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Implementation of a Web-based Cash Information System in The RT.010/08 Area of Ragunan, South Jakarta

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Abstract

The Ragunan area specifically RT 010 RW 08 is an area that currently really needs a population administration information system that can perform data processing related to the process of providing information about the Ragunan area, specifically in RT 010 RW 08, such as registration of population data, family, date of birth, print out residents' correspondence, report on cash information from residents and report on residents' complaints to the head of the RT. In the data processing that is currently running, God is still recorded in the ledger. In services and public information, which is currently still done manually, and also all data is recorded in a ledger for making ktp (identity card) and also kk (family card) which must first look for data in the main population book. The obstacles faced in this process are activities that take time and the risk of data recording errors. This can be overcome by building a new system that is more effective and efficient, namely a web-based Information System using the MySql database..

Keywords: *Information Systems, cash, Implementation, Web, Database Mysql.*

1. Introduction

The latest technological developments are things that sound familiar to everyday life, be it in the fields of Education, Economics, as well as in the field of Health. This is because developing technology has been able to facilitate our work so that we can complete various kinds of work so that the work becomes more efficient and effective. At the current rapid development of technology, we can also apply it to assist community services, one of which is the low-level government in the community, namely the *RT (Rukun Tetangga),* such as the creation of an information system in the form of citizen cash reporting which can help report transparency and increase citizen trust. This also happened to RT.010 RW. 08 Ragunan, South Jakarta, where various processes of recording and processing data manually, such as financial matters, are still carried out with regular bookkeeping, which results in a lack of transparency in data processing which can lead to bad prejudice and a sense of distrust among residents of the RT management. This is the basis for managing data, especially cash in RT.010 RW. 08 Ragunan South Jakarta transparently in order to be able to build trust in the community, and can be a good example for RT and RW in other areas.

The services provided by the RT and RW administrators are still not maximized because they are still using a manual system, where there are often obstacles that must be faced by processes that are carried out manually, namely activities that take time and the risk of errors in recording or validating data [1]. By developing a website-based system that can reduce the risks faced by manual systems, using the information system development method in the scrum model.

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In Cilodong sub-district, which is precisely in RT 03 RW 01 in the citizen and financial data collection system which is currently in recording data and financial processing which is still using a fairly simple system, namely by using a book, after that it is recapitulated to make a citizen data and financial report. into Microsoft Office [2]. Information is very important in supporting community life, especially in housing. People really need access to information that is fast and efficient. With current technological developments, it is very necessary to involve technology in social life in housing. The problem faced in the research carried out [3], in making information systems between citizens is the lack of transparency in financial reports and one of the residents complained because they did not get clear information. In Cipagalo village, there are several problems faced, namely the incoming and outgoing funds in community activities which are currently still recorded in the books, making it difficult for RW to make an incoming and outgoing financial report. In this research, an application is needed that is useful in monitoring finances, transparency of funds [4].

2. Research Methodology

In making the system that is carried out in this research is by doing a data collection which consists of observations, interviews, literature studies, system design, implementation, and testing as research materials.

a) Observation
   In this stage, the writer conducts an observation with the residents of Rt.10/08 Ragunan, South Jakarta to observe the current cash reporting system, which is to obtain data directly on the object under study as material for writing.
b) Interview
   in the interview method to obtain data by making a google form with 6 questions related to the object under study. In this case the process of the answers will be complete and correct for writing.
c) Literature Study
   The author is also looking for a reference related to the cash reporting system that can be used as a reference in the preparation of community service reports, the source used is from journals related to community service, which is useful for getting an overview of theories
d) Design
   At this stage refers to the design in the manufacture of software such as software architecture and interface display. At this stage the authors perform modeling based on the required analysis.
e) Implementation
   At this stage is the stage where to change the design that has been made into a system that is needed.
f) Test
   This stage is the coding of the design into a programming language, so that the program that has been made can run well.

3. Results and Discussion

The following are the results of the analysis and design carried out in the problems encountered.

a) Running System Analysis

The following is a system that runs on RT.010/08 Ragunan, South Jakarta :

