

Performance Monitoring Office of Financial Management And Asset Majalengka of Indonesia

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Abstract

Each the work unit in the Department of Finance and Asset Management (DPKAD) Majalengka in Indonesia required to have a work program that is made in the form of scheduled activities planned, directed, integrated, and scalable to guide the implementation of the work in one fiscal year. In order for the implementation of the work program in accordance with the target, it is necessary to control and supervision of the planning, evaluation, and reporting DPKAD Majalengka. All long, monitoring the implementation of the work program only based on documents submitted activity reports after the event is completed. There is no control and early warning to employees about the schedule of activities, so many activities that late in implementation. Measurement of program performance work the work unit is difficult because basih shaped paper based reports. This research was conducted to develop a web-based application monitoring the performance of the Department of Finance and Asset Management (DPKAD) Majalengka in Indonesia. Applications built using Software Development Life Cycle with the waterfall model, using the programming language PHP framework CodeIgniter, MySQL database, and it is equipped with SMS broadcast. Hopefully, with this application is expected data management work program, including data proposed work programs, the control of the implementation schedule of activities, reporting on the implementation activities and outcomes measurement program can work better quality.

Keywords: *The work program, the work unit, web-based application, performance, Waterfall*

1. Introduction

The work program is planned activities of an organization that is effective, integrated and systematic that created for the timeframe determined by an organization (Emmanuel, 2014).

This work program will be a guide for organizations in carrying out routine activities of the organization (DPKAD, 2012).

After the work program implemented in one fiscal year, then be made to Government Agencies Performance Accountability Report (LAKIP) to be accountable, as well as feedback for the leadership of the organization to be able to further improve the performance of the organization in the future.

Until this research is done, DPKAD Majalengka accept the proposed work program in the form of a proposal. This creates difficulties and it took a long time to make a recapitulation of the budget. Control of the implementation of the work programs still rely on the ability Head of Sub Division of Planning, Evaluation and Reporting (PEP). There is no system that can provide early warning related to the implementation schedule. Making the report takes a long time because the necessary documents are not well-documented, and stacked so as to make an employee must work extra.

Therefore, it takes the application to make the process more effective monitoring of performance and is expected to help the processing of the data on DPKAD Majalengka. By building Web-based applications with SMS broadcast feature for performance monitoring section at the Department of Finance and Asset Management. Through this application, any activity delivered online, making it easier to monitor achieveveme

2. Method

been created to perform load balancing in the Openflow protocol. One of them is method used to carry out the distribution of client traf This monitoring application built up using method of SDLC (Software Development Life Cycle) with the waterfall model to illustrate each stage clearly.

2.1. Methodology

Phases of used in the waterfall model (Sommerville, 2011) :

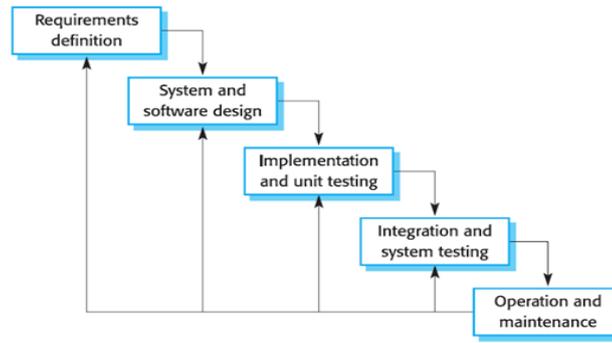


Fig. 1 : Model Waterfall Sommerville

a. Requirements Definition

This phase is interview conducted by Head of Section PEP DPKAD Majalengka. Results obtained in the form of data needed to analyze the system running in order to identify the problems and needs that arise with regard to the application to be built.

b. System and Software Design

This phase is is done to create a solution for the problem and translate requirements into the design of software systems to support the process of coding. Design created includes systems design, database, functionality, and application interfaces with object-oriented approach (Adi, 2009).

c. Implementation and Unit Testing

This step is done to change the design into the application code. This application is built using the programming language PHP framework CodeIgniter [5] using the MySQL database include SMS gateway (Eka, 2013).

d. Integration and System Testing

This phase is was conducted to test the application to fit the needs of the user. Tests will be done using blackbox testing method and is based on system functionality and data testing.

e. Operation and Maintenance

Applications that have been tested will be implemented in the environment DPKAD Majalengka. But in this study was not done the maintenance phase.

