Journal of Artificial Intelligence and Engineering Applications

Website: https://ioinformatic.org/

June 2026. Vol. 5. No. 3; e-ISSN: 2808-4519

Implementation of Village Management Information System for Monitoring and Evaluation of Pangkul Village Development Program

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Abstract

Pangkul Village is optimizing monitoring and evaluation of development programs through the implementation of a new information system. This system was developed using agile methods to adapt to rapidly changing needs. By implementing agile methods in monitoring and evaluating village development programs, it is hoped that a more adaptive and results-oriented process can be created that is beneficial to the community. This activity aims to identify progress, challenges, and impacts of development programs, as well as ensure community participation in the village development process. The evaluation results show the development of village government performance in planning and implementation, as well as the identification of relevant performance indicators for continuous improvement.

Keywords: *Monitoring and Evaluation, Development Program, Agile Method*

1. Introduction

According to Cecep [1] the development of information technology is a crucial factor in modern progress. Several key areas of technological advancement influence the level of progress within a country, including village government. According to [2], an information system is one of the most important things in a company. Pangkul Village is a village that faces significant challenges in implementing a village management information system for monitoring and evaluating development programs. This challenge is caused by limitations. Therefore, the village head should implement the Village Management Information System (SIMDesa), which is expected to be a solution to address this issue. SIMDesa allows for more systematic and accurate collection, processing, and reporting of development data. This is expected to facilitate online monitoring by the community, contributing to the development of Pangkul Village and further enhancing public trust. Based on this background, the author will conduct a study entitled: Implementation of the Village Management Information System for Monitoring and Evaluation of the Pangkul Village Development Program.

2. Theoretical Review

2.1. Definition of Implementation

According to [3], implementation can be simply defined as carrying out or applying. Implementation is the process of applying ideas, concepts, policies, or innovations in a practical action, resulting in positive impacts in the form of changes in knowledge, skills, values, and attitudes.

2.2. Understanding Systems

According to [4], a system is a network of procedures that collaborate and are linked to a specific goal. According to [5], a system can be defined as a network of procedures that come together to carry out, complete, and achieve a specific goal.

2.3. Understanding Information Systems

According to [4], an information system is a unified information system that supports and generates valuable information for recipients derived from data. According to[6], an information system is a system within an organization that reconciles the needs of daily transaction processing, supporting the organization's managerial operational functions, with the organization's strategic activities, to provide necessary reports to certain external parties.

2.4. Understanding Management Information Systems

According to [7] , Management Information Systems have led to significant changes in decision-making patterns among management, both at the operational and technical levels, as well as leaders at all levels.According to [8] in their book "Management Information Systems: Managing the Digital Firm" (2020), a Management Information System (MIS) is a system designed to collect, process, store, and distribute information to support decision-making, coordination, control, analysis, and visualization within an organization.

2.5. Understanding Websites

According to [9] , a website is understood as a collection of pages consisting of several pages containing information in digital form, including text, images, and animations, provided via the internet so that it can be accessed from anywhere in the world with an internet connection. According to [2], a website is defined as a collection of interconnected web pages that can be accessed via the internet. Understanding Websites.

2.6. Understanding MySQL

According to [10], MySQL is a database server (RDBMS) software that can manage databases very quickly, accommodate large amounts of data, and synchronize data for multiple users. According to Praba, A. D., & Safitri, M. (2020), MySQL is defined as a relational database management system widely used in web application development.

2.7. Understanding Codeigniter

According to [11], Codeigniter is a framework used for the PHP programming language created by Rick Elis in 2006. According to [12], Codeigniter is a framework claimed to have the fastest execution speed compared to other frameworks. Codeigniter is a framework that implements the MVC design pattern.

3. Research Methods

All paragraphs must be justified alignment. With justified alignment, both sides of the paragraph are straight.

