## 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** |
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| *Table 1: Roles and Responsibilities* | | | | |