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Community Decision Support Service System Village Level Mandiri Based on an Interactive Website

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Abstract *Every village is required to provide the best possible service to the community in the areas of writing letters, population data collection, and other needs related to village office services. The process still requires residents to come and follow the procedures to get the letter. In this case, the letter cannot be processed in one day because often the village head who is authorized to sign the letter is not there because he is on assignment out of the area. So wait for the next day or wait for a confirmation Wats app from the Kadilangon village administration department to come and pick up the letter that has been processed. This process requires more time to carry out and obtain services and documentation of letters submitted by Kadilangon village residents. The process of serving letters submitted online is to make it easier for residents in terms of the application process and for employees themselves to make the documentation and report letter process easier. The author created a community service information system in Kadilangon village. In this system, residents can apply for letter permits online. It is hoped that this will make the letter application process faster and easier because the system can be accessed from anywhere. With this community service system, it is hoped that it can improve the quality of the service process to the people of Kadilangon village.*

Keywords *: Expert Systems; Services, Information; Systems*

Abstrak Setiap desa dituntut untuk memberikan pelayanan terbaik kepada masyarakat di bidang penulisan surat, pendataan kependudukan, dan kebutuhan lain yang berkaitan dengan pelayanan kantor desa. Prosesnya masih mengharuskan warga untuk datang dan mengikuti prosedur untuk mendapatkan surat tersebut. Dalam hal ini, surat tidak dapat diproses dalam satu hari karena seringkali kepala desa yang berwenang menandatangani surat tersebut tidak ada di sana karena sedang bertugas di luar daerah. Jadi tunggu keesokan harinya atau tunggu konfirmasi aplikasi Wats dari dinas administrasi desa Kadilangon untuk datang dan mengambil surat yang telah diproses. Proses ini membutuhkan waktu lebih untuk melaksanakan dan mendapatkan layanan dan dokumentasi surat yang disampaikan oleh warga desa Kadilangon. Proses penyajian surat yang disampaikan secara online adalah untuk memudahkan warga dalam hal proses pengajuan dan bagi karyawan sendiri untuk mempermudah proses dokumentasi dan surat rapor. Penulis membuat sistem informasi pengabdian masyarakat di Desa Kadilangon. Dalam sistem ini, warga dapat mengajukan izin surat secara online. Diharapkan hal ini akan membuat proses pengajuan surat lebih cepat dan mudah karena sistem dapat diakses dari mana saja. Dengan adanya sistem pengabdian kepada masyarakat ini, diharapkan dapat meningkatkan kualitas proses pelayanan kepada masyarakat Desa Kadilangon.

Kata Kunci : Sistem Pakar; Layanan, Informasi; Sistem

1. INTRODUCTION

The rapid development of the world of information and communication technology has had a tremendous impact on people's lifestyles. Information technology makes people's lives dynamic and fast. With the conveniences provided, it encourages people to utilize information and communication technology to help with their daily activities. Meanwhile, the technology for disseminating information that is currently developing rapidly is the internet. The internet comes from interconnection networking which linguistically means interconnected networks,

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so called because the internet is a network of computers throughout the world that are interconnected with the help of telecommunications lines.

The correspondence service information system is a system that has a very important role in the population data collection process which aims to improve employee performance in an agency. Kadilanggon Village is one of the Village Head Offices in the Klaten area which has an important role in government, especially in terms of correspondence, so it is required to be able to provide fast and accurate services and information. The Kadilanggon Village Head's Office has several problems in terms of letters, including a lot of population data, but still uses a manual system in processing the data, moreover the data or reports are not properly archived and then searching for the data takes a relatively long time because you have to look for the data one by one and lose it. data often occurs because there is no well-systemized data collection, making it difficult for the public to manage it.

2. TABLES

Tabel 1.

