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**MAIL FILING APPLICATION AT AKPER RUMKIT TK. III MANADO**

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**ABSTRACT**

**Keywords:** Administrative Administration; Archiving Efficiency; Technological Innovation In Administration.

Mail management in an organization plays a vital role in the administrative process. In this case, archiving is one of the influential factors in mail management at AKPER Rumkit Tk. III Manado. So it is hoped that managing incoming and outgoing letters can be done better, faster, and more accessible. With the application of incoming mail and outgoing mail, it can reduce the use of long enough time in filing letters and dispositions, reduce paper use, minimize the possibility of errors in recording, speed up the process of searching letters, facilitate control of mail disposition, and easy to use. This study aims to design a computerized mail filing application that can facilitate the search for archiving information quickly, accurately, and efficiently. The author uses tools such as PHP in programming and MySQL as a database for application design. The study results are applications that can manage incoming and outgoing mail and help the administrative administration manage archiving effectively and efficiently, using computer media to manage incoming and outgoing mail records.



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**Introduction**

The era of technology and information plays a vital role in human work in the government and private sectors, including the management of office administration, especially office correspondence (Suryadi & Zulaikhah, 2019).

Archiving letters or documents are managed by grouping documents according to monthly report transactions or the type of archived document (Ni Komang, 2023). In general, archiving documents is done by storing physical documents in a particular place that is adjusted to the list of documents that have been created (Sianipar, 2017).

From this filing, there are several obstacles when storing physical documents based on lists, namely requiring a place to accommodate every incoming and outgoing mail; searching for physical documents also requires quite a lot of time each document to search, and even physical documents stored are easily damaged by termites or the like (Widiani & Abdullah, 2018).

Because of the importance of archiving in handling incoming and outgoing mail, the author tries implementing a Mail Filing System Application using a computerized system (Susanty, Sihombing, & Thamrin, 2021). This application is expected to help archive managers manage their archives effectively and efficiently (Putri & Setiadi, 2014).

**Web Application**

A web application is an application that, from the beginning, is designed to be executed in a web-based environment (Faisah, 2018). That is, hypermedia about

hypertext and multimedia in combination with traditional application logic must be considered throughout the application lifecycle, which makes them different from conventional applications (Sendiang, 2018).

A web application for mail archiving is an efficient solution in digital document management. The app allows users to access, manage, and archive mail. The main features of mail classification and logging of incoming and outgoing mail (Alfiah, Sudarji, & Al Fatah, 2020).

### **Letters in general**

Letters are a means of communication in written form. Usually, the communication system using this letter is applied to companies or agencies (Putri & Setiadi, 2014). Organizations or companies predominantly use letters as a means of communication. In organizations or companies, correspondence becomes the main activity to strengthen ties with other parties (Faisah, 2018). Because every company must have operational activities, such as buying and selling transactions and establishing cooperation, correspondence is the main activity in such operational activities. Here is the definition of a letter according to some experts:

1. Dra. Sedarmayanti, M.Pd. The letter is a written communication tool from one party that is made and addressed to another party to convey information.
2. O. Setiawan Djuharie and Teddy Sutandi Surat are means of written communication to convey information, statements, and messages to other parties who need activities with certain parties.
3. I. G. Warsanto Surat is a type of script used to communicate between one party and another using a specific paper size.
4. Djoko Purwanto Surat is a communication tool used to convey information in writing by one party addressed to other parties related to business and non-business activities. From the definitions of some of the experts mentioned above, it can be concluded that a letter is a means of written communication to convey information, statements, or messages to other parties who need activities in a particular form.

## **Research Methods**

### **Object of Research**

This research was carried out by direct observation in the field, and the object of research was the Akper Rumkit Tk.III Manado Campus. In the process of collecting data, the author uses several methods that will help in collecting the data needed, namely;

### **Observation**

Observation is carried out by working directly at the Akper Rumkit Tk. III Manado Campus is in the administrative administration. In this work, the process of each letter archiving activity is handled. After doing direct work, the author collects data, including a correspondence handling system and mail archiving, then processes the results of work or observations obtained and analyzes the necessary data.

