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## IMPROVING THE QUALITY OF PERFORMANCE MONITORING OF THE WORK UNITS OF THE NATIONAL LAND AGENCY OF ACEH PROVINCE

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### ABSTRACT

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Article Info	This study describes a system that functions to monitor performance achievements, where technological developments in the millennial era are very rapid so that they are able to have a large enough effect, especially in the world of work. Achievement of performance in an organization is very important so that the work of an organization can be achieved according to the target. At the Ministry of ATR/BPN, many dashboards have been made that can monitor this performance achievement, but due to too many dashboards spread over many applications, it is difficult for the supervisory officers of the Aceh Province BPN Regional Office to monitor and evaluate, it is necessary to have a system that can collect all achievements. performance by realtime and fast, so that with a system that is integrated into all dashboards, it will make it easier for supervisory officials to monitor and evaluate all activities anytime and anywhere.
Received, 01/08/22	
Revised, 15/08/22	
Accepted, 30/08/22	

Keywords: Performance Achievement, Assessment Dashboard, Monitoring and Evaluation

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### 1. INTRODUCTION

One of the measuring tools to determine whether the organization has a good performance is whether or not the target has been achieved. Roadmap) that has been determined by the organization. The achievement of organizational goals is strongly supported by the performance of existing human resources. If the performance of human resources is good, it is expected that the performance of the organization will also be good. However, to get good performance, it is necessary to manage and evaluate performance effectively (Ruky, 2006).

Monitoring and evaluation can be used to assess whether a program or activity has been running according to the plan or target, identify problems in the implementation of programs and activities and efforts to overcome these problems. The monitoring of the implementation of these programs and activities must be carried out in a planned, orderly, measurable, and coordinated manner and can be used for policy making by those in charge of activities at the level of the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency, Provincial BPN Regional Offices and Regency Land Offices. /City quality (quality of implementation per activity stage as well as the suitability of the subject and object), monitoring and evaluation activities are important to do.

The report card application which will be able to collect all data is expected to become a single application data container that can display all performance results from dozens of existing dashboards and is developed every month following the dynamics of policies related to planning and budgeting, so activities that are considered priority to be implemented can be entered at any time. to be the focus of monitoring and monitoring the performance of the work unit. This makes it easier for the supervisory officers of the Regional Office of the National Land Agency of Aceh Province to monitor and evaluate and make policy decisions at any time by using only one system.

## **2. LITERATURE REVIEW**

### **2.1 Application**

Application software is a subclass of computer software that utilizes direct computer capabilities to perform a task the user wants (Safaat, 2012). The main examples of application software are word processors, worksheets, and media players. Several applications bundled together into a package are sometimes referred to as a package or application suite (application suite).

### **2.2. Performance**

Performance is a term that is often referred to by managers, directors or leaders to state the condition of the organization or company they manage. At the end of each year, they make a report on the company's performance by mentioning the work program, implementation, results achieved, the existence of resources, and certain obstacles/opportunities found (Sutrisno, 2012). They use the report as a basis for preparing work programs and to make predictions of future business success. The term performance is also used to measure the condition of individual employees in an organization or company. Through an evaluation of their performance, each employee will be able to determine whether the quality is medium, high or very high. Employee performance measurement is very important, especially to determine future organizational or company policies in order to face business competition. Performance is not the result of work or work productivity, performance is a generic term in which there are elements of work results, productivity and other elements. Understanding the concept of performance correctly for every leader of an organization or company is very important (Marakas, 2016).

### **2.3 Regional Office**

The Regional Office of the National Land Agency, hereinafter referred to as the Regional Office of the National Land Agency, is a vertical agency of the National Land Agency in the Province which is under the Ministry and is directly responsible to the Minister.

