

PUSPINDES E-Performance Information System for Monitoring the Performance

Teguh Tamrin*¹, Akhmad Khanif Zyen²

Universitas Islam Nadhlatul Ulama, Jepara

E-mail : teguh@unisnu.ac.id*¹, khanif.zen@unisnu.ac.id²

*Corresponding author

Abstract - Puspindes is a government institution built by the Pemalang government to provide competence in the field of Information and Communication Technology (ICT) development. The rural informatics empowerment center, hereinafter referred to as PUSPINDES, Pemalang Regency is a flagship program under the supervision and responsibility of BAPERMASDES (Community Empowerment Agency Village) Pemalang Regency this institution focuses on village development, especially in the field of Computer Information Technology and also Intern networks for villages. A system was created to assist in the administrative process carried out by PUSPINDES employees using the PHP Programming Language Codelgniter package and data storage using a MySQL database.

Keywords – PUSPINDES, TIK, PHP, *Codelgniter*

1. INTRODUCTION

An information system is a system that provides information for management in making decisions and also for carrying out company operations, where the system is a combination of people, information technology and organized procedures. Usually a company or business entity provides some kind of useful information for management [1].

According to John F Nash, information systems are a combination of human, technological facilities or tools, media, procedures and controls that intend to organize important communication networks, process certain and routine transactions, assist internal and external management and users and provide a basis for decision making right. Meanwhile, according to Henri Lucas Information System is an activity of an organized procedure, when executed will provide information to support decision making and control in [2].

In an article about Information System Components written by Dimas [2], he clarifies information system components in several ways, such as the following:

1. Input Component
Input is data that enters the information system.
2. Model Component
A combination of procedures, logic, and mathematical models that process the data stored in the database in a predetermined way to produce the desired output.
3. Output Component
Output quality information and useful documentation for all levels of management as well as all system users.

4. Technology Component

Technology is a tool in information systems, technology is used to receive input, run models, store and access data, generate and transmit output and assist system control.

5. Database Components

Is a collection of interconnected data stored in a computer using database software.

6. Control Component

Controls designed to overcome disturbances to information systems.

According to a review from Ibad.I, important discussions in the development, utilization and study of information systems need to be comprehensively positioned by considering the science of communication, management and information technology itself. As a system, the information system in an organization or company becomes part of the decision-making system [2].

Referring to this scope, a map of the relationship between information systems and the needs in the daily management of the organization will be mapped. Information systems will not function if they cannot represent the business model. However, information systems are not only information technology, but also make humans or actors part of this system.

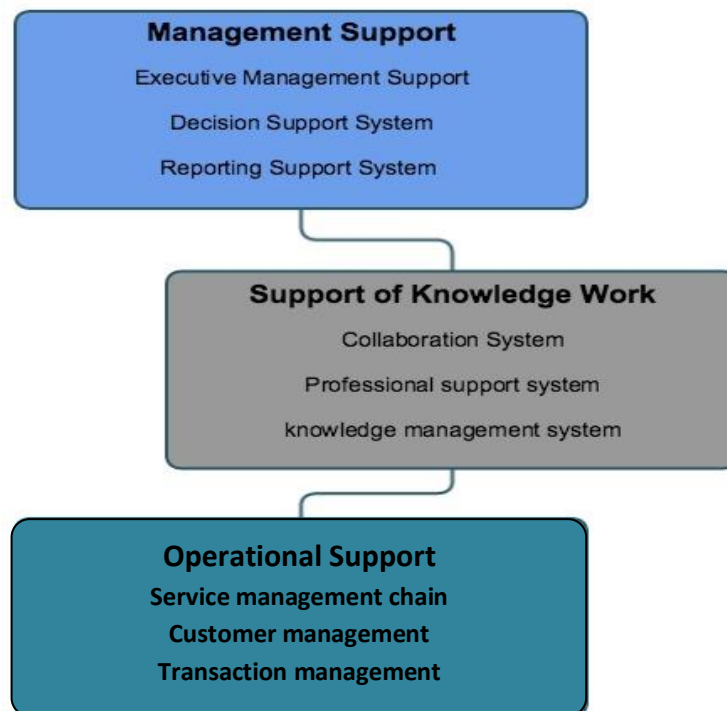


Figure 1. Scope Diagram [2]

The information system in the first scope functions as a system that supports the work and overall management performance. The information system bridges the management's need for comprehensive information related to organizational management.

