

# Web-Based Diniyah Teacher Salary Distribution Information System at Banda Aceh City Education and Culture Office

**Rahmad Rizaldi**

Information Technology Faculty, STMIK Abulyatama  
Email: rahmad.rizaldi@gmail.com

Received: 25 June 2021; Accepted: 2 November 2021; Published: 30 December 2021

**Abstract:** The objectives of the research conducted include; 1) Develop a Salary Distribution Information System to be applied in the process of disbursing the salary of diniyah teachers, 2) Develop a website application that can assist treasurers in the process of distributing salaries appropriately, and 3) Develop a website-based salary assignment application that can make it easier for treasurers to make salary transfer reports. . To obtain data as material for writing research and discussing problems, the authors use the method of observation, interviews, literature review, and design analysis, while in application development using the waterfall method. From the results of research and observations that have been carried out at the Education and Culture Office of Banda Aceh City, the following conclusions can be drawn; 1) With the web-based information system on the distribution of diniyah teachers' salaries at the Banda Aceh City Education and Culture Office and the work on making payroll is precise, and accurate, especially in the personnel department, and getting information about the teacher's salary becomes easier 2) Information system This is able to overcome the problems that often occur at the Education and Culture Office of Banda Aceh City, namely it is difficult to control and supervise employee data and salary preparation which can avoid delays and in making employee salary reports every year and a certain period, and 3) The creation of an information system program in order to obtain quality information.

**Keywords:** Web-Based; Diniyah Teacher Salary; Distribution; Information System.

## 1. Introduction

The rapid development of Internet technology has triggered the emergence of various new applications, including in the field of Information Technology [1], the website is one of the revolutions in the field of internet technology-based information [2,3]. Websites can be used as an alternative for the development of information systems that are more effective and efficient at lower costs today [4], this can run smoothly if there is a computer network [5]. With the website, it is hoped that it can help the public in general to disseminate information quickly, cheaply, and effectively [6,7]. Along with the development of Information Technology, Websites are no longer just offering company/product profiles but are heading to online and real-time back-office systems (office/agency/school system management), but an implementation of back-office systems based on Websites [8,9].

Based on the above, in accordance with the availability of internet facilities/computer network facilities at the Education and Culture Office of Banda Aceh City, the creation of a Website-Based Diniyah Teacher Salary Information System is expected to facilitate office staff and general diniyah teachers in their information needs. Diniyah teacher information can be known by the relevant agencies quickly with the Browsing Website. At this time, to shift the salary of diniyah teachers used at the Education and Culture Office of Banda Aceh City, it is still using a manual system which in its development, it is felt that there are several shortcomings while using the existing system, including; 1) The salary distribution system used now does not run in real time, 2) There are still frequent errors or errors in the system used now, 3) In general, the current salary distribution system has limited facilities and frequent delays in the delivery of duru diniyah salaries. On the basis of the problems that occur while using the existing salary distribution system, it is necessary to develop a web-based system, because using website/internet technology has the potential to be used as a medium to provide general, safe and practical information because the process of obtaining information becomes difficult. very quickly and at a relatively low cost. In addition, it is also expected that using a website-based application will be more effective and efficient in the process of calculating the salary of a diniyah teacher. The objectives of the research conducted include; 1) Develop a Salary Disbursement Information System to be applied in the process of disbursing the salary of diniyah teachers, 2) Develop a website application that can assist treasurers in the process of dispensing salaries

appropriately, and 3) Develop a website-based salary assignment application that can make it easier for treasurers to make salary transfer reports.

## 2. Background and Analysis

The location for the research is the Banda Aceh City Education and Culture Office, which is located on Mr. P. Nyak Makam Street No.23 Banda Aceh 23125. To obtain data as material for writing research and discussion of problems, the authors use the following method:

### 1) Observation

Observation is data collection by direct observation of the research object [10]. This observation is one of the most effective and efficient data collection techniques to study the existing system. This method is carried out by observing directly an activity that is being carried out, in this case the author makes observations on the systems and procedures that are run at the Office of Education and Culture of Banda Aceh City.

### 2) Interview

This method is carried out by conducting direct questions and answers with various parties involved in the salary distribution system process, which can provide the necessary data that is useful in writing this research.

### 3) Library Research

This literature review is a method that is carried out by reading, taking notes, citing and summarizing books related to the salary distribution system so as to support data collection related to research. In this literature review, the author looks for library sources both from handbooks and written regulations or work guidelines in the company and other sources that support.

