

**DESIGN APPLICATIONS BASED ON  
WEB MOBILE AT GAYA BARU SENIOR HIGH  
SCHOOL, CENTRAL LAMPUNG REGENCY  
AS PROMOTIONAL MEDIA**

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**Abstract**

Gaya Baru Senior High School is one of the educational institutions in Lampung which is a less favorite institution in the area is precisely located in the district of Seputih Surabaya Central Lampung Regency. Gaya Baru Senior High School has already had a website but not many known. This Senior High School is also no information system through mobile web to promote the institution. Nevertheless, in its development, students or community want to find information about the school can be directly through the mobile web application. So in its development requires fast service. From research that conducted in Gaya Baru High School, existence of new mobile web application system will facilitate student or society of that area, especially in subdistrict Seputih Surabaya district Central Lampung, and present information about the info about situation in high school of new style it can be accessed directly through the mobile web media.

*Keywords: Gaya Baru Senior High School, mobile web application, promotion media*

**1.0 INTRODUCTION**

**1.1 Background of the Problems**

In the regency of Central Lampung precisely in the village of Gaya Baru, Seputih Surabaya district there are various high school, there are public and private high school. In the private senior high school, such as Gaya Baru Senior High School is still not well known in the area outside. Senior High School is still manually from the registration students, school fees and the introduction or promotion of the high school. Internet was still not much promote or introduce of the high school. From research of Tito Sugiharto (2013), a research of tourism and culture in Kuningan districts based web and Eddy Julianto and friends (2015) did a research and an information service application design in mobile web-based tourism and location based service. Their research are equally mutually promoting tourism in the area by using a suitable system to promote the area's tourism.

Both of researchs above are very good and suitable so author did a research in Gaya Baru Senior High School as a first step for the school to improve the ability and quality of students. In general, mobile web can help schools to have media in order to inform and communicate the profiles, potentials, activities and various advantages. Therefore, author tried to design a mobile web application design system in the Gaya Baru Senior High School as the liaison media. Using information has many benefits to introduce and promote an educational institution Gaya Baru Senior High School that is still not quite widely known to the public.

## 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 are:

1. How to design a web-based applications for Gaya Baru Senior High School?
2. How the mobile web application can accurately in conveying information about schools to students, guardians and the community through mobile phones?

## 1.3 Benefits of the Research

The purpose of this research was to promoted Gaya Baru Senior High School to the public based on web application.

## 2.0 THEORETICAL

### 2.1 Information System

Information system is a systematic organized tool procedure, if implemented will provide information that can be utilized in the decision-making process, (Nuraida, 2008: 28) [1]. McLeod (1998) in the journal Indrajani (2007) state that nformation systems is a system within an organization that meets the needs of daily transaction processing, support operation, managerial, and strategic activities of an organization and provide certain outside parties with reports required reports [2 ]. According to Jogiyanto (2005: 36), information systems is a system within an organization that brings daily transaction processing needs, support operations, managerial and strategic activities of an organization that provides certain outside parties with the necessary reports [3]. Hanif al Fatta ( 2007) said that information systems is a tool to present information in such a way that is beneficial to the recipient [4].

### 2.2 Mobile Web Based Applications

According to Fling, mobile web is the easiest platform to learn, the least expensive to produce, standardized, the most available, and the easiest to distribute; in accordance with Ubiquity principle. Mobile web is also the only plattform available and capable of running on all mobile devices, using a set of standards and protocols similar to the web desktop. To be able to design web applications for mobile should be noted that the characteristics of the web for mobile is different from the desktop. Some of the characteristics to be considered are physical imitations and technical limitations [5].

Kroski (2008), mobile web simply makes the World Wide Web (WWW) accessible via mobile devices, evolving from ordinary mobile phones to iPod Touch (smatphone generation). It covers the entire content of the web and is not restricted to websites that are specifically designed to be viewed in mobile [6].