### **2.4 cURL**

cURL stands for URLClient, is a command line tool that developers use to transfer data to and from servers. Basically, cURL lets us talk to the server by specifying the location (in the form of a URL) and the data you want to send. cURL supports several different protocols, including HTTP and HTTPS, and runs on almost all platforms. This makes cURL ideal for testing communications from almost any device (as long as it has command line and network connectivity) from a local server to most devices. edge(Hostetter, 2007)

### **2.5 JSON**

JSON (JavaScript Object Notation) is a lightweight data exchange format. It is easy for humans to read and write. It is very easy for the machine to decompose and produce. It is based on a subset of the JavaScript Programming Language Standard ECMA-262 3rd Edition - December 1999. JSON is a completely language-independent text format but uses conventions familiar to programmers of the C language family, including C, C++, C#, Java, JavaScript, Perl, Python and many others. This property makes JSON an ideal data exchange language (Basset, 2015).

## **3. METHOD**

### **3.1 System Development Life Cycle (SDLC)**

The research method uses the System Development Life Cycle (SDLC). Software development that is useful for conducting system analysis which in its development goes through several stages or steps is often referred to as SDLC. Where the method used in this study is SDLC which uses a prototype. Prototype is a method of making software that allows researchers to have an initial picture of the system or software to be developed and can facilitate initial testing before development.

This method provides a complete picture of the system or software which consists of paper models, work models and programs.

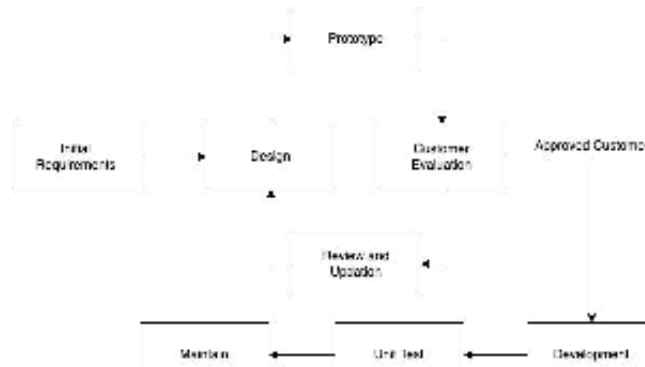


Figure 1. SDLC Prototype

### Prototype Stage

- a. Needs Collection  
Customers and Developers have discussions in defining the outline requirements of the software that will be developed or made later.
- b. Building Prototype  
Create a design that describes the focus of the system flow on the customer (input and output flow).
- c. Prototype Evaluation  
By evaluating the customer, you will get an overview of the constraints and solutions and the next steps to be taken. However, if there are still things in the prototype that are not appropriate, the prototype is revised by repeating the previous steps.
- d. Perform System Coding  
At this stage the prototype that has been agreed upon between the customer and the developer is translated into the appropriate programming language.
- e. System Test  
After the system becomes software, it is necessary to test the software system to find out whether the entire agreed system has been successfully executed.
- f. System Evaluation  
The customer will evaluate the software system that has been completed whether the system made is in accordance with the wishes and expectations. If yes, then it will be continued in the next process. But if not then repeat the previous step.
- g. Using the System  
The software system is ready to use and deploy.

### 3.2 System Modeling

The modeling used is Data Flow Diagram (DFD).

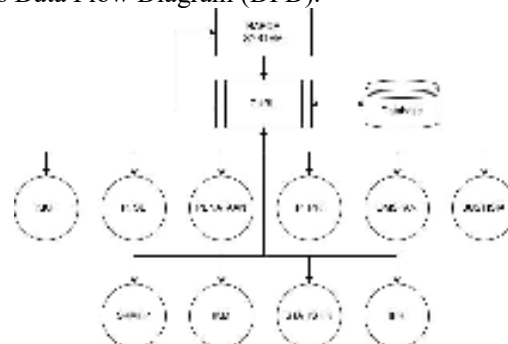


Figure 2. Flow Diagram of the Report System Business Process.

In its business flow, the report card acts as an application front-end which becomes a forum that can display the assessment of several central performance monitoring dashboard systems. In the flow above, it can be seen that the report card will check the database system, where if the existing data is the latest data, the report card will immediately display the data to application users, but if the data in question is not the latest data, the system will call the cURL function on duty. to retrieve data from various existing dashboards for later the captured data will be stored into a database which is forwarded to the report card application with JSON data format (Javascript Object Notation).

