www.bircu-journal.com/index.php/birci
Budapest International Research and Critics Institute-Journal (BIRCI-Journal)
Humanities and Social Sciences
ISSN 2615-3076 Online)
ISSN 2615-1715 (Print)
Budapest Institute

Android-Based Marriage Administration Information System at the Office of Religious Affairs, Lubuk Barumun District

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Abstract

Office of Religious Affairs (KUA) Lubuk Barumun District is a government agency that carries out some of the duties of the Indonesian Ministry of Religion in the district in the field of Islamic religious affairs at the sub-district level. KUA Lubuk Barumun District can provide services in serving the community that will carry out marriage and reconciliation. The marriage administration and reconciliation process that is carried out is about submitting the marriage requirements file and filing the reconciliation requirements file. Based on field observations, the submission of the marriage and reconciliation requirements file is still done manually. At this time, the submission of the marriage and reconciliation requirements file still has to go to the KUA office first and then give the file to the Lubuk Barumun District KUA officer. This has resulted in registrants who live quite far from the KUA office in the Lubuk Barumun sub-district having difficulties because they have to pay extra for land transportation every time they visit the KUA office. Not only that, documents can accumulate so that the search for files, takes quite a long time. Based on these problems, an Android-based marriage administration information system was built to overcome them. Through this built system, the registrant submits the requirements file online and then the KUA Admin performs the verification stage after the file has passed the examination. so that it can make it easier for all parties from the prospective bride and groom to reconcile, the head of the KUA receives reports and computerized data collection media. The system development method used in this research is Rapid Application Development (RAD). With this android-based administrative information system, it can make it easier for KUA to produce information on the filing of marriage requirements and reconciliation in a more organized manner. Submission of information on registration and filing of marriage documents and referrals that are fast, precise, and accurate.

Keywords
system; information; android; marriage requirements file; referral requirements file

I. Introduction

Development is a change towards improvement (Shah et al, 2020). Information systems have become a very significant part of today's technological developments. In this fast-paced era, the need for precise, fast, and accurate information systems is an absolute must. Lack and delay in getting the information needed will cause the information to be irrelevant to users. Thus a good system must be able to provide information on time, with accurate and precise data in the processing process.

The Office of Religious Affairs (KUA) is a government agency that carries out some of the duties of the Indonesian Ministry of Religion in the district in the field of Islamic religious affairs in the sub-district area, Decree of the Minister of Religion No. 517/2001

and Regulation of the Minister of Religion No.11/2007 (*Keputusan Menteri Agama No.5172001 dan Peraturan Menteri Agama No.112007.pdf*, n.d.). One of these tasks is the service of marriage registration and reconciliation, which refers to the provisions of Law No.1 of 1974 concerning marriage, article 2 paragraph 2 which reads: "Every marriage is recorded according to the applicable laws and regulations" (Aseri, 2018). It aims to strengthen the status of married couples in society and minimize the occurrence of family problems in the eyes of the law, such as the status of children born, and also to property in marriage.

KUA Lubuk Barumun District can provide services to the community aimed at carrying out marriages and carrying out reconciliation. The marriage administration and reconciliation process that can be carried out is about submitting the marriage requirements file and reconciliation.

At this time, to submit the marriage and reconciliation requirements, you still have to go to the KUA office first and then give the file to the KUA officer in Lubuk Barumun District. This has resulted in registrants who live quite far from the KUA office in the Lubuk Barumun sub-district having difficulties because they have to pay extra for land transportation every time they visit the KUA office. Not only that, documents can accumulate so that the search for files, takes quite a long time. So the KUA needs an information system that can ease their work in the process of making marriage administration and reconciliation.

There are several similar studies on Android-Based Marriage Administration Information Systems Among them are:

Research on "Marriage Administration Information Systems at the Office of Religious Affairs, Pendurungan District, Semarang City" This web-based Marriage Administration Information System can help the Office of Religious Affairs in improving the quality of public service performance in the registration and registration of marriages which initially still required a long time to complete. marriage registration and registration process. After the existence of this system, it can be a solution for the Office of Religious Affairs, Pedurungan District, Semarang City because it can provide fast and efficient services. (Purnomo, 2014)

Research on "Marriage Registration Information System in the Office of Gamping Religious Affairs Based on WEB" This research has features including marriage registration and uploading the required document files online. This research helps employees manage marriage registration data at KUA online and assists brides and grooms in registering marriage administration online. (Kantor, Agama, & Berbasis, 2021)