## Data Collection Techniques

Data is collected by searching for information about the research object, looking for references through the internet, books, and journals, as well as other sources that support the system's design, and then conducting direct interviews with administrative staff at Akper Rumkit Tk. III Manado, and to obtain the information needed, a question-and-answer method is carried out regarding all activities related to letter archiving (Sugiarto, 2018).

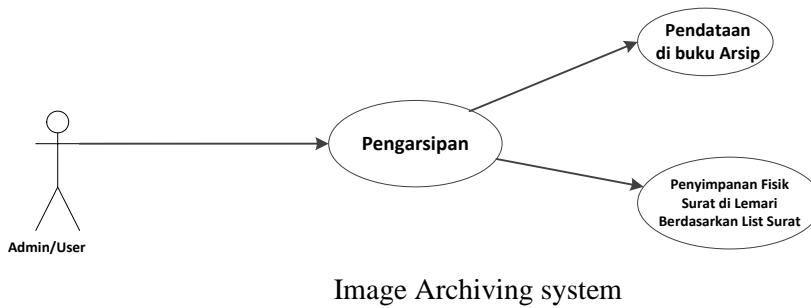


Image Archiving system

This Use Case explains the old filing system at the Akper Rumkit Tk.III Manado Campus by filling in the letter data in the existing archive book and storing physical letters in the cabinet based on the existing mailing list.

## Analyzes Data

The data collected illustrates how correspondence archiving works; it is done manually at Akper Rumkit Tk. III Manado, where every incoming and outgoing letter is collected using an agenda book, the mail archive is then stored based on the letter's date, month, and year.

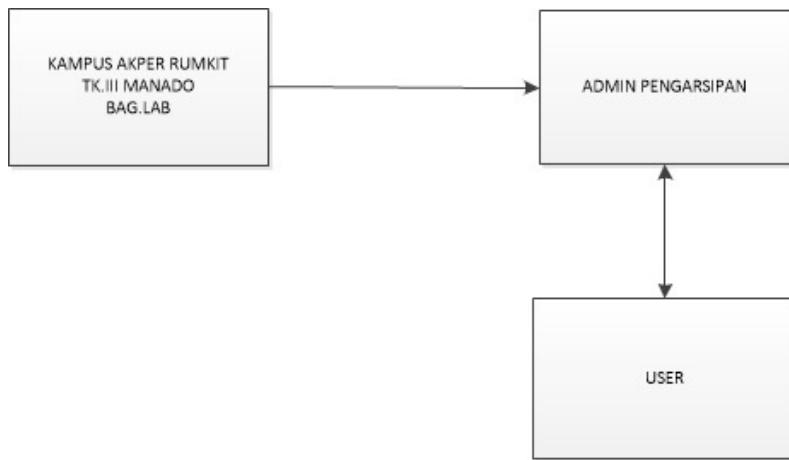


Figure 1 Running system

Data analysis is then carried out from this data to determine a system design that can simplify and speed up the archiving of incoming and outgoing letters at Akper Rumkit Tk. III Manado.

## System planning

Data analysis is then carried out from this data to determine a system design that can simplify and speed up the archiving of incoming and outgoing letters at Akper Rumkit Tk. III Manado.

## Context Diagram

A context diagram or a fundamental system model represents all system elements as a single bubble with input-output data indicated by arrows that enter and exit sequentially.