Population Table

Field Name	TYPE	Key	Description
nik	Varchar(50)	Primary Key	Kunci Tabel
nama	Varchar(100)		
tmpt_lahir	Varchar(50)		
tgl_lahir	Date		
gender	Enum('Laki-laki', 'Perempuan')		
dusun	Varchar(50)		
rt	Varchar(10)		
rw	Varchar(10)		
desa	Text		
kecamatan	Varchar(50)		
kabupaten	Varchar(20)		
	Enum		

agama	(‘Islam’, ‘Kristen’, ‘Hindu’, ‘Budha’)		
status	Varchar(20)		
pekerjaan	Varchar(20)		
gol_darah	Varchar(10)		
kontak	Varchar(50)		
password	Varchar(50)		
Group_id	Int(11)	Foreign Key	

Table used to store all data on the population of Kadilanggon village.

Graphics Content

This section contains the stages in conducting research. The research stages are depicted in diagram form. Figure 1 shows a diagram of the research stages as below:

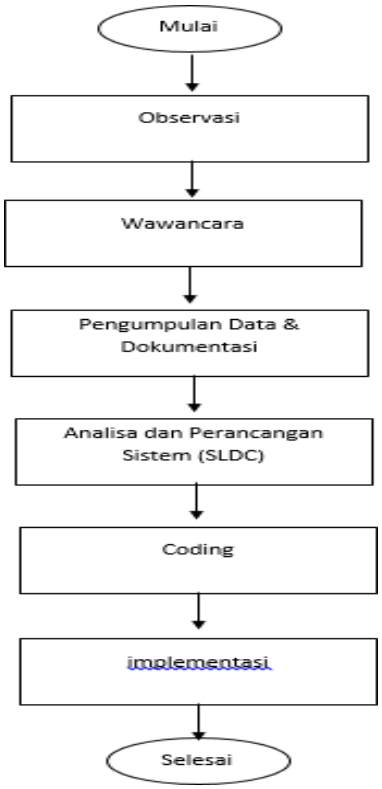

Figure. 1. Flowchart of Research Stages.

A flowchart is a document flow diagram that is used to describe the relationship between the entities involved in the form of existing document flows.

Data Flow Diagram is a diagram that uses notations to describe the flow of data in a system or explain the work process of a system, the use of which is very helpful for understanding the system logically, structured and clearly. In short, DFD is a modeling tool for modeling system workflows.

Context Diagram is a global description of a system, which explains in line the relationship between the entities in the proposed website system which can be seen in Figure 2.

Figure. 2. Context Diagram.

A Tier Diagram is a design tool that can display all the processes contained in the system to be built, where in the Tier Diagram process there are several levels, namely level 0, level 1, and level 2. The system design depicted can be seen in Figure 3.

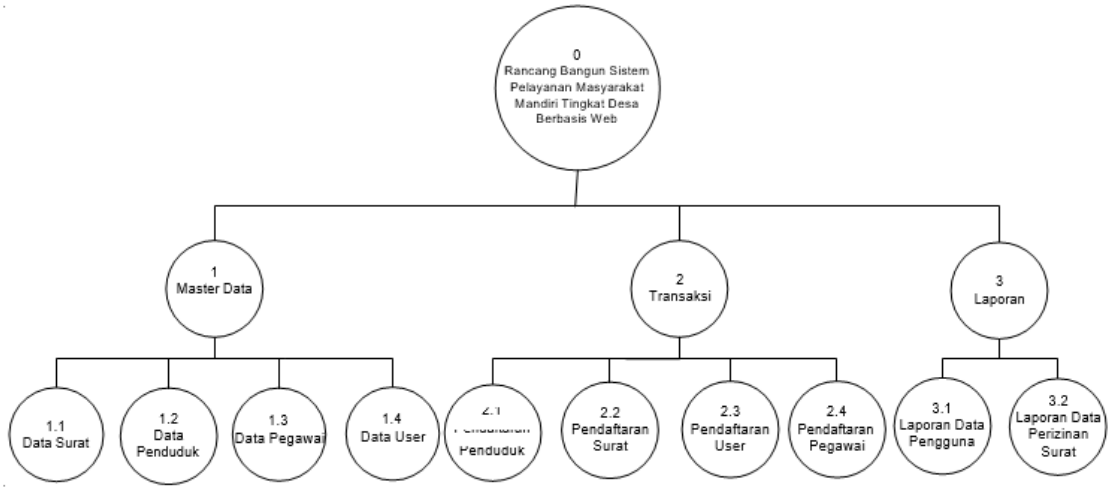

Figure. 3. Tier Diagram.