Research on "Management Information Systems (SIM) for Filing Marriage Requirements Files Based on Android at KUA Kec. Tembilahan Hulu" Management Information System (SIM) for Submission of Android-Based Marriage Requirements at KUA Kec. Tembilahan Hulu has been successfully built. Marriage registrants can submit documents for marriage requirements online. Furthermore, the penghulu as admin can also verify the file online. Based on testing with black-box testing, it is known that most of the systems built have run according to their functionality. (Informasi et al., 2021)

Research on "Web-Based Marriage Registration Information System at the Banyumas District Religious Affairs Office" This web-based marriage registration system is designed as a solution to make it easier for people to be more effective and efficient in registering online anywhere. This system was created to ease the work of KUA Bayumas employees because this system is very helpful for KUA employees in the marriage registration process. (- AMIK BSI Pontianak, - STMIK Nusa Mandiri Jakarta, & - Universitas BSI Bandung, 2018)

Research on "Designing a Marriage Service Registration System at KUA Pasar Minggu Jakarta" this system was built so that it can assist KUA employees in carrying out marriage registration besides that it can also ease the work of KUA employees in terms of making a marriage report, this system can only help Kua employees in marriage registration matters. (Wowon Priatna, Siti Setiawati, Andika Yusuf Hidayat, 2020)

The purpose of this research is to build a Marriage Administration Information System at the Office of Religious Affairs, Lubuk Barumun District with the Java programming language and MySQL database so that it can produce more organized information on filing marriage requirements and reconciliation. Submission of registration information and submission of marriage documents and reconciliations made can make it easier for the public to carry out marriages and reconcile.

II. Review of Literature

The method used in this research is the qualitative method which aims to achieve the research objectives. This qualitative research contains sentences or actions of people who have been researched or interviewed.

2.1 Rapid Application Development (RAD)

In this research methodology, there are several steps in the preparation of the method work that must be followed, where this arrangement is an overview of the sequential stages aimed at making the research that is made obtain a satisfactory result. The Rapid Application Development (RAD) method is a software development method that is often used today because it only takes a short time to process. (- AMIK BSI Bekasi & - AMIK BSI Bekasi, 2018)

Figure 1. *Research Framework*

Applying the RAD method, can speed up time and also reduce costs in the design stage. In the development of the e. method, RAD involves the user of the system that will be made. This process aims for the final result of system design to suit user needs. The RAD method (Amrullah et al., 2021), (Chandra & Wahyuddin, 2022), has 3 stages, namely:

a. Requirements Planning

Requirements planning is a stage to collect data needs and what is needed in this research.

1. User

This information system is designed so that it can be used by several users including the KUA Admin Lubuk Barumun District and people who will carry out marriages or carry out reconciliations:

a) Admind KUA office in Lubuk Barumun district.
   1) Receive marriage documents.
   2) Receive the reference documents.
   3) Privacy of the file for the bride and groom.
   4) Privatize the file that will perform the Refer.
b) Public
   1) Upload the marriage requirements file.
   2) Upload the reference requirements file.
   3) See marriage advice.
   4) Receiving Messages from KUA Admin.

2. User Needs
   a) Public First, log in to be able to open the system by entering the E-Mail and password that has been created by the user.
   b) The public can update data and save data changes that have occurred that have been made by users.
   c) Society can log out of the application when finished accessing the program.

b. System Development (System Design)

The stage is the stage of system development where researchers begin to develop a system that suits user needs. At this stage the researcher conducts the design process, this design process has an interface design or appearance of this system. In designing the display in this system there are several who can use this system, namely the KUA admin and the community (User).

c. Testing (Implementation)

This stage is the stage for testing the stability of the system and it is hoped that all the features on the system will run according to user needs. At this stage, a test is carried out, by running the system that has been made, if there are errors or problems in the system, repairs are carried out so that later the system runs as expected. In this test, the researcher used UAT (*User Acceptance Test*) testing. The UAT method used is intended for assessing users of the system that has been built, namely the Likert Scale Questionnaire which is commonly used in research, usually in this case it contains a survey by giving questions to system users where the answers to these questions consist of several levels that have been made, (Priyatna, Lia Hananto, Nova, Studi Sistem Informasi, & Buana Perjuangan Karawang, 2020).

