

DESIGN OF A POPULATION ADMINISTRATION SERVICE INFORMATION SYSTEM IN SADENG VILLAGE, BOGOR REGENCY

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Abstract

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The village is the smallest unit of government legally recognized by the Indonesian government. One of the tasks of the village administration is to provide administrative services to its inhabitants. Preparation of population documents such as identity, cards or residence documents that are subject to change must be considered carefully in the registration process for population data. The technology in the web-based population administration service system is a breakthrough in the context of increasing community satisfaction with village government performance as well as optimizing technology in the field of information and communication whereby using this technology the public can be served anytime and anywhere. The Sadeng Village Office, Bogor Regency, is the institution that exercises authority in the field of population administration in Sadeng Village. In organizing activities in Sadeng Village, problems often occur in the process of recording population administration, one of which is the delay in the recording process which still uses a manual system, namely by writing all submissions using paper. by using the waterfall method or linear sequential or classical life flow it is hoped that it can help the community in the submission process, as well as make it easier for village officials to collect population data. With the design of this information system, it is hoped that data management in the village will become more effective and efficient..

Keywords: Village, Information System Design, Waterfall Method

1. INTRODUCTION

The village is the smallest unit of government legally recognized by the Indonesian government. One of the tasks of the village administration is to provide administrative services to its inhabitants. Preparation of population documents such as identity cards and residence documents that are subject to change must be considered carefully in the registration process for population data (1). Population administration is a very important matter and must be handled properly. This will later be useful to support the making of appropriate development policies. The processing of population data is the responsibility of the district or city government, where implementation starts from the sub-district as an important role in population registration (2).

The Sadeng Village Office, Bogor Regency, is the institution that exercises authority in the field of population administration in Sadeng Village. Population administration is a series of activities for the preparation and processing of population registration, civil registration, management of population data that produces population letters and data and utilizes the resulting data for the benefit of community service in the village and development sectors. As one of the lower level government agencies, the village has a role

important in a government. One of the important roles of the village is as a manager of population data such as population data collection in the process of making KTPs, family cards, birth certificates, death certificates and transfer certificates. In accordance with Law no. 23 of 2006 concerning

Population Administration and PP no. 37 of 2007 concerning Implementation of Law no. 23 of 2006 concerning Population Administration. The goal of population administration is an orderly population database. So that with accurate data it can be useful for the implementation of other government policies or programs such as statistical data collection (3)

But often the problem that occurs in the process of recording population administration is the delay in the recording process which still uses a manual system, namely by writing all submissions on paper, the results of the submission are typed and recapitulated using Microsoft Office. So it takes time to make a population administration data collection report. In the end, the process of submitting data and reports on population registration becomes hampered and requires a relatively long time. Based on the results of observations made in Sadeng Village, Bogor Regency, it is necessary to design a population administration service information system 3 that can carry out the population data collection process starting from data input to obtaining submission reports from the community. With this administrative service information system, it is hoped that it can help the community in the submission process, as well as make it easier for village officials to collect population data.

2. METHOD

The software development method applied in this study is the waterfall method or linear sequential or classic life cycle. "The waterfall method is the most suitable model for software development with specifications that do not change." (4). The stages of the waterfall method are Software Requirements Analysis, Design, Implementation, testing, Support or maintenance. While the stages in the data collection technique used were direct observations at Sadeng Village, Bogor Regency, conducting interviews with Mr. Yanuar Lesmana as the Village Head at the Sadeng Village Office, Bogor Regency. And Library Studies to study and collect data from several journals or articles on the internet related to research.

3. RESULT AND DISCUSSION

System procedures that are currently running have the goal of seeing more clearly how a system works and knowing the problems that exist in the system. The system runs on administrative service processes in Sadeng Village carried out by the head of the service section. The following is the current system procedure in Sadeng Village:

1. Procedure for Making a KTP

Residents come to the village office with the required documents such as a letter of introduction from the local RT/RW, photocopy of KK, and passport photo 3x4 which is then handed over to the head of the village service section. The service department will check the file, whether it is complete or not. Then make a cover letter for making a KTP which will be signed by the Village Head. After that the letter of introduction is given to the resident who submitted the application, then the service department will record it in the monthly report book.

2. Procedure for Changing COWs

Residents come to the village office with the required documents, such as photocopies of old family cards, ID cards, birth certificates and marriage books. All files will be checked by the service head. Then the service department makes a letter of introduction which will be signed by the Village Head. Give a letter of introduction to residents who apply, then record it in a monthly report book.

