# Report No. 1 Introduction

## Project Information

* Project name: Football Field Reservation System
* Project Code: FFRS
* Product Type: **Mobile application, Web application**
* Start Date: 5/9/2017
* End Date: /12/2017

## Introduction

Football is one of the most popular sport in the world. It does not attract only professionals but also many new players and fans regardless of gender, age as well as region. As a result, thousands of soccer fields are built to provide playgrounds for everyone. Currently, people who want to reserve a football field will have to come in and set up a rental schedule with the field owner or contact via mobile phone. If the field is not available, they will normally give up because they only know a few fields that are familiar to them. For field owners, they can not manage field effectively and not have enviroment to promote to users. We build a system to help users to find other fields around that area.

In this document, we introduce our system as a new solution for both field owners and users to communicate faster, more convenient and easier. In particular, the main purpose of the system is to help field owners manage their fields more effective; help users reserve field online and find opponents have same level based on rating points. Rating point is calculated by rating and comment of users after match finished.

## Current Situation

When users want to reserve a football field:

Case 1: If user already had opponent team (there are 2 teams)

* 1. Reservation

Case 2: User needs to find team (there is 1 team)

1. Ask field owner to find out opponent team

2. Field owner checks if it is OK

3. Reservation

## Problem Definition

The disadvantages of the current situation:

Field owner:

* Record reservation request on paper makes it is easier to lead to conflict and missing.
* Usually not have customers at idle hours.

User:

* It takes time to find out and reserve a suitable field at peak times.
* If there is not enough people to divide by 2 team before going, users are hard to find opponents.
* Finding and matching opponents are not suitable because the number of teams limit to one field owners.

## Proposed Solution

The solution we proposed is to develop a reservation system for users and field owners which allows users to search and reserve a field. It can also match users with other team having same level to play with. The field owners can manage and promote their fields efficiently by using this system.

Our system includes a web application for field owners and a mobile application for users with following functions:

* 1. Featured functions

Web application:

* Provides the ability to manage field status for field owners.
* Manage field timeline.
* Manage profits.

Mobile application:

* Search fields: users can look for fields by (mobile GPS or field name,) time…
* View timeline of fields and reserve, checkout online.
* Suggest fields: the system will suggest suitable fields for players nearby location.
* Match other teams: the system will match teams with other teams, which have same level, to play with.
* Manage promotions: provide users discount vouchers.

System component:

* Matching users and reservate field automatically.
* Calculate user rating score and field score after each match.
* Manage field reservation schedule.
  1. Values
* Advantages:
  + Users do not have to go to field to reserve because the reservation transaction is proceeded online.
  + Users can find opponents with the matching system.
  + Field owner can manage timeline of field more effective, all things is record in system.
  + With function set discount price, free services for each time frame, field owner can look for users in idle times.
  + With rating function, players will be received a lot of feedbacks about field to make right choice.
* Disadvantages:
  + The application depends heavily on user’s behaviors. If the user does not support assess or assess incorrectly, the calculation ranking of system will be incorrect.

## Functional Requirements

The functional requirements are listed as below:

* Players component:
  + Reserve fields.
  + Manage rewards for using application.
  + View timeline of field to reserve.
  + Manage reservation requests.
  + Rate field and competitors.
* Field owners’s component:
  + Manage their fields: field owners can set field status, timeline and price.
  + Rate teams who have played in their fields after match.
* System component:
  + Suggest fields for players.
  + Match teams have same level to play together.
  + Process payment between players and system; between system and field owners.
  + Calculate team and field rating score.
* Admin component:
  + Manage field owners and revenue.

## Roles and Responsibilities

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| --- | --- | --- | --- | --- |
| **No** | **Full Name** | **Role** | **Position** | **Contact** |
| 1 | Kiều Trọng Khánh | Project Manager | Supervisor | khanhkt@fpt.edu.vn |
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| *Table 1: Roles and Responsibilities* | | | | |