DFD Level 1 is a description of the sequence of processes in the system to be built, including master data processes, transaction processes and reports. DFD Level 1 describes where the data will go and produces the entities used in the database. At Level 1 DFD will be composed, each of which will become several processes, as presented in Figure 4.

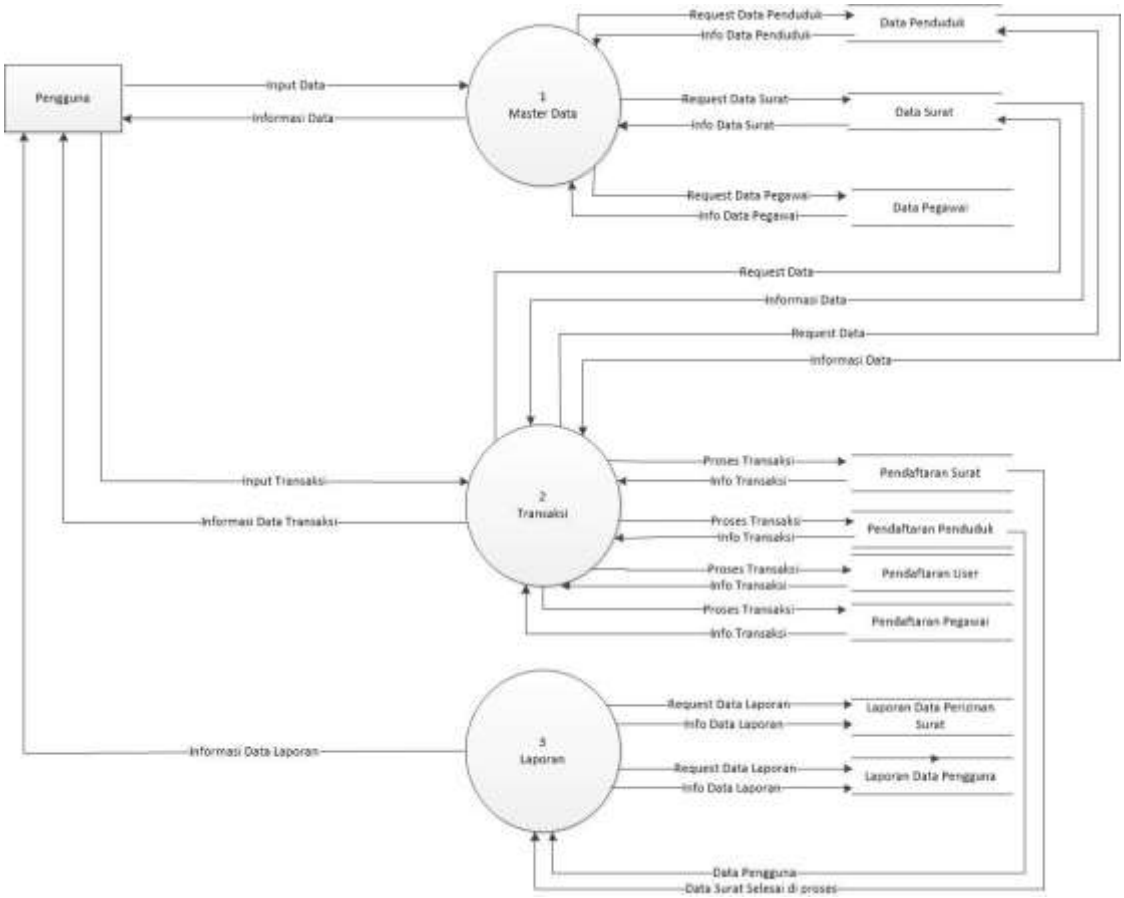

Figure. 4. DFD Level 1.

DFD Level 2 Process 1 is a development of DFD Level 1. This process explains the process of data collection for letters, residents and employees, data collection for letters is stored in the letter data file, population data collection is stored in the population data file and employee data collection is stored in the employee data file. The following is DFD Level 2 Process 1 which can be seen in Figure 5.

