Monitoring System Building Plan For Risk Of Civil Office (Case Study: Tangerang Regency Of Education)

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Abstract

The development of increasingly rapid information technology requires companies to have a system that is able to provide data and information quickly and accurately. Tangerang Regency Education Office is a government agency in charge of controlling the education sector. In its business process, the Education Office still faces difficulties in obtaining reports on employment in periodic salary increases, because the system used is still using the help of Microsoft excel application software that is semi computerized, so that every data reported often has errors in providing civil servant salaries. Based on these problems Tangerang District Education Office is in dire need of an automated computer system that can control the regular salary increases of civil servants effectively and efficiently. As a tool to help in object-oriented programming language, Unified Modeling Language (UML) is used to describe the system, while data collection techniques use observation, interview, and literature study methods, so that the system can be monitored properly, effectively and efficiently using MySql databases, and PHP.

Keywords: Staffing, Periodic Salary Increase, Controlling, Web

1. Introduction

Information technology is an example of a rapidly developing technology product that can help humans process data and present quality information. To provide this information, we need a tool or media to process a variety of data so that it can be presented as useful information with attractive packaging and based on quality information criteria.

Every government agency or company really needs a staffing system to find out employee data and monitor all work, so that the work done can be achieved in accordance with what is expected, and as for this intends to improve the quality of the staffing system so that it is well integrated in processing wage or salary data.

Government agencies are also important for monitoring salary increases of every civil servant. This activity can help achieve a level of efficiency in processing valid data in order to create information about periodic salary increases for employees. An optimal data processing system will produce information on salary increases for each employee, because until now in the field there are still problems in salary increases, because there is invalid data.

Based on the above problems the authors conducted a study so that staffing data is more accurate and reliable, so in this writing the author decided to take the title "Design and Development Monitoring System Periodic Salary Increase Civil Servant at Tangerang District Education Office".

2. Research Method
2.1. Method of collecting data

1. Observation Method (Direct Observation). In this case the authors make direct observations and research the data held by the Tangerang District Education Office and examine the system that runs on the flow of data that moves to produce information. The author also observes directly the work process in making data and monitoring salary increases periodically at the Tangerang District Education Office.
2. Literature Study Method, In addition to conducting observations and interviews, data search is also carried out by means of literature study. In this method using sources from: books, journals and previous research related to the research title.
3. Interview Method, which is a technique to collect data by face to face to get the data needed by the author, as well as to find out the weaknesses of the system that runs on the District Education Office in Tangerang.

2.2. Method Data Analysis

In this study the authors analyzed the data using the CSF (Critical Success Factor) Method. Because the CSF method is useful in managing government programs that are very effective and efficient. and to identify the uses of CSF, including:
1. Identify the main concentrations of management.
2. Assist in designing strategic plans.
3. Identify focus areas in each project detail.
4. Evaluate the feasibility of information systems.
5. Identify threats and opportunities.
6. Measuring the level of productivity of human resources.

2.3. Literature Riview

From some of the results of the review the authors get several Literature Review, including the following:
1. Research conducted by Adi Aminudin, Bambang Eka Purnama and Indah Uly Wardati in the Journal Speed - Engineering and Education Research Center - Volume 7 No. 3 - 2015 entitled "Employee Payroll Information System at the Nawangan District Office in Pacitan Regency". This study explains the results of research that has succeeded in helping the treasurer's performance in calculating employee salaries with a short time and reduce errors in calculating salaries.
2. Research conducted by Arjun V. Singh, Siddesh V. Chaphekar and Yogesh S. Sawant in the International Journal of Modern Trends in Engineering and Research Volume 3 Issue 2, February 2016, ISSN (Online): 2349 - 9745 ISSN (Print): 2393 – 8161.This study describes the results of research that has succeeded in making a desktop-based payroll system using .NET, SQL and Microsoft Access. The payroll system automatically calculates, maintains and records payroll and also automates an organization's payroll system.
3. Dwi Jayanti, Siska Iriani (Dwi Jayanti 2014) With the title (Payroll Information Systems at CV.Blumbang Sejati Pacitan) Vol 6 no 3. The research objective of this thesis is to produce an application program to process payroll data on the CV. TRUE BLUMBANG. While the benefits are to speed up the process of making monthly payroll reports from a manual system to a computerized system that will simplify work and process employee payroll quickly and on time. The method used is the interview method, literature study, system analysis, system design, implementation, verification, and maintenance.
4. Indah Fitriyani, Sasono Wibowo, SE, M.Kom (Indah Fitriani 2013), with the title "EMPLOYEE SALARY INFORMATION SYSTEM AT PT. INDOTIRTA JAYA ABADI (AGUARIA) SEMARANG". Where research related to the payroll data processing. By producing a computer based Payroll Information System design that is precise, accurate and relevant as needed. system development such as Context Diagrams, Decomposition Diagrams, Data Flow Diagrams (DFD), Entity Relationship Diagrams (ERD), Normalization to Design Input and Output. After the entire system is complete, it can be seen that with the new employee payroll information system design can produce information that is fast, accurate and relevant.
5. Kritika Mahajan, Shilpa Shukla, Nitasha Soni (International Journal of Advanced Research in Computer and Communication Engineering Vol. 4, Issue 1, January 2015) [34] With the title "A Review of Computerized Payroll System". In this study the Payroll process uses a software system by writing a username and password allocated from the company to track work hours and maintain employee data records including employee salaries, benefits and taxes.