3.1. Data Collection Techniques

The techniques used to collect data in this study were as follows:

1. Interviews
   Interviews were conducted to collect data directly by conducting questions and answers with informants. The researcher interviewed Mr. Eko Sukahar, the Secretary of Pangkul Village, regarding problems encountered in data processing and providing services to the village community.
2. Observation
   In this stage, the researcher conducted a direct survey at the Pangkul Village Office to collect data related to the administrative governance of Pangkul Village.
3. Library Research
   In this literature study, the researcher collected data and information from various sources, including books, journals, theses, and documents related to the system to be developed Text font of entire document.

3.2. Data Sources

According to [13], data sources directly provide data to data collectors. Data types are divided into two types based on their source: primary data sources and secondary data:

1. Primary Data

Primary data is data obtained directly from researchers for research purposes, or data obtained directly from primary sources through observation or interviews with the Pangkul village secretary, Mr. Eko Sukahar.

2. Secondary Data

Secondary data is data supporting primary information obtained from documents, reading materials, the internet, or observation.

4. System Analysis and Design

4.1. Proposed Use Case Diagram

A use case diagram illustrates the functionality of a system so that users can understand and comprehend the purpose of the system being developed.

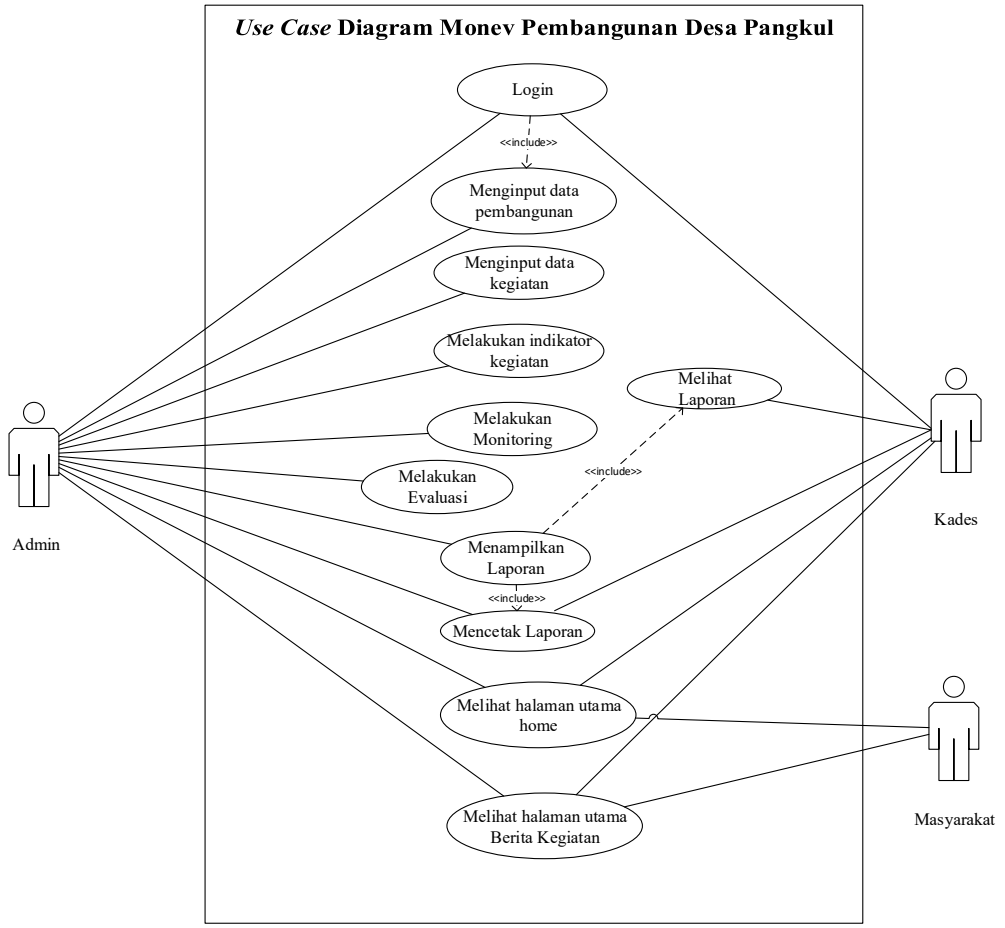

Fig. 1 : Proposed Use Case

5. System testing Implementation

5.1. User Database

Used to store system user data, such as admins and village heads.