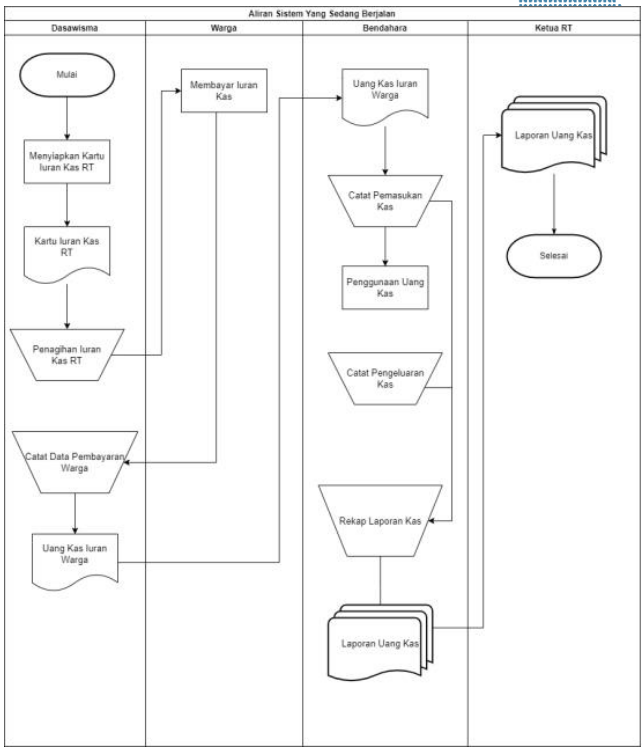

Figure 1. Cash Current System Analysis

1) Dasawisma officers visit residents to collect monthly fees.
2) Residents make payments.
3) Dasawisma officers record monthly fees.
4) The Dasawisma officer reports the dues data to the Treasurer.
5) The Treasurer's Officer makes an income report.

b) SWOT analysis

SWOT analysis of the current system, namely:

1) Strength
   a) Village Ragunan, South Jakarta on RT.010/08 is a densely populated area.
   b) The knowledge of technology in the citizens is quite good, because in line with the development of technology.
2) Weakness
   a) The data search process is still using the manual method so it requires a long process.
   b) Difficulty in making expense reports, income reports and budget reports for ongoing and planned activities.
   c) Recording of cash that still uses manual methods in the general ledger so that double recording and writing errors can occur.
3) Opportunities

   Opportunities in the system are running in the Ragunan sub-district, South Jakarta, which is precisely on RT.010/08, namely :
   a) Centralized recording in accordance with the designated responsibilities, such as recording citizen data can be carried out by the secretary.
   b) Does not require special system maintenance.
4) Threat

   The threats that exist in the Ragunan sub-district, South Jakarta, which are precisely in RT.010/08, are :

a) Complaints of citizens against financial administration that is not open.
b) The difficulty of making changes to the new system.

c) Information Needs Analysis

In determining the need for cash information on Rt.010/08, the author considers various aspects of stakeholder needs (stakeholders) and business needs in business processes in RT.010, the need for cash information needs as follows :

Stakeholder	Information Needs
Inhabitant	View the monthly cash contribution income and expenditure data.
Treasurer	Managing Data, Performing input and output.

d) Hardware Requirements Analysis

The hardware requirements used in running this web-based application are as follows :

Hardware Type	Specification
Laptop	Intel Celeron 1.2 Ghz
Handphone	Android/Ios

e) Design a Proposed System

1) Use Case Diagram

Use case Diagrams graphically describe interactions between systems, external systems, and users. In other words, it describes who will use the system in what way the user expects to interact with the system.

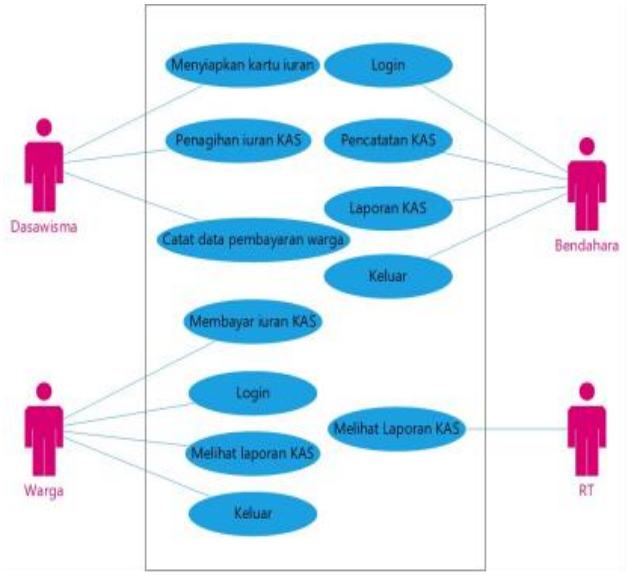

Figure 2. Cash Payment Use Case

2) Activity Diagram

Activity diagram is a workflow or activity of a system or menu that is in the software.