### 4) Application Analysis and Design

The analysis is carried out through several stages including a survey of the existing system in the company that is currently running and an analysis of the survey findings and identification of needs [11] required by the information system and the process that is already running whether it requires further development for the payroll process that is currently running. there is.

Based on the results obtained, a report is made with the aim of providing input for the design of information systems and the salary distribution process proposed in the design method with several stages that will be used in designing the system, namely problem domain analysis, application domain analysis, architecture design and component design. In the current system, the processing of salary distribution data at the Banda Aceh City Education and Culture Office is still using a manual system, for example by recording the salary book for each diniyah teacher. In the book written manually there are results of salary, overtime pay, and total salary allowances. These data are processed and calculated manually. This is prone to errors in calculations. In addition, there are still several obstacles such as the accumulation of files, the slowness of data retrieval, and the delay in providing reports to the head of the agency. The current system that is currently running is felt to be unable to support salary distribution activities at the Education and Culture Office of Banda Aceh City, because the processing of salary distribution data takes a long time and the resulting data is less accurate. This makes it difficult to view report data and the slowness of information obtained in finding the desired data when needed. Software development is the latest industry, in an industry, development and growth is really needed to be better. Collaboration with other teams and team members with various specialized knowledge, is an additional step in documenting the software development process [12,13].

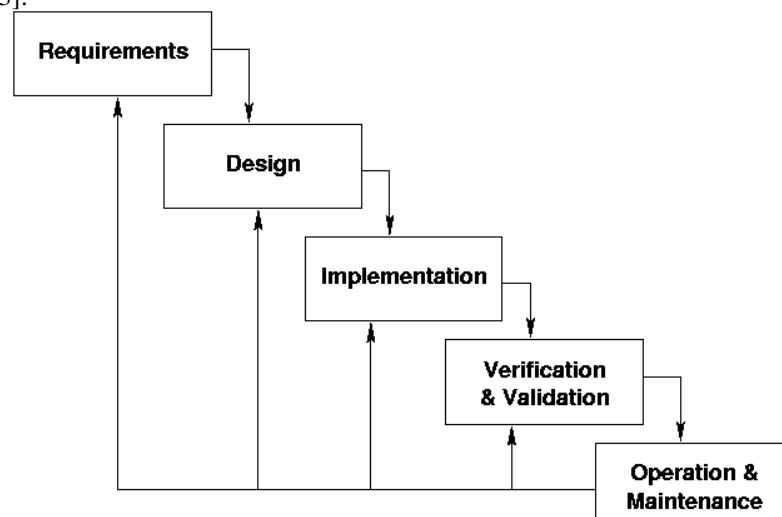


Fig 1. Stages in the Waterfall Model

### 3. Result and Discussion

The web-based information system for distributing diniyah teacher salaries at the Education and Culture Office of Banda Aceh City which the author designed consists of several stages, namely input design, output design, process design, control design, labor design, and cost design. The author hopes that this design will make it easier for every user, especially the staffing of the Banda Aceh City Education and Culture Office. This input design consists of several program files, namely; 1) User Data Entry Program, 2) Echelon Master Data Entry Program, 3) Position Master Data Entry Program, 4) Class Master Data Entry Program, 5) Employee Data Entry Program, 6) Family History Data Entry Program, 7) Entry Program School History Data, 8) Employee Position Data Entry Program, 9) Rank Data Entry Program, 10) Payroll Data Entry Program, and 11) School Data Entry Program. Design The output of the payroll process design system at the Banda Aceh City Education and Culture Office consists of several program outputs, namely; 1) Group Recap, 2) Position Recap, 3) Education Recap, 4) School Recap, 5) Employee Nominative Report, 6) Employee DUK Report, 7) Employee Bezetting Report, 8) Payroll Report, 9) Per-School Salary Recap, and 10) Print Salary Slips. The results of this study also produced an application consisting of 3 levels, namely operator, admin, and leader. In the form below is the main menu form for school operators consisting of employee data menus, family history, educational history, employment, payroll, reports and recapitulation. The staffing sub menu consists of positions and ranks. The recapitulation sub menu consists of class, position, education, and school. The report sub menu consists of nominative, bezetting, duk, and payroll reports. Computer users just click the desired menu icon to see what is in the file.