2.2. Business process filing work program

The analysis was conducted to identify the requirement of the application based on business processes. The business processes are supported by applications such as shown in figure 2.

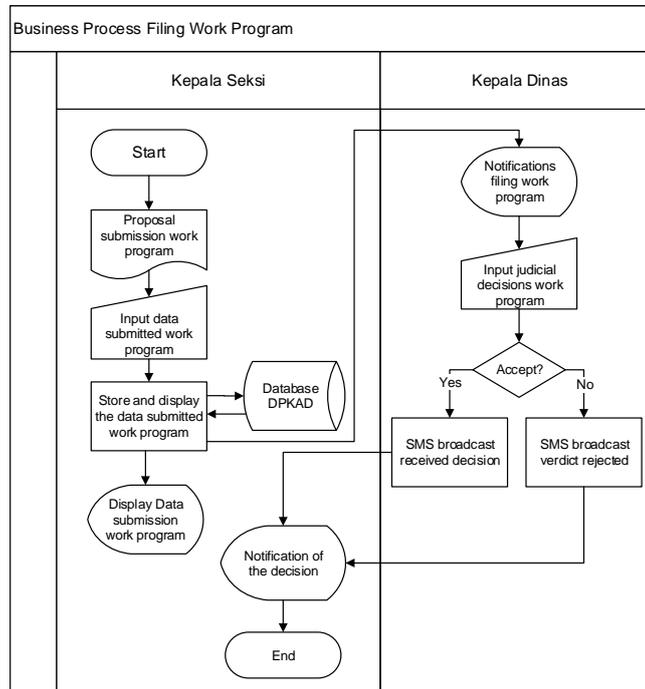


Fig. 2 : Business Process Filing Work Program

In figure 2 is shown the process of filing a work program of a unit of work to the head office as head of the organization. DPAD Majalengka has two business processes, the process of filing work programs and work programs reporting of accountability.

2.3. Application development

Based on the identification of the needs of the business process, the following is a list of application needs to be built :

a. Hardware Requirements

Minimum hardware specifications required to establish an application are shown in Table 1.

Table 1: Hardware Needs

No.	Hardware	Minimum Specifications	Specifications Used
1.	RAM	512 MB	2 GB
2.	Harddisk	20 GB	500 GB
3.	Processor	Minimum speed 2.0 GHZ	Core i3 2.20 GHZ
4.	Screen Resolution	240 x 320 pixels	480 x 854 pixels

b. Software Requirements

Some of the software needed to build an application are shown in table 2.

Table 2: Software Needs

No.	Software	Minimum Specifications	Specifications Used
1.	OS	Windows XP SP2	Windows 7
2.	Database	MySQL	MySQL 5.1.26
3.	Script Editor	Notepad++	Notepad ++ 5.9.3
4.	Web Server	Apache, MySQL, PHP, and Perl(Xampp 1.8.2) CodeIgniter 2.1.0	Apache, MySQL, PHP, and Perl (Xampp 1.8.2) CodeIgniter 2.1.0
5.	Web Browser	Mozilla Firefox	Google Chrome 44.0.2403.130
6.	SMS Broadcast	Gammu 1.31	Gammu 1.33

c. Class Diagram

In fig. 3 shows that class diagram applications are built. Class diagram show application units and application models.