3. Procedure for Submission of Transfer Letter

Residents come to the village office with the required documents such as photocopies of KTP and KK. The service head will check the data. Then make a transfer letter which will be signed by the Village Head. Give transfer letters to residents who apply, then record them in a monthly report book.

4. Procedure for Making Monthly Reports

The service department will make an administrative report in the form of recording the outgoing cover letter. Then it will be signed by the village head. The reporting period is carried out every month.

Use Case Diagram Design

Describe the interaction between users and the system

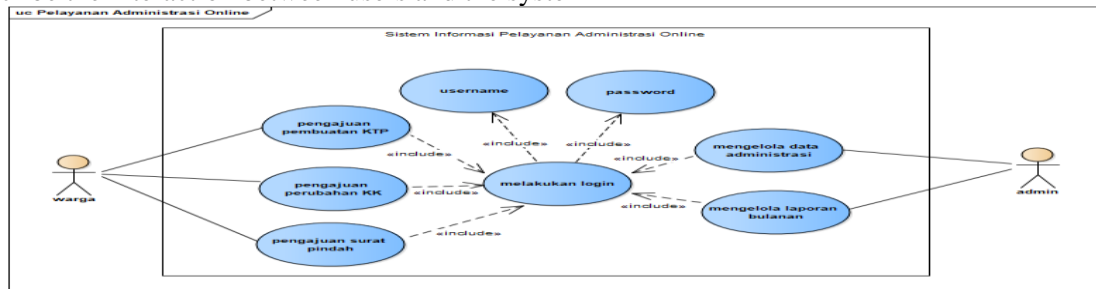


Figure 1 Use Case Diagrams

Entity Relationship Diagrams(ERD)

Is a database modeling that connects / relates between entities.



Figure IV.2 Entity Relationship Diagram Online Administrative Services

Logical Record Structure(LRS)

Is a representation of the structure of the records in the table formed from the results between entity sets.

