Design Analysis of Web-Based Employee Information System in Office of Technical Implementation Unit of Education Department


Abstract: KUPT Education Agency of Gunung Alip Sub-District is institution that handles education of elementary/kindergarten level in Gunung Alip Sub-District and all employees in KUPT Education Agency. KUPT Education Agency of Gunung Alip Sub-District in maintaining administration manually. Therefore Information System is needed to can help manage administration, especially personnel, quickly and easily. In making this information system the author used the waterfall method, Website programming. The resulting information system is expected to be used to manage employee data at the KUPT Education Office in Gunung Alip Sub-District.

Index Terms: Information system, education, web-based, web programming.

I. INTRODUCTION

A. Background

Nowadays, the development of information technology systems is very rapid [1-5]. Information technology system is usually applied in organizations that are carried out by using computer as a primary device in helping achieve the goals of organizations, companies and agencies concerned [6-9]. To get effective and efficient work results, organization must develop an information technology system that allows people to have the opportunity to interact and utilize these technology systems to help achieve their goals [10-13]. Employee affair information systems in Lampung Province is still mostly carried out using a manual implementation system in processing data. Based on the research conducted, the management of the employee affair administration at KUPT Gunung Alip Sub-District Education Agency has used computers as a work aid in administration management but it is only limited in typing data and reports. The system specifically handles or manages administrative data, especially employee affair data has not been exist yet. So far the administration of the administration is still done manually so that a staff information system needs to be made at the KUPT Gunung Alip Sub-District Education Agency. It is expected that Education office and other agencies can integrate well with KUPT Gunung Alip Education Agency especially in the employee affair.

B. Objectives

Based on this research, there were some objectives:

a. Build an information system of employee administration management that can manage employee administration data a KUPT Gunung Alip Education Agency.

b. Can make it easier to provide report on the management of personnel administration in Gunung Alip sub-District.

c. Benefit

The benefits expected by researchers are as follows:

a. For researchers

1. To improve knowledge and insight through information system of employee administration management

2. To implement and develop knowledge obtained in college.

b. Gunung Alip sub-distric Education agency.

1. As a consideration and input of KUPT Education Agency regarding information systems that can help resolve problems in managing employee administration

2. Providing convenience for the head of the administration division or section relating to the management of the administration.

II. THEORETICAL BASE

A. Definition of System

1. System is a conceptual structure composed of interconnected functions that work as an organic entity to achieve a desired outcome effectively and efficiently [14-17].

2. System is logical and rational procedures to design a series of components that relates each other with the intention to function as a unit in an effort to achieve a predetermined goal [18-21].
B. Definition of Information
1. Information is data that has been printed / processed into a very meaningful form to the recipient and is a true value or understood in the actions or current or further decision [22-25].
2. Information consisted of obtained and processed data or vice versa that was used for explanation, description or as basic in making prediction or making decision [26-29].

C. Definition of Information
Information System is a combination of human, facilities or technological tools, media, procedures and controls that intend to organize important communication networks [30-33], process certain and routine transactions, assist internal and external management and users and provide the basis for appropriate decision making [34-37].

Besides that, Information System is ways that are organized to collect, enter, process, and store data and ways that are organized to store, manage, control and report information in such a way so the organization can achieve its intended purpose [38-41].

D. Definition of PHP
PHP is a script-shaped language that is placed on a server and processed on the server. The results will be sent to the client, where the user uses the browser. PHP is known as a scripting language, which integrates with HTML tags, it can be executed on a server, and can be used to create dynamic web pages such as Active Server Pages (ASP) or Java Server Pages (JSP). PHP is an open source software. Well, this is what distinguishes ASP from PHP.

E. Definition of MySQL
MySQL is is a relationship database software (Relational Database Management System or RDBMS), like ORACLE, Postgresql, MS SQL, and others. MySQL AB calls its product the most popular open source database in the world. Based on research, the Web platform, and both for the open source and general categories, MySQL is the most widely used database. According to the company's developer, MySQL has been installed on about 3 million computers. Tens of hundreds of thousands of sites relying on MySQL work in day and night pumping data for their visitors.

