

Software Requirements Specification v1.3

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Football team management system

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1 INTRODUCTION

This section introduces the requirement specification document for the FootBall team management system. It provides the purpose and scope of the project. Any definitions and references are listed in this section as well as an overview of the remaining requirements specification document.

Software Requirements Specification for FootBall team management system

1.1 PROJECT DEFINITION

This project is an actually team management system like specially football team management system, which will be working football player career, team manage, the hole team coach control full team and managing all system on this system.

1.2 PURPOSE

The purpose of this document is to give a detailed description of the requirements for the “FootBall team management system” software. It illustrates the purpose and complete declaration for the development of system.

1.3 SCOPE

The “FootBall team management system” is a management application. It should be targeted the any kind of football team. The application of the project should be web application.

All system information is maintained in database is a MySql database which will store the all actions of the user for data mining purposes.

1.4 DEFINITIONS ACRONYMS AND ABBREVIATIONS

- SWE: Software Engineers
- IP: Internet Protocol
- HTTP: Hypertext Transfer Protocol
- MySQL: My Structured Query Language
- IDE: Integrated Development Environment

1.5 OVERVIEW

This document provides a high-level description of the “FootBall team management system” is a team management system. The document then describes general software and hardware constrains as well as any assumption and dependencies concerning the projects. The majority of this document focuses on the specific requirements list. A master list of specific requirements is given first, followed by each requirement explained in detail in the next section. Both the internal and the external interfaces are addressed in the subsequent section. The internal interface requirements are requirements involving system interfaces and the external interface requirements are requirements involving user hardware, software and communications interfaces. This requirements document concludes with conclusion section of the whole document.

2 Overall Description

2.1 User interfaces

The project interfaces are developed for 1 platform, namely Web. on Web the application runs on a flash player supported web browsers. All platforms have similar user interfaces but different screen layouts to fit user interface on different devices.

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User who must use the system can easily understand the user interface

1. The Manager and Finance

The manager manages the football aspects of the player. At this menu, user can search for a team, apply to a team, request transfer, find suitable teams for him to transfer, make/refuse sponsorship agreements.

2. Football Club

Football club is where the user interact with its teammates and club manager, changes his playing style and train its character and play a training match.

3. Living Area

In the living area, user can rest, throw a party, do a single training in the house, can buy a house, car and related assets which are provided by the game.

4. Player Profile

User will be able to change own player's appearance. User also can buy new clothes and accessories and drink energy drinks. In addition to this, user can see statistics of the player from this part.

2.2 Constraints 1.

Operating Systems

Windows 8-10, Linux.