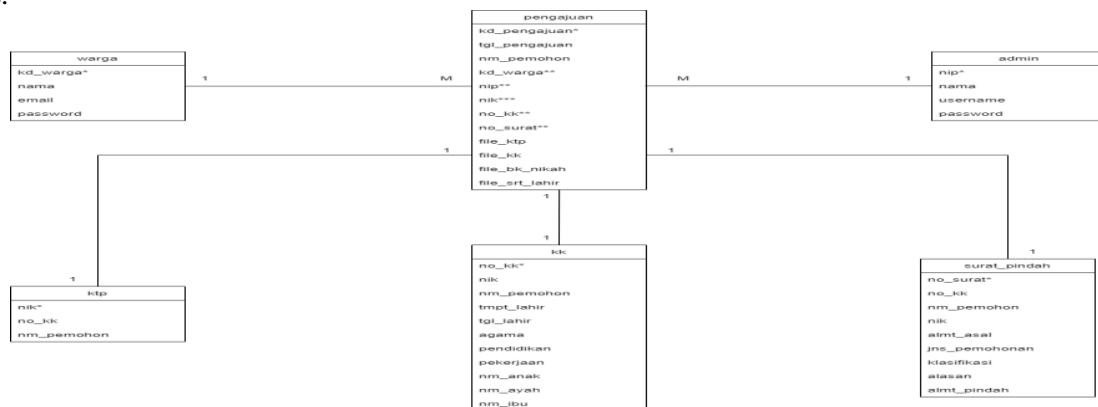


Figure 2 Logical Record Structure Online Administration Services

User Interface

A. The following is the Display Design for the Sadeng Village Website

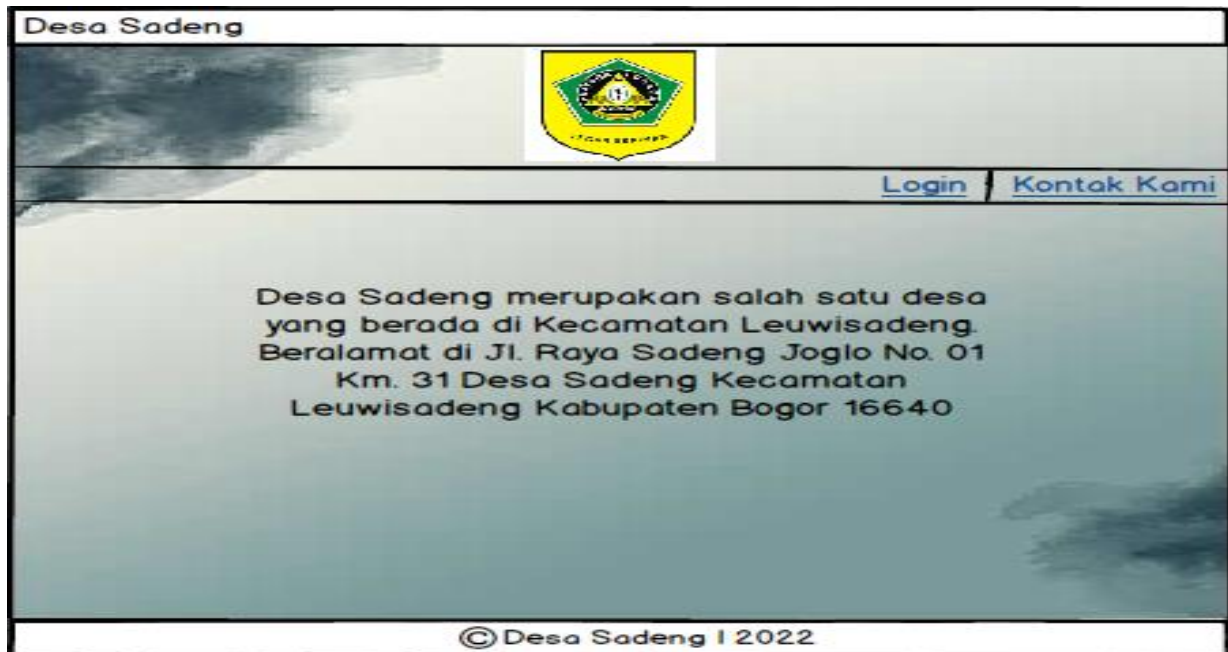


Figure 4. Sadeng Village Website Page

B. Our Contact Display Design



Figure 5. Our Contact Page

C. Display Design for Citizens Login Form



Desa Sadeng

LOGIN

Email

Password

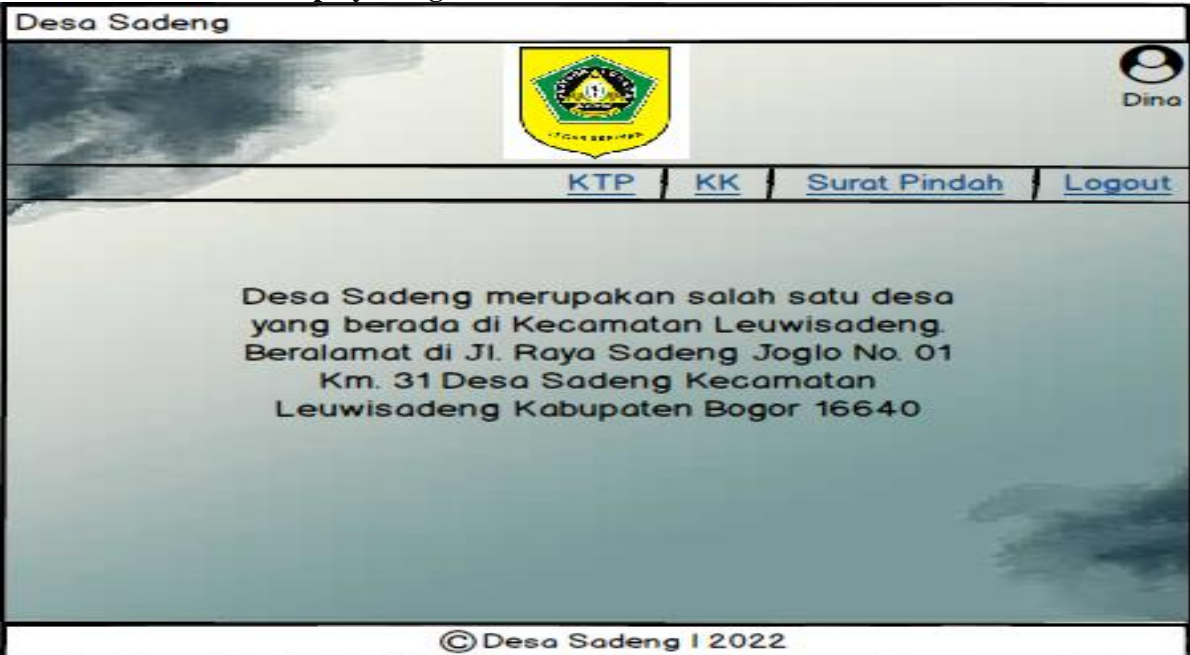
[Lupa Password?](#)

