Zakat Al Fitr Management and Information System using Agile Software Development Lifecycle

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Article

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Abstract: The management of zakat in several mosques is still carried out using a manual system, which can cause the loss of some zakat recipient data and the calculation of funds that have been received by zakat recipients. The manual system is also considered less efficient for managing large amounts of data. To overcome this renowned problem, a Zakat management infor- mation system was designed. Agile methods are used in system development. It is hoped that this system will provide convenienceto mosque administrators in managing zakat. We created a zakatmanagement system using Agile Software Development Lifecyclewhich can make it easier to manage zakat at the al-iklas mosque.

Keywords: zakat; agile; management; system

I. Introduction

Religions were something that humans held as principlesin their life. It's been evolving for centuries and there areso many religions in the world. One of the most-followed religions in the world is Islam. Islam is a religion that was brought by Prophet Muhammad PBUH in the early 600 (DC). PEW Research Center suggests that in 2020, the numberedof Muslims reach approximately 1.9 billion followers in the entire world.

For such a huge number of followers, there must be something that keeps them in line, or else there will be alot of chaos occur in the world we know of. Apparently,in Islam, there is a concept called pillars of Islam, wherethese pillars are the main obligations that must be carried out by Muslims so they can live a life filled with kindnessand virtue. In the pillars of Islam, there is something called zakat. According to The Hanafi Mazhab — a school of thoughtattributed to Imam Abu Hanifah, one of the most respected Muslim theologists — zakat is an obligation to give a certain portion of certain wealth to certain people who were destined by Allah Azza Wa Jalla to seek His pleasure. [1] The objectiveof zakat, as emphasized in the Qur'an, is a glorious objective of purification and upliftment (At-Taubah 9:103). Before the collected portion of wealth is given to certain people, zakat must be managed systematically and transparently by Islamic law.

According to Indonesian Law No. 23rd of 2011 about ZakatManagement, the management of zakat includes the activities of compiling, implementing, and managing the collection, distribution, and use of zakat. [1] Usually, zakat is managedby mosque administrators in each region. The management of zakat in several mosques is still carried out using a manual system, which can cause the loss of some zakat recipientdata and the calculation of funds that have been received by zakat recipients. [2] The manual system is also considered lessefficient for managing large amounts of data. To overcome thisrenowned problem, a Zakat management information system was designed. Agile methods are used in system development.It is hoped that this system will provide convenience to mosqueadministrators in managing zakat.

This paper's remainder is structured as follows: SectionI introduces the credit scoring and background. Section IIrelated work. Section III are methods. Section IV result and discussion. Section V concludes this paper.

II. Related Work

In this section, we review articles, journals, and formerresearch that were conducted about information systems, agile software development lifecycle, and previous research efforts on combining the two technologies.

A. *Information System*

Information Systems was a common topic that has been always the subject of much research. This academic field has always been aiming at systematizing the design of data processing applications in organizations to respond to the challenge of continuous innovation and communication tech- nologies. [3] To put it simply, an information system is createdto simplify the process of data processing which saves humansa lot of work.

B. *Agile Software Development*

Embodied in the pillars of Islam, zakat is a pillar that must be run. Zakat is one obligation such as prayer and fasting. Rejecting paying for it on purpose is just the sameas denying the pillars of Islam. Zakat got done by channelingit directly to recipients in need. Zakat got It is also channeled through management institutions/agencies zakat. Managementand distribution of zakat through institutions/bodies have beendone since ancient times The Prophet is usually called bait mal. Lifecycle [4].