F. Definition of Web
Web is a method for displaying information on the Internet, both in the form of text, figures, sounds and interactive videos and has the advantage of linking one document with another document (hypertext) that can be accessed through a browser [42-47]. While according to its definition, Web is a dissemination of information through the Internet [48-51]. Actually, between www (the world wide web) and the web are the same because most people abbreviate www as web only [52-57]. The web is an inseparable thing from the Internet world. Through the web, every internet user can access information on a website that is not only text, but also can be in the form of figure, sound, film, animation, etc [57-60].

Actually, the web is a collection of documents that is widely shared on several computer servers located in all places in the world and the boundaries become one network through a network called the Internet [61-65].

G. Waterfall Method
The method used in this study was Waterfall, this model is the most widely used model by software developers. In accordance with the name waterfall, the stages in this model are arranged in stages, each step in this model is done sequentially. The SDLC model used is waterfall.

III. RESEARCH METHODOLOGY

A. Requirement Analysis
This stage is analyzing the current system and analyzing the needs of the Information System [66-70] KUPT Gunung Alip Sub-District Education Agency.

B. System Design
This stage is illustrating the design of the employee affair information system that will be created at the KUPT Gunung Alip Sub-District Education Agency about what should be done and how to configure the appearance. This stage helps in specifying hardware and system requirements and defining the overall system architecture.

C. Implementation
In this stage programming was carried out [71-74]. Creating software at KUPT Gunung Alip Education Agency for employee affair information system that was broken down into small modules which will be combined in the next stage. In addition, at this stage an examination of the module was made, whether it has fulfilled the expected function or not.

D. Integration & Testing
At this stage, the modules were combined and tested [75-78]. It was done to find out whether the software created is in accordance with the design and has no errors or not.

E. Operation & Maintenance
This stage is the last stage in the waterfall model. The finished software was run and carried out the maintenance. Maintenance consisted of fixing errors that were not found in the previous stages. Improvement of system unit implementation and improvement of system services as new requirements.

IV. DESIGN ANALYSIS

A. Design Analysis
System Design can be defined as illustration, design and sketch or maintenance from some separated elements as illustration, design and sketch or maintain from some separated elements into a unified function unity. Based on the results of the study the author tried to give a design that refers to the design of information systems at the staff of the KUPT Gunung Alip Sub-District Education Agency.
B. Context Diagram
Design of Civil Service Information System at KUPTD Education Gunung Alip Sub-district, Tanggamus District by creating a system flowchart that configures how the personnel information system at the Office of the Technical Implementation Unit of the Gunung Alip Sub-District Agency in Tanggamus District. Before the computerized system and how the design of the development system continued by creating a diagram Context.

III. WEBSITE IMPLEMENTATION
Figure 1 shows Web Program. It is a full display page on the application program created at the KUPT Gunung Alip.

Figure 1. Web Program

Figure 2 shows header. Header is the main part in the application program that is the title/name of the application program at the Gunung Alip District Office on the website.

Figure 2. Header

Figure 3 shows content. This section is part of the content that discusses the KUPT Gunung Alip Sub-District.

Figure 3. Content

Footer is the last part in the application program created. This section describes the identity and year of manufacture in the application program. User can directly access the application program at KUPT Gunung Alip Sub-District and can interact directly with the related data, especially in the employee affair.

IV. CONCLUSION
Based on the results of the Website-Based Information System Design at the Office of the Technical Implementation Unit (KUPT) Gunung Alip Sub-District Education Office, Tanggamus District, it can be concluded:

1. With the existence of the website application program, it is expected that users can easily and quickly find out information about Gunung Alip Sub-District KUPT Education Agency that is conducive and effective in improving the quality of education, especially in the employee affair.

2. KUPT Data can be monitored. KUPT data of the Education Office through the Website, so that the data/news that is still new can always be updated and summarized into the website.

3. Teacher and Civil Servants especially in the Gunung Alip Sub-District can always access information relating to employment policies.

REFERENCES


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