

Design Of Web Based Employees Information System Design in SD Kumnamu School Tangerang

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Abstract

Payroll systems in every company vary, most have used computer-based information systems, but there are still some companies that have not implemented it as in SD KUMNAMU SCHOOL. In this educational institution in the payroll information system is still using the calculation manually and using MS aids program. Excel. In this study using SWOT method as a method used to determine the strengths, weaknesses, opportunities, and system threats that run today through several stages of interview and literature study. Which produces a payroll information system that can manage computerized payroll, perform absentee calculations, automatically calculate monthly salary, allowances calculation, present salary slips and salary reports required every month or every year and others. System design using UML (Unified Modeling Language) tool, while in making system program using MySQL tool to design database and PHP (Hypertext Preprocessor) as programming language.

Keywords: Information System, Sawmill, SD Kumnamu School.

1. Introduction

In this instant, the development of computer technology is growing rapidly, especially in the world of work. Information from each field is interrelated, information provided by a field can affect other fields [1]. With the existence of computer technology can help in operational activities in all fields. Rather than the previous process, the community is forced to be able to open up insight and balance the situation.

Payroll is a reward or wage equal to the work that has been given on the basis of a policy that is considered fair, where the payroll is carried out by an accounting company. Kumnamu School is a school that stands on the City of Tangerang Semi Karawaci, this is engaged in education. The number of teachers who received salaries ranged from 85 teachers [2], [3]. At present the payroll process for employees at the Kumnamu School Elementary School is still conventional so that it takes time to present reports and is less accurate. Therefore, to facilitate employee payroll reports an information system is needed that can provide access collaboration between employee absences and overtime, so that the accounting department can get the information needed quickly and accurately [4], [5].

Based on the explanation above, it is necessary to design an employee payroll information system at Kumnamu School Elementary School in delivering fast and accurate information.

2. Research Method

The research method used in this study is as follows:

2.1. Data Collection Method

This method consists of Observation (Observation): To obtain data by observing the object under study, so that accurate data is obtained as a basis for research; interview (Interview): In order to get the material for this research obtained by asking questions directly with the parties concerned; and literature study (Literature review): Obtained from the collection of data and

theories from books, papers, and lecture materials as a basis for employee payroll information systems [6], [7].

2.2. System Analysis Method

the analytical method used is by using a SWOT analysis based on logic that can maximize Strengths, Weaknesses, Opportunities and threats both internally and externally [8], [9].

2.3. Design Method

In making a system program using MySQL tools to design a database, PHP (Hypertext Preprocessor) as a programming language, and UML (Unified Modeling Language) is used to make a diagram-shaped design [10].

3.4. Research that has been done and has a correlation that has similarities with the research discussed in this journal, namely:

1. Research conducted by Oktaviani K, Joni Devitra (Journal of Information Systems Management Vol. 2, No.2, July 2017).
2. Research conducted by Zulnalis (JOURNAL OF INFORMATION SYSTEMS OF STMIK ANTAR BANGSA, [VOL.V NO.2 - AUGUST 2016].
3. Research conducted by Reza Arie Setiady, Kastaman, Sendi Gusnandar (Journal of Information Technology Vol. 1, No. 6, November 2013).
4. Research conducted by Devin Pratama, Toto Sugiharto (Proceedings of the National Computer and Intelligence System Scientific Seminar (KOMMIT 2014) Vol. 8 October 2014 Gunadarma University - Depok - 14-15 October 2014 ISSN: 2302-3740).
5. Research conducted by Redi Mulyana, Mohamad Ridwan ([ISSN 20886969] Vol. 5 Edition 10, Mar 2017).
6. Research conducted by PROF. NANTA N. ELEKWA & EME, OKECHUKWU INNOCENT (International Journal of Accounting Research Vol. 1, No.3, 2013).
7. Research conducted by David J. Berri, Michael A. Leeds, and Peter von Allmen (International Journal of Sport Finance, 2015, 10, 5-25, © 2015 West Virginia University).
8. Research conducted by Dr. Mahesh C. Dabre (Volume: 3 | Issue: 6 | June 2014 • ISSN No 2277 - 8179 Research).