### 3.3 Database Schema

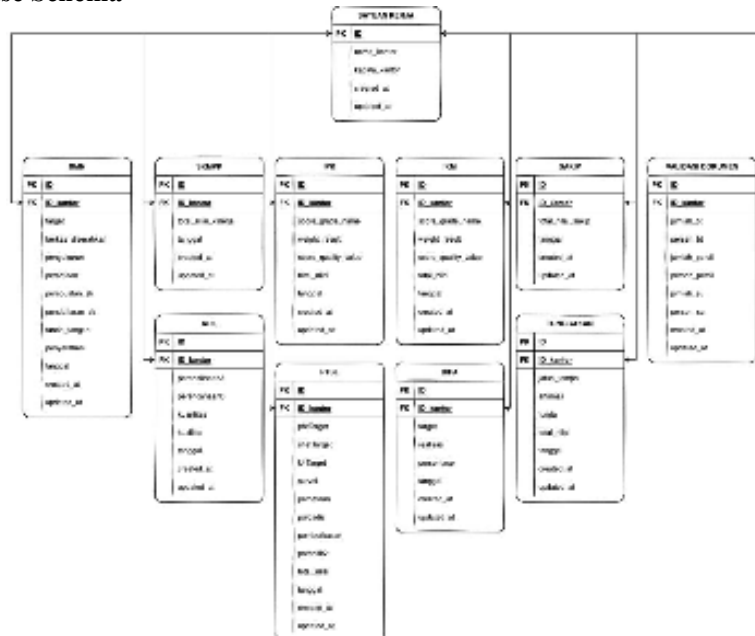


Figure 3. Database Schema

A relational database is a type of database management system (DBMS) that provides an overview or schema chart that explains the relationship between tables that can be done in a database.

## 4. RESULT AND DISCUSSION

### 4.1 User Interface Design

Conceptual-based description or design of a layer display or user display format that will be made either from the input or output side of the agreed software system is also known as User interface design. The following is a layer display on the report card application that will be developed.

#### a. Main Display Design



Figure 4. Main Display Design

b. Rating Profile Display Design



Figure 5. Main Display Design

c. Activity Performance Results Table Display Design

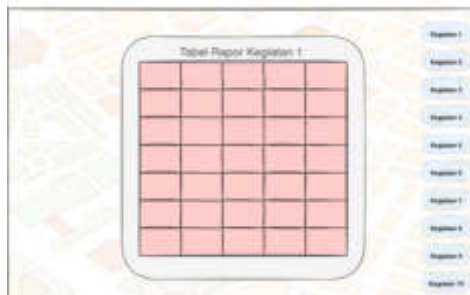


Figure 5. Main Display Design

d. Performance Ranking Display Design



Figure 6. Main Display Design

e. Assessment Record Plan

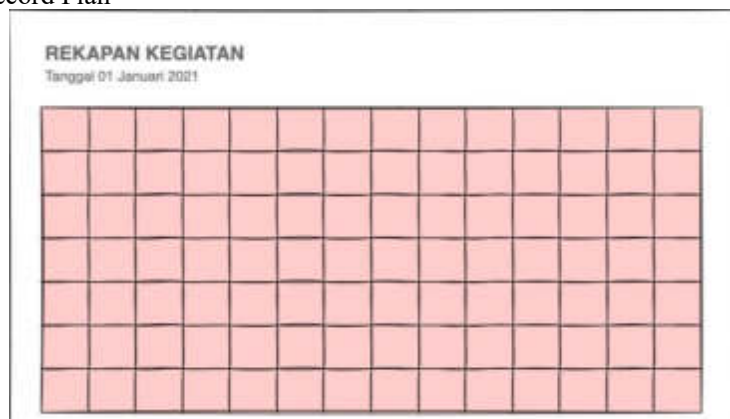


Figure 7. Main Display Design

The results of the series that have been carried out are a web-based application by implementing a web templateresponsiveso that the application can be opened either by using the devicedesktopcomputers and devicesmobilelikesmartphone. As the following display results:

## 4.2. User Display Results

### a. Main View

The main focus in making this report card application is the simplicity of the system, which isUser InterfaceA simple system will make it easier for supervisory officers and administrators to understand the flow of the existing application system.User Interfacemade with the systemsingle-page-application (SPA)where all functions are displayed in 1 (one) the same display, which in the main view will directly show the Map of each Regency/City, so that supervisory officers and administrators who want to see data per unit implementing tasks or who later referred to as the Land Office, simply by clicking on the Regency/City area you want to see the value. Furthermore, there is a menu to the right of the main display that is useful as a menu indicating if the activity is an activity that is the main focus of monitoring and which will be assessed in this report card application system.



Figure 8. Main Display of Report System

### b. Land Office Assessment Profile Display

If one of the Regency/City maps is clicked, it will display information on the value or achievement of the work unit, where in facilitating data monitoring, the report card divides 3 types of performance achievements, where Green means that the achievement is in accordance with or exceeds the specified Roadmap, Yellow means that the achievement has not been achieved. achieve the determined Roadmap and support for the performance achievement of the work unit is needed, while Red means that the achievement is still far from the predetermined Roadmap for which an evaluation or official trip is required by the supervisory official to the work unit area that has the most red color in the work unit.The determination of the activity roadmap is determined from the commitment of the work units each month to the performance achievements of their respective work units which is given to the Regional Office of the National Land Agency of Aceh Province as the regional supervisor, where this roadmap will later be entered into the database and program to be determined automatically by the system every month whether each work unit has succeeded in achieving the commitments that have been submitted previously.

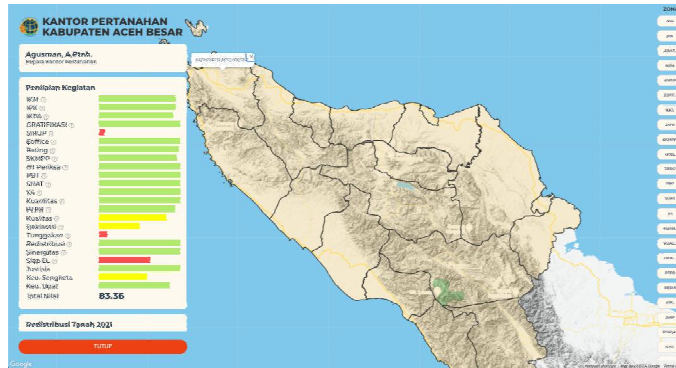


Figure 9. Display of Report System Profile

**c. Activity Performance Results Table Display**

A display that displays performance achievements per activity, where this view is displayed triggered from the right menu which is clicked by the user, so that if the supervisory officer or administrator wants to see in detail the achievements per activity, they can click on the menu on the right side of the application.

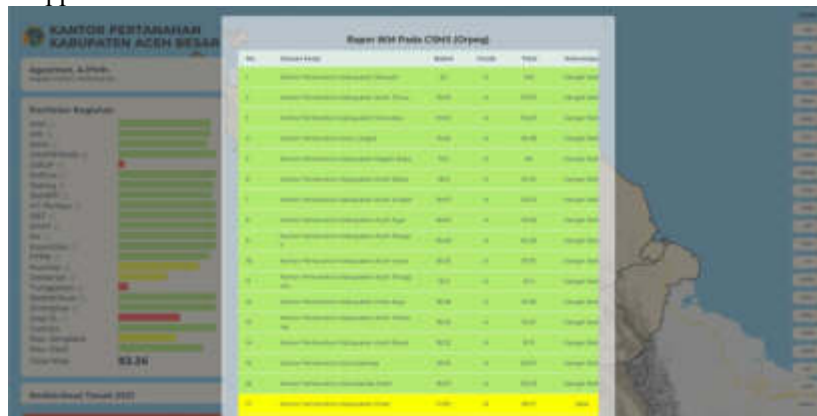


Figure 10. Report System Assessment Table Display

**d. Work Unit Ranking Display**

This display displays the total final achievement of all work unit activities, where all activities whose values are included in the report card system, will be processed by the system and sorted into a ranking of the final performance achievements of the work unit, where this function functions for supervisory officials to give rewards to work units assigned to the work unit. managed to give the best value, and will be given punishment for poor performance.