### 2.3 Promotion

Tjiptono (2000: 219) , promotion is a form of communication marketing. What is meant by marketing communication is marketing activity who seeks to disseminate information, influence / persuade, and / or remind the target market of the company and its products to be willing to accept, buy, and loyal to the products offered by the company concerned [7]. According to Simamora (2000: 754), promotion is the communication of information between sellers and potential buyers or other parties in channel distrubusi in order to influence attitude and behavior [8]. And Sistaningrum (2002: 98) state promotion is an effort or activity of the company in influencing the "actual consumers" and "potential consumers" so that they want to make purchases of products offered, current or in the future [9].

## 3.0 METHODOLOGY

### 3.1 Data Collection Method

Data collection methods used in this study are as follows:

- a. Observation method, the process of collecting data in research by observing directly the state of research problems and taking important data from the research site [9]. In the study the authors observed the problem in the information system in high school there the system is not there any information through mobile web so here the author

will present information from the high school to the public through mobile web media handphone.

- b. Study library method, to expand the horizon of view, it is necessary to read the book in accordance with the existing problems, as a consideration to obtain secondary data referring to the literature, books, notes that can support the preparation of research on the school website. In addition, researchers collect data from the internet associated with this title as supporting the preparation of this title.
- c. Interview method, to get input regarding the system made then conducted an interview related to the problems that occur in the delivery of school information. In this method the author directly interviewed with the principal and teachers as parties who play an important role in the high school.

### 3.2 Information System Development Method

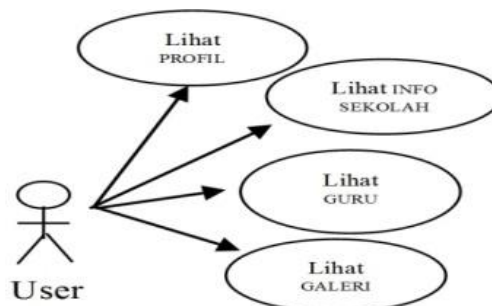
The research method used to perform the development of mobile web interface is the use case method. This model is to describe the behavior of the whole system that will be created.

#### 3.2.1 Analysis of Requirements

In building school webmobile required data, including students, teacher, activity, school info, and gallery.

#### 3.2.2 Use Case

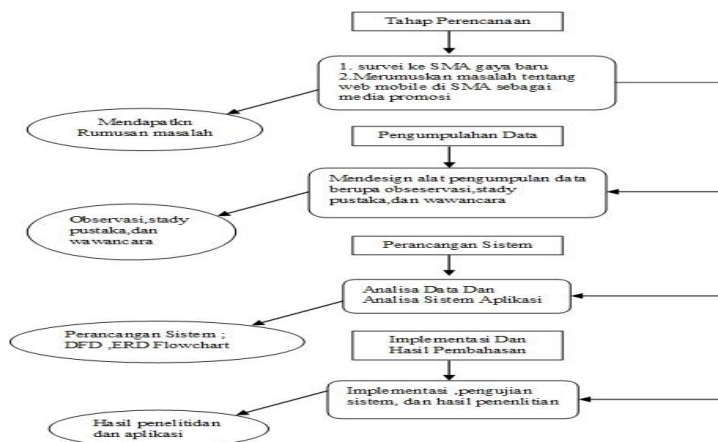
In picture 3.1 user as user actor. User can see profile, school info, class, teacher, student, gallery, and lesson.



Picture 1. Use Case

### 3.3 Mind Framework

Mind framework is a logical flow and made in the form of a diagram that aims to explain in general the pattern of research substance to be implemented or conducted by a researcher.



