

Development of reminder System

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Development of e-Reminder System For Data Collection Employee Working Time

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Abstract. The E-Reminder system is a system that is used on several communication tools designed to remind the user of an activity that will be carried out by the user so as to minimize delays in an activity that has been previously scheduled. The thing that encourages researchers to develop an android-based reminder system can be used by the personnel with the aim of minimizing errors or omissions in the data collection of IAIN Palopo employees or lecturers regarding the promotion schedule, periodic salary increases, Satya Lencana recipients, pensions, and so on. Researchers see that there are still many omissions that occur regarding the data collection of the personnel. For example, the delay of several employees/lecturers in determining the period of periodic salary increases, determining their promotions, or being proposed as candidates for the Satya Lencana recipient, as well as determining the entry of retirement periods and several other matters related to the period employees/lecturers at IAIN Palopo. As for the method to be used, namely the research and development method, this research starts from the design concept, which is realized in the form of a prototype or design drawing of the system construction, the development process, and the testing process of the designed system. In the application of this e-reminder system, there are things that become findings to note, among others, that the output produced is in the form of information data that is sent directly to the cellphone of the ASN concerned with regard to his periodic salary increase, the determination of his promotion, being proposed as a candidate for the Satya Lencana recipient, or the entry of retirement, which later became his concern to complete the file. The convenience provided by this system is very helpful for those who take care of matters relating to staffing because the output produced in the form of information is not only obtained by the employee concerned, but the staffing staff who handles this can also find out employee data that must be prepared for a salary increase, periodically, determining his promotion, or being proposed as a candidate for the recipient of the Satya Lencana, or entry into the retirement period.

INTRODUCTION

The need for technology in an institution is very important for all fields/divisions/departments, including the division/department of personnel, but if the technological facilities provided are not fully empowered, it can reduce the level of performance in the division/employment section in question¹. An E-Reminder is a reminder system used in several communication tools designed to remind the user of an activity that will be carried out by the user so that there is a delay in an activity that has been previously scheduled^{2, 3}. This has prompted researchers to develop a reminder system that can be used by staffing staff so as to minimize errors in omission of employee data collection, relating to the schedule of periodic salary increases, Satya Lencana recipients, pensions, and so on.

A reminder is a message that helps someone remember something. Reminders can be more useful when contextual information is used to present information at the right time and in the right place^{5, 6}. An e-reminder is a reminder system that is designed based on electronics or the use of a computer program to run the reminder application that will be used. This e-reminder application is made to run an automatic reminder system that is based on user needs using computer programming so that it gets a more precise output or output as expected⁷. Electronic-

based e-reminders are expected to be user-friendly or easier to use by every user whose work area is related to the communication network/internet.

The development of this e-reminder is expected to be able to answer all issues related to employee tenure, including matters relating to periodic salary increases, promotions, recipients of satya badges, and retirement. This is expected to be a solution because sometimes the determination of the period/time relating to the period of service of employees becomes complicated and even forgotten by those who handle it, especially with a large number of employees in an institution.

This development designs an application for reminders of academic activity schedules. This application consists of two parts, namely a web application to enter employee data and schedule reminders, in addition to the social media application, namely Whatsapp, which is used to display important information in the form of e-reminder notifications to those who will be given salary increases, promotions, recipients of satya badges, as well as those about to retire. This research starts from the design concept, which is realized in the form of a prototype or design drawing of the system construction, the development process, and the testing process of the designed system⁴.

METHOD

Reminder Rules Relating to Data Collection of Employee Service Period

The data collection for the period of service in question is limited to only 4 types, **Regular salary increase:** The determination of the periodic salary increase for each employee is given after the service period enters 1 (one) year. Periodic salary increases are usually given to each employee if they meet the requirements, among others, have reached the work period of the group that has been determined to get a salary increase with an assessment of the work implementation grade. Notification of a periodic salary increase is given two (2) months before the periodic salary increase.

Promotion: Promotion for each employee to a higher level after the deadline and administrative completeness have been met. Regular promotion can be given if an employee has at least 4 (four) years in the last rank and every element of their work performance appraisal has at least good value in the last 2 (two) years. Notification of the completeness of the promotion file is informed one (1) month before the employee's promotion schedule.

Satya Badge Recipients Awarded by the government to every employee who, in carrying out his duties, has shown loyalty, dedication, skill, honesty, and discipline and has worked continuously for at least 10 years, 20 years, and 30 years. The proposal for the recipient of the Satya badge is proposed by the head of the institution addressed to the central government (President), so that the proposal is expected to be made 1 (one) month earlier than the schedule for submission.

The application for the retirement preparation period must be submitted no later than 1 (one) month before the retirement preparation period begins. The retirement preparation period is set from the 1st of the month concerned with the retirement. So that if you apply the e-reminder system for retirement, it can be activated 1 (one) month in advance to apply for the retirement preparation period^{8,9}.

Design of E-Reminder System

After passing the system requirements analysis stage and identifying all the needs needed for building this e-reminder system, the design stage begins. Admin enters employee data consisting of: employee ID; employee name; mobile number/WhatsApp number; the date of appointment as an employee; rank; employment status.