Researchers plan to have an Information System Zakat management that can replace the system Zakat which is still operating manually. The method to be used is agile because this method is based on iterative work consisting of rules and solutions that have been agreed upon and is very efficient for making this application. This desire arises because researchersare involved directly on the part of this institution. Institution zakat experience problems in managing zakat, such as prob- lems in recording Muzakki data, Mustahik data, zakat income data, and data distribution of zakat to Mustahik and inside making reports that still use the method manuals. Identifythe weaknesses of the online zakat application, there is no transparency so the zakat payer still feels that the funds that have been zakat are going to be distributed or not and maybeit is more of dhol to be paid directly so that there is a contract that is carried out in an orderly manner. The problem encountered in this zakat application is controversy among thepublic who ask about the law regarding paying zakat using theapplication online. The secretary of the Indonesian Council of Fatwa Commission (MUI) explained that paying zakat fitrah online is permissible. ”zakat payments do not have to be met physically. In fiqh statements, there is no physical consent granted (to meet)”.

III. Methodology

The development method used in making this system is an agile method. The agile methodology is a project managementmethod with fast development cycles, also known as sprints [5]. In the development process, it is divided into several partsso that it runs quickly and this method needs quick adaptation to changes in any form [6].

1) Planning

The initial stage of the agile method is planning to determinesystem requirements. This stage is divided into two stages, namely the system analysis stage and system requirements specification. [6].

2) Design

The design phase is designing a solution that will meetthe needs of the user. Starting from designing the systemarchitecture, user interface, and the necessary softwarecomponents. [7].

3) Develop

The next step is system implementation and deployment after conducting system analysis and determining device re- quirements. The implementation stage is the stage that turns

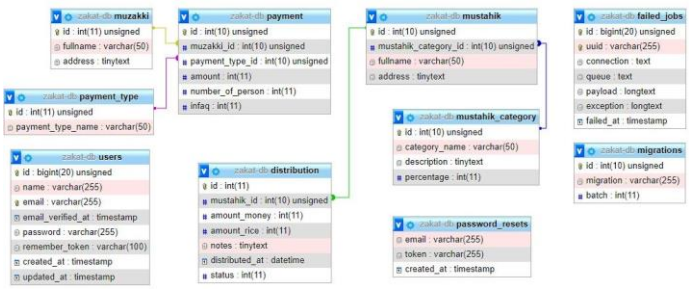

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Figure 1. ERD.

the plan into a web-based application based on the application prototype that was made before [7].

4) Testing

At this stage, the software created at the implementation stage is tested. Application testing aims to see how well the application program works. Does the application flow match the established business processes and are there any errors in the application being developed [7].

5) Deployment

The steps are taken to ensure the quality of the software created by testing the quality of the system. If the system produced meets the requirements, the software will be readyto be developed later. [7].

6) Review

The review stage is to review the features that have been developed, provide feedback, and identify opportunities for improvement. [7].

7) Launch

The launch stage is when the software product is readyto be officially rolled out to end users. This launch involvesthe communication, marketing and distribution of the product to the target users. After launch, further development andmaintenance of the product can be carried out based on user feedback and changing needs as they arise. [7]

In this context, the survey describes the input features for the accepted samples' credit scoring. [1,2,4–6,8–10]

IV. Result and Discussion

A. Project Requirement

Analysis of problem needs Referring to the results of the interviews that were conducted with Mas Amim, MasEko, and Mrs. Arofah as Village employees, Katapang onMarch 17 2020 stated that it was deemed necessary to collect mustahik data and determine priority mustahik because so far the distribution of zakat has not been completely even and datareporting is still manual. Sometimes there are also mustahik who should receive zakat but do not receive zakat. [7].

B. Proposal Analysis

Based on the problems raised, the solution obtained in this study is in the form of making applications that can help decidepriority mustahik.

1. The Zakat Fitrah Information and Management Systemapplication was created.
2. Web-based Zakat Fitrah Information and Managementsystem application.
3. The Village Party inputs data on mustahik candidates intothe system.

Table I. Access Rights.

No.	User	Description
1	Admin	Admin is a person who has the authority to be able to manipulatezakat and mustahik payment data

1) Design stage:

C. Identifikasi Use Case

In this application the design processes are stated in a use case. Below is a use case identification table.

Table II. Access Rights.