3. Results and Analysis

According to Prasetyo (2013) Monitoring is the process of collecting and analyzing data on network traffic with the aim of maximizing all resources owned by a Computer Network. This monitoring is part of network management.

According to Prasetyo (2013), the purpose of monitoring is to collect useful information from various parts of the network so that the network can be regulated and controlled using the information that has been collected. That way it is expected that if there is trouble or problems in the network will be quickly identified and corrected so that network stability is more guaranteed. Following are some of the main reasons for monitoring:

1. To maintain stability.
2. It is difficult to monitor what is happening on a network that has a large number of machines (hosts) without proper monitoring equipment.
3. To detect errors on the network.
4. To notify trouble to network administrators as soon as possible.
5. Simplify the analysis of troubleshooting on the network.
6. Document the network.

According to Murad et al in the CCIT Journal Vol.7 No.1 (2013:49), "Website is a system with information presented in the form of text, images, sounds, and others stored in an internet web server that is presented in the form of hypertext".

According to Brief, M. Rudyanto. (2011:8), in terms of content or content, the web can be divided into 2 types, namely: static web and dynamic web. Static web is a web whose content or content does not change. The point is that the contents of these web documents cannot be changed quickly and easily. Whereas dynamic Web is a type of web whose content or contents can change at any time. Web that displays a lot of flash animation does not necessarily include dynamic web because dynamic or changing content is not the same as animation.

Based on the analysis and research systems that are running at the Tangerang District Education Office, then the writer will design a proposed system that will be built. The proposed procedure will be explained as follows.

1. The login form display is the display design of the login view on the proposed periodic salary increase system. The login display is a multiuser login that can be used by 2 users namely Admin and Leader of each user login according to user level.
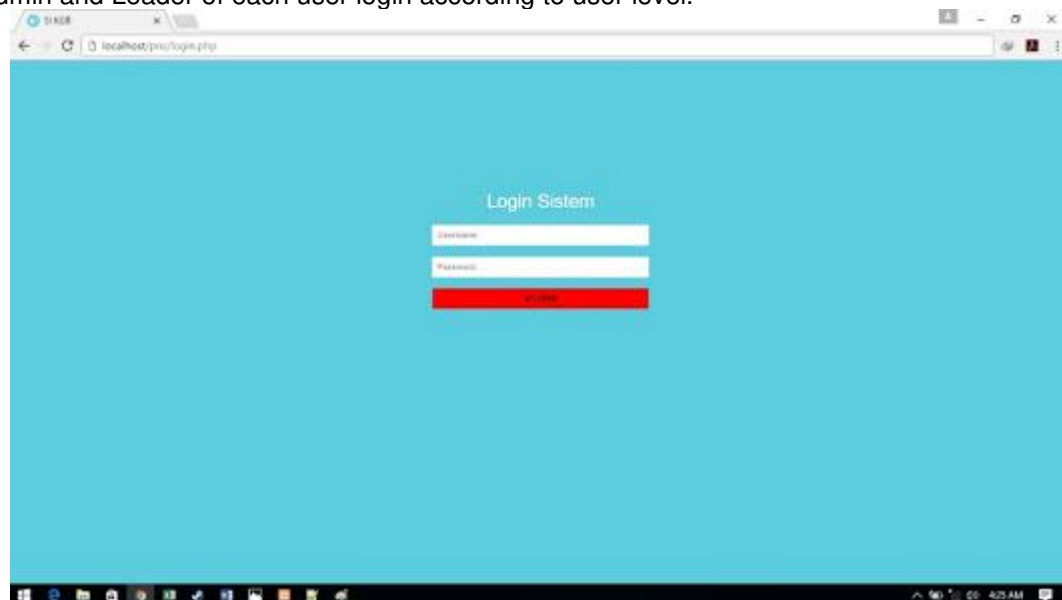