2.2 Data Collection Techniques

Data was obtained through the method of observation, interviews with recording, and note-taking techniques. The data that was successfully collected were analyzed in a qualitative descriptive manner with theories.

a. Observation

   In this method, an initial analysis is carried out, namely as material for making an android-based wedding administration information system design. At this stage, the author observes directly the activities carried out at the KUA, Lubuk Barumun District in Conducting Fisheries Administration.

b. Interview
The author conducted a direct question and answer to the Head of the Lubuk Barumun District Religious Affairs Office, namely Drs. Ikhwanuddin Hsb regarding the process of all marriage administration.

c. Literature review
This method is done by searching data through related kinds of literature such as reference books, journals, the internet, and others related to the main problem.

III. Results and Discussion

3.1 System Design

a. System Flowchart

A flowchart is a symbolic representation of an algorithm or procedure to solve a problem, using a flowchart will make it easier for users to check the forgotten parts in problem analysis, besides that flowcharts are also useful as a facility to communicate between programmers who work in a project team. The flowchart design in this system is:

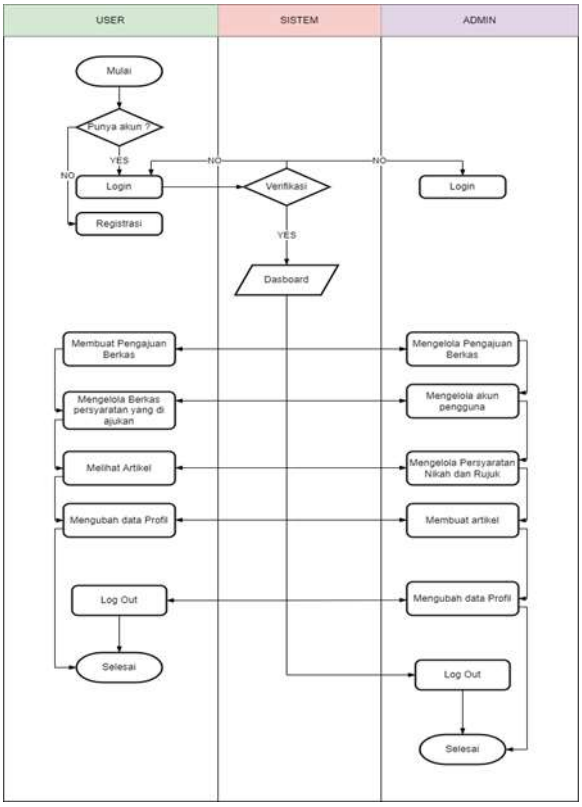

Figure 2. *System flowchart*

A system flowchart is a chart that shows the workflow or what is being done in the system as a whole and explains the sequence of procedures that exist in the system. In other words, this flowchart is a graphical description of the sequence of procedures that combine to form a system. Flowcharts help understand complex and lengthy logical sequences. This flowchart aims to make it easier to learn some complicated logic sequences, then it can also help in understanding the flow of a program to others so that people can understand it easier (Santoso & Nurmalina, 2017).

b. Use Case Diagrams

Use case diagram is a diagram that describes the typical interaction between a user (user) of a system and a separate system through a story of how a system is used (Kurniawan, T. Bayu, 2020). The following is a description of the use case diagram contained in the system that has been created:

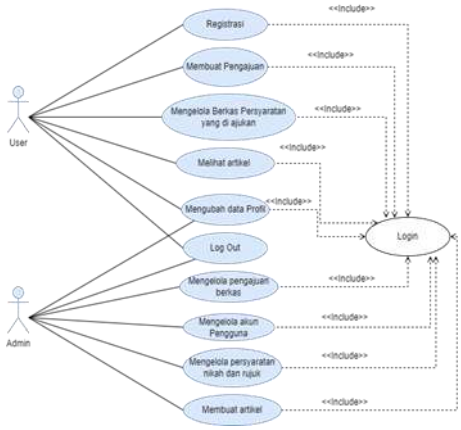

Figure 3. *Use Case Diagrams*

Here it can be seen that the user can register, make file submissions, manage the file requirements submitted, view articles, change data and log out. Meanwhile, the admin can change profile data, manage file submissions, manage user accounts, manage marriage and reconciliation requirements, create articles, and log out.

c. Sequence Diagrams

Sequence Diagrams are a description of the behavior of an object with a use case by describing the lifetime of the object and the messages sent and received between objects (Julianto & Setiawan, 2019). Sequence diagrams this explains an object's interaction based on time sequence and can also describe what stages need to be done.