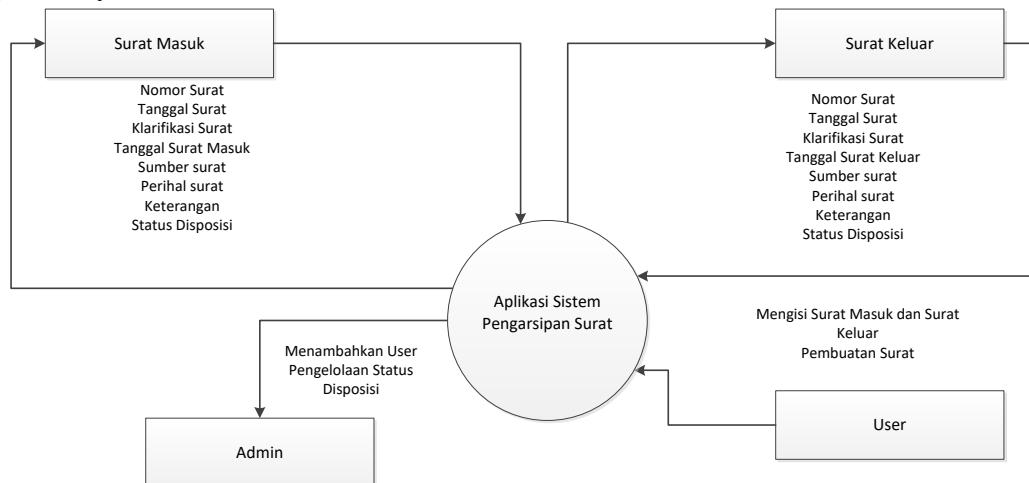
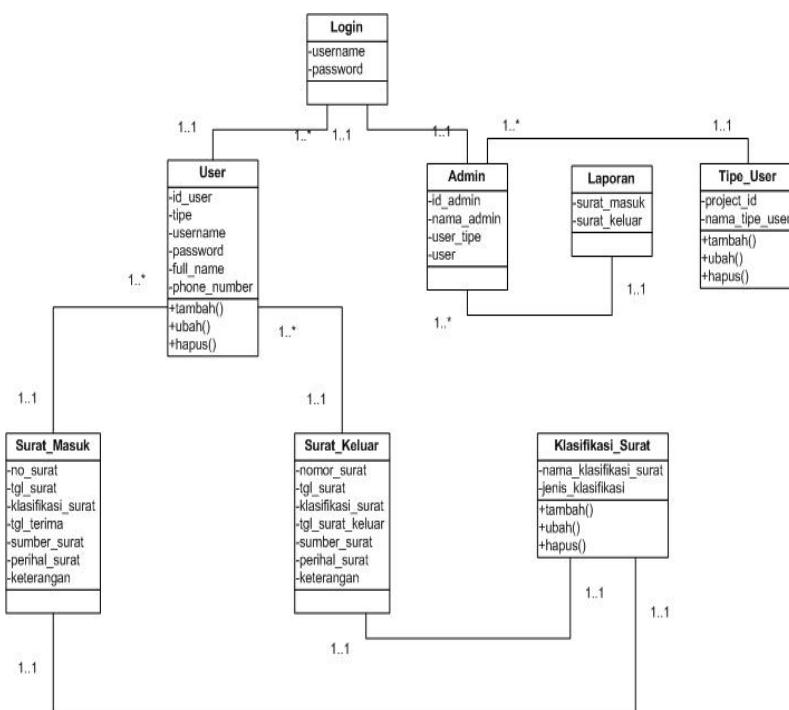


Figure 2 Context Diagram



Database design drawings

This Diagram class describes database planning for incoming mail input applications, outgoing mail, and mail archiving.

## Results and Discussion

### Software Implementation

This section will explain the software used as a medium for implementing applications resulting from research. The software required for the implementation of the Mail Archiving System Application is as follows:

Software Name	Software Version
PHP	V.7.x
Xampp	V3.2.2
Mozilla	V68.0.2
MySQL	V.5.6.1

PHP V.7.x has its better speed, new features and significant improvements, better security, and extensive support from the community. Xampp V3.2.2 This version was probably chosen because of its good compatibility with PHP 7.x and MySQL, proven stability, as well as special features that fit the needs of the project. Mozilla V68.0.2: This version can be used for application compatibility testing and may support certain useful extensions or development tools (Masykur & Atmaja, 2015).

MySQL V.5.6.1 has the reliability and stability of this important version, along with the specific features required and its compatibility with PHP 7 and Xampp used.