Figure 1. The login Form display

2. The dashboard display above is a dashboard design for the proposed periodic salary increase system, having information on the number of aid employees in the form of bar graphs and the number of employees rising monthly salaries now in the form of bar charts. Which can be accessed by the leadership.
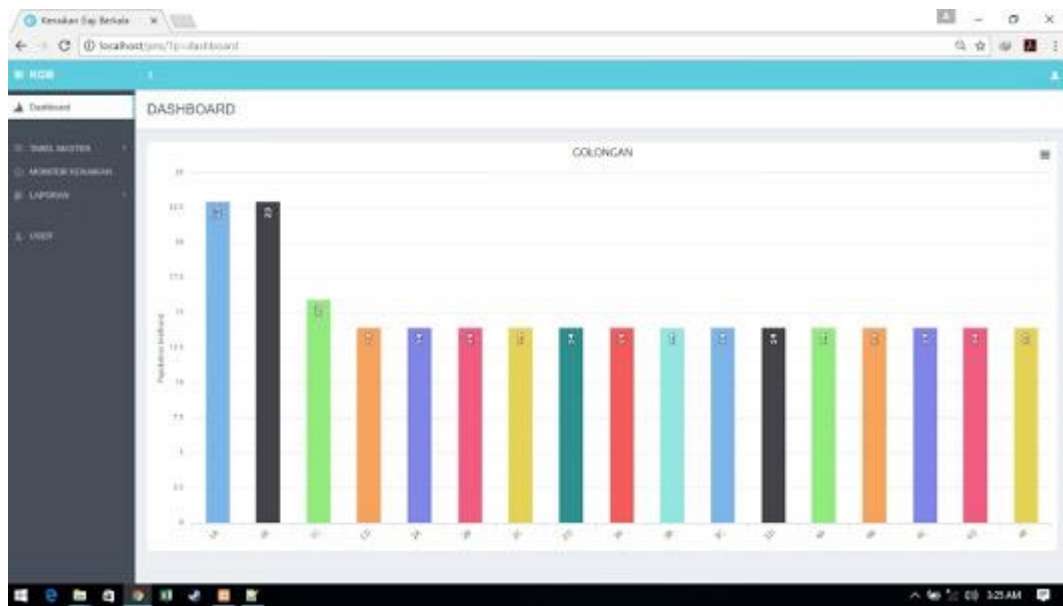
Figure 2. The dashboard display

3. Employee master table that contains employee data or biodata. Has functions to create, read, update, delete employee data based on Admin-level access rights.
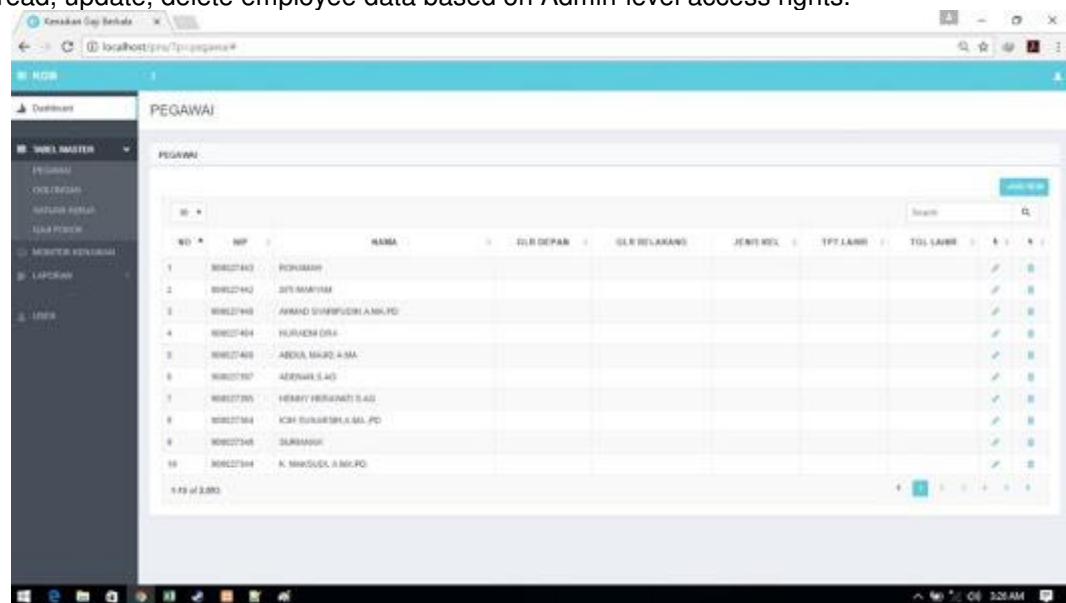

