Software Requirements Specification

for

Football Fantasy League

**Version 1.0**

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**8/9/2018**

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**Revision History**

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| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
| SRS Template | / /18 | First Draft |  |
|  |  |  |  |

# Introduction

## 1.1 Purpose

The purpose of this document is to build a custom football fantasy league for football lovers and common people, who want to customize every aspect of the game by selecting different players, stadiums, manager, etc. The purpose of this project is to outline the functional and non-functional requirements of the Football fantasy league application. The aim of this project is to make the customization tools accessible to the layman.

* 1. **Document Convention**

Links to sites – eg. [http://www.theuxbookmark.com](http://www.theuxbookmark.com/)

No other convention used.

## 1.3 Intended Audience and Reading Suggestions

The project is a prototype for the Football Fantasy league. This document is intended for different type of readers such as football enthusiasts (fan), football players and clubs, rookies, etc.

For the product perspective, characteristics, dependencies and assumptions move over to part 2.

For the interface specifications such as hardware, software and communication interfaces read on to part 3

To know more about the various system features, check out part 4. Part 5 contains details on the various functional and non-functional requirements of the projects.

**1.4 Product Scope**

The Football Fantasy League system is composed of two main components: a client side application which will run on Java environments and a server side application which support and interact with various client side features. The system is designed to facilitate the process of computing the points of all points and maintaining the league table according to it. Potential scenarios include choosing players, managers, stadium and determining the final place acquired in the league table.

For more information about project and its goals see Appendix B.

## 1.5 References

We have referenced - [http://www.theuxbookmark.com](http://www.theuxbookmark.com/) for visually appealing design practices and common UI guidelines followed by widely used applications.

[https://www.interaction-design.org](https://www.interaction-design.org/) provides a very accessible list of non-functional features that users have come to expect over the years, and we have tried to implement as many of these qualities as possible

The project has taken hints from <https://www.uxpin.com/> to make the user interface as consistent as possible in its style layout.

# 2. Overall Description

## Product Perspective

FFL project is a new self-contained product for use on Java based platforms. While the application is the main focus of the project, there will also be a server side component which will be responsible for database and synchronization services. Thus the product encompasses both server and client side functionalities, both of which are covered in detail in this document.

**2.2 Product Functions**

* The administrator can fill in details of the players along with points. This information will be used by the application to provide the various choices that can be given to the FFL fan creating his/her customized team via the application.
* The Fan can choose from these entered choices, and use the added players, stadium, etc to create the team that they desire. The completed team will compete in the league with other Fan’s teams.

## User Classes and Characteristics

General user: Need PCs with specified requirements to run this application.

Administrator: Has access to the database directly and can write algorithms to simulate the league

Analysts: Can ask the Administrator for specific data to plot down important trends in the football world like most valuable player, youngster with high potential, etc.

## Operating Environment

The application will be compatible with all devices with JRE/JDK support, and these environments can be easily installed in devices that do not contain them, making compatibility practically universal.

## Design and Implementation Constraints

The running time of various requested features will depend on the server side latency, and the efficacy of the server- application connectivity. The capabilities of Oracle database may limit the speed and reliability of the application and expose the system to security vulnerabilities.

The code for a big project is often difficult to interpret but the developers should try their level- best to efficiently refactor the code and use reusable components throughout the life cycle of the application.

## User Documentation

The default help menu in the toolbar will contain general descriptions of all supported functionalities.

## Assumptions and Dependencies

The project will utilize the existing JAVA tree APIs, to ensure maximum runtime efficiency of the application. Thus, minor bugs in the standard libraries may affect performance.

The application will utilize the JAVA for the backend database, FFL will use the Oracle DB.

# External Interface Requirements

## User Interfaces

* FAN:

1. On opening the application, the fan will reach the login page, and can login, or sign up a new account.
2. After a successful login attempt, the customer can view already created team by them, if they have already created it. If not, he will merely see some suggestions
3. Now the fan can start creating his/her team from scratch if he wishes to do so. The various options at multiple levels of the hierarchy will be displayed, and successive choices will lead to a final team that can be compete against other teams.

* ADMINISTRATOR:

1. On opening the application, the administrator will login with a unique key, given only to administrators, and reach a different UI with the following functionalities:
2. The administrator can modify the details of any previously created team, add/remove players, managers at different levels of the tree hierarchy.
3. The administrator will also have the facility to view all teams in the league table.
4. An added feature of the system may be to add a pre-designed default team that fans can select directly, without having to select the players.

## Hardware Interfaces

The Football FL application will be developed on the JAVA platforms, and the backend database will utilize the JDBC/ODBC bridge to form a secure link to a Oracle Database either hosted locally for testing purposes or deployed online

## Software Interfaces

The application will be compatible with all devices using the JDK supporting platform. FFL will be developed natively for JDK versions 7.0 or later.

# System Features

## System Feature 1

Fan Login/Registration

4.1.1 Description and Priority

The Fan will be able to login with existing credentials if previously registered, or alternatively create an account if using the application for the first time.

4.1.2 Stimulus/Response Sequences

1. FFL application launched by the user

2. User prompted to enter login credentials, with the provision to alternatively create an account

3. User successfully completes the Login verification and moves on to the core functionalities

4.1.3 Functional Requirements

REQ-1:

The user must have an active internet connection for verification of the entered details which will be compared against the true values in the database.

REQ-2:

If creating a new account, the user must have access to the following details for account creation:

1. An email ID
2. Phone number
3. User ID

## System Feature 2

Administrator modifies ingredient information

* + 1. Description and Priority

After login, the administrator will be able to view any given team, modify the manager, player points, or even add new players or team information.

* + 1. Stimulus/Response Sequences

1. Administrator login
2. The admin will have the option to view/change any thing already present in the system
3. View league table.
   * 1. Functional Requirements

REQ-1:

The administrator must have a steady internet connection while making any changes to the database information.

# Other Nonfunctional Requirements

## Performance Requirements

1. Performance of the Football Fantasy League application should not be a major cause of concern, since the product does not use any computationally heavy modules, and will sport a minimalistic UI that does not require a capable graphics process to handle efficiently.
2. The algorithm at the core of the product is a tree traversal algorithm that guarantees worst-case logarithmic time complexity. This means that the system can effectively work with a million, or even a billion data items deployed on the tree data structure.
3. However, delays may be introduced in the form of communication latencies with the server, and in case the device cannot maintain a steady link with the local server.

## Safety Requirements

Football League will not access any data on the user’s device that is not required for providing the above listed functionalities. The application cannot cause any damage to the hardware or software components on the user’s device.

## Security Requirements

The application will keep all the personal details of all customers strictly confidential. The system will ensure that no user, or administrator can access sensitive information on any other customer or administrator registered with Football Fantasy League backend servers. All bank transactions will utilize the security protocols developed by the respective bank for its customers in addition to the layers of security provided by the application.

## Software Quality Attributes

The graphical user interface of Football Fantasy League is to be designed, keeping usability and simplicity as top priorities. The application will use a consistent design pattern throughout all the forms presented to the user, to make the features self-explanatory while being visually appealing at the same time.

The Football Fantasy League application must take unreliable connections to the server into account, and in no circumstance, should it allow partial modification of the data that might leave the backend database in an inconsistent or corrupted state.

# 6. Other Requirements.

1. The user should not be a robot.

2. System should be free from any kind of viruses. Good antivirus is essential.