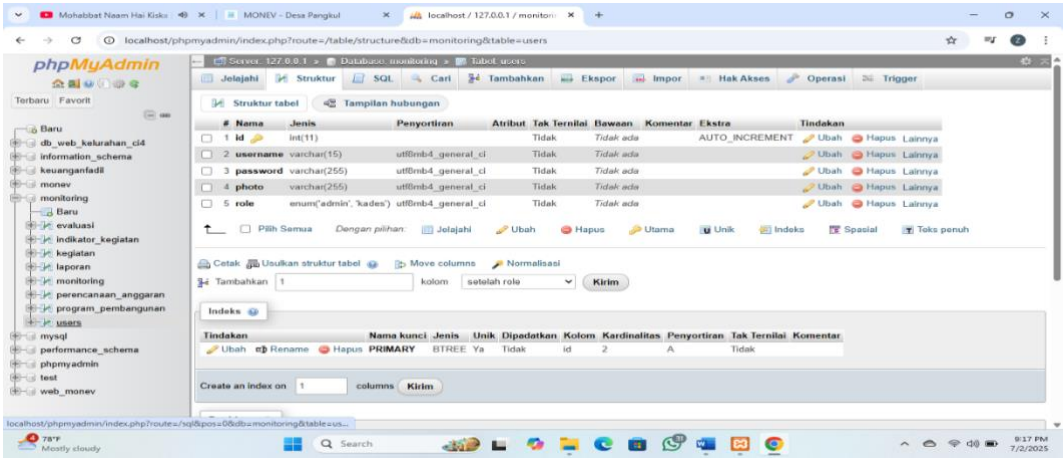

Fig. 2 : Database User

5.2. Interface Implementation

The interface implementation stage is the stage where users meet their needs when interacting with the computer. A good interface greatly assists users in understanding the processes being carried out by the developed software system. The following is a display of the system interface implementation:

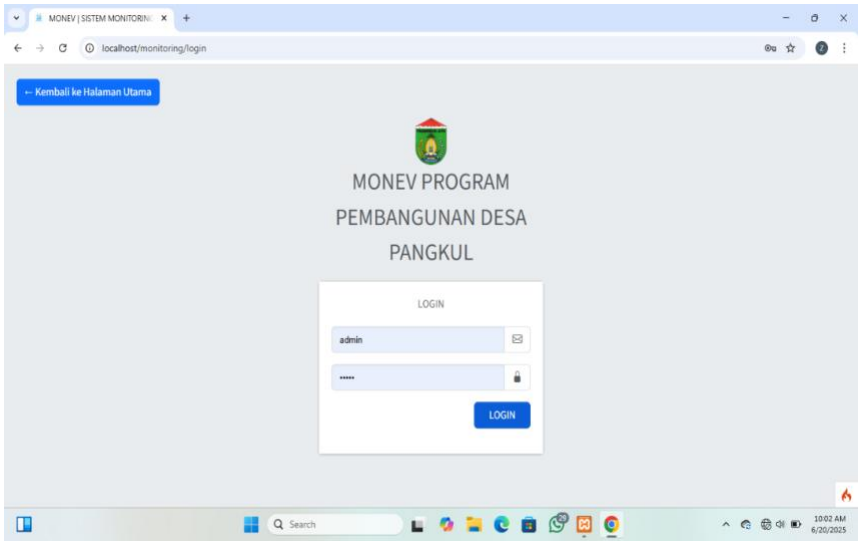

Fig. 3 : Login Form Page Implementation

In Figure 3 this login form has been created to access the application's main menu page by entering a username and password and then clicking login.