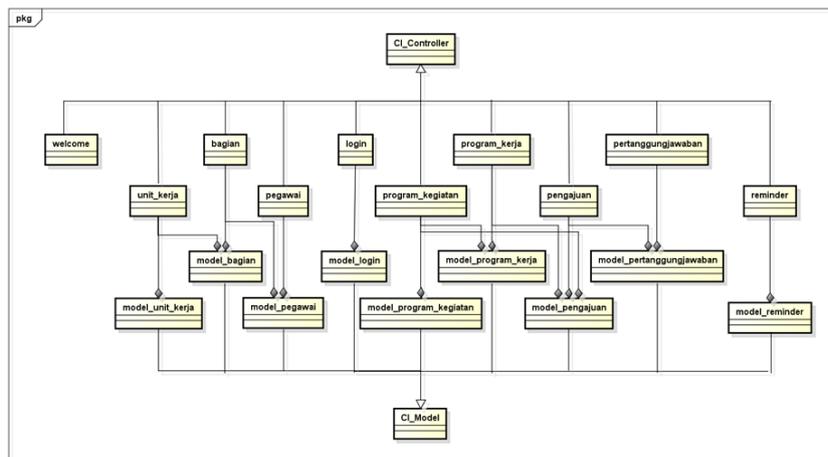


Fig. 3 : Class Diagram Application

d. Use Case Diagram

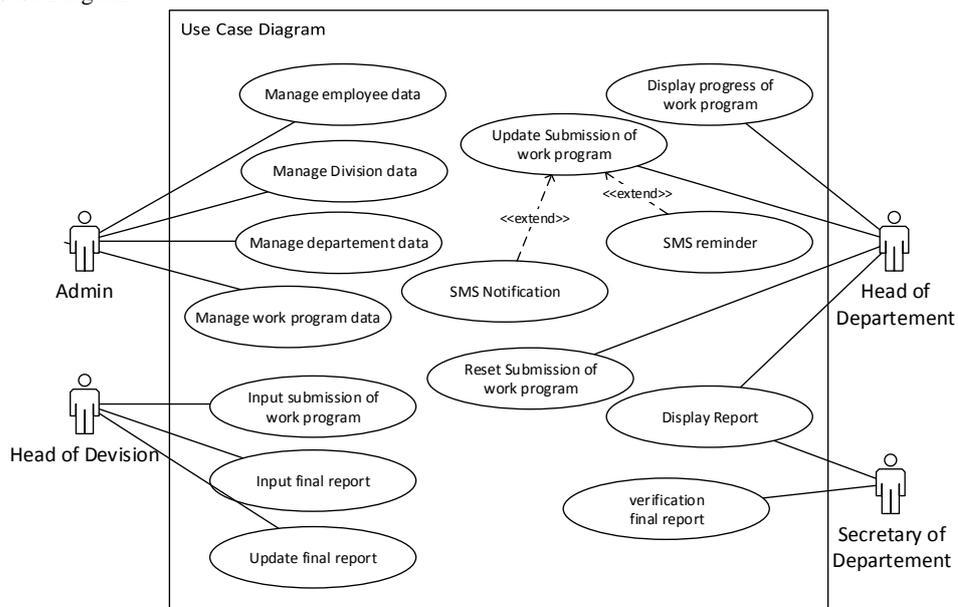


Fig. 4 : Use Case Diagram Application

In fig. 4 is shown that an application built to support a system that involves four user:

- 1) Admin as the user is responsible for manage of employee data, manage of division data, manage of department data, and manage of work program data.

- 2) Head of division as the user is responsible for Input submission of work program, Input final report, and Update final report.
 - 3) Head of Department as the user is responsible for Update Submission of work program, Reset Submission of work program, Display progress of work program, and Display Report.
 - 4) The Secretary of the Department as a responsible user on Display Report and verification final report.
- e. The database is managed by the application shows in figure 6.
- f. Application Interface

Each user able to sign in into the application using each other's accounts.

