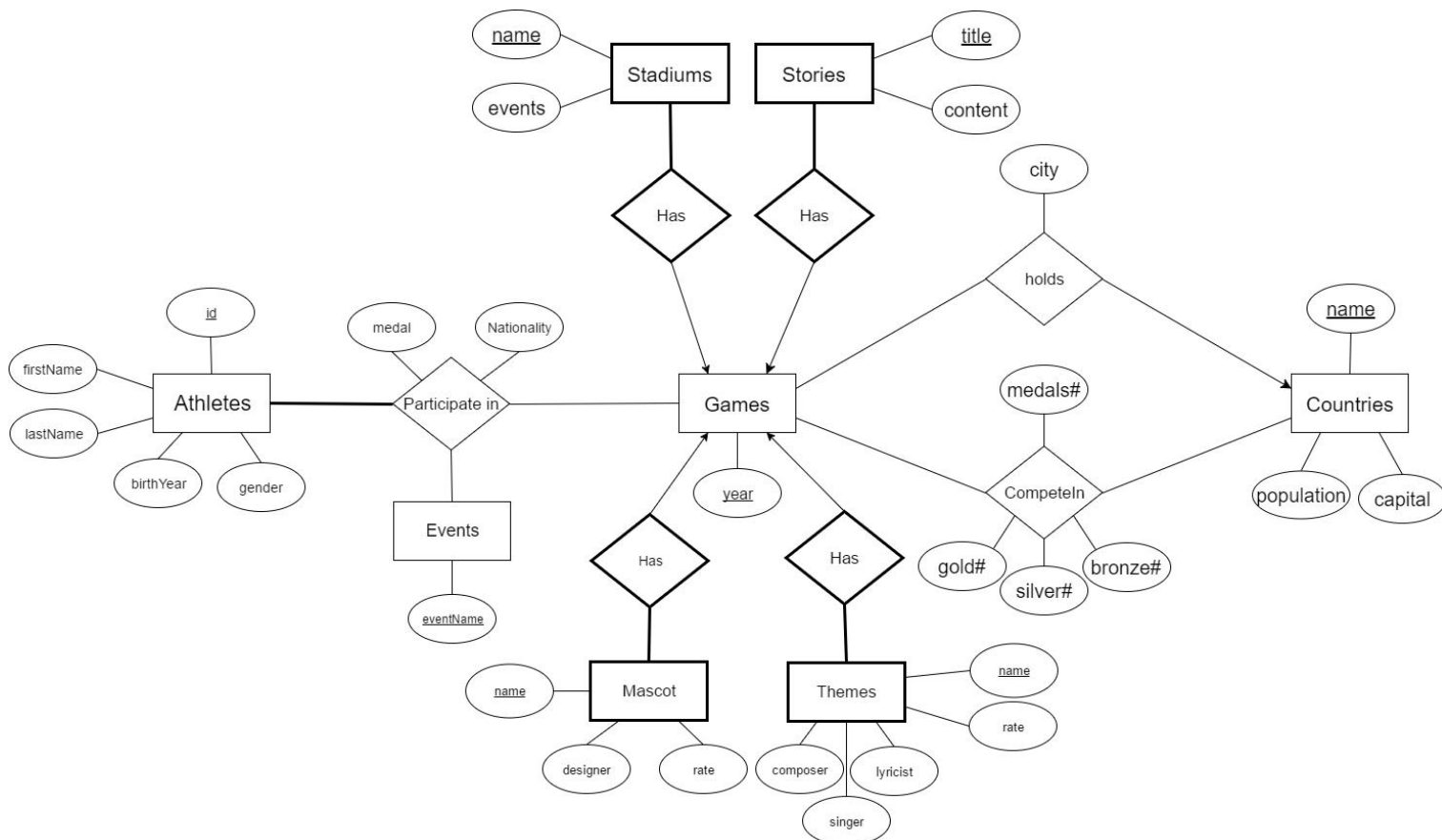
Additionally, several features might be implemented in the application given enough time:

- after signing in, users can rate the Olympic themes and mascots and make

comments on them;

- realize the view-based access control over the dataset;
- add streaming data;
- trigger Bing Search.

3. Relational Schema



As shown in our ER diagram, we connect athletes, Game and Events in a ternary relationship and all athletes should all participate in the game as defined as an Olympic athletes. Each game has a landscape stadium and a theme song and the song and the stadium will be a weak entity that rely on the game. Also, countries could have either participate the game as well as hold the game and when countries participate the game, the participate relationship will have attributes including how many golds, silver and bronze they won.

4. NoSQL Components

In order to show interesting stories of a specific Olympic game, we plan to store the stories in noSQL format. Our initial format is show as follows:

```
{ "_id": 1
  "Game_Year": 1996
  "Tag": [***, ***, ****]
  "Title": *****
  "Contents": *****
}
```

5. Technologies

We are going to use MEAN stack to build our website. MEAN stack has strong support for design patterns such as MVC and that is what we want to use in our project. Node.js provides a lightweight inbuilt server. NoSQL databases are dealt with MongoDB. Angular.js provides frameworks for web applications.

6. Databases

- Moscot:

<http://www.topendsports.com/events/summer/mascots.htm>

This dataset includes the information about official moscots. The information stores in HTML.

- Theme Song:

<http://entertainment.time.com/2012/07/30/11-olympic-theme-songs-dissected/slide/all/>

This dataset includes the information about theme songs. The information stores in HTML.

- Stadium:

https://en.wikipedia.org/wiki/List_of_Olympic_venues_in_athletics

This dataset includes the information about stadiums. The information

stores in HTML.

- Game information:

1) <http://databaseolympics.com/>

This dataset includes the information about game. The information stores in HTML.

2) <https://www.theguardian.com/sport/datablog/2012/jun/25/olympic-medal-winner-list-data>.

The dataset contains information about all medalists at the summer Olympic games by year, sport, discipline, gender and event between 1896 and 2008. The information stores in CSV form.

- Olympic games host:

https://en.wikipedia.org/wiki/List_of_Olympic_Games_host_cities

This dataset includes the information about host countries. The information stores in HTML.

- List_of_participating_nations_at_the_Summer_Olympic_Games:

https://en.wikipedia.org/wiki/List_of_participating_nations_at_the_Summer_Olympic_Games

7. Assigned Job:

Bingyu Wu: Data Handling, Schema Refine

Linyan Dai: Design Webpage,

Tingyu Geng: Design Webpage, Data Handling