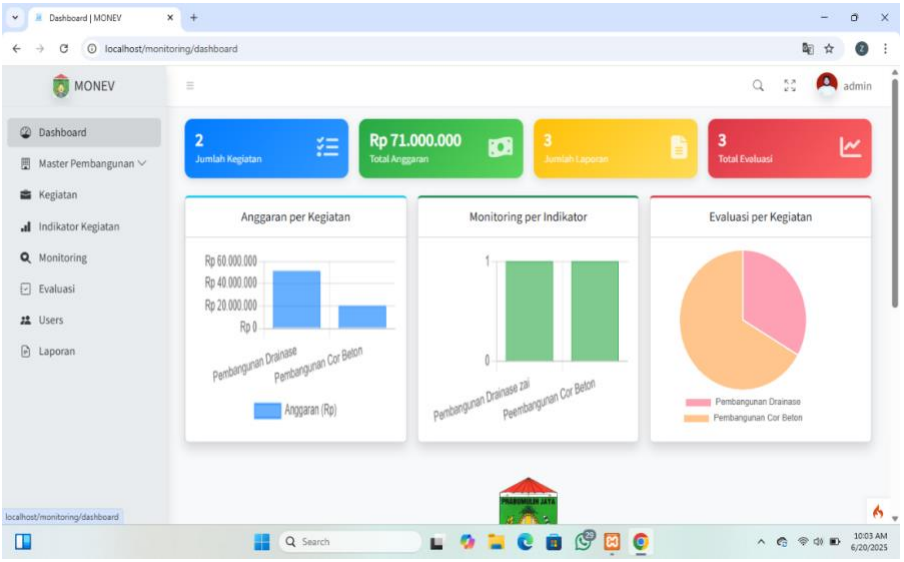

Fig. 4 : Implementing the Dashboard Page

In figure 4 the Dashboard page is the first page you see after successfully logging in.

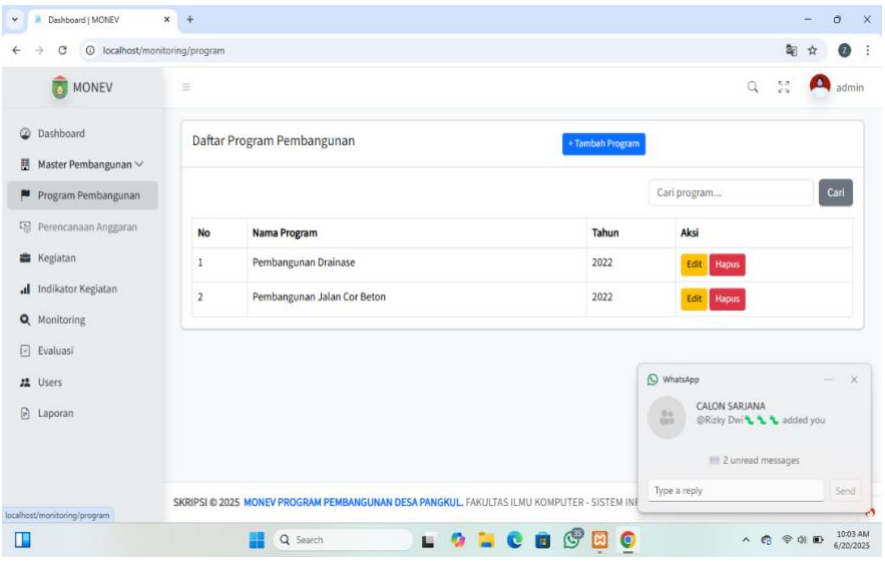

Fig. 5 : Implementation of the Development

In figure 5 The development program menu page is the main page for inputting development data based on existing data and the year the development program was implemented.

