BILKENT UNIVERSITY

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TERM PROJECT PROPOSAL REPORT

Football Database Management System

GROUP 13

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cs353.github.io

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1-) Introduction and Project Statement

Today football is one of the most popular sports in the world. It is estimated that over 1.3 billion people in the current population of the world is 'interested' in the sport.[1] The relations of groups in football (also known in the US as soccer) are quite significant. The teams, leagues, players, coaches, managers all have relations to each other. In this project we aim to model these relations with an online application.

The application divides the users into 5 main types. The type of users are determined via a login interface in the application. The application then presents itself according to the user type. For instance, club managers see their transfer requests and coach transfer recommendations.

To model all these different types of relations, the application will use a traditional relational database. Tables will be used in order to indicate certain entities and relations between these entities.

In this document we propose the requirements and general overview of our football transfer management system.

2-) Functional Requirements:

- There will be 5 different types of users:
    - Regular users
    - Coaches
    - Club managers
    - Player Agents
    - Administrators

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[1] Available at: https://global.britannica.com/sports/football-soccer,

2.1-) Regular users

- will be able to lookup:
    - all of the player statistics,
    - done transfer deals,
    - league standings,
    - team rosters,
    - game statistics,
    - club statistics.
- All users are capable of doing regular user operations however, some users have special permissions on the database.

2.2-) Coaches

- Coaches are able to submit transfer requests to the club managers. However, this request is only a recommendation.

2.3,2.4-) Club managers & Player agents

- Club managers can
    - set player values,
    - View current offers from clubs,
    - View transfer demands from coaches,
    - View player agent's contract demands,
    - accept or decline available offers from clubs,
    - submit transfer offers to other clubs,
    - submit contract offers to player agents.
- Player agents can demand a contract with wages and contract duration for their players during the transfer process.
- A transfer starts when a club manager sends a transfer request to another club manager (an exception is explained later). The receiving club manager will be able to accept or decline the offer. If the receiving manager declines the transfer is over. If the receiving manager accepts, the requesting manager will make an offer to the corresponding player agent. The player agent can then accept or decline the offer. If accepted the transfer occurs if not, the transfer ends.
- If a player is a free agent the club manager directly submits a transfer request to the corresponding player agent. The transfer procedure proceeds as previously mentioned from here.

- A club manager accepted but player agent declined transfer request continues from the player agent if the same request is submitted again.
- Negotiation is done through the renewal of declined transfer request.

2.5-) Administrators:

- Administrators do not have any restrictions on the database, they can
    - add
    - delete
    - modify any necessary data as they like.
    - modifying schemas however is not allowed after deployment.

3-) Non-functional Requirements:

- Response time: should be fast. It should not take more than 2 seconds for a page to load.
- Security: The application should be secure since we are dealing with private user data. This will be done by using available secure frameworks.
- Accessibility: is a valid concern however since the application is web based it is accessible everywhere.
- Usability: users should be able to understand the interfaces and operate the application as intended.
- Open Source: the application will open source and developed in this fashion.
- Git will be used as the version control system.

4-)Limitations

- A submitted transfer request cannot be withdrawn nor modified.
- Negotiations are done through renewals of declined offers. There is no special negotiation system.
- Coach transfers, contracts are not covered by the system.

- A player can not play in 2 different teams, however a player can play in a national team at the same time.
- Our database system does not make any performance calculations, it only displays the statistics of the players
- National Teams do not participate in transfer relations.
- Superior and inferior league relations does not exists.

5-)Conceptual Design
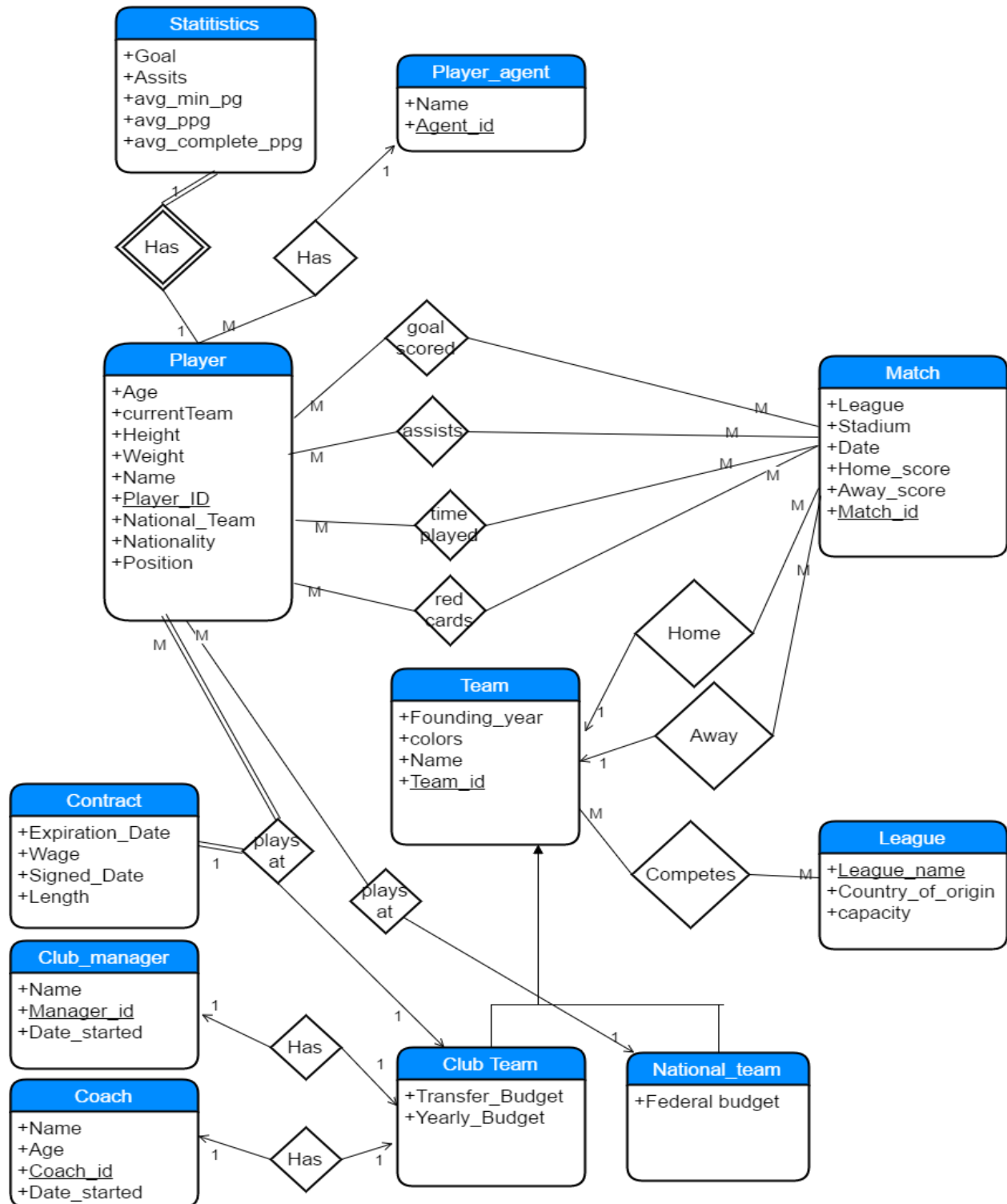
6-)Conclusion

We propose a web based application which can be used to track the relations between teams, managers, players, coaches and player managers in the sport of football. The system will be designed with a relational database in order to support all the users mentioned above.

The website of the project is cs353.github.io and can be accessed to see the reports. A link to the demonstration will also be added when the development process is done.