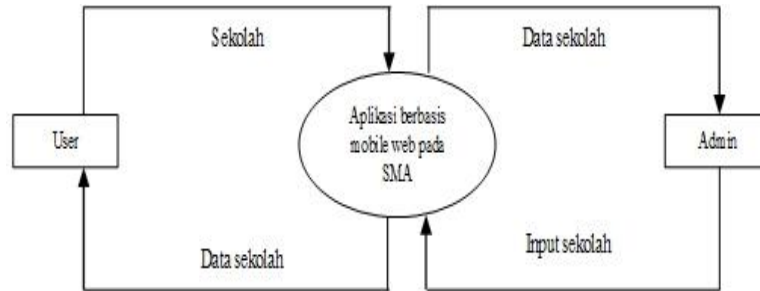
Picture 2. Mind Framework Diagram

## 4.0 Results and Eplanation

### 4.1 System Design

#### 4.1.1. DFD (Data Flow Diagram)

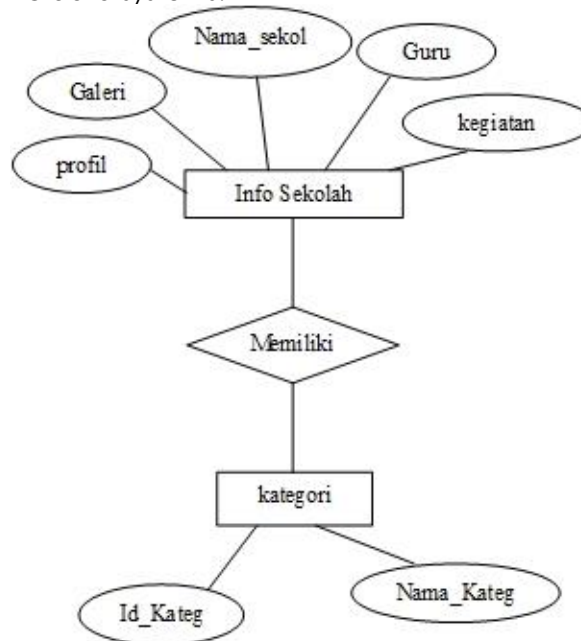
The purpose of DFD is to provide an indication of how data is transformed while moving through the system and to describe a function of the subsystem that transforms the data stream. The author used DFD to described the process flow of the system logically. Here is DFD design:



Picture 3. Data Flow Diagram

#### 4.1.2. ERD (Entity Relationship Diagram)

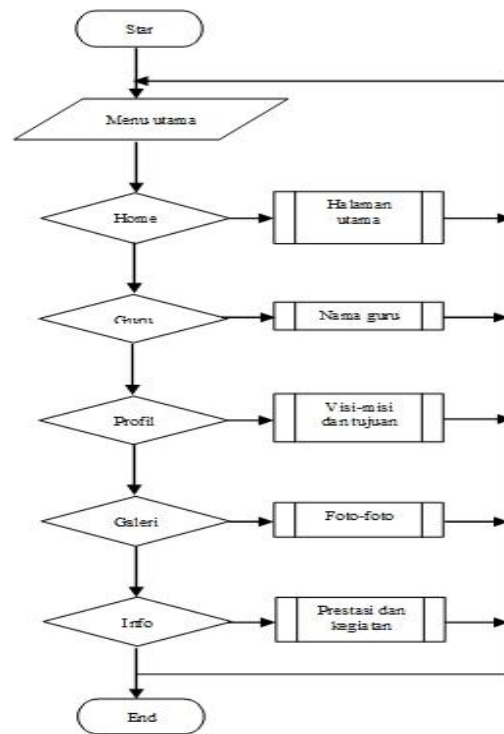
ERD is one of the data modeling methods used to generate conceptual schemes for the type or model of semantic data systems.



Picture 4. Entity Relationship Diagram

### 4.1.3. Flowchart

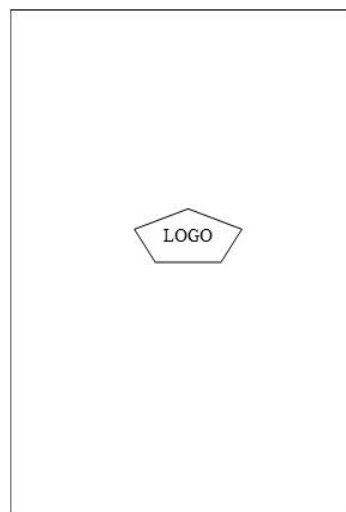
Flowchart is a chart that shows the flow in the program or logical system procedures. Flowchart is used primarily for communication devices and for documentation.