Then make arrangements for the delivery of information about their employment status in the form of WhatsApp notifications. The end user (employee) will receive information about the employment status on his WhatsApp account and prepare files regarding his employment status¹⁰. The system process and dataflow of the e-reminder system, as well as how messages are sent to employees is shown in Figure 1.

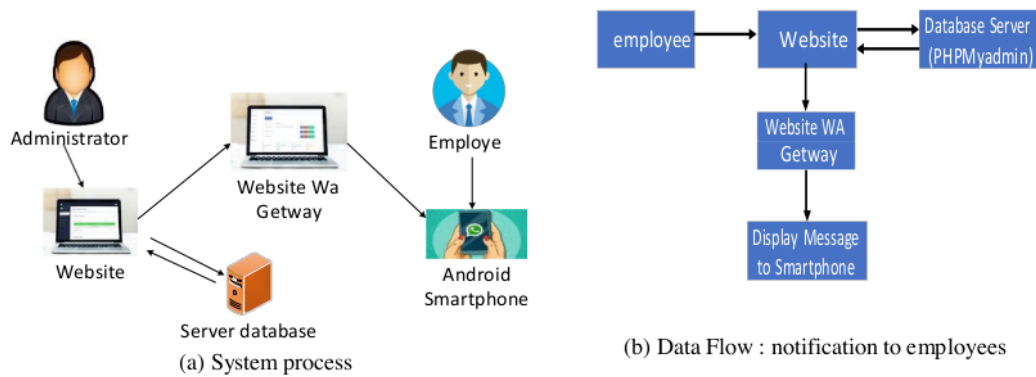


FIGURE 1. The System Process and Dataflow of The E-Reminder System, as Well as How Messages are Sent to Employees
(A) System Process (B) Data Flow: Notification to Employees

The administrator is the manager of the system. The administrator inputs employee data through the website. The inputted data will be saved to the database server. The input data can be viewed again on the website. Furthermore, the website will send WhatsApp messages to employees via a 3rd party website or Whatsapp Getway website, where employees can see WhatsApp messages that enter the smartphone.

RESULT AND DISCUSSION

The tests given for this system are validated by material experts and system design experts by showing an existing prototype as shown in Figure 2-4.

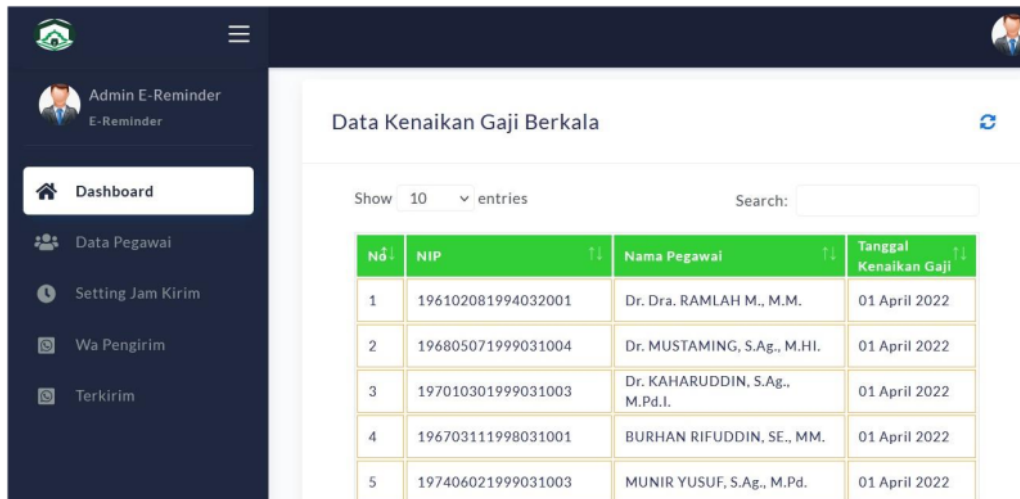


FIGURE 2. Display of Menu Dashboard for the Data Collection Employees

NIP Pegawai*	195812311991021002
Nama Pegawai *	Prof. Dr. Drs. HAMZAH K, MHI
Nomor WA *	081342561212
TMT PNS *	18/01/1991
TMT Golongan*	18/01/2017
Golongan*	IV/d
Status Pegawai*	Professor

FIGURE 3. Display of Database Input Employee, Consisting of Employee ID; Employee Name, Whatsapp Number; The Date of Appointment as an Employee; Ranks; Employment Status

Dear, Mr/Mrs ROSDIANA ST., M.KOM
 Based on employment data, on 01 December 2021, Your grade promotion will be applied, please come to the staffing to get information on the completeness of your file.
 Thank you

FIGURE 4. Display of Notification Message Received by Employees

The results of the validation development of the e-reminder system by the material experts give 92.35 with a very valid category, by the design experts give 82.20 with a good category design, and the practical results of the e-reminder system are at 80.55 with a very practical category.

CONCLUSION

The e-Reminder system works based on the database that the admin has input. Information as a reminder system given to end users is received via Whatsapp notifications. Reminder Periodic salary increases, rank or class promotion rewards, receipt of Satya Lencana, and entry into the retirement period are given a span of 2 (two) months or more from the time set. This system works only by using the internet network. This system is suggested for reminding employees of their employment status.

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