1. Admin Sequence Diagram

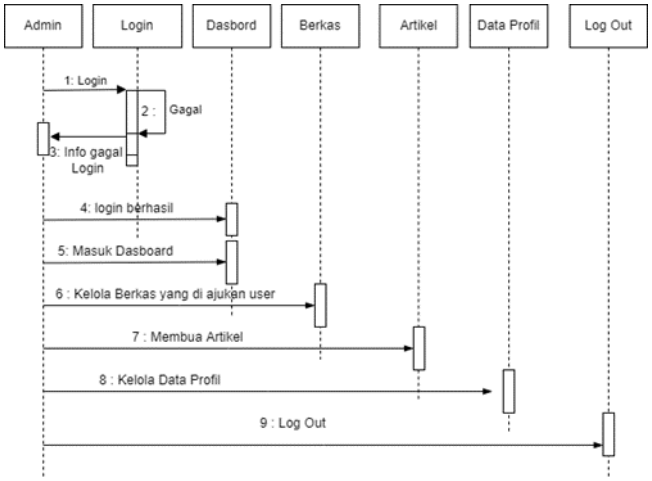

Figure 4. *Admin Sequence Diagram*

Sequence Diagram explanation:

The admin logs in if it fails, a failed notification appears, and if the login is successful, it will enter the dashboard page and can perform data processing/user data verification. After managing the data admin can log out from the application.

2. Sequence Diagrams Community (User)

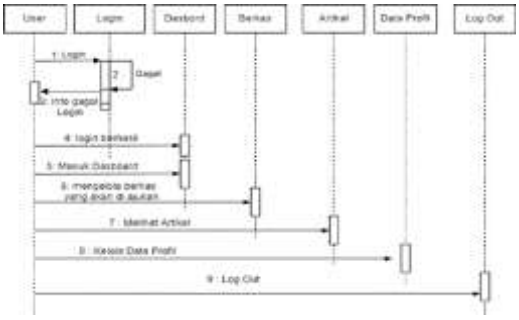

Figure 5. *Community (User) Sequence Diagram*

Explanation of User Sequence Diagrams:

The user logs in if it fails, a failed notification appears, if the login is successful it will enter the dashboard page, then the user can upload files and manage the files to be submitted, view articles, and manage profile data, After uploading files the user can logout from the application and wait for verification from KUA admin.

3.2 ☺

a. User

1. Login Page for User

Login page for Admin, input the E-Mail address and password which if the login is successful the system will direct the user to enter the dashboard.

Figure 6. *User Login Page*

2. User Dashboard page

The start page of the dashboard contains a welcome greeting, then there are several articles sent by the KUA admin such as marriage advice tips, and there is a marriage file submission and a referral file submission, there are also notifications or messages sent by the KUA admin then there is an Edit Profile

Figure 7. *User Dashboard page*

3. Marriage file submission

On this marriage file submission page, we can see the files that need to be prepared before importing the files, and we can see what files have been inputted into the system.

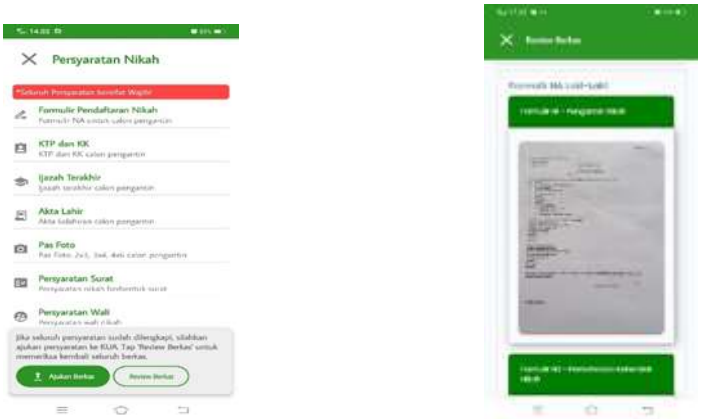

Figure 8. *File Selection Page (left) Imported file (right)*

4. Referral File Submission

On the file submission page refer to this way we can see the files that need to be prepared before importing files, and we can see what files have been inputted into the system.

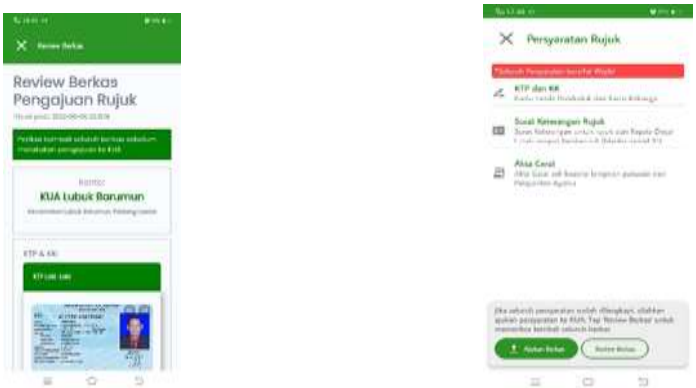

Figure 9. *File Selection Page (left) Imported file (right)*

After the file is ready to be uploaded, a page like the one below will appear:

Figure 10. *File submission rejected (left) File submission has been approved (right)*

b. Admin

The following is the admin page consisting of the Login Page, Dashboard, Data File Submissions made by the public, and article pages.