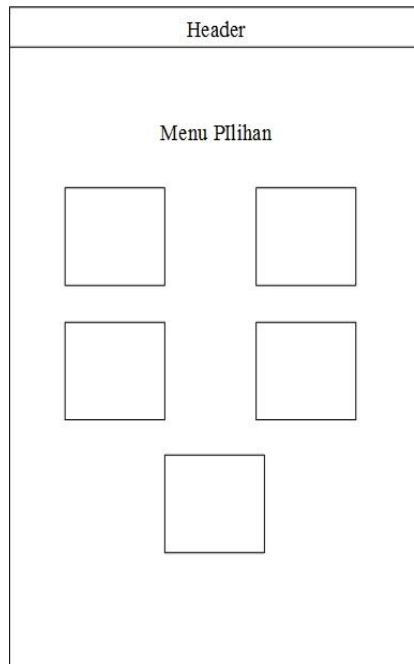
Picture 5. Flowchart

### 4.2 Interface Design

Here is interface application promotion Gaya Baru Senior High School web-based mobile design.



Picture 6. Cover Interface Application



**Picture 7. Interface Menu Option**

### **4.3 Implementation**

Implementation of the interface describes the look of an application that is built mobile web based promotional applications on the Gaya Baru Senior High School. This splashscreen showed the first page as a logo picture.



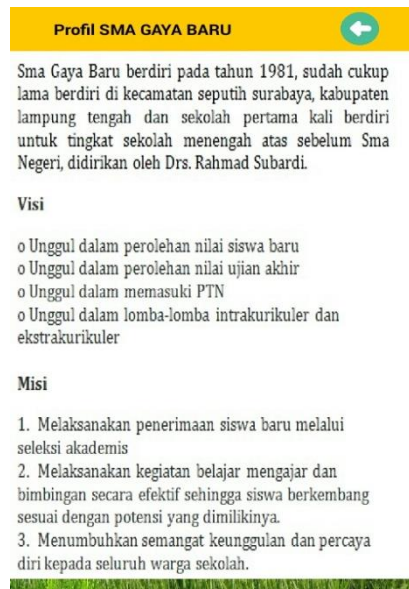
**Picture 8. Splashscreen**



Picture 9. Menu Option

#### 4.4 Eplanation

At this stage, a system test has been designed previously to test the function of each application page. System testing involves testing input and output applications. In this test is done on the application via android phone, this test aims whether the function of input and output applications run well. Display results in the profile icon in Picture 10.



Picture 10. Profile Icon Result

Users can see results from entering the gallery icon as bellow:





**Picture 11. Gallery Icon Result**

Users can see the result from entering the exit icon as bellow:



**Picture 12. Exit Icon Result**



**Table 1. Testing Table**

Testing		Results	
		Failed	Succesed
<b>A</b>	<b>Input Procces</b>		
1	Entry profile icon	-	√
2	Entry gallery icon	-	√
<b>B</b>	<b>Output Procces</b>		
1	Exit the exit icon	-	√

In the input and output testing phase, the application can run well. In other words the input and output applications have been successfull and successfully executed.

## 5.0 CONCLUSION

### 5.1 Conclusion

Based on the results of research of mobile web based promotion application, it can be concluded that:

1. The mobile web that has been created can provide information about a Gaya Baru Senior High School to the user.
2. Through this mobile web application, Gaya Baru Senior High School can promote more info about the school. Furthermore, through this mobile web application, is expected to increase users and can attract prospective students to enroll in the school.
3. Community will be easier in getting the information it needs about Gaya Baru Senior High School.

### 5.2 Suggestion

Suggestions that can be submitted to help promote a high school educational institution using a mobile web-based application.

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