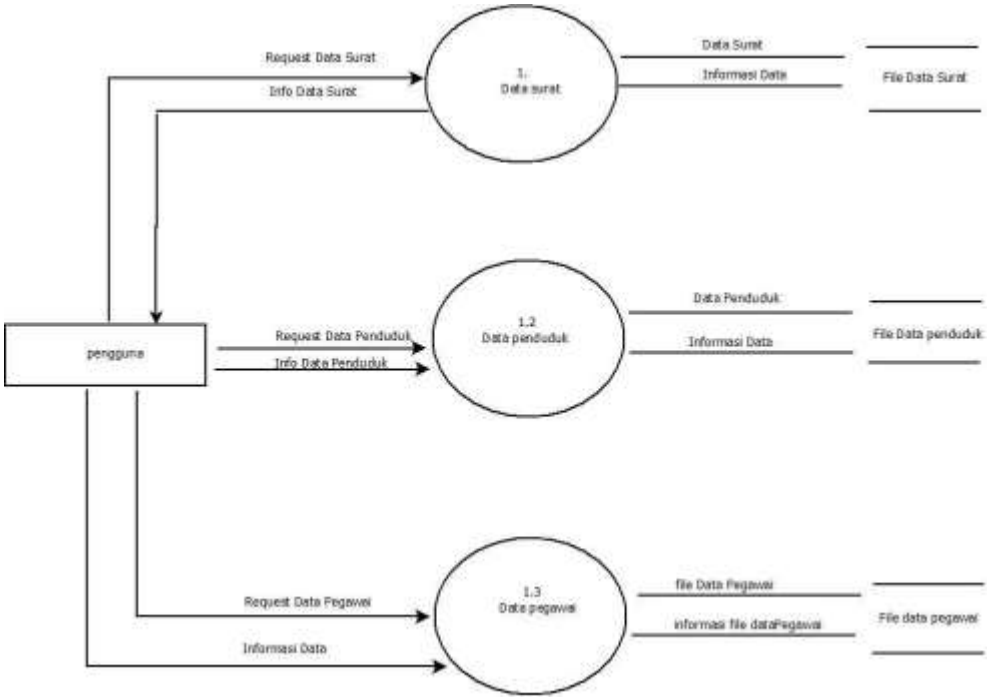

Figure. 5. Level 2 process 1.

DFD Level 2 Process 2 is a development of DFD Level 1. This process explains the letter licensing transaction and finished letter information, both transactions are saved to the transaction data file. The following is DFD Level 2 Process 2 which can be seen in Figure 6.