Figure 3. Employee master table

4. Draft form for inputting employee data or biodata with general biodata information and work unit ID.
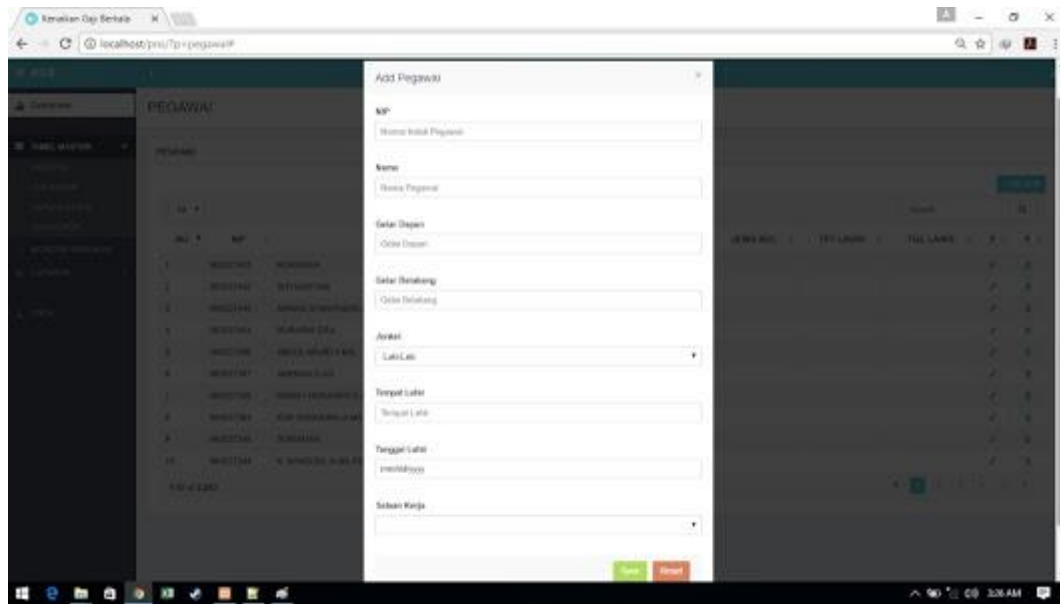
Figure 4. Draft form for inputting

5. Group master table that contains group data. Has functions to create, read, update, delete class data based on Admin-level permissions.
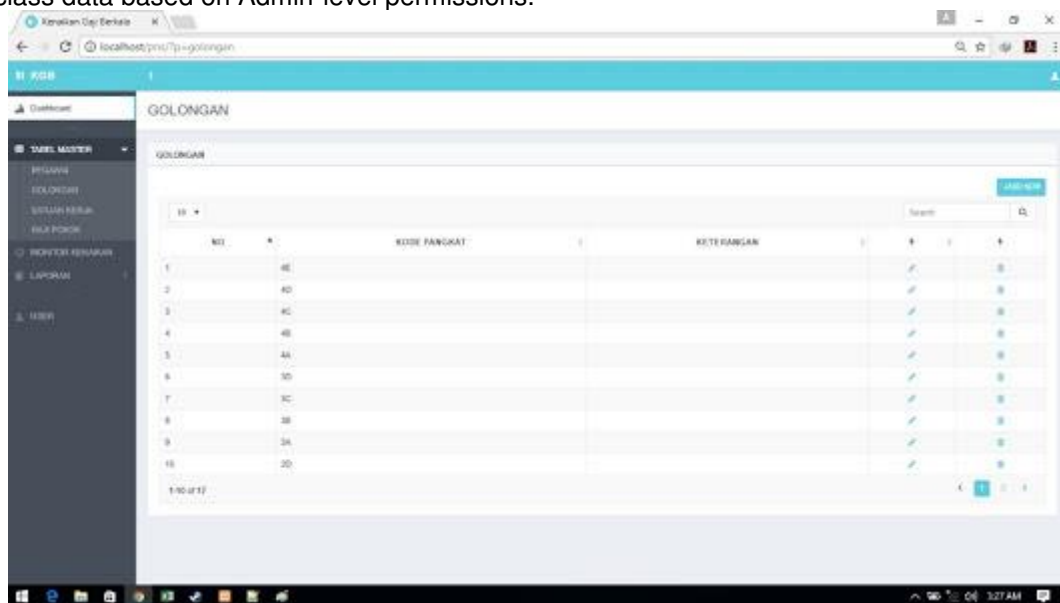
Figure 5. Group master table