### Database Implementation

Database implementation using php My Admin and My Sql. The databases used are:

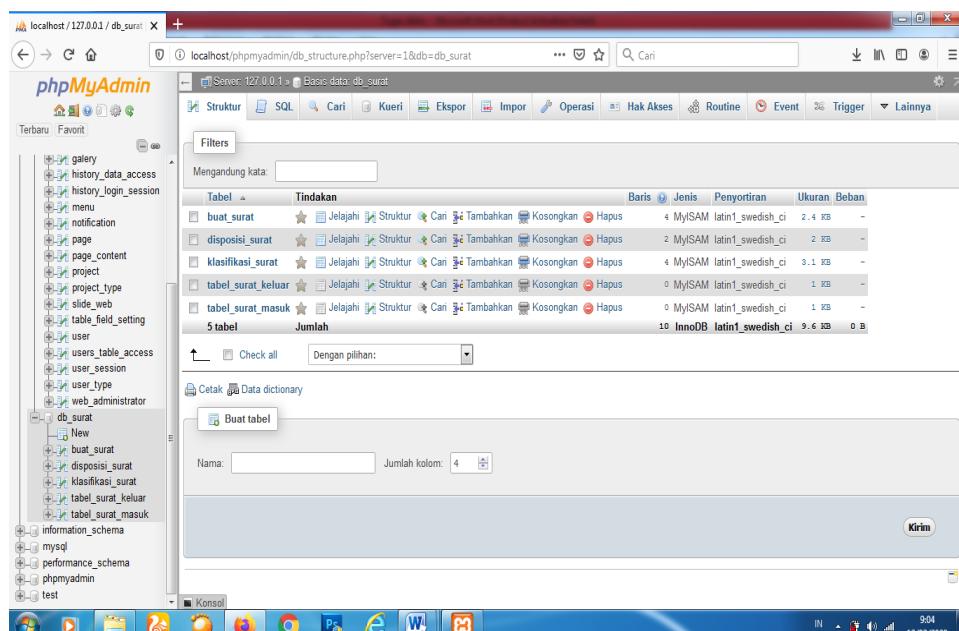


Figure 3 Mail table

The screenshot shows the phpMyAdmin interface for the 'db\_admin\_surat' database. The left sidebar lists various tables under the 'db\_admin\_surat' schema. The main area displays the structure of the 'tbl' table, which contains 1,718 rows and 8 columns. The columns are labeled: Baris, Jenis, Penyortiran, Ukuran, and Beban. The data includes various table names such as 'access\_rights', 'direct\_chat', 'documentation', 'field\_setting\_user', 'galery', 'history\_data\_access', 'history\_login\_session', 'menu', 'notification', 'page', 'page\_content', 'project', 'project\_type', 'slide\_web', 'table\_field\_setting', 'user', 'users\_table\_access', 'user\_session', 'user\_type', and 'web\_administrator'. The table structure is shown with icons for Jelajahi (Browse), Struktur (Structure), Cari (Search), Tambahkan (Add), Kosongkan (Empty), and Hapus (Delete).

**Figure 4 Tabel admin**

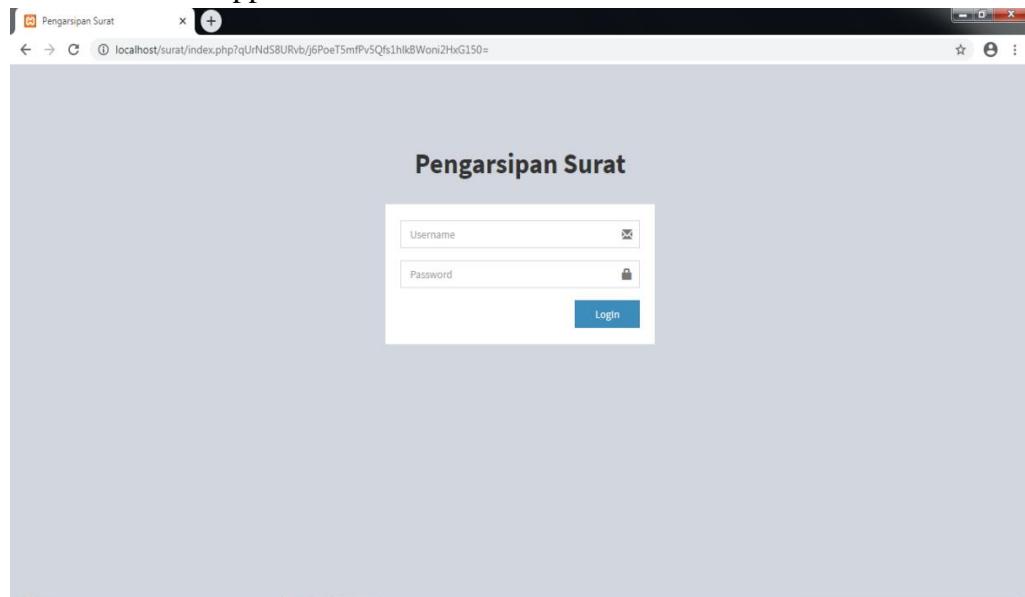
This table holds admin data for the Mail Filing System Application. This data consists of the admin user and password; in this table, all admin activities when using the application are recorded, and the admin can change or add information on the application web page via this table.