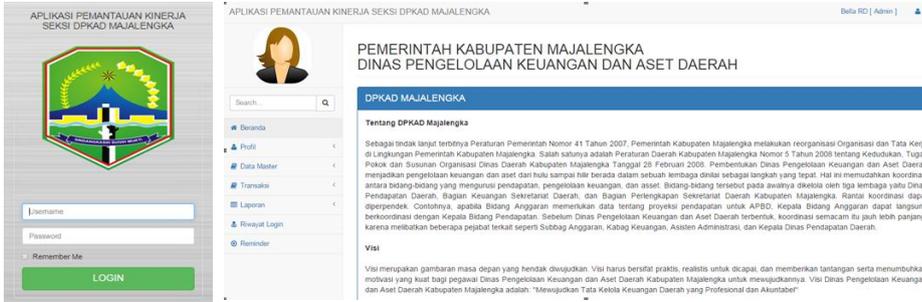
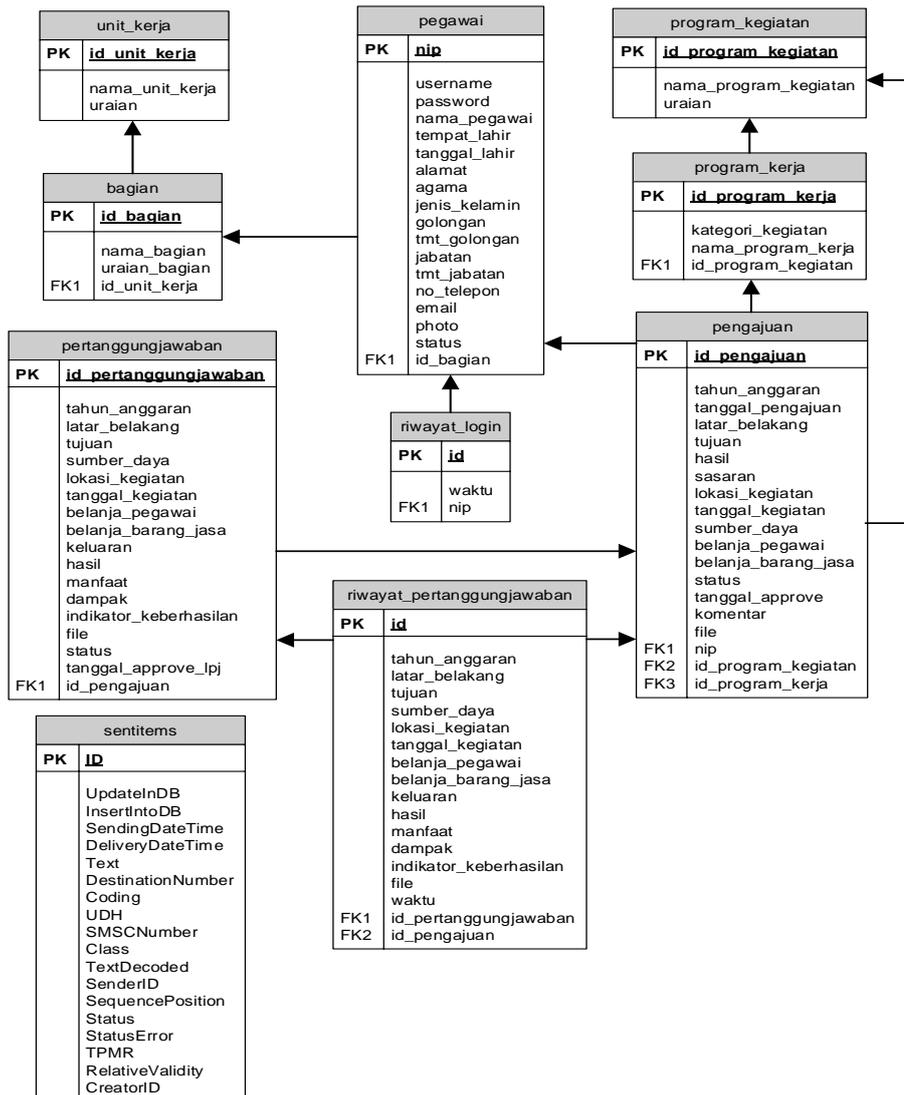


Fig. 5: Application Interface

The main page of the application consists of a menu: home, Profile, Member Data, Transactions, Reports, and reminders. The main page will appear when a user successful login using a user name and password are correct.

In Figure 5 are shown the tables that relate to each other that make up the database.



4. Conclusion

1. The application can make the process of recording data on a work program proposal DPKAD Majalengka be systematic and centralized.
2. This application can facilitate program leaders work with SMS broadcast to get information on the status of submission of approval of work programs, reminder messages about the work program that will be implemented, and a reminder message about accountability report activity that has been entered.
3. This application can provide a report on the performance of the work program which has been implemented in DPKAD Majalengka.
4. This application can provide a summary report and financial accountability reports based on the work program of activities carried out, in accordance with the format shown DPKAD California and can be printed to Microsoft Excel. Below the display interface for the recapitulation of the work program.

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