Menu	Function	Access Rights
Login	Use case which describes the activity of entering a user-name and password to be ableto access the menu in the MyZakat system.	Admin
Input Zakat Payment Data	Use case that describes the ac-tivity of inputting zakat pay-ment data.	Admin

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Edit Zakat Payment Data	Use case that describes the activity of changing zakat pay-ment data	Admin
Delete Zakat Payment Data	Use case that describes the activity of deleting zakat pay-ment data	Admin
Mustahik Data Input	Use case that describes the activity of inputting mustahik data	Admin
)elete Mustahik Data	UUse case that describes the activity of deleting mustahik data	Admin
Edit Mustahik Data	Use case that describes the activity of changing mustahik data	Admin

D. Implementation stage

The system requirements specifications needed in makingthis application are

Table III. Technical Requirement.

1	Platform	Web Application
2	Stacks	Laravel 8.*, PHP
3	Text Editor	Visual Studio Code
4	Database	MySQL
5	Browser	Google Chrome

E. Page View

1) Login: The login page is the page used by the user toenter the main system

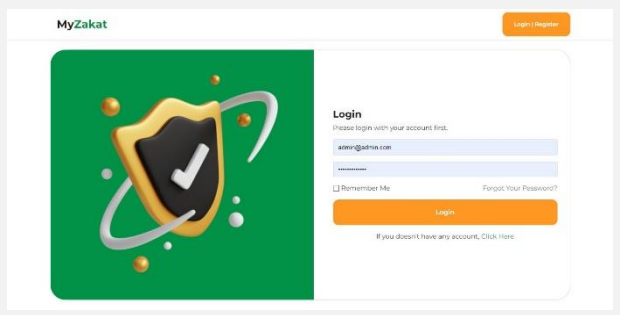

Figure 2. Login Page.

2) Landing: Landing is a page that contains information about zakat, procedures for paying zakat and calculations if you want to pay zakat using money or rice

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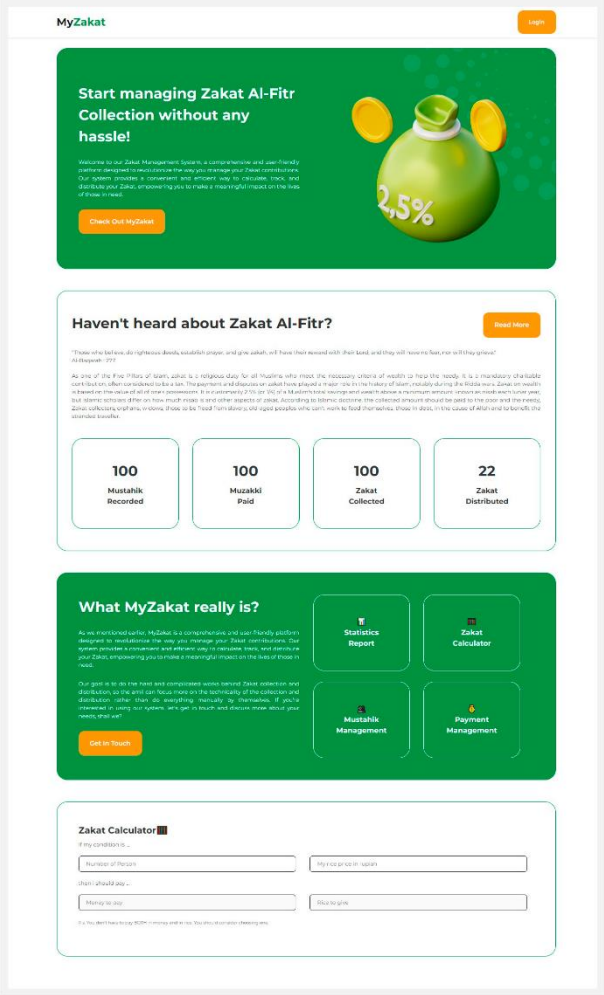

Figure 3. Landing Page.