6. Form design for inputting Group data with class code information and group name.
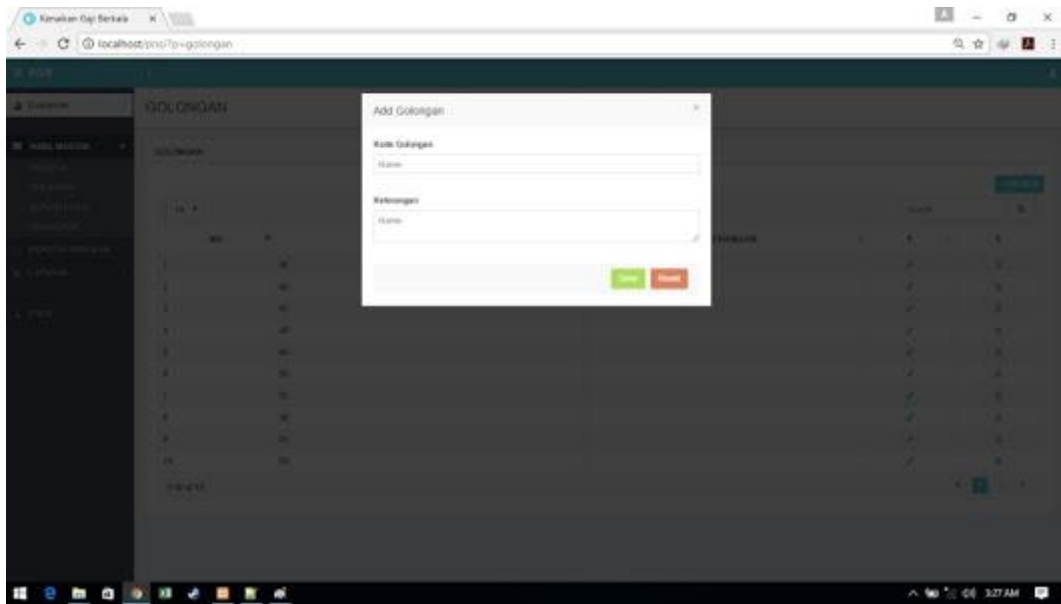
Figure 6. form design for inputting

7. Work Unit master table containing Work Unit data. Has functions to create, read, update, delete work unit data based on Admin-level access rights.
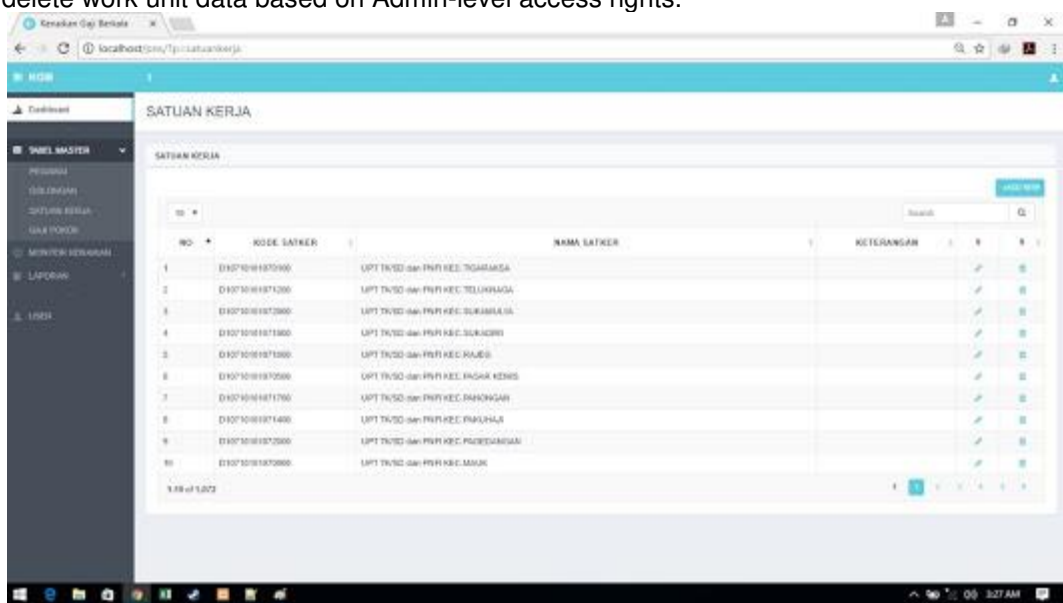