Organizations operate with a set of information and knowledge. Considering this, organizations can only develop if the supply chain of information and knowledge between activists or managers can run smoothly. Without this mechanism, the organization will

experience obstacles to develop to a more technical and daily level: management and coordination.

At a more practical and daily level, information systems are expected to be able to carry out operational functions at the level of direct implementers. Some important aspects at this level include: customer service or service users, daily recording of activities carried out. With the inclusion of this section as part of the scope of information systems, organizational leaders can exercise direct control over performance within the organization. The information system becomes a recording, service and reporting facility simultaneously [2].

2. RESEARCH METHOD

2.1. PHP (Hypertext Pre-processor)

PHP has the ability to process image output, PDF and flash movies, PHP can also produce text such as XHTML and XML, as well as faster execution time, more flexible database access, and easy and user-friendly PHP syntax [3].

In November 1997, PHP/FI 2.0 was released. In this release, the PHP interpreter has been implemented in the C programming language. This release also includes extension modules that improve PHP/FI capabilities significantly.

In 1997, a company called Zend rewrote the PHP interpreter to be cleaner, better, and faster. Then in June 1998, the company released a new interpreter for PHP and formalized the release as PHP 3.0 and the acronym PHP was changed to the recurring acronym PHP: Hypertext Preprocessing. In mid 1999, Zend released a new PHP interpreter and the release was known as PHP 4.0. PHP 4.0 is the most widely used version of PHP due to its ability to build complex web applications but still has high speed and stability. In June 2004, Zend released PHP 5.0.

In this version, the core of the PHP interpreter underwent major changes. This version also incorporates an object-oriented programming model into PHP to answer the development of programming languages towards an object-oriented paradigm. The latest version of the PHP programming language is version 5.6.4 which was officially released on December 18, 2014 which was later updated with the latest version, namely PHP 7 in 17 December 2015 [4].

Some of the advantages of PHP, namely [4]:

1. Easy and versatile
This PHP programming can be used easily to create server side of the pages that we develop and other uses. Even this programming language supports a variety of other languages, such as CSS and Javascript. And to develop products using this programming language, there are already many popular frameworks among web developers.
2. Have a large community
One of the criteria for the right programming language to learn is that the programming language has a large community. One of the reasons is because with a large community, we can learn easily with the community.
3. Support Database
PHP programming language has advantages that can be used to handle databases very well. As previously explained, this language can be used to edit, add, or even be used to delete data in the database that we have.

2.2. CodeIgniter

According to the journal written by Beben Sutara, Codeigniter is a framework that is often used with the aim of building a website. Codeigniter is often chosen by developers because of its complete documentation from installation to code or functions/classes in making websites that make it easier for developers or programmers to build applications based on web without having to create it from scratch [5].

MVC is a technique or concept that separates the main components into three components, namely the model, view, and controller.

1. Model

Is part of the handling associated with processing or manipulation of the database. For example, taking data from the database, inputting and processing other databases. All instructions related to database processing are placed in the model.

2. View

Is the part that handles the user interface page or the page that appears on the user. Views from the user interface are collected in views to separate them from controllers and models, making it easier for web designers to develop the appearance of website pages.

3. Controller

Is a collection of action instructions that connect the model and view, so the user will not relate to the model directly, the point is from the view then the controller that processes the instructions.

2.3. MySQL

Fast, reliable and stable open source database management system (RDMS- Relational Database Management System). There are several reasons why MySQL is popular for use in web applications, web 2.0 projects, Saas, ISV and open sources like LAMP. MySQL can help users save time and money. MySQL can be used for small and large businesses. This RDBMS is developed, marketed and supported by MYSL AB, a Swedish company. MySQL is written in C and C++ [6].

3. RESULTS AND DISCUSSION

3.1. Use Case Diagram

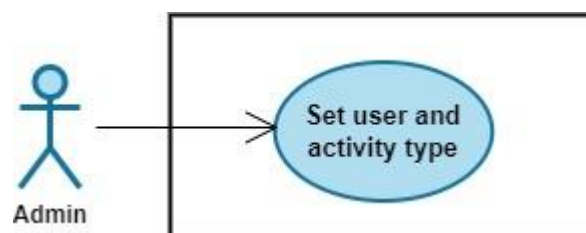


Figure 2. Use Case Admin

In Figure 2, a use case diagram is shown for the admin section of the user. In this application, the admin can set the user and the types of activities that can be done by the user. Admins can also submit activities by filling out the application form which is then sent to the chairman.