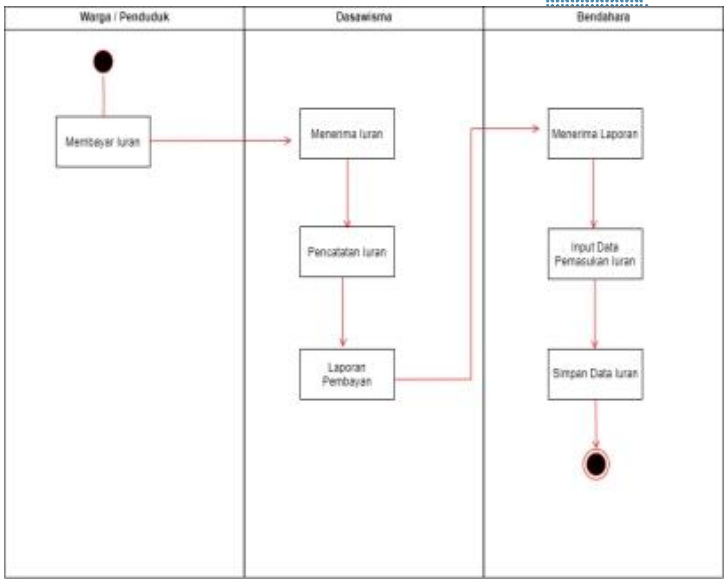

Figure 3. Activity Diagram of the Income of Citizens' Fees

3) Sequence Diagram

Sequence diagrams describe an object's interaction in the use case by describing the life time of the object and the messages sent and received between objects.

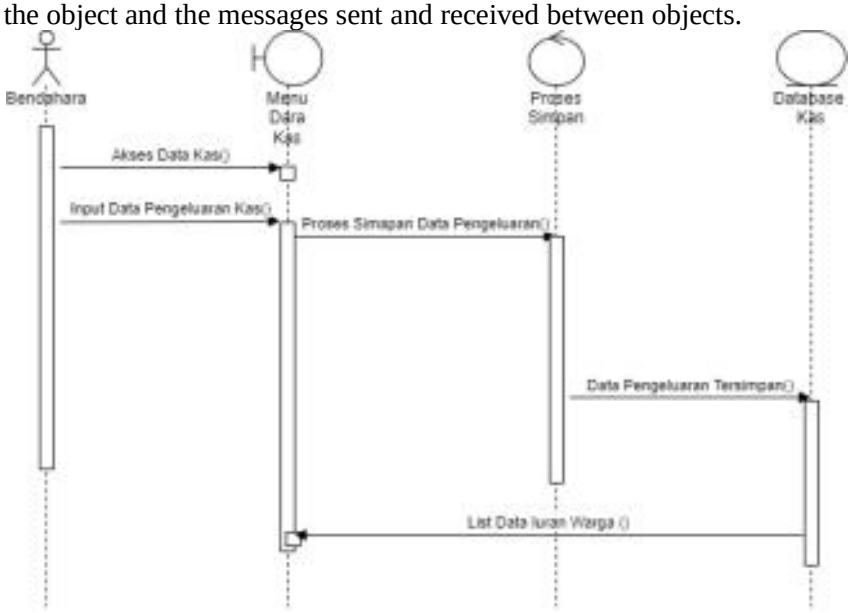

Figure 4. Cash Disbursement Sequence Diagram

4) Application Architecture

Application architecture is a technology specification used in implementing websites. The following is the application architecture :

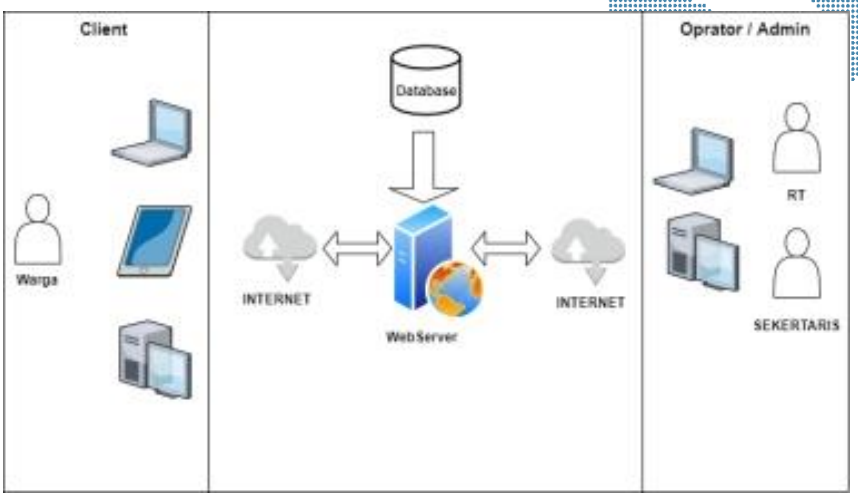

Figure 5. Application Architecture

4. Conclusion

Technological developments continue to change from time to time and this must be utilized properly. Based on 84 households or 73% of the total households (115 households) concluded that :

a) 59.5% assess that the cash reports that residents have received so far are still unsatisfactory.
b) The latest cash reporting is still not going well, so 57.3% of residents consider the cash reporting process to be less transparent
c) 76.2% of residents expect the need for online-based cash reporting because it's still done manually.

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