Figure 7. Work Unit master

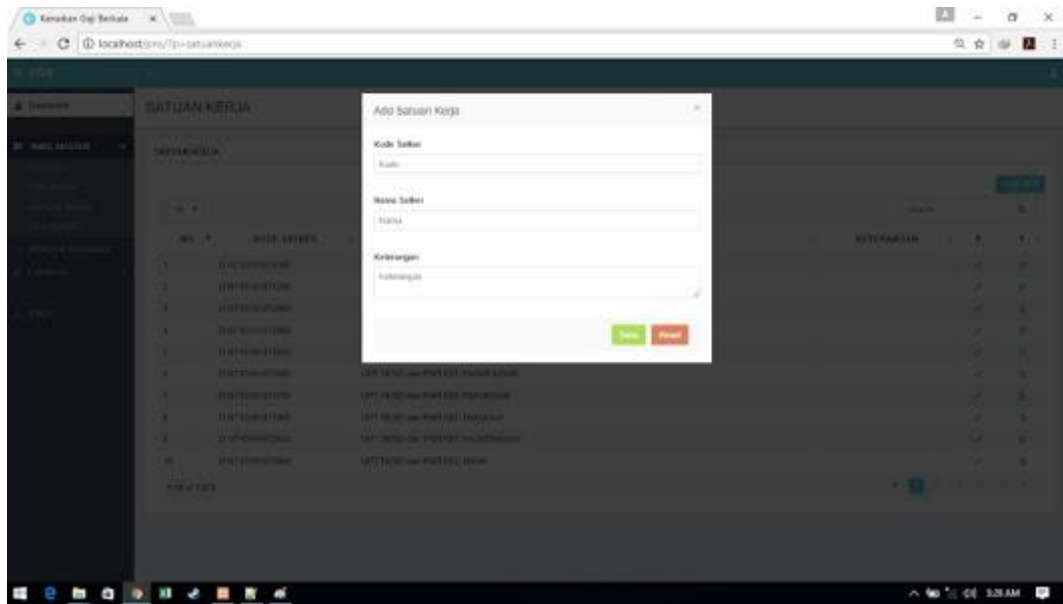8. Draft form to input Work Unit data with information of Work Unit code and Work Unit name.

Figure 8. Draft form to input

9. Main Salary master table that contains basic Salary data. Has functions to create, read, update, delete Main Salary data based on Admin-level access rights.
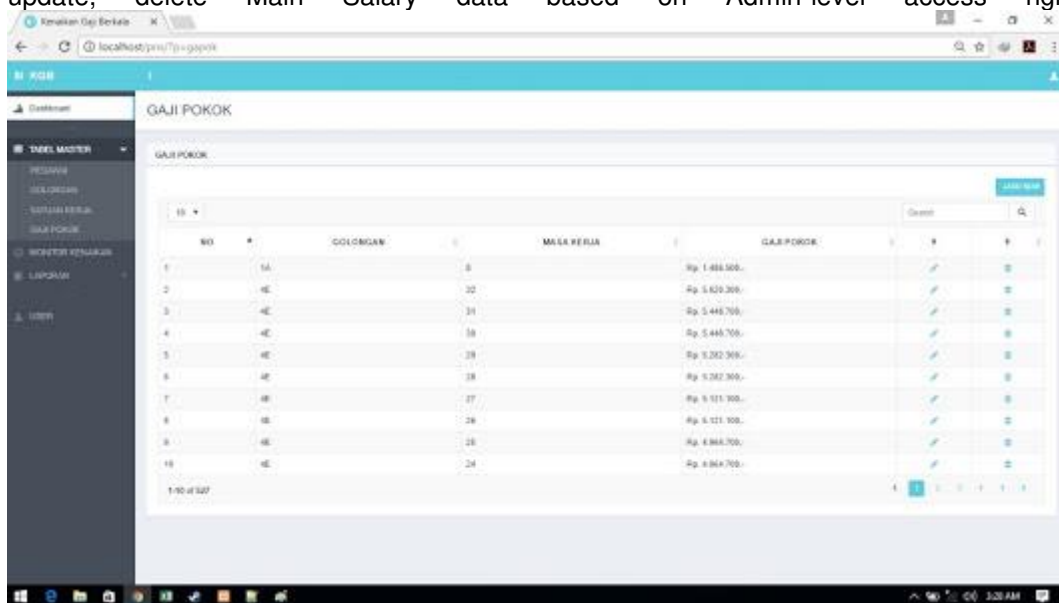