2. Security and Reliability

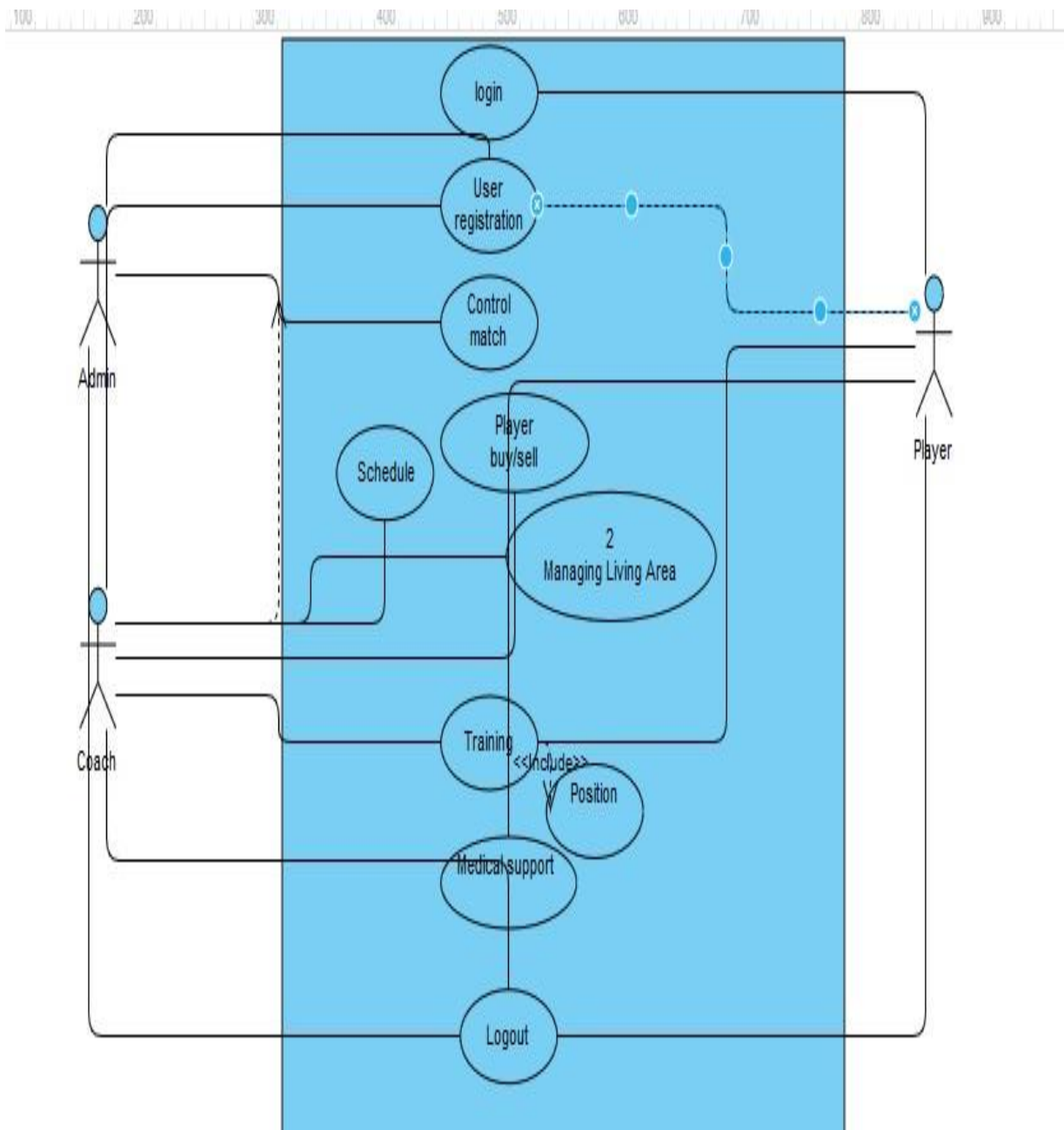
The security of the user registration, login authentication.

Programing Languages

Android

USECASE--DIAGRAM

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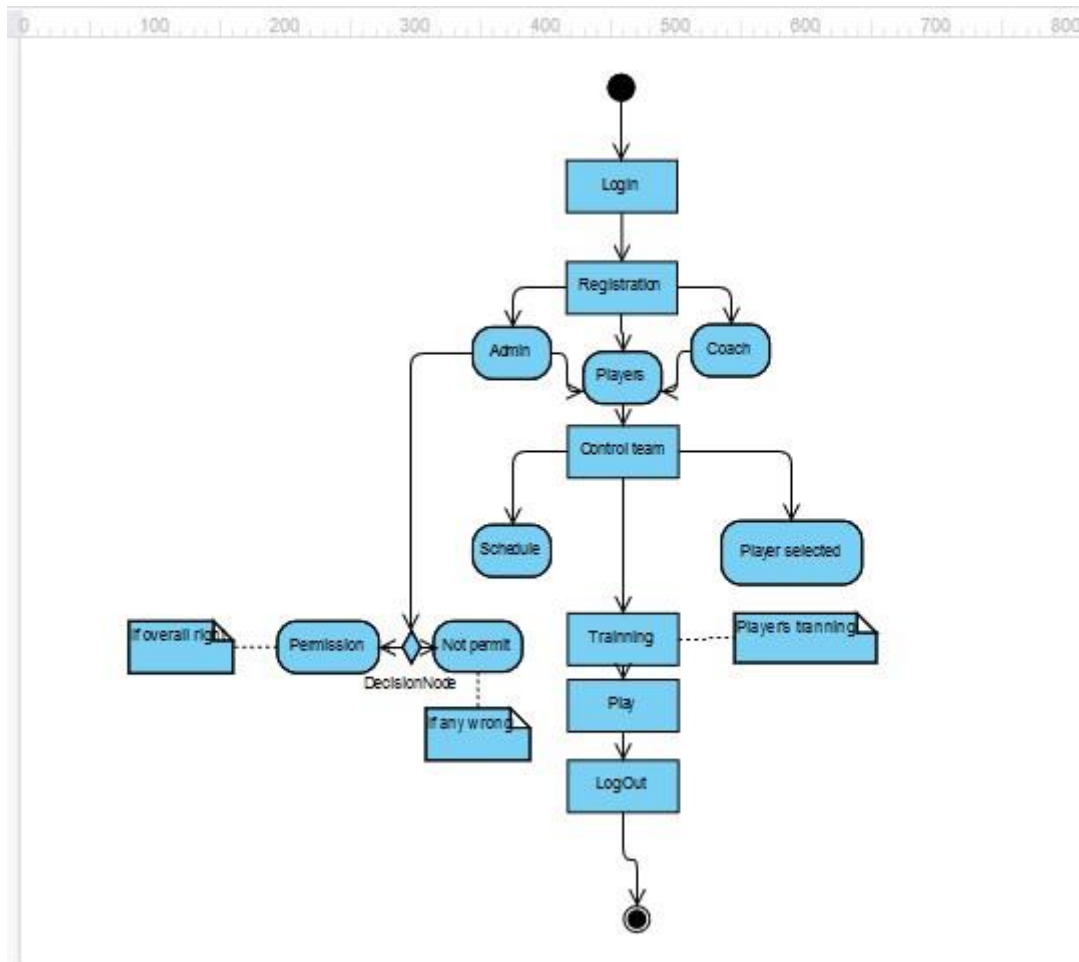