3) *Dashboard:* Dashboard is the first page that displays after logging in, which contains muzakki data

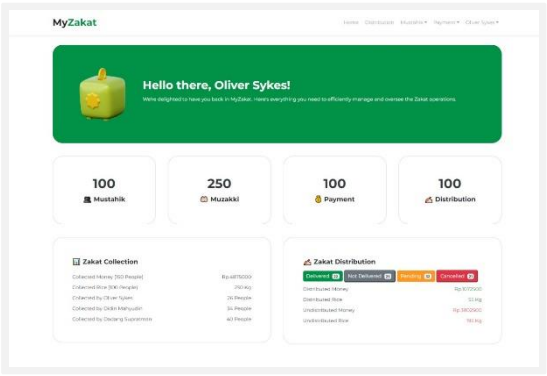

Figure 4. Dashboard.

4) *Distribution*: Dustribution is a page of distribution, and distribution of zakat to zakat recipients.

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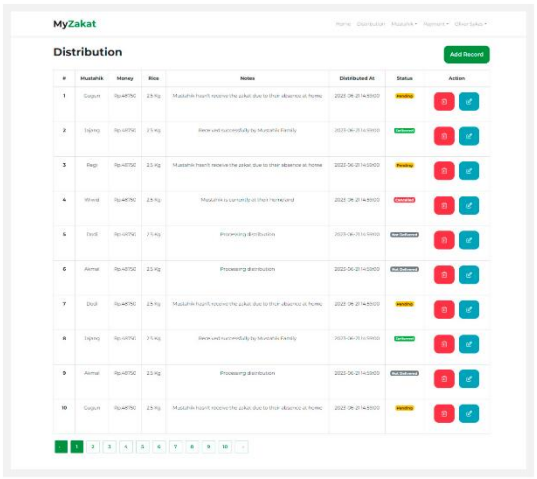

Figure 5. Distribuution.

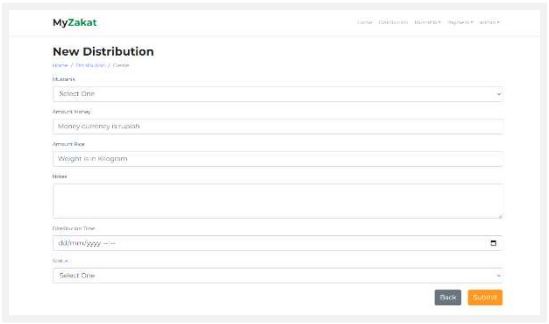

Figure 6. New Distribution.

5) Mustahik: On this page you can add the name, address,and category mustahik.

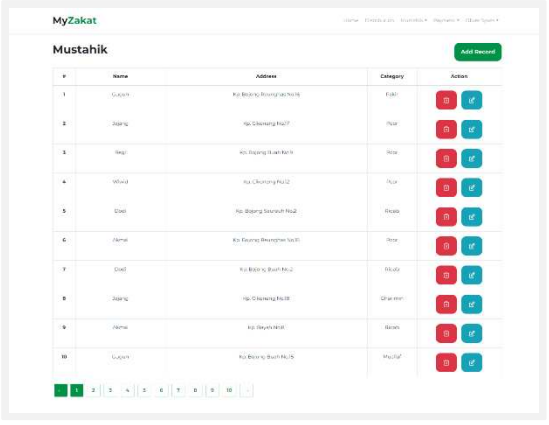

Figure 7. Data Mustahik.

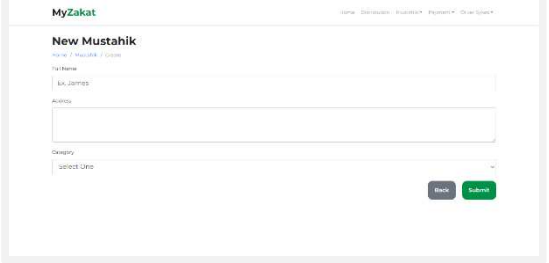

Figure 8. New Mustahik.