Figure 9. Main Salary master table

10. Draft form to input Principal Salary data with information on years of service and basic salary.
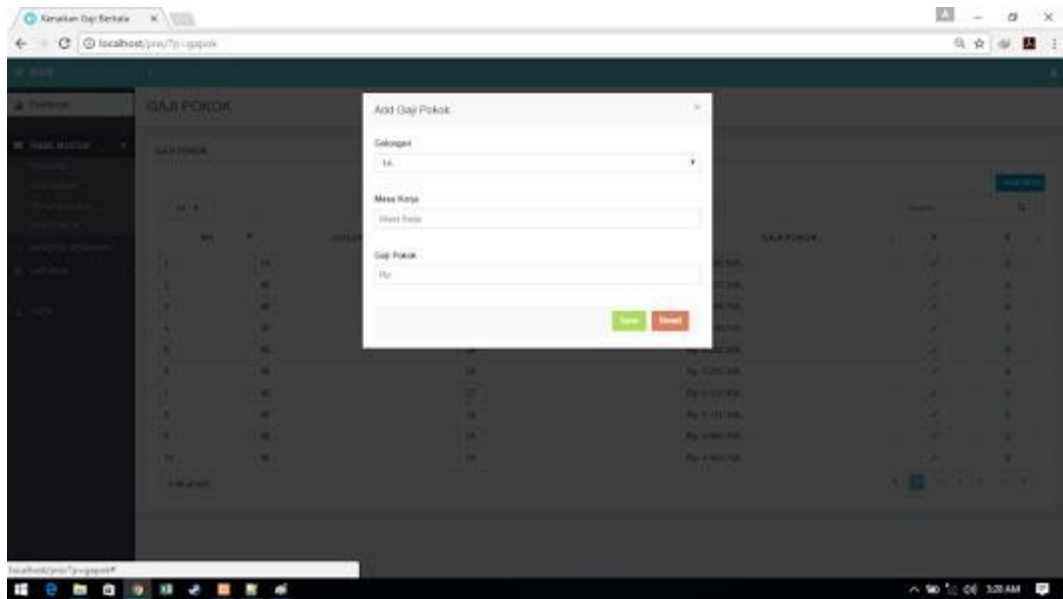
Figure 10. Draft form to input Principal Salary

11. KGB monitoring menu display that serves to monitor the periodic salary increase of employees with working groups and classifications. Have a raise, detail, edit, delete action.
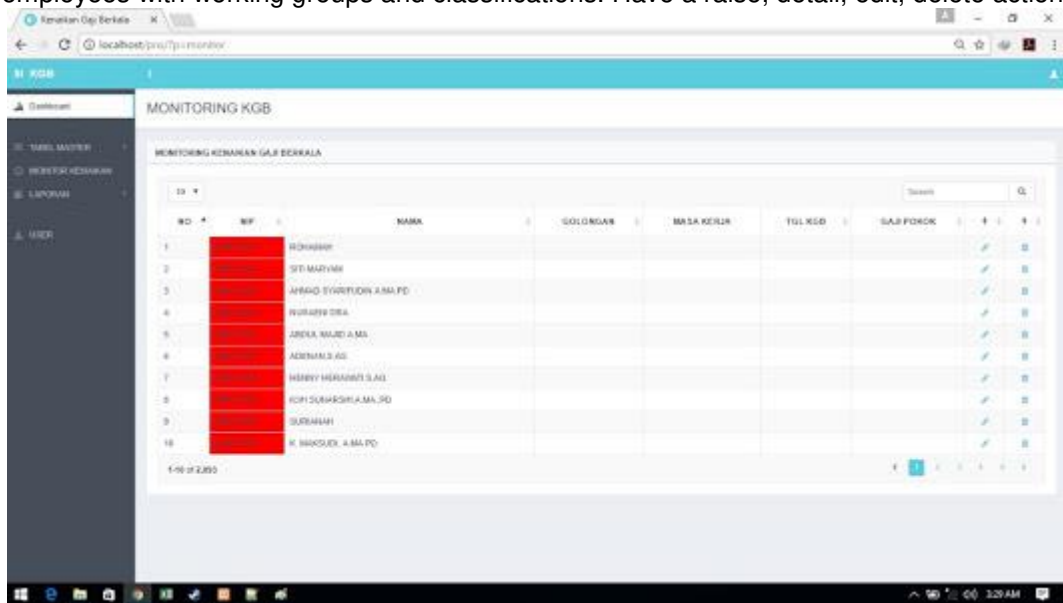

