

## THE APPLICATION OF WEB BASED INFORMATION SYSTEM AT MTs AL-IKHLAS FAJAR BULAN, WAY TENONG DISTRICT

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### Abstract

This research's aim is to simplify the school management data, especially in search, storage, and data reports of school by using website at MTs AL-IKHLAS Fajar Bulan, Way Tenong District, Lampung Regency. In making this application, the researchers used PHP and MySQL. Then, the researchers would analyze to extend web-based information system in that school could assist the administration officers, teachers, and students in applying teaching and learning activity. The method were used in this research were interview and observation. Data collection also used in this research to obtain the required information. The result of this research shows that the use of web-based information system can be a publication in providing a wider range of information to deliver various types of information about that school.

*Keywords: Information Systems, PHP, MySQL*

## 1.0 INTRODUCTION

### 1.1. Background of the Problems

In the current era of globalization, science and technology is developing very rapidly. Especially about sophisticated increasingly of information technology made us expected to learn and apply the sophistication, so we were not regarded as outmoded. Information technology is evolving along with increasing human resources in the world. This technology has a role as a tool to facilitate and expedite a job so as to get the desired results as expected for humans. With the use of computerized systems as the fastest and most accurate solution today, it is hoped that any problems that require speed and accuracy in the settlement can be overcome very easily. (Siti Daryanti, 2010) With the sophistication of technology today, especially the development of technology in the field of computerization is needed in helping all activities and human work. This technology plays an important role in handling the existing information system. For that agency need a tool that is computer, with computer data processing and data storage more efficient and result more efficient and faster. (Rika Puspita, 2008)[1].

MTs Al-Ikhlal Fajar Bulan is one of the private schools that have not implemented information systems. Hence the need for these technologies is very important for that school in getting things done fast and obtaining information effectively. There are several issues that often arise at MTs Al-Ikhlal Fajar Bulan. For example, the difficulties experienced by the school in searching the school data, such as data of teachers and students, surveillance or monitoring of tuition payment is not maximized, so school parties sometimes late knowing anyone dents students who have not made payment of fees each month. Seeing this, the researchers were interested in making MTs Al-Ikhlal Fajar Bulan as an object in this research. It would be focused on "The Application of Web-Based Information System at MTs AL-IKHLAS Fajar Bulan, Way Tenong District, Lampung Barat Regency."

### 1.2. Formulation of the Problems

Based on the background of the problems that have been previously described, the problem can be formulated to serve as the discussion in this paper is How to plan web based information systems at MTs Al-Ikhlal Fajar Bulan ?

### 1.3. Objective and Benefits of the Research

The purpose of this research was to design a web based information system at MTs Al-Ikhlâs Fajar Bulan, Way Tenong District, Lampung Barat Regency. This research is expected to be beneficial for the next researcher and the society, as follows:

1. For The Researchers  
The result of this research is expected to add insight and knowledge for the next researcher to be more careful in conducting subsequent research.
2. For The Society  
The result of this research is also expected to be able to provide insights for the community in choosing a quality school.

## 2.0 THEORETICAL

### 2.1. Information System

The system is a group of integrated elements with the same intent to achieve a goal or System is a set of components that work together to achieve goals to improve the organization to a better direction. (McLeod, 1998). Information is one type of resource available to managers, which can be managed just like any other resource. Information from computers can be used by managers, as well as people and organizations within the corporate environment. (McLeod, 1998). Information Systems is a system within an organization that meets the needs of daily transaction processing, managerial, and strategic activities of an organization and provide certain outside parties with reports required reports (McLeod, 1998)[10].

### 2.2. Website

The website is part of the internet that covers all resource users using HTTP The website is a method to display information on the internet, such as: text, images, video, interactive. [2] Then, it has the advantage of linking one document to another document that can be accessed through a browser.[3] Conclusion: The website is a useful sites on the internet to find the data that users need and can be accessed through the Internet.