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6) *Mustahik Category:* The category mustahik page dis- plays data that has been input on the mustahik page, anddisplays the percentage of zakat receipts

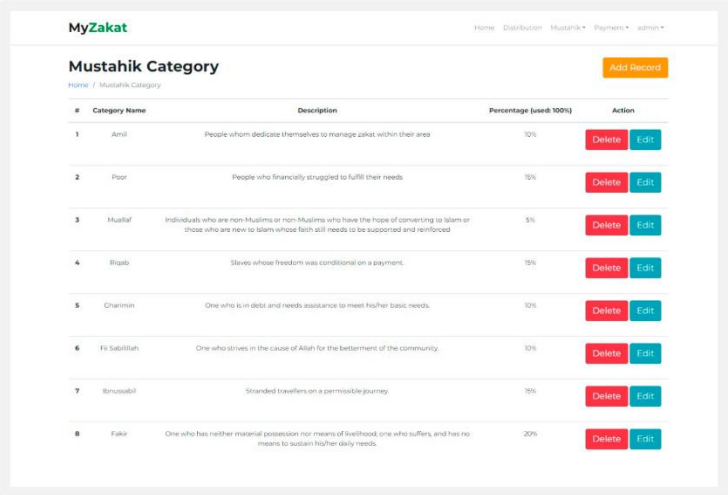

Figure 9. Mustahik Category.

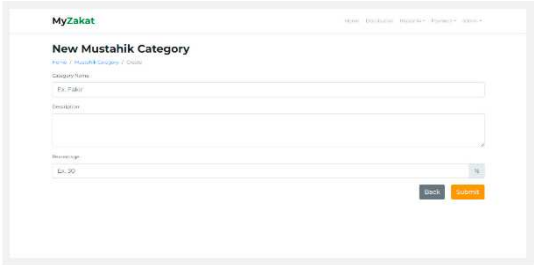

Figure 10. Mustahik Category.

7) *Payment:* On the Payment page the admin can inputmuzzaki information

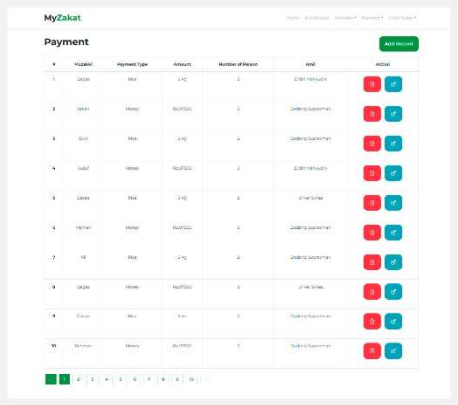

Figure 11. payment.

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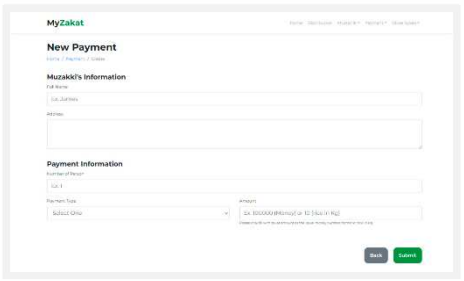

Figure 12. payment.

8) *Payment type:* This page contains payment types in theform of money or rice.

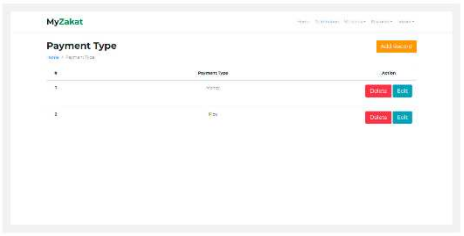

Figure 13. payment type.

Figure 14. payment type.

V. Conclusion

Based on the research that has been carried out on a design basis, namely designing an application system that can processzakat data on the web-based amil zakat agency in Bayah Timur village, it can be concluded that the system built provides facilities for administrators (processing section) to input data, perform change data and delete the data entered, With this research, data related to the processing of zakat is no longer stored in files but stored in a database to avoid loss or damage to the stored data. To increase the effectiveness and efficiencycompared to the old system. The built system also provides a calculator facility to calculate how much zakat must be paidin the form of money or rice. With this application, it can provide more convenience for zakat managers.

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