Figure 2: The activity diagram.

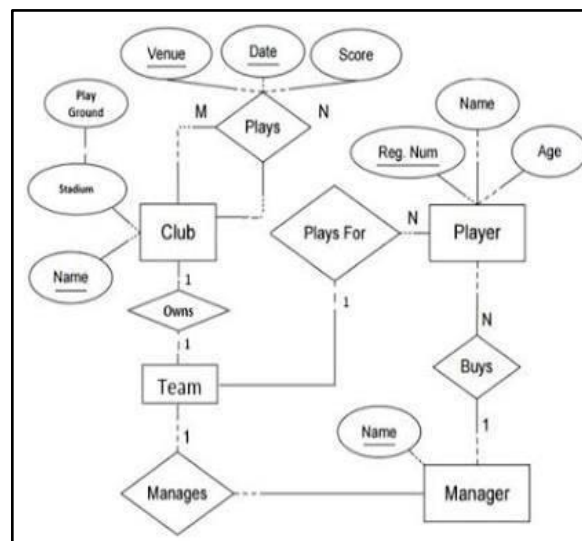


Figure 2: ERD diagram.

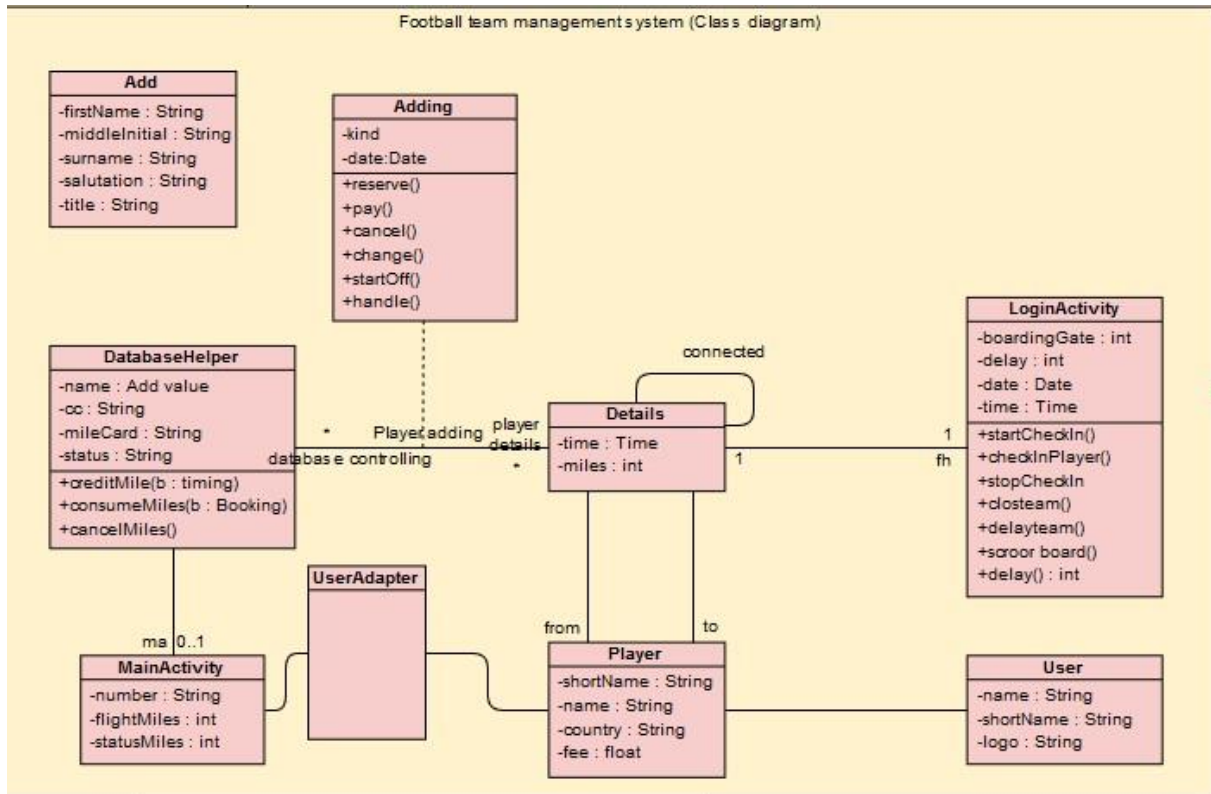
3. Specific Requirements

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3.1 Interface Requirements

The user interface for the software shall be compatible to any browser such as Internet Explorer, Mozilla or Chrome by which user can access to the system. And also, application should be reached from mobile phones with iOS and Android system.

All interfaces' functionalities should be same and explained in functional requirements section. **Class diagram**



3.2 Functional Requirements

The functional requirements are the requirements of what the system should do

3.2.1 User Functions

User functions section explains what a user can do in the game.

3.2.1.1 User Login

When user starts the application on a mobile device, he should see login screen first. But before login must be register first.

3.2.1.2 User registration

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When user starts first the application on a browser first of all user have need registration.

3.2.1.2 Managing Living Area

There are 6 main screens (Football player's life's main parts to manage.) in this project.

3.2.1.3 Control match

Match control actually control all function of a match.

3.2.1.4 Player buy/sell

Coach have decided player buy and sell for any match.

3.2.1.5 Schedule

Manager will be control match schedule on this system.

3.2.1.6 Training

Coach can select time for player training on this system.

3.2.1.7 Position

Before playing a football match the coach can decide player's position.

3.2.1.8 Medical support

All player's and team member have medical support on this system

3.2.1.9 Team Training

The user is able make one training match in a day. This match should affect his chances to be in line up.

Training should decrease energy of the player.

After training he may gain some skill points.

3.2.1.4.2 Interact With Club Managers

User shall interact with club manager. He shall ask for better facilities and a better contract. There should be a cool down time, which is maximum of 3 hours. He can reduce this time with tokens he can buy from the store.

Club administration should answer the player immediately.

3.2.1.4.3 Choose Game Type