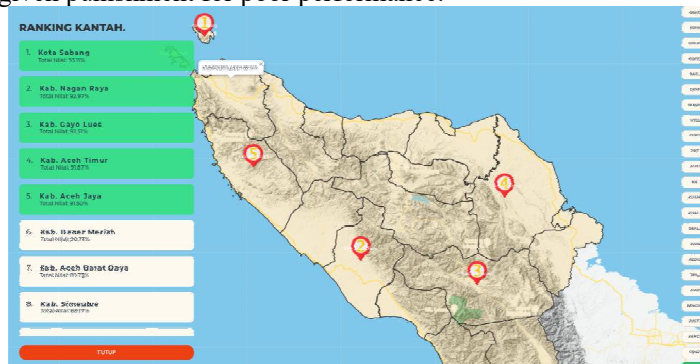


Figure 11. Ranking of Reporting System Satker

**e. Display Recap of All Activities.**

The results of this recap is one of the functions of the report card system, which can display the results of a summary of performance achievements quickly with detailed values per activity, where all users can see the final percentage of each activity in detail.

Figure 12. Recap of Satker Activities

**f. Display On Smartphone**

The report card system is built using the vue-js framework where on the front-end it uses the view-ui library which can be accessed on the following page:<https://www.iviewui.com/>, where this library is UI Toolkit high quality, which makes it easy to create UI versions desktop and smartphone, where the display will be divided into a grid, which will change the size of the layout/container according to the screen size of the platform and this is how it looks when opened using a smartphone.



Figure 13. Display of Main Page and Rating Profile Page on



Figure 14. Display of Main Page and Rating Profile Page on



#### **4.3 Test Results**

When finished in testing the report card system, the results can be explained, namely: All designed functions work well on the display Desktop nor Smartphone. The application is easy to use by supervisors and administrators.

#### **5. CONCLUSION**

So the research carried out by the author makes the report card system able to get the result that is: With a lot dashboard The assessment made by the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency requires 1 (one) system that can make it easier for supervisory officials to see the progress of all performance achievements in each work unit in their area. Guiding Officers and Administrators are greatly facilitated by 1 (one) application container that can provide information related to performance achievements by dividing 3 assessment criteria, including: Green means that the achievement is in accordance with or exceeds the determined Roadmap, Yellow means that the achievement is almost reaching the Roadmap that is set and enforced support for the performance achievement of the work unit, while Red means that the achievement is still far from the Roadmap that has been determined for that an evaluation or official trip is needed by the supervisory official to the work unit area that has the most red color in the work unit. With the Ranking Fungi in the application, it makes it easier for coaching officials to provide information Rewards and Punishment towards the achievement of work unit performance, and this is a function that can build a spirit of competition for all existing work units to always provide the best performance, so that it will have a direct impact on the provision of fast and maximum service to the community.

#### **REFERENCE**

- [1] Ruky, DA (2006). Performance Management System. Jakarta: PT. Main Library Gramedia.
- [2] Safaat, NH (2012). Android Based Smartphone and Tablet PC Mobile Application Programming. Bandung: Informatics Bandung.
- [3] Sutrisno, M. d. (2012). Human Resource Management. Human Resource Management, 1.
- [4] Marakas, JA (2016). Analysis of Information Systems or Sutabri System. Yogyakarta: Andy.
- [5] Hosteter, SW (2007). Curl: a language for web content. Indersciences Online. Basset, L. (2015). Introduction to JavaScript Object Notation Ed. 1. Gravenstein
- [6] Highway North, Sebastopol: O'Reilly.
- [7] Rukajat, A. (2018). Quantitative Research Approach. Yogyakarta: Deepbulish.