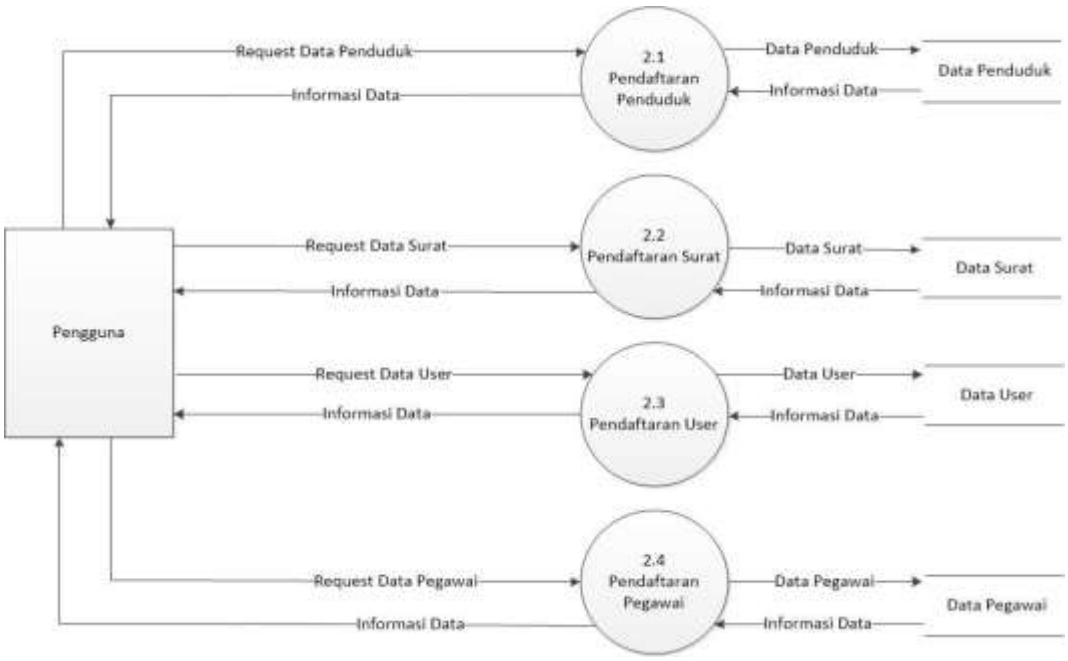

Figure. 6. DFD Level 2 process 2.

In DFD level 2, process 3 explains the report printing process, the head of administration carries out an order to display the report, the system will display the report according to the order given. Reports are stored in letter data files, member data files and transaction data files which can be seen in Figure7.

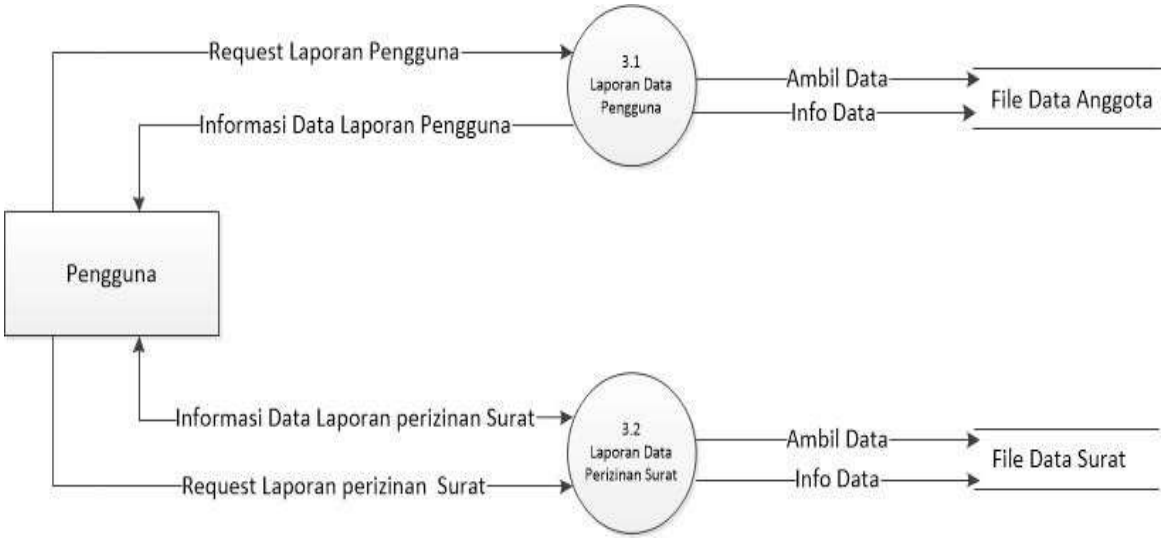

Figure. 7. DFD Level 2 process 3.

In the system design stage, several stages are required to demonstrate the system to be built. System development includes ERD design, determining table relationships, DFD design, and program display design. Seen in figure 8.