Based on the 8 review literature above which discusses payroll and its system, this payroll system is made to facilitate the payroll process of employees and salary reports needed, also can improve the performance of educational institutions. On that basis, the basis for this web-based employee payroll system was made.

3. Results and Analysis

3.1 Problems faced

The process of calculating employee salaries is still conventional with the tools in the form of Ms.Excel application that still requires a long time when the salary calculation is done, so that there is often a delay in making payroll reports to the chairman of the foundation [11-13]. Data storage is still in the form of archives, so data loss often occurs when needed. Making employee salary reports requires a relatively long time [14]. This causes delays in the management decision-making process or the chairman of the foundation.

3.2 Troubleshooting

It is necessary to make a web-based employee payroll information system application so that the work process can be done quickly, precisely and accurately [15]. It is necessary to create a database system for data storage that is safer than data loss and faster data retrieval when needed. The employee payroll information system application is also designed to make payroll reports so that reports that are made no longer need a long time, and payroll reports can be quickly submitted to the board of directors.

3.3 Procedure for employee payroll system

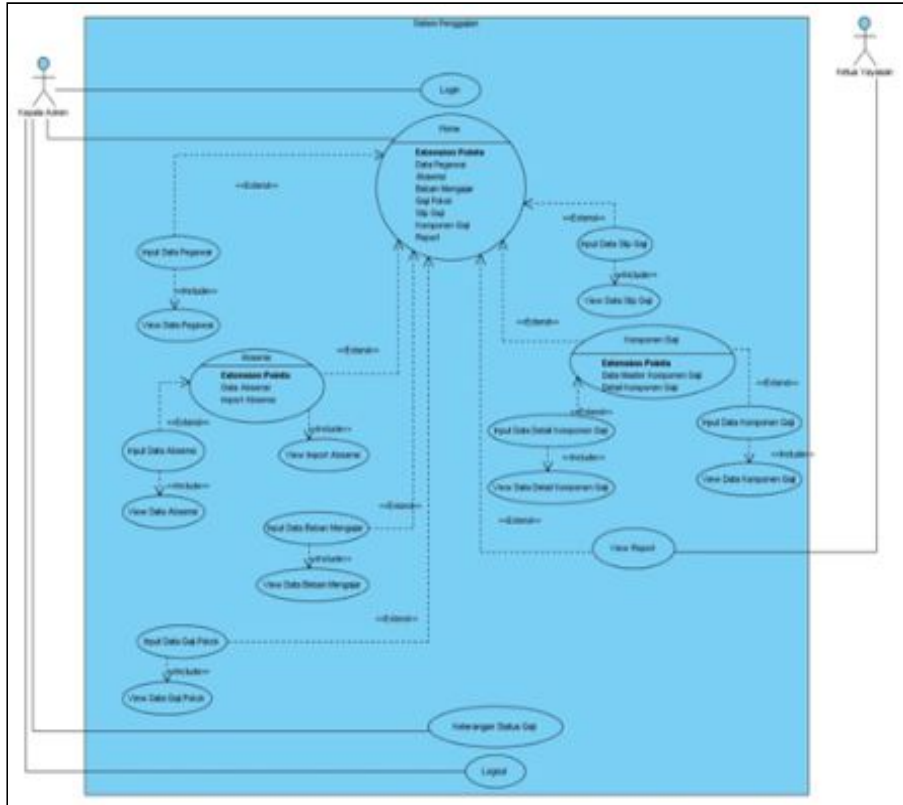


Figure 1. Use Case Diagram

Image Use Case Diagram One system that covers all activities in the employee payroll system process. The picture has 22 Use Cases that are run on Actors that explain the flow in the system, which is as follows: The Admin Head logs in. After logging in, the page that is displayed is Home, and there are several features on the Home page [16], [17]. On this page, the Admin Head inputs employee data. After that the Admin head inputs and imports employee attendance. Coconut Admin who has finished inputting the previous data, then input the teaching load data, and basic salary. Then the Chief Admin inputs the salary slips and salary components. The Chief Admin can find out reports or reports from each employee. While the Chairperson of the Foundation can only check employee payroll reports.