The user should have the opportunity to choose his game style. He can choose between defensive/offensive, passive/aggressive, selfish/sharing and hard-working/lazy.

Every game style should affect matches differently. It should be possible to read explanations of game styles in this screen.

3.2.1.5 Manager Room Functions

In manager room, the user should see his own manager. He can have managers with different levels and abilities. Better managers can find better teams, contracts and sponsors.

In this room, the user can manage sponsors, and transfer options.

3.2.1.5.2 Inspect Team

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The user shall search for all teams in his world. He can see empty slots of a team, team level and basic information of the related teams.

3.2.1.5.3 Request Transfer

While inspecting teams, if the users thinks that he can transfer to a team; he'll be able to make a transfer request to that team. If his manager is good enough, he should receive a contract from that team in the same day.

3.2.1.5.4 Accept/Decline Sponsor Proposals

In manager room scene, he can see contracts from possible sponsorship agreements. He can read conditions of the contract and decide to accept or decline the contract.

3.2.1.6 Player Profile

In this section, the player should see his own player, his statistics, skill points and his trophies.

3.2.2 Admin Functions

Admin functions section explains what an admin can do in the game system.

3.2.2.1 Admin Login

Admins shall be able to login as an admin using a unique username and password. All of the admin actions are dependent of the admin login for authentication and security.

3.2.2.2 Add/Remove Events

Admins can directly interact with server and add/remove events. This gives the administrators the ability to create custom event and promotions. For instance, the administrator can create a limited size tournament or lower the price of an object for a limited period while the game is active. The increases the administrator control over the game and also increases the interaction inside the game.

3.2.3 Data Analyst Functions

Data analyst functions section explains what a data analyst can do in the system.

3.2.3.1 Data Analyst Login

Data analyst should login to the data mining module using a unique username and password for authentication.