### 2.3. PHP (Personal Home Page)

PHP is a scripting programming language that is most widely used to program dynamic web sites, although it is possible to use for other usage. [3] PHP is a program developed jointly by programmers from around the world who open source. PHP stands for Hypertext Preprocessor which is used as server side script language in the development of the Web inserted in the HTML document [9]

### 2.4. MySQL

MySQL is a database of the most popular among web Programmer. For this argument, this program is a database that is very strong and stable enough to be used as a data storage medium. As a database server that is able to manage the database properly. MySQL is a database which is the most popular and most widely used than the others database.[2]

### 2.5. Macromedia Dreamweaver

A browser is an application used to display the website files, such as: HTML, PHP, mht and others. There are several browsers that can be used, for examples: Mozilla FireFox, Opera, Chrome and others.[6]

## 3.0 METHODOLOGY

### 3.1. Methodology of Systems Development

The methodology of System development is the methodology used FAST (Framework for the Application of System Technique). There are some stages of FAST, as follows:

1. Preliminary Investigation Phase  
This stage is the first stage in the methodology of system development by using FAST. In this stage, it would be done data collection which related to the development of academic by using web-based information system at Al-Ikhlâs MTs Fajar Bulan.
2. Problem Analysis Phase

In this stage, it would learn the existing system and analyze the problem areas. Hence, the result of this phase is a goal of system improvement derived from understanding of the problems and the benefits that can be obtained.

3. Requirement Analysis Phase

Requirements analysis phase used to answer the question: "What is truly needed and desired by the users of the new system?" In other methodologies, this phase is known as the phase definition or logical design phase. The roles include the tools used in the requirements analysis phase is to use a modeling tool called use cases.

4. Decision Analysis Phase

This stage aims at identifying the candidates of solutions that will be proposed. Then, it used to analyze the feasibility of the candidates and recommend viable candidates as the solution of the system by using a matrix system candidate.

5. Design Phase

In this stage, it would document the business requirements by using system models that describe data structure, business process, data flow and user interface.

6. Constructions and Testing Phase

The purpose of this phase is to build and test a system that meets the business requirements and specifications of the physical design. Then, it can implement interfaces between the new system with the old system in order to build the information system that can help assist students in obtaining academic information learning and the new information of school that will be developed by using PHP and MySQL.

7. Implementation Phase

This stage is implementing the system so that the system can operate and transfer it slowly.

**3.2. Interview**

States that interview is the process of obtaining information by way of asking and answering question (face-to-face) between the questioner and the answering by using a tool called an interview guide (interview guide), [6] questions:

1. What are the obstacles faced by schools in the absence of information system?
2. How to search the data of students?
3. How to search the data of teachers?
4. How to pay the registration?

**3.3. Observations**

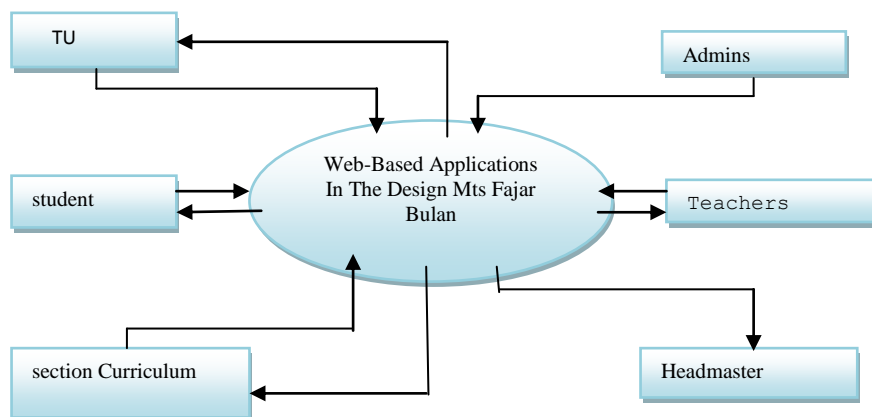
Observation is a data collection technique in which the researchers make observations directly to the object of study for a close look at the activities undertaken. [7] Preview:

1. How is the process undertaken by administration officers at MTs Al-Ikhlas Fajar Bulan?
2. How are the conditions in the school?
3. How does the teacher teaching methods in the class?
4. How are the teachings and learning process in the class?

**4.0 DESIGN AND IMPLEMENTATION**

**4.1 Design**

4.1.1 Context Diagram



Picture 1. Context diagram

The context diagram above is a diagram that consists of a process and describes the scope of a system that will be applied to MTs Al-Ikhlâs Fajar Bulan. Context diagram is the highest level of DFD that describes all inputs to the system or output of the system. He will give an overview of the whole system that runs on MTs Al-Ikhlâs Fajar Bulan.

#### 4.1.2 Data Base

**Table 1. Table of User**

Field Name	Data types	Information
No_ID	Varchar (10)	Primary Key
Name	Varchar (30)	
<b>Address</b>	Varchar (40)	
City	Varchar (15)	
Date Of Birth	Date	
Gender	Varchar (10)	
Phone	Varchar (15)	
Kategori_user	Varchar (5)	
Username	Varchar (15)	
Password	Varchar (100)	

User table is used to enter user or admin identity consisting of name, address, City, place of birth date, Gender, Phone, Karegori user, username and pasword.

