CS353 - Database Systems

Project Proposal

Group 17

BetterBettor

Social Betting Platform

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1. INTRODUCTION

In this report, we will propose our project which will be a web-based application and it is going to be a Social Betting Platform named BetterBettor. The report will indicate respectively the description of this project, why we need a database and how it will be used in this project, the requirements and the limitations of this project and an Entity-Relationship (E-R) diagram of the project. We will discuss what we are going to plan and what this project mainly goals in the next sections.

Secondly, in the Project Description section, the description of our project has been explained in detail where the fundamental functions and the features of our system are included. In addition, this section also clarifies why we are going to use a database and how we can integrate it as a part of the BetterBettor.

After the project is described, we indicate that the Requirements of our project which involves explanations in regard to functional requirements, non-functional requirements and pseudo requirements. We will describe that how users interact with the fundamental features and the functionalities of our system in the Functional Requirements subsection. In the Non-functional Requirements subsection, the design goals have been stated under some criteria such as reliability, security and capacity. Furthermore, in the Limitations subsection, the constraints and the boundaries of our system have been discussed.

In the last section before we concluded everything that we cover, the E-R diagram of our database design has been given in the Conceptual Design section. The diagram has been designed with regard to our functional requirements and will be used in this design as a starting point.

2. PROJECT DESCRIPTION

BetterBettor is a web-based application for betting football and basketball games in a platform. The platform is designed to be used by people who is older than 18 years old and want to bet football and basketball games and win some money. Users will be able to register the platform after they fill out some information. These are name, surname, Turkish ID number, email address, birth date, phone number, and password. After the registration, they can login the platform using email address and password.

Users will have a check which is a gift from use. The value can be decided later. Users can use the money to bet matches and win more. Users have also information about the balance, which is not visible to others. If the users have not enough money to bet, they can pay using credit card. Moreover, the platform includes information about the upcoming matches. For example they can see the date, time, league, the odds for various possibility, and some statistics of the teams which will play the match. Users are able to create a bet slip containing matches and their odds the user chose, and the total odd. The bet slip can be created only some needs are met. There will be a minimum number of matches users have to bet on a bet slip and there is minimum money to bet. Users can share the bet slip if they want. Other users can make comment about it, like it and play the same bet slip. Users can follow each other to learn what others bet for the upcoming matches. Shared post will contain the date, time, the number of likes and comment, contents of the comment itself. Comments also can be liked by the users. They have also date and time information. After the games are over, results of the games will be shown in the platform and the bet slips will be in a process to check whether it failed or succeed. Accordingly, payments will be done to the users who has a winning bet slip.

Other than regular users, we will have administrative part of the platform. The admin are able to create games and assign reasonable odds to the games. Admin is able to delete posts or comments of any customer.

2.1 Reasons Of Using A Database For BetterBettor

In order to create a platform which is going to allow users to bet games and get social interaction, we will need to work with a vast array of information about the users, teams, odds of the football and basketball games. Furthermore, actions such as following, being followed, commenting on bet slips that is shared by others, liking a commenting will be stored in the database. So, working with a such a large amount of data would be hard without using a database system. Therefore, we will be able to store and manipulate the data needed for the Social Betting Platform in a more organized way

2.2 How Is The Database Going To Be Used As A Part Of The Project

Building such an application requires us to store the user information such as personal information, number of following and followers, bet slips that the user shares, balance and some comments that the user makes. Furthermore, bet slips' information such as games, total odd, and the money betted. Moreover some statistics of football and basketball teams will be in the database. Also, the numerous odds, date, time, and league of the games will be stored in different entities. We are also going to store the number of likes in a comment, date and the time of the comment. This the way we think we are going to use the database.

3. REQUIREMENTS

Requirements will include functional requirements and non-functional requirements.

3.1 Functional Requirements

Functional requirements will consist of the ones regarding the customers and regarding admins.

3.1.1 Regarding Customer

-Customer is able to register by providing name, surname, Turkish ID number, email, password, date of birth and phone number.
-Customer is able to login the system with their email and password.
-Customer is able to see the upcoming matches
-Customer is able to see the finished matches
-Customer is able to see their balances, increase it by buying via online payment or by successful coupons.
-Customer is able to pull their money from their balance when it is above a limit.
-Customer is able to see the odds regarding any match.
-Customer is able to create a coupon by choosing as many matches to bet as the minimum of the minimum bet numbers of the selected matches and at least providing the minimum fee for creating a coupon.
-Customer is able to see the scores of the past 5 matches of a team.
-Customer is able to follow other customers.

-Customer is able to share other's or their own coupons.

-Customer is able to delete any of their own posts.

-Customer is able to comment on posts.

3.1.2 Regarding Admin

-Admin is able to create new matches.

-Admin is able to add and change the odds of a match.

-Admin is able to delete posts or comments of any customer.

3.2 Non-functional Requirements

-User interface will be simple so that customers will be able to perform what they want easily.

-System must response to each request in less than 1 second.

-Scores of the ended matches will be displayed in the system in 2 minutes after they end.

-A match will consist of two teams of the same sport branch.

-System must store all the data, capacity must be high enough..

3.3 Pseudo Requirements

-HTML, CSS and JavaScript will be used for front-end implementation of the project.

-Back-end implementation of the project will be done via NodeJS.