Figure 11. KGB monitoring menu

12. Form for input of periodic salary increases containing group input and years of service. With access rights by Admin.
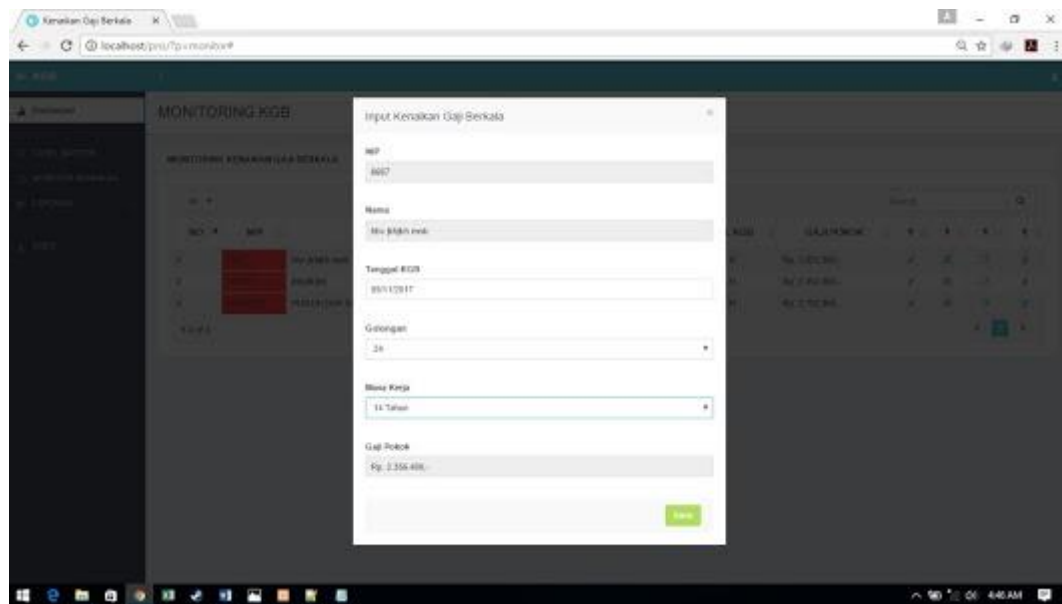
Figure 12. Form for input of periodic

4. Conclusion

Based on the discussion of the results of research conducted by researchers on the Design of Civil Service Information Systems to Monitor the Periodic Salary Increase in Civil Servants at the Tangerang District Education Office. Then the researchers draw the following conclusions:

1. The system for monitoring periodic salary increases that runs at the moment is inputting data that is still manual, there is an error in the process of inputting data.

2. the current handling system has not been able to support the decision process, due to the current system, there are still errors found when reconciliation for year-end reporting to the area of regional accounting, in addition to the return of overpayment of periodic salary increases. As for the lack of payment in periodic salary increases, making the end of year budget accountability reporting process Tangerang District Education Office too late.

3. Personnel Information System Design for Monitoring the Increase in Periodic Salaries of Civil Servants at the Tangerang District Education Office starting from the design using UML consisting of five diagrams, namely usecase diagrams, sequence diagrams, sequence diagrams, activity diagrams, state chart diagrams, and class diagrams as the initial design of the system will be made, then made a system with the PHP programming language in accordance with the existing prototype design. App Serv as supporting applications that are used as a web server so that the system can run efficiently. Mysql is also used as a database management media that can manage data so that the data can support system applications in monitoring periodic salary increases and the results are accurate.

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