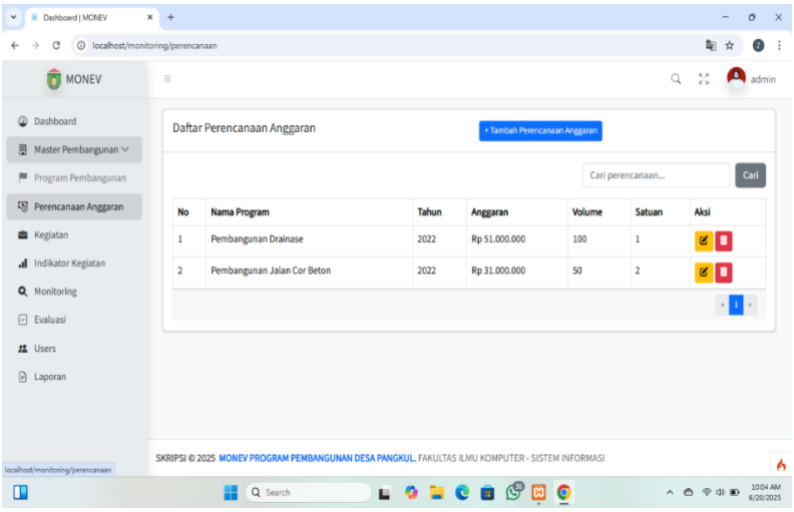

Fig. 6 : Implementation of the Budget Planning Page

In figure 6 The development planning page is used to input data based on the development program data mentioned above. On this page, we will transparently display the budget allocated to implement the development program.

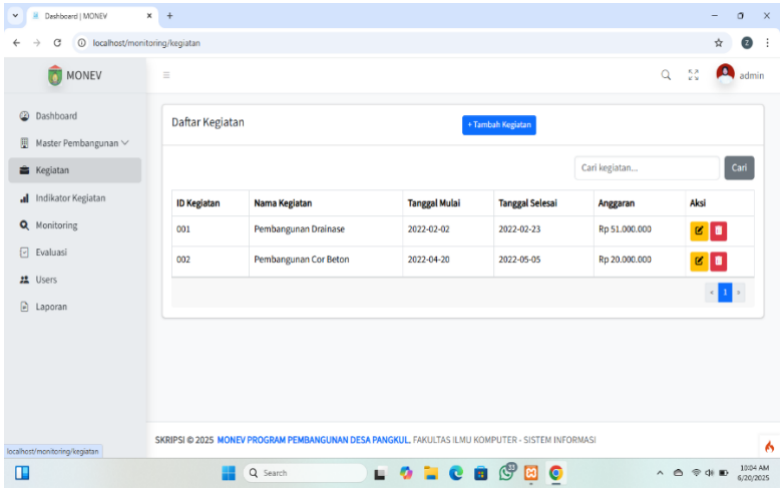

Fig. 7 : Implementation of the Activity Page

In figure 7 the activity page is a page designed to improve the quality of life of the Pangkul Village community, both economically, socially, and environmentally.