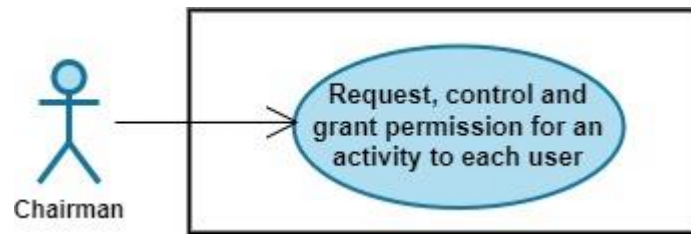


Figure 3. Use Case Chairman

In Figure 3, a use case diagram of the user as chairman is shown. The Chairperson has the authority to determine, control, and assign activities to other users. Admin who proposes a type of activity, the activity can be carried out or not depending on the permission given to the chairman.

3.2. System Implementation

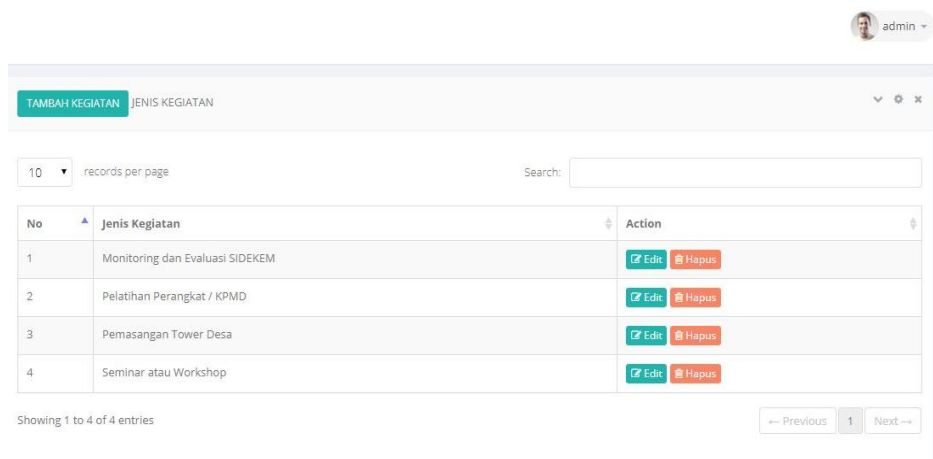


Figure 4. Display of activity type page by admin

Figure 4 shows a page containing data on the type of activity. This page can only be seen by Admin. Basically the Chairman can also view this page, but this is the view of the Admin work section.

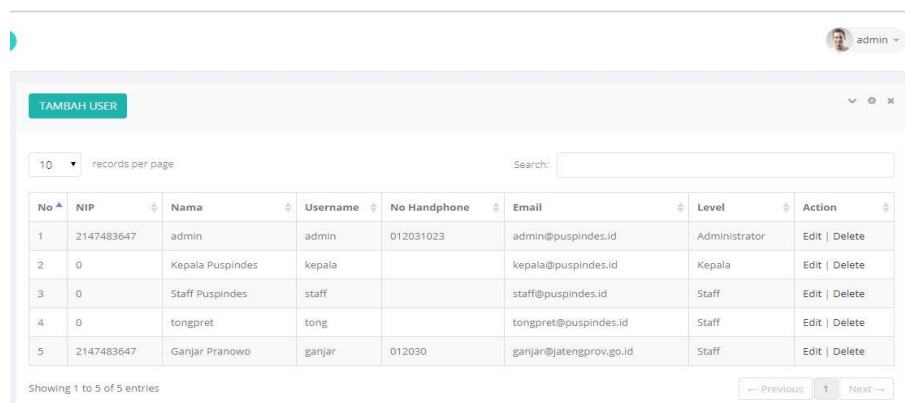
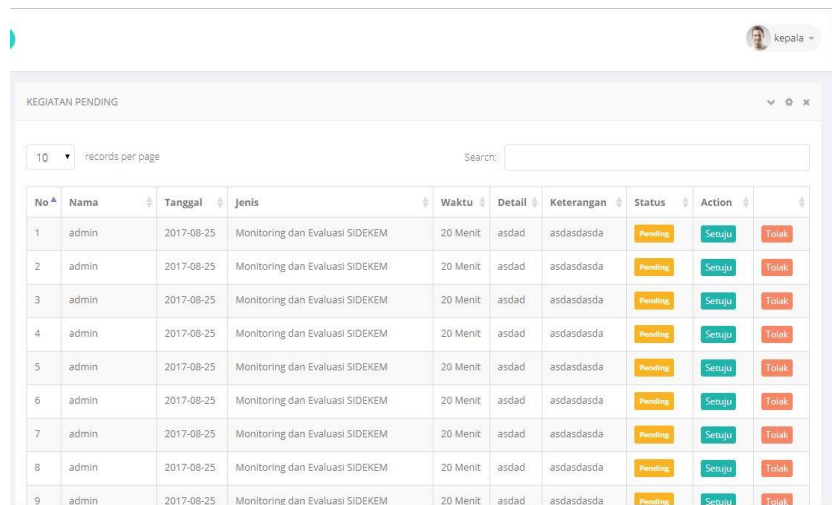