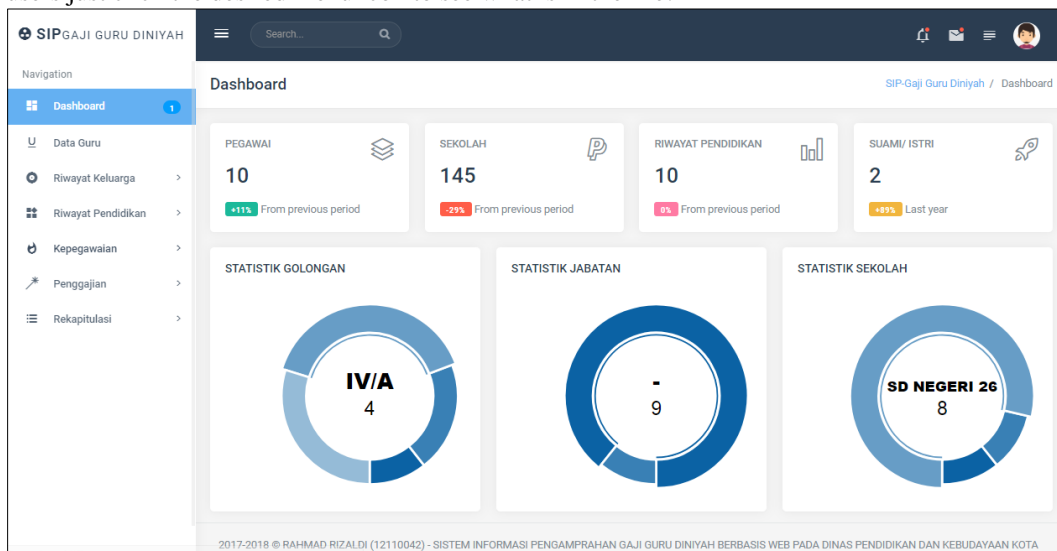


Fig 2. Operator Main Menu Display

Meanwhile, the admin main menu page can only be accessed by users with admin level which consists of a teacher list menu, recapitulation, reports, settings and users. In the settings sub menu, it consists of master positions, groups, echelons, and schools.

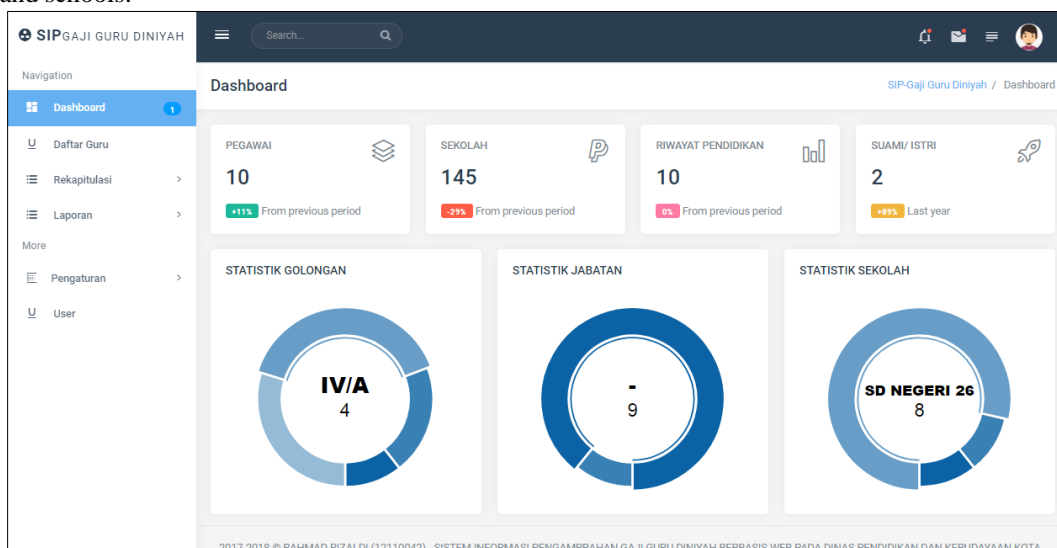


Fig 3. Admin Main Menu Display

Meanwhile, on the leadership page menu, you can only access the teacher list menu, recapitulation and reports.