**Table 2. Table of Student**

Field Name	Data types	Information
No_Id	Bigint (20)	Primary Key
Status	Varchar (10)	
Field Name	Data types	Information
No_topic	Int (10)	Primary Key
Topic	Varchar (30)	

The student table is created to create a student data entry application that among others Status, name, number topic and topic.

**Table 3. Table of Forum**

Field Name	Data types	Information
Id	Int (11)	Primary Key
No_topic	Int (11)	Foreign Key
Content	Text	
Date_forum	Date	
Wacth_forum	Time	
Username	Varchar(15)	Foreign Key
Day	Varchar(20)	

Table forum adalah table yang digunakan data forum yang terdiri dari id, number of topic, content, date, wacth, username dan day.

**Table 4. Content of news**

Field Name	Data types	Information
No_ news	Int (4)	Primary Key
<b>Title</b>	Varchar (100)	
Headline	Text	
<b>News content</b>	Text	
Day	Varchar (20)	
Date_news	Date	
Hour_news	Time	
Username	Varchar (15)	Foreign Key

Table news is used to fill in data news good news school and general news. The data must be filled in the id of news, title, headline, news content, day, date, hour, and username

**Table 5. Table of Lesson**

Field Name	Data types	Information
Id_ta	Bigint (20)	Primary Key
Id_class	Int (3)	Primary Key
Id_mp	Bigint (20)	Primary Key
Id_kmp	Varchar (50)	Primary Key
Kmp_dasar	Varchar (50)	

The table of lesson is a table that focuses on listing the scheduled courses of each semester to be run

**Table 6. Table of Competency**

Field Name	Data types	Information
Id_ta	Bigint (20)	Primary Key
Id_class	Int (3)	Primary Key
Id_mp	Bigint (20)	Primary Key
Id_kmp	Varchar (50)	Primary Key
Id_ind	Varchar (50)	Primary Key
Indicator	Varchar (50)	

Table of competency is a table that serves to menginfutkan data competence students

**Table 7. Table of Indicator**

Field Name	Data types	Information
Id_score	Bigint (20)	Primary Key
Id_ta	Bigint (20)	Primary Key
Id_class	Int (3)	Primary Key
Id_mp	Bigint (20)	Primary Key
Id_kmp	Varchar (50)	Primary Key
Id_ind	Varchar (50)	Primary Key
Id_kat	Varchar (2)	Primary Key
No_id	Varchar (10)	Primary Key
Date_input	Date	
Score	Int (5)	

Table indicator serves to menginfutkan data indicator student assessment

**Table 8. Table of Class**

Field Name	Data types	Information
Id_ta	Bigint (20)	Primary Key
Id_class	Int (3)	Primary Key

Table of class functions to infect class data on MTs Al-Ikhlas dawn of the month.

**Table 9. Table of Class Teaching**

Field Name	Data types	Information
Id_ta	Bigint (20)	Primary Key
Id_class	Int (3)	Primary Key
Id_sk	Int (3)	Primary Key

Table of Class Teaching is used to update the class teacher data.

## 4.2 Implementation

### 4.2.1 Page views Log In

The login page is used to enter the main menu. In the login process, the user must enter the name and password in order to enter into the main menu.



Picture 2. Login Administrator

#### 4.2.2 Display Home

On the main page, the user can see the main view. In the main view, there is a menu of profile, vision, mission, history, and gallery.



Picture 3. Display Home

#### 4.2.3 Display Menu of Announcement

The announcement on the display menu, the user can see the names of students, teachers and what lessons can be held by each teacher.



Picture 4. Display Menu of Announcement

#### 4.2.4 Display Menu of Profile

On the menu view this profile, the user can view the Vision and Mission of School, Accreditation Status, Rules and Organization Plan.



Picture 5. Display Menu of Profile

## 5.0 CONCLUSION

### 5.1 Conclusions

After conducting the research in MTs Al-Ikhlash Fajar Bulan and analyzing the data, the conclusions are drawn as follows:

1. The use of school information system application can facilitate the management of school data.
2. With the development of information systems is expected to speed up service at MTs Al-Ikhlash Fajar Bulan.

### 5.2 Suggestions

In reference to the conclusion above, some suggestions are given to support the success of information systems in MTs Al-Ikhlash Fajar Bulan as follows:

1. Required to regularly back-up your data regularly to avoid data loss due to damage to the system.
2. It is expected that the school can socialize in the use of this information system in order to run properly as needed.

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