Figure 5. Display of user settings page by admin

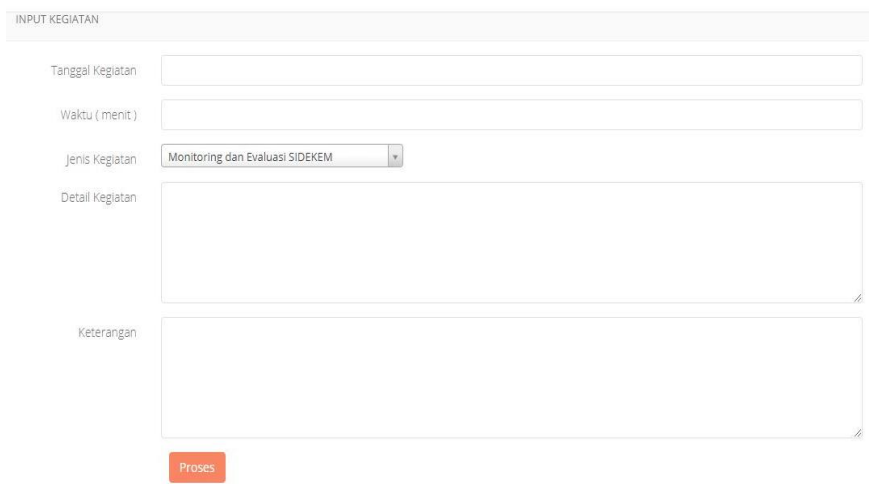
In figure 5, the user settings page is displayed which can only be seen by the Admin. On this page, Admin can add new users, change user data, and delete users.



No	Nama	Tanggal	Jenis	Waktu	Detail	Keterangan	Status	Action
1	admin	2017-08-25	Monitoring dan Evaluasi SIDEKEM	20 Menit	asdad	asdasdasda	Pending	Setuju Tolak
2	admin	2017-08-25	Monitoring dan Evaluasi SIDEKEM	20 Menit	asdad	asdasdasda	Pending	Setuju Tolak
3	admin	2017-08-25	Monitoring dan Evaluasi SIDEKEM	20 Menit	asdad	asdasdasda	Pending	Setuju Tolak
4	admin	2017-08-25	Monitoring dan Evaluasi SIDEKEM	20 Menit	asdad	asdasdasda	Pending	Setuju Tolak
5	admin	2017-08-25	Monitoring dan Evaluasi SIDEKEM	20 Menit	asdad	asdasdasda	Pending	Setuju Tolak
6	admin	2017-08-25	Monitoring dan Evaluasi SIDEKEM	20 Menit	asdad	asdasdasda	Pending	Setuju Tolak
7	admin	2017-08-25	Monitoring dan Evaluasi SIDEKEM	20 Menit	asdad	asdasdasda	Pending	Setuju Tolak
8	admin	2017-08-25	Monitoring dan Evaluasi SIDEKEM	20 Menit	asdad	asdasdasda	Pending	Setuju Tolak
9	admin	2017-08-25	Monitoring dan Evaluasi SIDEKEM	20 Menit	asdad	asdasdasda	Pending	Setuju Tolak

Figure 6. Page view by the Chairman

Figure 6 shows the main page that can be processed by the Chairman. This page displays the activities proposed by the Admin. The head can give permission and refuse the proposed activity.