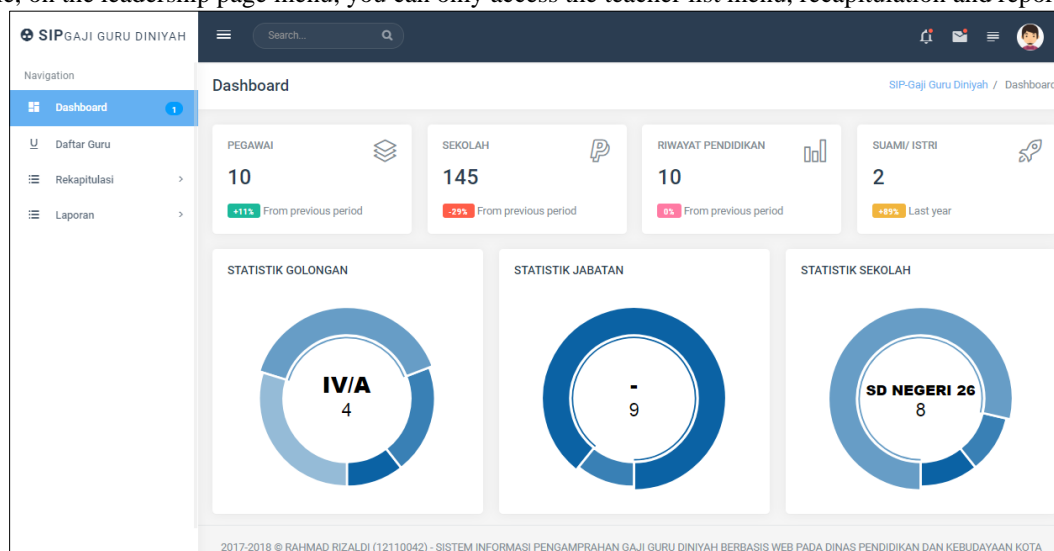


Fig 4. Main Menu Display Leader

## 5. Conclusion

From the results of research and observations that have been carried out at the Education and Culture Office of Banda Aceh City, the following conclusions can be drawn:

- 1) With the web-based information system on the distribution of diniyah teacher salaries at the Banda Aceh City Education and Culture Office and the work on making payroll is precise, and accurate, especially in the staffing section, it is easier to obtain information about the teacher's salary.
- 2) This information system is able to overcome the problems that often occur at the Education and Culture Office of Banda Aceh City, namely it is difficult to control and supervise employee data and salary preparation which can avoid delays and in making employee salary reports every year and a certain period.
- 3) The creation of an information system program in order to obtain quality information.

## References

- [1] Li, S.M. and Chung, T.M., 2006. Internet function and Internet addictive behavior. *Computers in Human Behavior*, 22(6), pp.1067-1071.
- [2] Wali, M., 2018. *Add-ins Microsoft Office: Add-ins Microsoft Office* (Vol. 1). Kita Publisher.
- [3] Siste, K., Hanafi, E., Sen, L.T., Christian, H., Siswidiani, L.P., Limawan, A.P., Murtani, B.J. and Suwartono, C., 2020. The impact of physical distancing and associated factors towards internet addiction among adults in Indonesia during COVID-19 pandemic: a nationwide web-based study. *Frontiers in psychiatry*, p.924.
- [4] Wali, M., 2020. *Modul Praktikum Rekayasa Perangkat Lunak*. Ellunar Publisher.
- [5] Fathurrahmad, F. and Ester, E., 2020. Development And Implementation Of The Rijndael Algorithm And Base-64 Advanced Encryption Standard (AES) For Website Data Security. *International Journal of Scientific & Technology Research*, 9(11), pp.6-11.
- [6] Fathurrahmad, F., 2019. *Buku Ajar Jaringan Komputer : Untuk Pemula*. Kita Publisher
- [7] Rizal, S. and Wali, M., 2018. *Perbankan Komputer: Teori dan Praktikum*. Deepublish.
- [8] Salam, A. and Fathurrahmad, F., 2021. Student Final Project Recommendation System Model Using Case-Based Reasoning (CBR) Method. *Jurnal Mantik*, 5(3), pp.1535-1542.

- [9] Pamungkas, B.A. and Handayaningsih, S., 2014. Implementasi Back Office Aplikasi M-Goverment. *Jurnal Sarjana Teknik Informatika e-ISSN*, 2338, p.5197.
- [10] Barker, K.N., 1980. Data collection techniques: observation. *American journal of hospital pharmacy*, 37(9), pp.1235-1245.
- [11] Jamshidi, P., Ahmad, A. and Pahl, C., 2013. Cloud migration research: a systematic review. *IEEE transactions on cloud computing*, 1(2), pp.142-157.
- [12] Wali, M. and Ahmad, L., 2018. Perancangan Access Open Journal System (AOJS) dengan menggunakan Framework Codeigniter dan ReactJs. *Jurnal JTIK (Jurnal Teknologi Informasi dan Komunikasi)*, 2(1), pp.48-56.
- [13] Iqbal, T., Aprizal, D. and Wali, M., 2017. Aplikasi Manajemen Persediaan Barang Berbasis Economic Order Quantity (EOQ). *Jurnal JTIK (Jurnal Teknologi Informasi dan Komunikasi)*, 1(1), pp.48-60.