3.4 Database Design

Database Specifications

The database specifications used in the proposed system are as follows:

- 1. File Name : User
- Media : Hard drive
- Fill in : id_user + username + password + name + level + photo + email
- Record length : 172 characters
- Primary Key id_user

Table 1. Table User

No	Field Name	Type Data	Length	Description
1	id_user	Int	10	Id user

2	Username	Varchar	25	Username
3	Password	Varchar	32	Password
4	Name	Varchar	25	Name
5	Level	Enum	25	Level
6	Photo	Varchar	50	Photo
7	Email	Varchar	30	Email

2. File Name : Employee
 Media : Hardisk
 Fill in : NIP+Name+Position code +Date of Birth + Address + Email
 Record Length : 295 character
 Primary Key : NIP
 Foreign Key : Position code

Table 2. Employee Table

No	Nama Field	Tipe Data	Length	Description
1	NIP	Varchar	5	Employee id number
2	Name	Varchar	30	Name
3	Position Code	Varchar	10	Position Code
4	Date of birth	Date		Date of Birth
5	Address	Varchar	200	Address
6	Email	Varchar	50	Email

3. File Name : Attendance
 Media : Hardisk
 Isi : attendance code + month + NIP + total attendance
 Record length : 34 character
 Primary Key : Id Attendance
 Foreign Key : NIP

Table 3. Attendance Table

No	Nama Field	Tipe Data	Panjang	Keterangan
1	Id Attendance	Int	11	Attendance Code
2	Month	Varchar	7	Month
3	NIP	Varchar	5	NIP
4	Attendance Duration	Int	11	Attendance Duration

4. Name File : Salary basic
 Media : Hardisk
 Fill in : Position Name+Salary basic
 Record length : 21 character
 Primary Key : Position Code

Table 4. Basic Salary Table

No	Field Name	Type Data	Length	Description
1	Position Name	Varchar	10	Basic salary
2	Salary Basic	Int	11	Basic Salary

- 5. File Name : Salary component master data
- Media : Hardisk
- fill in : Component Name + Status
- Panjang Record : 40 character
- Primary Key : Component Name

Table 5.Master Data Table of Salary Components

No	Field Name	Type Data	Long	Description
1	Component Name	Varchar	30	Component Name
2	Status	Varchar	10	Status

- 6. Nama File : Detail Komponen Gaji
- Media : Hardisk
- Isi : Kode Detail+Komponen Gaji+Kode Jabatan+Gaji
- Panjang Record : 62 karakter
- Primary Key : Id Detail
- Foreign Key : Kode Komponen+Kode Jabatan

Table 6. Salary Component Detail Table

No	Field Name	Type Data	Length	Description
1	Details id	Int	11	Detail Code
2	Component Code	Varchar	30	Component Code
3	Position Code	Varchar	20	Position Code
4	Salary	Int	11	Salary

- 7. File Name : The burden of teaching
- Media : Hardisk
- Fill in : Id the burden of teaching+NIP+Component code+the amount of load
- Panjang Record : 57 character
- Primary Key : Id the burden of teaching
- Foreign Key : NIP+Component Code

Table 7. Teaching Load Table

No	Field Name	Type Data	Length	Description
1	Id the burden of teaching	Int	11	Id the burden of teaching
2	NIP	Varchar	5	NIP
3	Component code	Varchar	30	Component Code
4	The amount of load	Int	11	The amount of load

4. Conclusion

As the end of writing this thesis report, the writer gives conclusions based on the discussion and research results in the previous chapter as follows:

1. Payroll information systems of employees who are running still use the Ms.excel application in which data processing takes a long time and in the presentation of reports is less accurate.
2. With a computerized system that provides absent access collaboration that will simplify and speed up the employee payroll process.

The new system is designed with web-based as an employee payroll application designed to produce payroll reports that are fast and accurate, so that there are no more delays or errors in inputting employee salary data or completion of payroll reports.

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