

# WEB-BASED FUTSAL FIELD RESERVATION SYSTEM

Fajar Kurniawan Saputra<sup>1</sup>, Rizka Artik Inovera<sup>2</sup>, Efrida Susanti<sup>3</sup>, Rudianto<sup>4</sup>

<sup>1</sup>Computer Technology, <sup>2</sup> NSC Polytechnic Surabaya,  
<sup>1</sup>putrasaputra3025@gmail.com, <sup>2</sup>inovera27@gmail.com, <sup>3</sup>efridasusanti72@gmail.com

## Abstract

Futsal field reservation system is a web-based system developed to help facilitate the process of ordering or renting a futsal field. This system uses the PHP and HTML programming languages. The purpose of designing this system is to make it easier for users to do field rentals using computerized media. Futsal field reservation system is expected to facilitate the parts involved in data processing, scheduling and member registration or customers. This system is created so that it can help the performance of the company, and can also facilitate customers in making the order process.

**Keywords:** Reservations, futsal, booking futsal field, web.

## 1. Introduction

Technology systems are growing very rapidly today, so the service information system must also be improved. Futsal rental is a business engaged in sports. The challenges are emphasized on rental information systems that still use manual systems which still wasting time in finding the data because using paper as a storage medium, while in the other hand, a good service that is needed includes a quick, accurate and right service.

It is necessary to design a computerized system to overcome the above problems. A computerized system will make the work easier and faster than manual one. A computerized system can also help avoid data lapses, losses in renting transactions, and many other positive benefits. The futsal field rental application system is an application that can process the ordering data, making it easier for customers to order the field in real-time. This application also makes it easy for managers or owners to get rental reports quickly and easily.

The application is also easy to use by the user because it looks very simple and friendly. Well-managed field rentals, quality improvements in terms of service, increased income are some of the positive impacts of using a computerized system.

*Fakusa Sport Center* is a company engaged in the field of futsal rental which is quite famous in central Surabaya. Its strategic location which is in the center of the city makes many customers prefer to play futsal there.

The obstacle experienced by *Fakusa Sport Center* lies in field orders. This company has not used a computerized system at all. Telephone reservations cannot be applied because consumers must come directly to the place to provide DP or pay it off. Booking the field becomes less effective, because customers will need more time just to book

the field. It takes difficulty in promoting *Fakusa*, because of course there will be many other fields that will emerge with a more organized booking system.

The authors uses a structured approach and prototype development methods to support the making of the system in this study. The methods include identification of user needs, prototyping, prototype testing, prototype repairs and production version development. Meanwhile, the research design used descriptive method.

This Futsal Field Information System produces a field ordering program that can be done through the web. This program is expected to meet the needs of the Futsal and customers who want to order a futsal field. In this writing, the authors will discuss how to design and build a Futsal Field Rental Information System that is easier and faster to use.

The existence of a futsal field rental reservation system is expected to facilitate those involved in data processing. Scheduling and member registration processes can now be integrated to each other, so that obstacles can be solved properly.

The creation of this application can help the performance of the company. In addition, customers will also be easier in the booking and transaction process. However, this application still has flaws; it needs improvement, additions and development so that it becomes a perfect application.

Based on the problems that have been described, the authors are interested in creating a system for *Fakusa Sport Center* with the title "WEB-BASED FUTSAL FIELD RESERVATION SYSTEM."

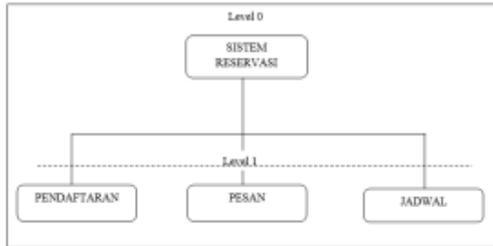
## 2. Discussion

### 2.1 Design

#### A. Level Diagram

The picture below can be explained as follows:

- a) REGISTRATION: only displays user registration and user log in.
- b) MESSAGE: load input from a user's field order
- c) SCHEDULE: contains schedule information that has been ordered. The pictures below describes the category according to its function.

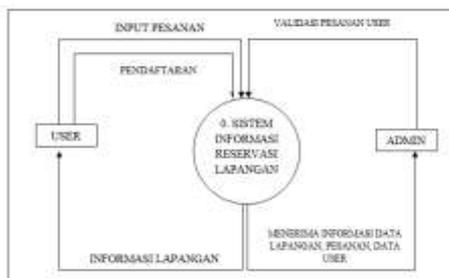


Picture 3.1 Diagram Berjenjang

**B. DFD LEVEL 0**

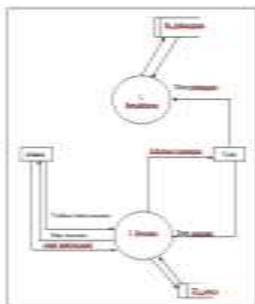
The following is the explanation of Context Diagram on field ordering information system design in Fukusa:

- a) User: User in this system can register, input or order a futsal field.
- b) Admin: admin stands for administrator. In this case, administrator has a large role in controlling a system. Administrator can receive field schedule data, orders, user data information and also validation of user orders.



