



Website-Based National University Lecturer Payroll Process System Design

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ABSTRACT

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The study discusses the making of a system for processing lecturer salaries, currently payroll at the National University is carried out using an offline payroll system for calculating lecturer salaries, the existing system at the National University is actually optimal in conducting lecturer salaries, but still has shortcomings because it is not can be done online, especially in situations pandemic covid 19 like this which are recommended for wfh (work from home) by the government, but the admin at the bsdm must keep coming to work, therefore the author aims to create a website-based payroll system using PHP Framework Codeigniter (CI) and Mysql database, which can facilitate the admin to do the payroll process that can be done anywhere and anytime.

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1. Introduction

Along with the rapid development of information technology, it makes it easy for agencies / institutions, among others, that can be used as employee data processing, attendance data processing, data processing, etc. This of course brings a positive impact for users of these technologies to facilitate and facilitate their work.

In the processing of salary data, the use of information technology is very important because it can provide fast and accurate results and minimize errors in calculation, delays in payment of salaries.

According to Garry Dessler (1998), salary is one important element in increasing work motivation. because salary is a tool to meet the various needs of employees. [1] Therefore the company / organization must do the right salary planning in the sense of having internal justice, that is in accordance with the duties, responsibilities, and the level of effort done at work. The same duties and responsibilities must be given the same salary. In addition, it must also have external justice, namely the salary received in accordance with the salary in other companies for the same job.

Therefore, at the National University of Jakarta, facilities are needed to ease the task of the finance department in solving a problem, especially the problem of processing the salary data of lecturers at the National University of Jakarta. One alternative that can help solve the problem is by implementing a computerized system to process lecturer salary data. The computerized system is expected to improve the payroll activity by creating a lecturer salary data processing system that is truly efficient, fast, accurate and can also be accessed from anywhere. Because this is very important to avoid salary data processing system errors that are very desirable.

Based on observations from the authors, it shows that the calculation of payroll for lecturers at the National University by computerized and online is very necessary. So the idea of this research is to make a website-based lecturer process design system for the National University website.

2. Research methods



2.1 Analysis Method

The data collection method used in this research is descriptive qualitative. The object-oriented analysis method used in this study is the Unified method [2]. The stages of object-oriented analysis used are:

- a) Guided by the needs of system users.
- b) Identify usage scenarios.
- c) Select classes and objects using needs as a guide.
- d) Identify the attributes and operations for each object class.
- e) Identify the structure and hierarchy of classes.
- f) Build a connectedness model for classes and objects.
- g) Reviewing the model generated by a scenario or use-case.

2.2 Method of collecting data

The methods for data collection consist of primary and secondary data:

a. Primary data

Collect data directly from the place of study. The methods used to collect data are as follows.

1) Interview method

The author asks the employee at the National University BSDM section. Interviews were conducted to find what needs to be designed in lecturer payroll activities.

2) Observation Method

In this method the authors observe directly related to the problem under study for analysis

3) Documentation method

In this method the authors document the field data as report material.

b. Secondary data

Secondary data was obtained by studying reference books, articles, SINTA indexed journals and the internet that can be trusted to be the author's reference material during conducting this research.

2.3 Use-Case diagram

In the use-case diagram, it is explained who is involved in the system use activities and describes the interactions between the system users and the system itself.

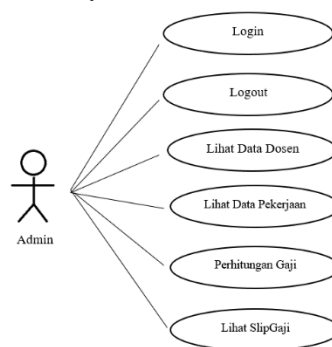


Fig 1. Use-case diagram

2.4 ERD (Entity Relations Diagram)

ER Diagram is part of the structure diagram. Class diagram illustrates the system structure of the database where there are 4 related tables, namely users, lecturers, jobs and salaries.