INPUT KEGIATAN

Tanggal Kegiatan:

Waktu (menit):

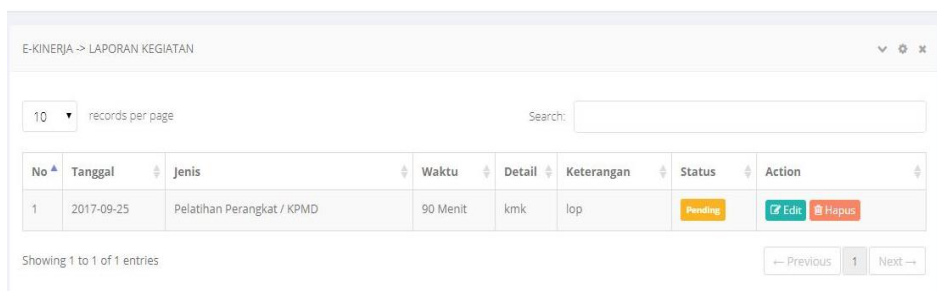
Jenis Kegiatan:

Detail Kegiatan:

Keterangan:

Figure 7. Page display for entering activity data

Figure 7 shows the data entry page for submitting activities to be carried out by the staff.



No	Tanggal	Jenis	Waktu	Detail	Keterangan	Status	Action
1	2017-09-25	Pelatihan Perangkat / KPMD	90 Menit	kmk	lop	Pending	Edit Hapus

Figure 8. Display of activity page that can be seen by all users

Figure 8 shows a list of activities that have been approved and will be implemented. This page displays the date of the activity, the type of activity, the duration of the activity, and additional information.

4. CONCLUSION

With the making of this research, the following conclusions were obtained:

1. Leaders can more easily monitor the performance of employees in Puspindes and can carry out work evaluations more easily.
 2. Able to increase the productivity of Puspindes employee performance.
- The suggestions given so that this research can be better, are as follows:
1. Training is required for employees in the use of the application.
 2. Making data backups on the Cloud System as data storage that is safer and not easily lost.
 3. This system can be developed by integrating it with the payroll system.

REFERENCES

- [1] Dimas OSD. (2015, June 14). Kompasiana. Dipetik October 2017, 2017, dari Pengertian SI (Sistem Informasi): http://www.kompasiana.com/dimasosd/pengertian-si-sistem-informasi_55291077f17e61268b48b6
- [2] Ibad. I. (2015, February 8). ensiklo.com. Dipetik October 23, 2017, dari Sistem Informasi: Pengertian, lingkup dan konsep pengembangan: <http://ensiklo.com/2015/02/sistem-informasi-pengertian-lingkup-dan-konsep-pengembangan/>
- [3] Oktarino, A. (2016). PERANCANGAN DAN IMPLEMENTASI REKAM MEDIS PASIEN POLI UMUM DI RUMAH. Scienta Journal STIKES JAMBI, 4, no 4, 317-323.
- [4] Subhiyakto, E. R., & Utomo, D. W. (2017). Analisis Dan Perancangan Aplikasi Pemodelan Kebutuhan Perangkat Lunak Menggunakan Metode Prototyping. Prosiding Seminar Nasional Multi Disiplin Ilmu & Call For Papers (pp. 57-63). Semarang: Sendi U3.
- [5] Sutara, B. (2017). Optimalisasi Aplikasi Transaksi Penjualan Berbasis Web. Jurnal Informatika : Jurnal pengembangan IT (JPIT), 2, NO 1, 1-5.
- [6] Yudana. (2017, September 3). Yudana.id. Dipetik October 18, 2017, dari MySQL Database Management System Paling Populer Untuk Membangun Website: <http://www.yudana.id/mysql-database-management-system-paling-populer-untuk-membangun-website/>

- [7] Utomo, M. T., & Mustafidah, H. (2016). Penentuan Spesifikasi Komputer Berdasarkan Kebutuhan Pemakai Dan Harga Menggunakan Basis Data Fuzzy. JUITA, IV No 1, 28-36.
- [8] Sukindar. (2016, April 4). Teknojurnal. Dipetik October 23, 2017, dari Kelebihan bahasa pemrograman PHP: <https://teknojurnal.com/kelebihan-bahasa-pemrograman-php/>