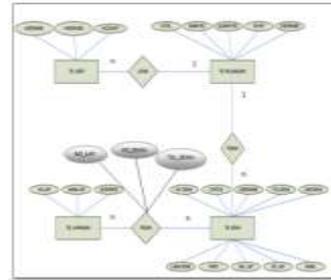
Picture 3.2 DFD Level 0

**C. DFD Level 1**



Picture 3.3 DFD Level 1

**D. Entity Relationship Diagram (ERD)**



Picture 3.4 ERD / Relation Table

**2.2 Implementation**

**A. FLOW 1 Home**



Picture 3.8 Home page

**B. FLOW 2 Log in**

- a) Log in as User dan Administrator

In this view there is a difference between the User Login view and the Administrator Login view, if you want to enter as a user, select SIGN UP, if you enter as Admin, select SIGN IN.

There is a more important difference between User and Administrator. A User cannot access what the admin does, but an admin can access what a user does.



Picture 3.9 Log in Administrator Form



Picture 3.10 Log in User Form

**C. FLOW 3 BOOKING**

- a) Schedule Display

Following is the scheduling of the futsal field, this page shows which field schedules have been rented and which have not been rented.



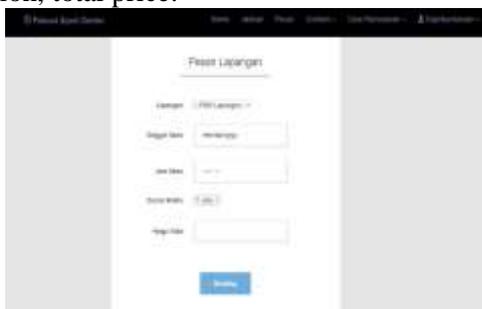
Picture 3.11 Field Schedule Display



Picture 3.14 Display of User Data on the Administrator page

D. FLOW 4. Display Field Order (User)

The system design below is an implementation image of the field ordering page. This display contains field options, rental dates, rental hours, duration, total price.



Picture 3.12 Display of Field Ordering

E. FLOW 5 Display of User Orders On the Admin page

The implementation below explains that the field which has been rented by user will appear on the administrator page. An administrator can take actions that cannot be done by the user such as deleting and printing orders.



Picture 3.13 Field Order List Display on the administrator page

F. FLOW 6 User Data Display on Administrator page

This page displays the data of user who orders the field, this page can only be accessed by the Administrator.

2.3 Struktur Database

The following is the database structure of Futsal Field Reservation System

Table 3.1 Database of structure tb\_login

Field Name	Type	Value
Username	Varchar (primary key)	30
Password	Text	30
Account	Varchar	10

Table 3.2 Database of structure tb\_pelanggan

Field Name	Type	Value
Id_pel	Int (primary key)	5
nama_pel	Varchar	50
alamat_pel	Varchar	50
no_telp	Varchar	20
username	Varchar	50

Table 3.3 tb\_sewa database structure

Field Name	Type	Value
<u>Kode_sewa</u>	Int (primary key)	5
status	Int	2
username	varchar	10
<u>tgl_sewa</u>	Date	-
<u>jam_sewa</u>	Time	-
<u>lama_sewa</u>	int	30
<u>tarif</u>	int	10
<u>jumlah</u>	Int	10
<u>lapangan</u>	Varchar	30
<u>kode_lap</u>	int	2
<u>nama</u>	Varchar	50

Table 3.4 tb\_lapangan database structure

Nama Field	Type	Value
<u>no_lap</u>	Int (primary)	5
<u>Nama_lap</u>	Varchar	50
<u>Deskripsi</u>	Text	-

### 3. Conclusion and Suggestion

#### 3.1 Conclusions

Based on research conducted by the authors regarding this futsal field reservation system, it can be concluded as follow:

- a. This web-based reservation system is needed for futsal field reservation facilities that are effective and easy to use.
- b. This reservation system can be used to make it easier for users to make computerized reservations that are time-saving and easy.
- c. This research succeeded in creating a web-based futsal field reservation system.

#### 3.2 Suggestions

Research done by the authors is not perfect. For better system development, the authors' suggestions are as follows

- a. Add more functional feature to facilitate users.
- b. Make the appearance of the application more attractive to get more users using this web-based reservation system.
- c. A user who's able to operate the system and management of the system is needed so that when there are Problems it can be solved properly and effectively.

Finally, with all our limitations in building this system, we hope that this system can provide benefits for readers for further development.

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