-Database implementation will be done via MySQL.

4. LIMITATIONS

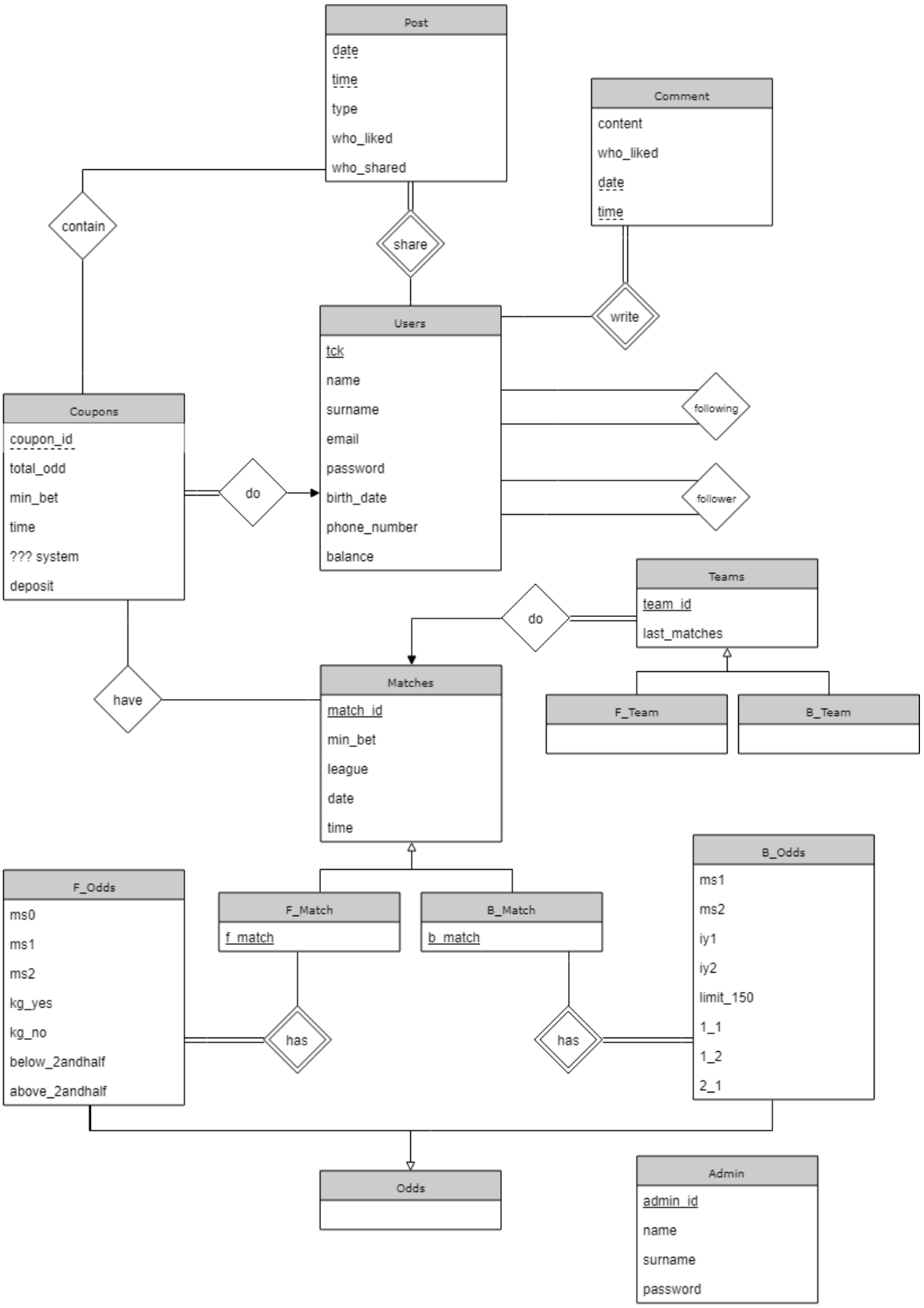
-Registering with the same email twice will not be permitted.

-Registering with a password length of which is less than 8 characters and which does not include at least 1 uppercase letter and 1 number will not be allowed.

-When the time left to its start is less than 5 minutes, a match cannot be added to a coupon or a coupon that is not saved is not able to be saved.

-Customer is not able to create a coupon unless they choose as many matches to bet as the minimum of the minimum bet numbers of the selected matches and at least providing the minimum fee for creating a coupon.

5. CONCEPTUAL DESIGN AND ER DIAGRAM



6. CONCLUSION

In conclusion, BetterBettor will be a web-based platform to bet on either a football or basketball match online. This system can serve for regular users to make a coupon and can be used for administrative usage. It can provide operations for both professionals and regular users.

We have described the goal of this project and given information about the project such as some features and functionalities. Moreover, the significance and the necessity of designing and implementing a database management system for this kind of project, which has similarities to real life specifications, have been discussed. Then, we provided the requirements into three subsections. These subsections were functional, non-functional and pseudo requirements respectively. Functional requirements are explained concerning the users. Non-functional requirements have reflected our purposes which is related to what we need to achieve while working on the project. At the end of this section, we stated the limitations of this system. Lastly, we have put the E-R diagram of our design to clarify it better.

7. WEBSITE

https://github.com/ybalcanci/BetterBettor/