

MOBILE WEB BASED SCHOOL INFORMATION SYSTEM GOVERNANCE

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Abstract

Schools are one of the basic needs of society in order to improve human resources through academic education and other supporting education. Through schools, people can study the development of education by utilizing the development of technology and information which is increasingly easy to obtain. Currently schools are trying to become institutions that are able to serve the community well, especially in terms of conveying information to the community. However, so far information is still done manually, such as pasting on announcement boards, circulars distributed to students. Along with the rapid development of technology and information, the researchers aim to create a mobile web-based school information system at MTS Ma'arif so that all information can be accessed easily. Researchers designed and realized a mobile web-based school information system using the PHP programming language and MySQL database. The use of the mobile web in competency development and school quality is the right thing because the mobile web is a very informative and dynamic medium to add insight in finding educational information. The implementation in this study can be accessed anytime and anywhere via the internet. The mobile web can make it easier for schools to convey information and promotional processes that have so far been done manually.

Keywords: System, Information, MTS Ma'arif, Web Mobile

INTRODUCTION

Central Lampung Regency is one of the regencies in Lampung Province. Over time, Central Lampung Regency is growing rapidly, especially in terms of education. However, information related to education cannot be accessed optimally by the public. The district is divided into 28 sub-districts, one of which is the Selagai Lingga sub-district. Central Lampung Regency has 71 public and private high schools (referensi.data.kemdikbud.go.id). Selagai Lingga District is one of

the Districts in Central Lampung Regency with an equal number of public schools and private high schools. [1].

According to Sri Hartanti, Novi Ayu Kristiana Dewi, Dwi Puastuti, Muhamad Muslihudin, Nofiko Setio Budi, 2016, Explained The use of communication media helps the process of exchanging information so that messages or information can be quickly conveyed. In the world of education, communication also has a very important role. Communication helps teachers convey knowledge and information to students.[2].

In the Journal of Information and Communication Technology Volume 5 Number 2 August 2014 Hal.47-55, Taufik Ramadhan, Victor G Utomo explains the difficulties in accessing school information experienced by alumni or the school when they want to access information related to the school. This condition usually occurs because the system in MTS Ma'arif is still manual [3]. Alyyudiin Iqbal Habiby 2017, explained that a web-based information system is one of the solutions to improve the quality of educational services. With this service, it can make it easier to manage data processing and reports. This information system is designed using PHP and MySQL, and this information system is connected to the user who can provide information to the user [4]. Thus, users can quickly access the information needed through the school's web. Recky T. Djaelengkara, Rijal Sengkey, Oktavian A. Lantang, 2015, Explained. With the support of a good information system, MTS Ma'arif will have various competitive advantages so that it can compete with other schools, especially in the Central Lampung region.

Nataniel Dengen and Dyna Marisa 2009, explained that the results of this research have developed a Web-Based Academic Information System. Where in building this system used system development tools, namely Data Flow Diagrams (DFD), Context Diagrams, Entity Relationship Diagrams (ERD) and Flowcharts and using the programming language PHP and HTML and MySQL as the database.[6].

According to Saiful Isnandar and Yogi Arif Virnando, 2014, explained that regarding information and communication media, the mobile web is the most appropriate choice in implementing a school information system. Because the mobile web is an application that can access the internet in the form of menus but not only text that can be accessed, images and sound via mobile such as smart phones with the Android information system which are widely discussed and are quite popular at this time[7].

With the mobile web application on MTS Ma'arif, it is hoped that the learning process and information related to educational information can be easily accessed by students and teachers without having to search for data manually as is currently running. In the Positive Journal, Volume 1 Number 2 May 2016 Hal.33-42 According to Mudar Safi, Paulus Insap Santosa and Ridi Ferdiana, it was explained that this technology could be utilized for the development of an electronic school distribution data recording system on MTS Ma'arif [8]. Based on the description above, it can be formulated that the problem in this study is how to design and build a mobile web-based school information system. The purpose of this research is to build a mobile web-based school application on MTS Ma'arif

Nyukang Harjo. The benefit of this research is to make it easier for school members to carry out the teaching and learning process.

LITERATURE RIVIEW

Information System Concept

According to Heni Dwi Erinawati 2016, explained that an information system is a system within an organization that meets daily transaction processing needs, supports operations, is managerial and strategic activities of an organization, and provides certain external parties with the necessary reports..[9]

WebMobile

Umi Salamah and Dedi Irawan, (2017) Explained that mobile applications are easy transfers from one place to another, for example a mobile phone means that a telephone terminal can move easily from one place to another without interruption or interruption of communication.

PHP

PHP "Hypertext Preprocessor" is a scripting language built into HyperText Markup Language (HTML). Most of the syntax is similar to C, Java and Perl, plus some specific PHP functions. The main purpose of using this language is to enable web designers to write dynamic web pages quickly.

MySQL

Andres Andoyo and Ahmad Sujarwadi, 2016, MySQL is a very well-known type of database server. Its popularity is due to MySQL using SQL as the basic language to access its database. MySQL is free on various platforms (except on Windows, which is shareware, or you need to pay after evaluating and deciding to use it for production purposes). MySQL is licensed under the GNU General Public License (GPL). With such circumstances, you can use this database software freely without having to worry about the existing license.