1. Login Page For Admin

Login page for Admin, input the username and password which if the login is successful the system will direct the admin to enter the dashboard.

Figure 11*. Admin Login Page*

2. Admin Dashboard Page

This page contains a welcome greeting to the admin and there is also a notification of file submissions that have been inputted by the user.

Figure 12*. Dashboard Page*

3. The Entire Files page submitted

On the H page, there are all files Users who have submitted files, then admins can research, reject and approve user files, then admins can also send messages to people who have submitted files.

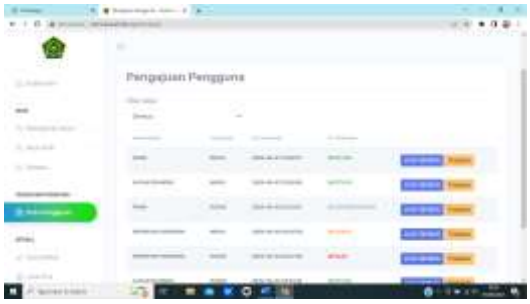

***Figure 13**. File submission data page*

4. Article Pages

On this page, Admin can write and share articles about Marriage and Referral.

***Figure 14**. Article creation page*

3.3 Test

UAT testing is a testing process by users which is intended to produce documents that are used as evidence that the system developed is acceptable or not by the user, if the test results can be considered to meet the needs of the user, the application can be implemented. The UAT test was conducted by asking several questions to the KUA employees of the Lubuk Barumun sub-district and the community because they acted as system users, namely by including 5 KUA employees and 5 people from the Lubuk Barumun district community.

The results of the user acceptance test are assessed in 5 categories, namely SS (Highly Appropriate), S (Appropriate), KS (Not Appropriate), TS (Not Appropriate), and TJ (No Answer). Here are the details of the results.

Table 1. UAT test results on the Android-Based Marriage Administration information system at the Lubuk Barumun district office, Padang Lawas Regency:

No	Question	SS	S	KS	TS	TJ
1.	Is this system easy to operate?	9	1	-	-	-
2.	Is the menu displayed on the marriage administration information system as expected?	9	1	-	-	-
3.	Is the marriage and referral file importing system running as expected?	8	2	-	-	-
4.	Is the System Display easy for users to understand?	9	1	-	-	-
5.	Is the menu available in accordance with the needs?	10	-	-	-	-
6.	Is the file in accordance with what was requested by the KUA of Lubuk Barumun District?	10	-	-	-	-
7.	The system that was built is suitable for use at the KUA in the Lubuk Barumun sub-district?	8	2	-	-	-
8.	Is the system display attractive?	8	2	-	-	-

9.	Is the system built suitable for use?	9	1	-	-	-
10.	Are users satisfied with the system that has been created?	8	2	-	-	-
TOTAL		88	12			

In the UAT test, it can be concluded that 88% of users strongly agree with the android-based marriage administration information system that has been built and another 12% agree.

IV. Conclusion

The conclusions that can be drawn from the results of the implementation and testing that have been carried out are based on the analysis and design of making an android-based marriage administration information system: (1) an android-based marriage administration information system at the KUA of the Lubuk Barumun sub-district has been successfully built. (2) Submission of marriage documents and reconciliation can be done wherever the registrant is located. Furthermore, the KUA admin can take action such as approved files, Research, and Reject files are also online. (3) With the construction of an android-based Marriage administration information system at the KUA of the Lubuk Barumun sub-district, the prospective bride and groom no longer have to come back and forth to the KUA of the Lubuk Barumun sub-district. (4) With the android-based administrative information system created, people who want to submit files no longer take a long time so the marriage registration and referral process are more effective and efficient. (5) Make it easier for the KUA to convey information about marriage and reconciliation, then, and make it easier for the KUA to provide marriage advice to users.

Thank-You Note

Researchers would like to thank all parties who have played an important role in implementing this research, especially the Office of Religious Affairs, Lubuk Barumun District, which has helped researchers a lot in collecting data so that this research can be completed.

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