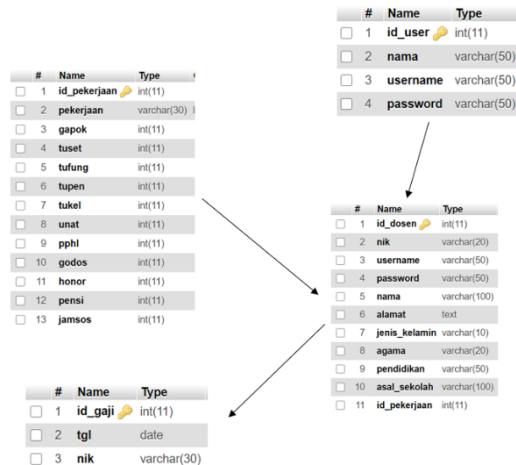


Fig 2. ER Diagram

3. Results and Discussion

3.1. Implementation of the lecturer payroll website

After the analysis and design stages have been carried out, the next stage is the implementation phase. At this stage the authors make a program with the following results:

a. Admin login page

For admin login page, it can only be accessed by admin from BSDM.

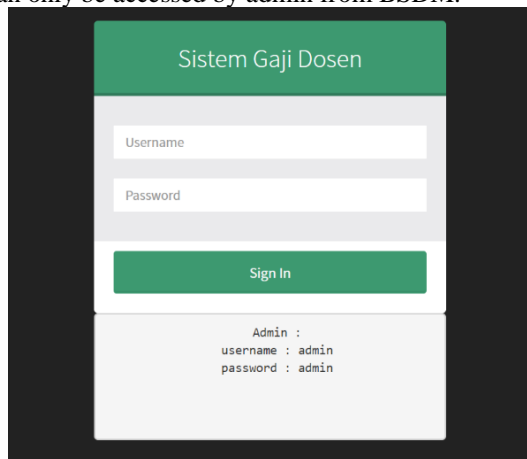


Fig 2. Login page.

b. Main page

The main page of this website contains the campus identity and has a lecturer data menu, job data, lecturer salaries and reports.

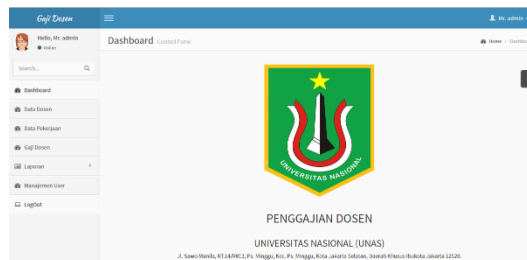
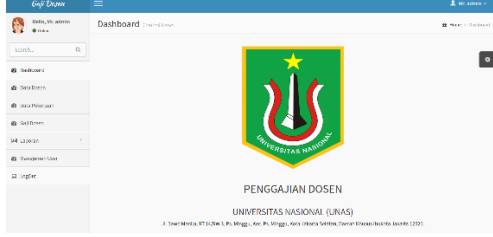


Fig 3. Main page.

c. Lecturer Data Menu

In the lecturer data menu it contains a form for entering lecturer data.

No	Testing scenario	Expected results	conclusion
	<p>Test case:</p> <div style="border: 1px solid gray; padding: 10px; margin: 10px auto; width: fit-content;"> <p style="text-align: center; background-color: #2e8b57; color: white; padding: 5px;">Sistem Gaji Dosen</p> <div style="margin-bottom: 10px;"> <input style="width: 100%; padding: 5px;" type="text" value="admin"/> <input style="width: 100%; padding: 5px;" type="password" value="****"/> </div> <p style="text-align: center; background-color: #2e8b57; color: white; padding: 5px; margin-bottom: 10px;">Sign In</p> <p style="font-size: small; text-align: center;">Admin : username : admin password : admin</p> </div>		

4. Conclusion

From the discussion above, it can be concluded that the lecturer payroll system is quite helpful for administrators of BSDM at national universities, considering that applications that were previously not done optimally, still have shortcomings such as cannot be done online, so they cannot be accessed anywhere and anytime.

5. References

- [1] Bambang Haryanto, “Rekayasa Sistem Berorientasi Objek”, Informatika, Bandung, 2004.
- [2] Garry Dessler, “Manajemen Sumber Daya Manusia”, Prenhalindo, Jakarta, 1998.
- [3] Jurnal Generic, Vol. 8, No. 1, Maret 2013, pp. 183~189 ISSN: 1907-4093 (print), 2087-9814 (online).
- [4] Jurnal Ilmiah KOMPUTASI, Vol.18 No : 1, Maret 2019, p-ISSN 1412-9434/e-ISSN 2549-7227.
- [5] Jurnal Ilmiah MATRIK Vol.15 No.3, Desember 2013:221 – 234.
- [6] Jurnal Mahajana Informasi, Vol.4 No. 1, 2019 e-ISSN: 2527-8290.