Internet

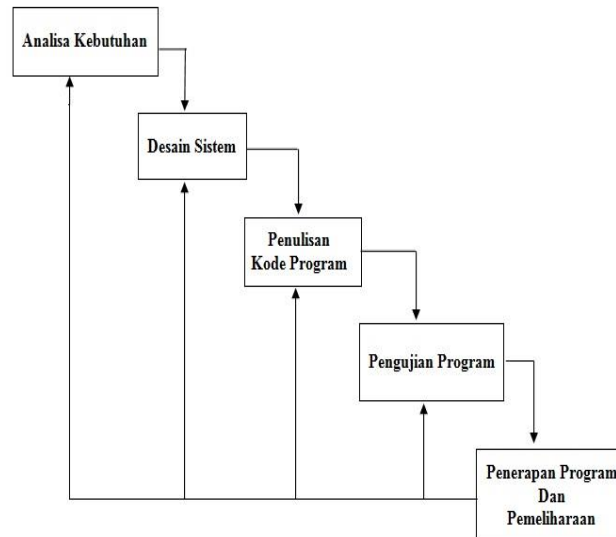
Fergianwan Lestianto, Fauzi, Rita Irviani, Kasmi, 2017, the Internet which stands for international network, an international network where computers around the world are interconnected to connect between one computer and another computer, with various models, various operating systems, various In this type of network, a protocol is used (a system that regulates the relationship between one computer and another), namely TCP/IP, which stands for Transmission Control Protocol/Internet Protocol..

School Data

School Profile, (2018) MTS MA'ARIF is a private school which is located at Jalan Nyukang Harjo, Selagai Lingga District, Central Lampung Regency, Lampung Province. Along with the development of Lampung Province, MTS MA'ARIF was officially established in June 1998.

RESEARCH METHODS

The waterfall method is a method that is often used by system analysts in general. The essence of the waterfall method is that the work on a system is carried out sequentially or linearly. So if 1st has not been done, then step 2 cannot be done. If step 2 has not been done then step 3 cannot be done either, and so on. Automatically the 3rd step will be carried out if the 1st and 2nd steps have been done. Broadly speaking the waterfall method has the following steps: Analysis, Design, Writing, Testing and Implementation as well as Maintenance.



Gambar 1 Metode Waterfall

Waterfall Method Stages

Requirements Analysis This step is an analysis of system requirements. Data collection at this stage can be carried out through research, interviews or literature studies. The system analyst will dig up as much information from the user as possible so that a computer system can perform the tasks desired by the user. This stage will produce a user requirement document or it can be said as data related to the user's wishes in making the system. This document will be the system analyst's reference for translating into the programming language.

System Design

Stages in which thoughts and system design are carried out for solutions to existing problems using system modeling tools such as data flow diagrams, entity relationship diagrams and data structure and discussion

Writing Program

Code Writing Program Code or coding is a design translation into a language that can be recognized by a computer that is carried out by programmers when translating transactions requested by users. This stage is the real stage in working on a system. In the sense that the use of computers will be maximized in this stage. After the coding is complete, testing will be carried out on the system that was created earlier. The purpose of testing is to find errors in the system and then fix them.

Program Testing

The final stage where the new system is tested for its capabilities and effectiveness so that deficiencies and weaknesses of the system are found, which are then reviewed and improved upon to make the application better and more perfect.

Program Implementation and Maintenance Software

that has been delivered to customers will definitely experience changes. These changes can be because the software must adapt to a new environment (peripherals or a new operating system), or because the customer requires functional development.

In making a Mobile Web-Based Information System on MTS Ma'arif requires a software specification called Macromedia Dreamweaver CS4, which is an application software for designing and creating web pages. If we like to deal with PHP code manually or prefer to work with a visual environment in editing, Dreamweaver CS4 makes it easier by providing tools that are very useful in increasing our skills and experience in web designing. Dreamweaver CS4 includes many tools for code in web pages and their facilities, including: PHP, HTML, CSS and Javascript references, Javascript debuggers, and code editors (code view and Code inspector) which allow us to edit Javascript code, XML, and other text documents directly in Dreamweaver CS4.

IMPLEMENTATION

Implementation is an action or implementation of a plan that has been prepared carefully and in detail after several stages have been carried out. From this main page visitors can go to the page where we are headed, here is a view of the implementation of the program that we have designed.



Figure 5. Main Page and Profile

The teacher data page is a page that functions to display teacher data at school. The student data page is a page that functions to display student data at school.

DATA GURU		DATA SISWA T.A 2019/2020	
Search Q		Search Q	
NAMA GURU		No	NAMA SISWA
+ MARZUKI AMIN, S.Pd		+ 1	ADIL RASYID FAHMI
+ KHAIRUL ANWAR, S.Pd		+ 2	AHMAD HAYDAR NUR FIRMANSYAH
+ AMIN MURONI, S.Pd.I		+ 3	AHMAD UBAIDILLAH
+ PRAMUDIA SAPUTRA WARDANA		+ 4	ALEX TRIWIWIDODO
+ HERIANTO, S.kom		+ 5	ARYA TEGAR MANSYUR AS-SULTHON
+ IKHWAN AGUNG KURNIAWAN		+ 6	DIAN SETYAWAN
+ SEPTI MEGALIA, S.Pd		+ 7	DWI PRASETYO
		+ 8	ECHA FARREL LUTVIAN
		+ 9	ERGA CAHYA PRATAMA

Figure 7. Teacher Data and Student Data Menu Pages

In research on mobile web-based school information systems at MTS Ma'arif, Central Lampung Regency. From several studies that have been explained that by making a mobile web-based school information system at MTS Ma'arif, Central Lampung Regency, it can increase the effectiveness and efficiency of delivering information from the school to students, parents and the wider community. Making an information system using PHP language and MySQL database, and supported by several related applications.

CONCLUSION

With the benefits of the Ma'arif MTS Vocational High School information system as an alternative media provider of information, making it easier to search data about Ma'arif MTS Vocational High School. The school website is very useful for the Ma'arif MTS Vocational High School in the context of existence, introduction, promotion and interaction of schools with the community, some of the benefits of a web-based school information system include introducing school profiles so that the wider community knows any information about the school. As a medium of communication between the school and the outside world and become the school's official media for publishing information to the public.

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