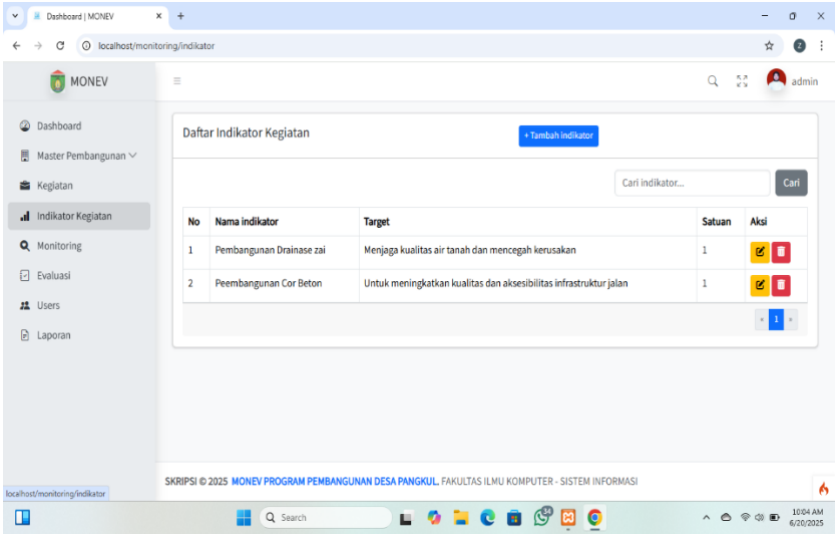

Fig. 8 : Implementation of the Activity Indicator Page

In figure 8 the activity indicator page is used to monitor development progress and identify areas for improvement.

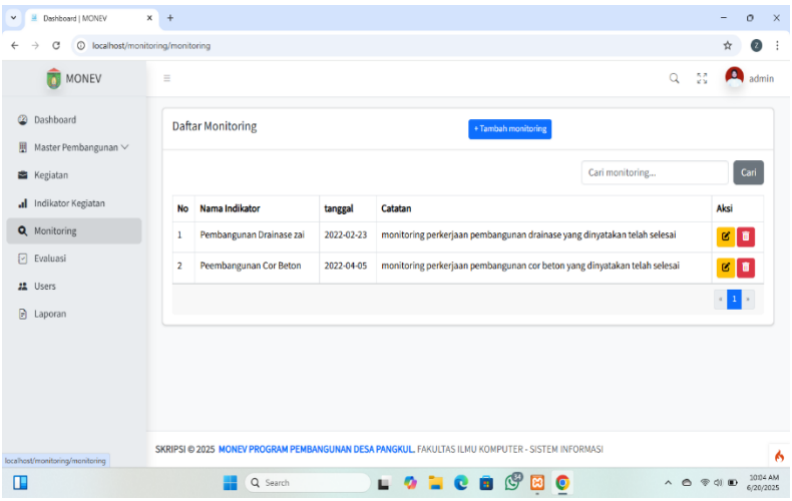

Fig. 9 : Implementation of the Monitoring Page

In figure 9 the monitoring page is used to conduct ongoing monitoring of a development program to ensure that development is progressing according to plan, budget, and targets.

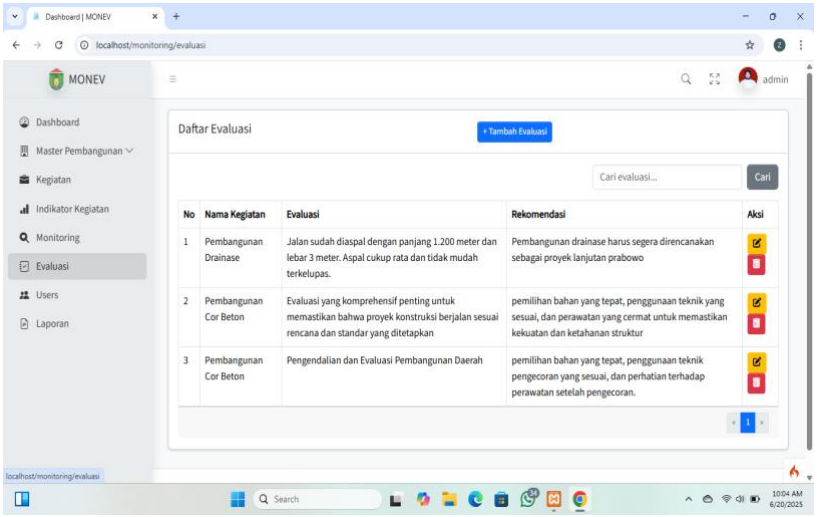

Fig. 10 : Implementation of the Evaluation Page

In figure 10 the evaluation page is the process of assessing the achievement of targets, objectives, and development performance that has been implemented.

