# 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 there is no field available, they will normally cancel reservation because they only know a few fields that are familiar to them. 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 competitors 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 book a football field:

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

* 1. Reservation

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

1. Ask field owner to find out a competitor

2. Field owner checks if it is OK

3. Reservation

## Problem Definition

The disadvantages of the current situation:

Field owner:

* Have to do paperwork
* May not have customers at idle hours

User:

* It takes time to find out and book a suitable field at peak times.
* If there is not enough people to divide by 2 team before going, users are hard to find competitors.
* (If users find out a competitor on the field, they are maybe not at the same rank.)

## 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 revenue and checkout online.

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 position.
* Match other teams: the system will match players with other players, which have same level, to play with.
* Manage promotion: provide users discount vouchers for reservation.

System component: (Scheduler)

* Matching users.
* Calculate user rating score and field score after each match.
  1. Values
* Advantages:
  + Players do not have to go to field to reserve because the reservation transaction is proceeded online.
  + Players can find competitors with the matching system.
  + Field owner can manage timeline of field more effective, all things is record in system.
  + With function set price for each time frame, field owner can look for players in bad times with cheap price.
  + Field owners can promote their fields using this application.
  + With rating online function, players will be received a lot of feedbacks about field to make right choice.
* Disadvantages: The application depends heavily on user’s behaviors. It could lead to many issues caused by users.

## 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 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* | | | | |