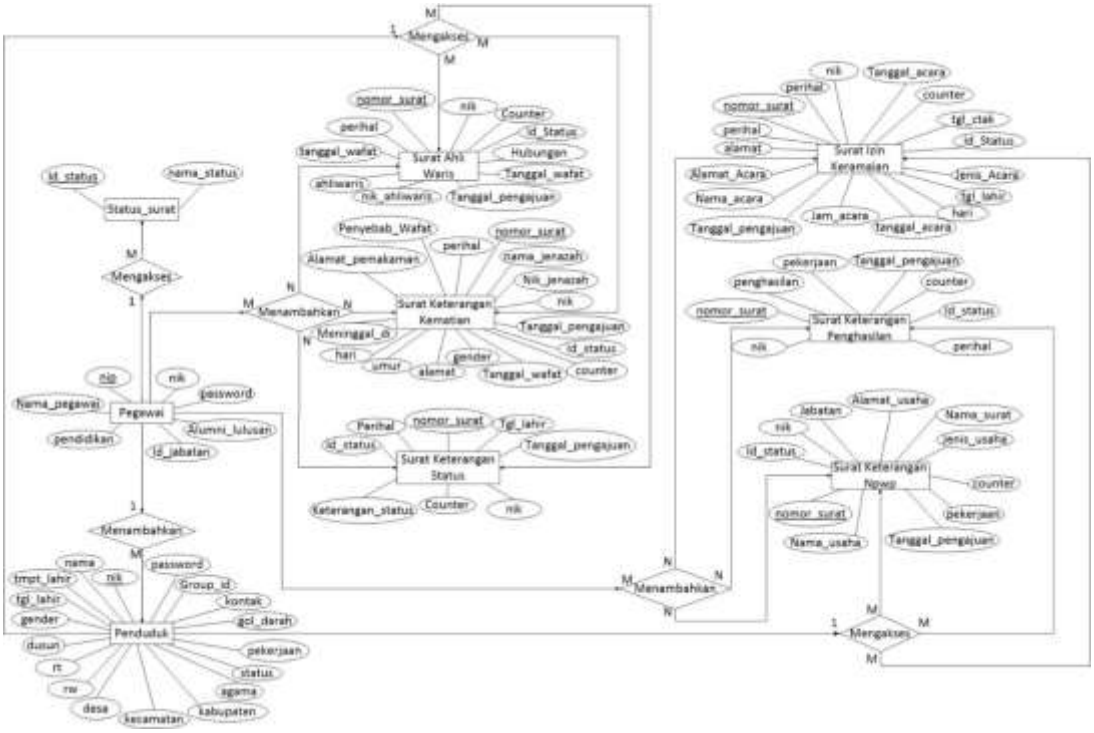

Figure.8. Entity Relationship Diagram

Relationships Between Tables

Each database file is arranged, each connected or related based on the connecting field key in each database, the relationship between each table can be seen in Figure 9.