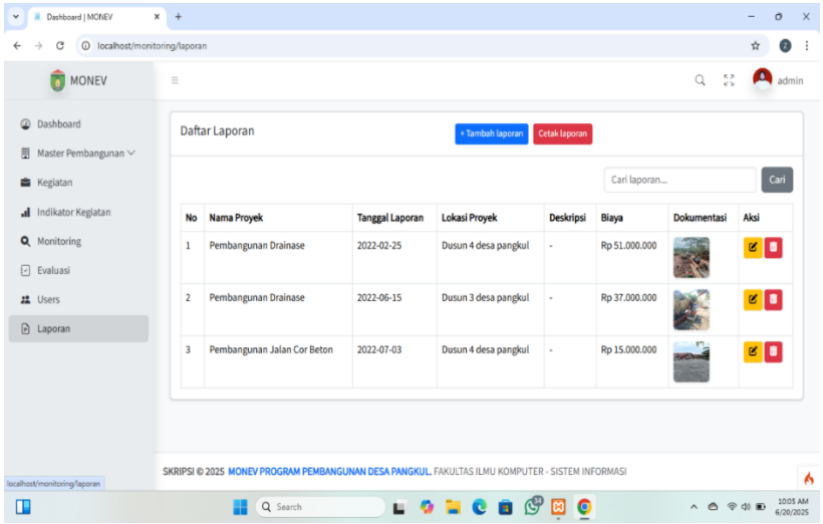

Fig. 11 : Implementation of the Report Page

In figure 11 the report page is a physical document, printed in PDF format or downloaded, that provides detailed information about the results of a development program.

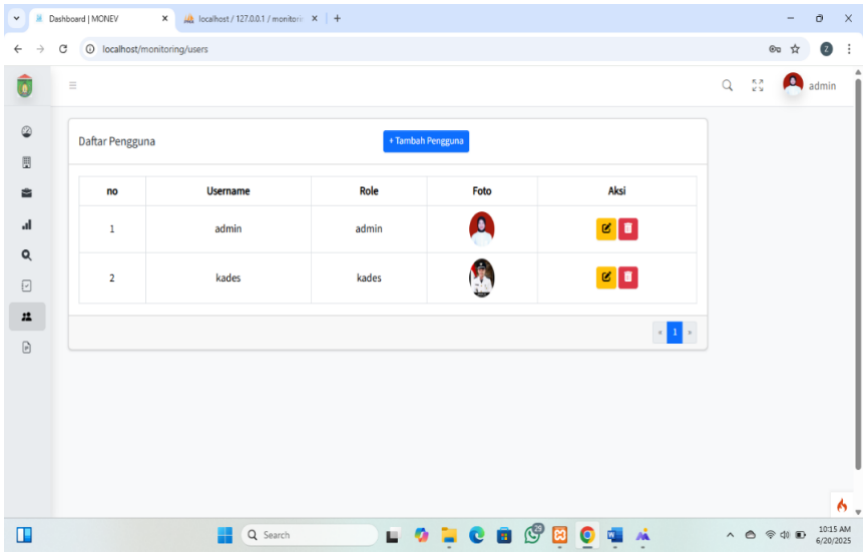

Fig. 12 : User Page Implementasi

In figure 12 the user page is the page used by admins and village heads to edit their username, password, and profile photo.