3.3 Nonfunctional Requirements

3.3.1 Performance Requirements

In our system, there should be parallel worlds which run on different servers. In this section performance requirements of one single world should be given.

3.3.2 Design Constraints

The system should be written in PHP language. There should be three types of client side, which are web browser.

Since the provided hardware for server is limited, developers should care about performance and memory issues.

Users shouldn't be able to reach databases or modify databases. On client side, there shouldn't be any critical data about the user.

4 Data Model and Description

This section describes information domain for the software.

4.1 Data Description

Data objects that will be managed/manipulated by the software are described in this section.

Info Class

- id : Holds the unique id of the user.
- name : Holds the name of the information object.

In our product, there are four subclasses of Info class. These classes listed below:

- PlayerInfo: This class holds the information about the character of the user.
- FinanceInfo: This class holds information about the user's virtual money and all of its assets of the user.
- GeneralInfo: This class holds the information about the user's token, level, last online time and achievements.
- StatisticsInfo: This class holds the information about the match and character statistics of the users past accomplishments.

Class diagram coming soon on next version

5 Behavioral Model and Description

5.1 Description for Software Behavior

5.1.1 Events

5.1.1.2.1 Team Training

A match screen will be opened, where user can follow the match from commentator's speech. The match will be between his teammates. After match ends, match statistics and player's rating will be shown.

5.1.1.2.2 Interaction with Club Administration

List of wishes from club will be appeared. User will be able to choose one of them. The list will include "A bigger stadium", "A better contract" and "Better facilities".

5.1.1.2.3 Manager Room Scene Selected

User will be redirected to manager room menu (scene).

5.1.1.2.4 Search & Inspect Teams

After user goes to search & inspect teams' menu, he will see a listing of all teams around the world. He will be able to see every necessary information of teams, such as empty positions of teams, levels of teams and budgets of teams.

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5.1.1.2.5 Request Transfer to a Team

The user will be examined by desired club's transfer mechanism and get a result in same day.

5.1.1.2.6 News Scene Selected

User will be redirected to news menu (scene).

5.1.1.2.7 Interaction with News

If there is any chance to reply the current news, he'll be shown answers as a pop-up menu.

5.1.2 States

5.1.2.1 Login Scene

There will be Facebook login button in mobile devices. There won't be any login scene in web client.

5.1.2.2 Main Menu

There will be links to main scenes of the game. These links will be placed in a map view. The buttons are for ambit scene, club life scene, social life scene, character scene, manager room scene and news scene.

5.1.2.3 Club Life

User will see, his team's standings, his team's line up button, his team's stadium image and his team's facilities.

5.1.2.4 Manager Room

User will see three buttons, which are transfer, finance and sponsorships. He will also see his manager's image, which is also a button that directs him to a shop, where he can change his manager to a new one.

5.1.2.4 Sponsorship Menu

User will see his ongoing sponsorship contracts and new offers for sponsorships.

5.1.2.5 Player Scene

User will see his own character. The character will be able to have different kind of face style, clothes and accessories.

5.1.2.6 News Scene

User will see a tablet like screen, in which there are news & notifications related to him.

5.2 State Transition Diagrams

Coming soon on next version

6 Planning

6.1 Team Structure

There shall be 5 developers in team. All team members have main focus points but they will work on every stage of development, if it is necessary.

There will be two different stages for system design, which are developing prototype and delivering end product. For prototype phase of development, 4 developers shall work on Java server and 3 developers shall work on web client. The prototype will be available only in web browsers.

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For delivering end product phase, 3 developers shall work on Java server, 2 developers shall work on web client, 1 developer shall work on iOS client, 1 developer shall work on Android client and 1 developer shall work on data mining.

6.2 Estimation

Coming soon next version

6.3 Process Model

In the first meeting with our sponsors, we were told that we will be following agile software development methodology. In the milestones we will get feedback from customer and continue our process according to their feedback.

7 Conclusion

This software requirements specification document gives information about the related Football team management system interfaces, functionalities, states and events, major data classes, development constraints and planning.

Firstly, the System we are creating is shortly described in introduction section. Then the functionalities in the game is mentioned with use cases. Afterwards all the functions the game has is explained one by one in detail. After that non-functional requirements like performance requirements and design constraints are stated. Data models and their associations are shown with a figure. Then behavioral model and description is explained with detailed information of events and states. They are supported with state chart diagram. Finally, we presented our team structure, schedule and process model for this project.