Login

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Figure 6. PageCitizen Login Form

D. Citizen Dashboard Display Design



Desa Sadeng

Dina

KTP | KK | Surat Pindah | Logout

Desa Sadeng merupakan salah satu desa yang berada di Kecamatan Leuwisadeng. Beralamat di Jl. Raya Sadeng Joglo No. 01 Km. 31 Desa Sadeng Kecamatan Leuwisadeng Kabupaten Bogor 16640

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Figure 7. PageCitizen Dashboard

E. Display Design for Submission of KTP Making

Figure 8. Submission page for making a KTP

F. Design of KTP Submission Data Display

Figure 9. Submission Data Page and Output SP Making KTP

G. Display Design for KK Changes

Figure 10. Page for submitting changes to the KK

H. Family Data Change Display Design

Figure 11. Family Data Change Page

I. Design of KK submission data display

Figure 12. Submission Data Page and Output SP of KK Changes

J. Display Design for Adding Family Members

Figure 13. Addition of Family Members page

K. Display Design for Submission of Transfer Letters

Figure 14. Transfer Letter Submission Page

L. Design of Transfer Letter Submission Data Display

Figure 15. Submission Data Page and SP Output Ket. Move

M. Admin Login Display Design

Figure 16. PageLogin Admin

N. Admin Dashboard Display Design

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Dashboard

Admin

Dashboard | Data Adm | Laporan | Logout

Admin (3) | Data Adm (50) | Laporan

10 search

NIP	Nama	Username	Password
ADMDS001	Nanda	admin	admin

Showing 1 to 1 of 1 entries

<< Previous | 1 | Next >>

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Figure 17. PageAdminDashboard

O. Administrative Data Display Design

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Data Administrasi

Admin

Tambah Data

Dari Sampai search

No	kd_pengajuan	tgL_pengajuan	Nama	Keterangan	Aksi
1	PENG001	01/06/22	Dian	SK Pembuatan KTP	
2	PENG007	07/06/22	Duloh	SK Perubahan KK	
3	PENG015	13/06/22	Dani	SK Pembuatan KTP	
4	PENG017	15/06/22	Dini	SK Ket. Pindah	

Showing 4 to 4 of 4 entries

<< Previous | 1 | Next >>

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Figure 18. Administrative Data Page

P. Monthly Report Display Design

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Laporan Administrasi

Admin

Dari Sampai search

No	kd_pengajuan	tgL_pengajuan	Nama	Keterangan
1	PENG001	01/06/22	Dian	SK Pembuatan KTP
2	PENG007	07/06/22	Duloh	SK Perubahan KK
3	PENG015	13/06/22	Dani	SK Pembuatan KTP
4	PENG017	15/06/22	Dini	SK Ket. Pindah

Showing 4 to 4 of 4 entries

<< Previous | 1 | Next >>

Export

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Figure 19. Monthly Report Pages and Output

TESTING

Interface Design Testing

1. Front-end Testing

Table 1. Interface Testing Results*Front-end*

PARTICIPANT	ACCESS MENUS	CITIZEN LOGIN	SUBMISSION OF COVER LETTER	MANAGE DATA	MANAGE MONTHLY REPORTS	LOGIN ADMIN
1	✓	✓	✓	✓	✓	✓
2	✓	✓	✓	✓	✓	✓
3	✓	✓	✓	✓	✓	✓
4	✓	✓	✓	✓	✓	✓
5	✓	✓	✓	✓	✓	✓
SUCCESS	5	5	5	5	5	5
SUCCESS VALUE	100%	100%	100%	100%	100%	100%

2. Back-end Testing

Table 2. Interface Testing Results*Back-end*

PARTICIPANT	ACCESS MENU S	ADMINISTRATIVE DATA	SUBMISSION	DATA INPUT	MONTHLY REPORT
1	✓	✓	✓	✓	✓
2	✓	✓	✓	✓	✓
3	✓	✓	✓	✓	✓
SUCCESS	3	3	3	3	3
SUCCESS VALUE	100%	100%	100%	100%	100%

4. CONCLUSION

A good information system is an information system that can meet the needs of users (users). The application of a computerized system for processing, managing and reporting population administration data will improve performance more effectively and efficiently. The existence of a population administration data management information system makes it easier for users to obtain information about village activities. In terms of data storage, it can save space and time. Security is guaranteed because it uses the user login process, so access rights can be limited.

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