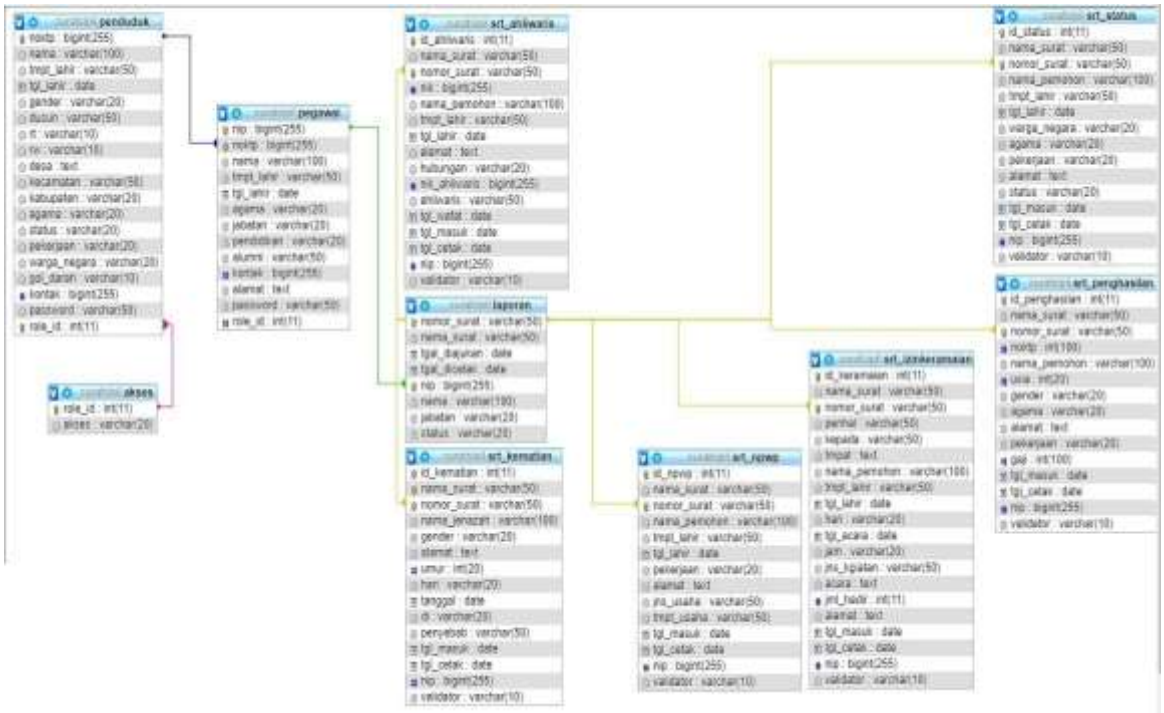

Figure .9 Database Relations

Programming Code

The web-based village-level independent community service system implementation system that has been created is a system built using Sublime Text as an interface with the programming languages HTML, PHP and PhpMyadmin as the database. The resulting program is in accordance with the design described in the previous chapter, both in terms of interface, data flow, database and menu display.

The login page contains a form that is used to log in to the system. The login page display can be seen in Figure 10.

Figure .10 Home Web View

Source Code for home display:

```
   <div class="collapse navbar-collapse" id="navbar-
collapse-1"> <ul class="nav navbar-nav">    <li
href="#home">HOME</a></li><li><a SURAT</a></li>
   href="#about-us">BANTUAN</a></li> <li><a
href="#contact-section">KONTAK</a></li>
   </ul>
   </div><!-- /.navbar-collapse -->
   </nav> <!-- /.theme-feature-menu -->
   </div>
   </header> <!-- /.theme-main-header --> <div class="tp-
caption" data- x="['center','center','center','center']" data-
hoffset="['0','0','0','0']" data-
   y="['middle','middle','middle','middle']" data-voffset="['-
58','-58','0','-50']" data-"
```

The login page contains a form that is used to log in to the system. The script display and login page can be seen in Figure 11.

Figure .11 Login Page Display

Source Code for home display:

```
   public function add()
   $data = array(
   'akun'          => $this->input->post('add_account'),
   'password'    => enkrip($this->input-
>post('add_password')), 'pengguna'    => $this->input-
>post('add_username'),
   'email'         => $this->input->post('add_email'),
'system_group_id' => $this->input->post('add_group'),
   );
   $this->db->insert('engine_akun',$data);
redirect('pengaturan/akun');
   }      public function edit()
   {
   $data = array(
   'akun'          => $this->input->post('edit_account'),
   'password'    => enkrip($this->input-
>post('edit_password')), 'pengguna'    => $this->input-
>post('edit_username'),
   'email'         => $this->input->post('edit_email'),
'system_group_id' => $this->input->post('edit_group'),
   );
   $this->db->where('id',$this->input->post('edit_id'))
   ->update('engine_akun',$data);
```

The Admin Dashboard page is the main page for the Administrator Civil Registry Administration System. On this page there are sub menus, namely Master Data, Transactions, Reports, Settings, Log out and the page display is as in Figure 12.