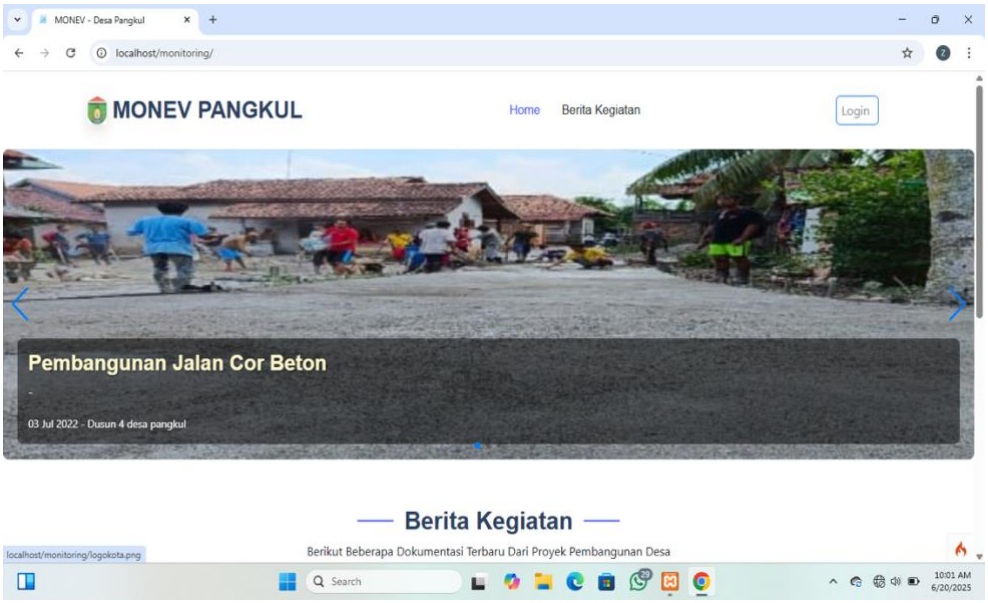

Fig. 13 : Implementation of the Community Page

In figure 13 the community page is the main page of this monitoring and evaluation application, which is used to directly and transparently inform the Pangkul Village community about every development program implemented in Pangkul Village.

5.3. System Testing

System testing is the stage carried out after the interface is implemented. This involves testing the website and existing features to ensure they meet user needs. The results of the Pangkul Village Development Program Monitoring and Evaluation website testing can be seen in the following table:

Table 1 : System Testing

No	User Name	test Item	Test Item	Results
1	Admin	Login page	Verify Username and login password	Succeed
2		Dashbord Page	Showing The Main Page and Profile	Succeed
3		Development Planning page	Showiing The Development Program Page	Succeed
4		Activity Page	Showing the activity page that has been done	Succeed
5		Activity Indikator Page	Displaying the activity data page that has been	Succeed

6		Monitoring Page	Monitoring the activity program that has been done	Succeed
7		Evaluation Page	Displaying the assessment results of the activities that have been done	Succeed
8		Report Page	Displaying report Page	Succeed
9	Village Head	Login Page	Verify Username and Password and login	Succeed
10		Dashbord Page	Display the main dashboard page and village head profile	Succeed
11		Report Page	Display the report page	Succeed
12	Public	Main Home Page	Display the main home page	Succeed
		Activity News Page	Display the main page of activity news	Succeed

From the table above, it can be concluded that every time the process executes a command, the system runs well as expected.

5. Conclusion

Based on the research results and the implementation of the Village Management Information System (SIMDesa) in Pangkul Village, the following conclusions can be drawn:

1. Increased Monitoring and Evaluation Efficiency
   The implementation of SIMDesa significantly assists in the monitoring and evaluation process of village development. This system enables systematic, accurate, and efficient data collection, processing, and reporting, which was previously done manually.
2. Transparency and Accountability of Village Government
   With SIMDesa, the development process becomes more transparent. The public can access development information online, thereby increasing village government accountability and public trust.
3. Human Resource Constraints
   One of the main obstacles in the implementation of SIMDesa is the limited technical skills of village officials in operating the system. This indicates the need for ongoing training for village officials.
4. Increased Community Participation.
   This system also opens up space for active community participation in the monitoring and evaluation of village development programs, through open access to information based on information technology.

In this section you should present the conclusion of the paper. Conclusions must focus on the novelty and exceptional results you acquired. Allow a sufficient space in the article for conclusions. Do not repeat the contents of Introduction or the Abstract. Focus on the essential things of your article.

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