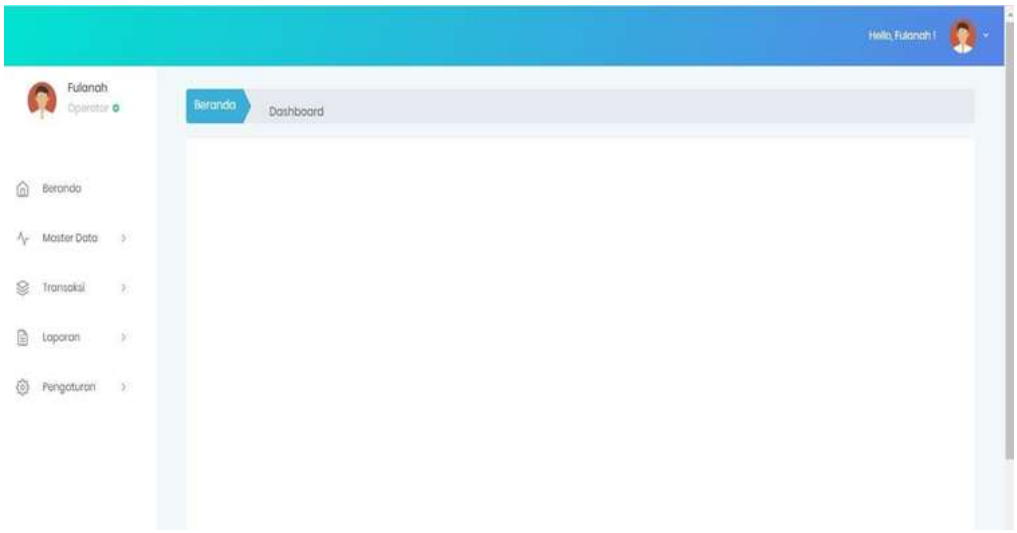

Figure .12 Dashboard Page View

Source Code for home display:

```
?php
defined('BASEPATH') OR exit('No direct script
access allowed'); class Beranda extends CI_Controller
{
public function    construct()
{
parent:: construct(); } public function index()
{
if($this->session->userdata('akun'))
{      $param['aktif'] = "beranda";
$param['page']        = "beranda/v_beranda";
$this->load-
>view('themepack/default/container',$param);
}
Else
{
redirect("beranda/beranda");}
}
}
```

The Master Population Data page contains data from the residents of Kadilanggon village. In this form you can also select several actions, namely add data to add resident data along with accounts, detail to view detailed information from residents and the delete function to delete resident data.

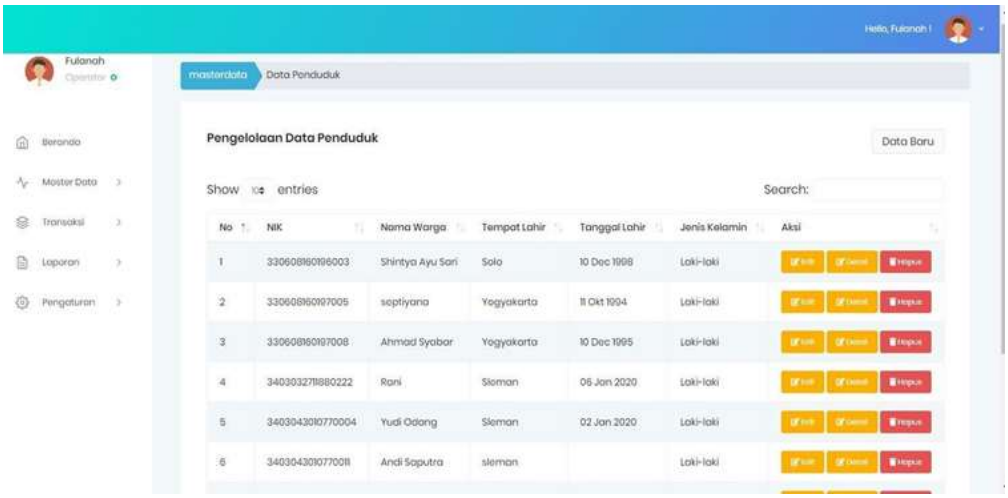

Figure .13 Population Data Master Page Display

Source Code for home display:

```
   ? <?php
   defined('BASEPATH') OR exit('No direct script
access allowed');

   class Penduduk extends CI_Controller {
   public $nama_table = "penduduk"; public $field_pk
         = "nik";
   public $modul        = "masterdata";
   public $menu         = "penduduk";
   public $redirect     = "masterdata/penduduk";

   public function index()
   {
   $cek = $this->m_login->cek_akses($this->redirect);
if($cek==TRUE)
   {
   $this->load-
>view('themepack/default/container',$this-
>info("list"));
   }
   else{
   redirect('','refresh');
   }
   }
```

CONCLUSION

Based on observations and research carried out by the author at the Kadilanggon Klaten Village office, several conclusions can be drawn as follows:

1. The community service administration system in Kadilanggon Village in the process of creating web-based online letters that has been designed can be implemented. This makes the process of making letters easier at the Kadilanggon Klaten Village office.
2. The online letter writing process can make it easier for residents to submit letters without visiting the Kadilanggon Klaten Village office first.
3. The system created has cut one process in order to shorten the process of submitting letters, management in terms of letter reports can display data on letter submission reports, reports on completed printed letters, and reports on letters that have been taken by the applicant.

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