The result of the Mail Archiving System Application is through the browser as a medium for the display interface of this application.

### Interface

This section describes the interface of the Mail Archiving System Application so that users can use this application properly.

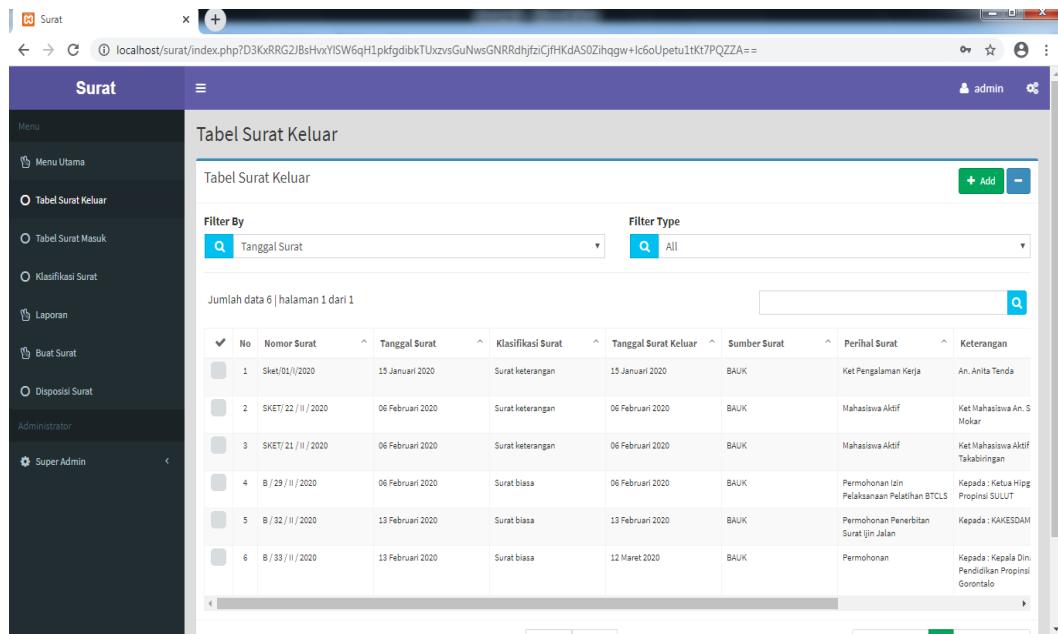
The interface in this application is as follows:



**Figure 5 Login**

Coding Login

```
<form action="action.php?enct1=true&l=t&r=<?php echo  
paramEncrypt1("php/action_login.php"); ?>" method="post" id="form_login">  
    <div class="form-group has-feedback">  
        <input required type="text" name="username"  
        class="form-control" placeholder="Username" <?php  
        if(isset($_GET['username'])) {  
            echo  
            "value="" . $_GET['username'] . """;  
        } ?>>  
        <span class="glyphicon glyphicon-envelope form-  
        control-feedback"></span>  
    <span class="help-block">Help block with error</span>  
    </div>  
    <div class="form-group has-feedback">  
        <input required type="password" name="password"  
        class="form-control" placeholder="Password" <?php  
        if(isset($_GET['password'])) {  
            echo  
            "value="" . $_GET['password'] . """;  
        } ?>>  
        <span class="glyphicon glyphicon-lock form-  
        control-feedback"></span>  
    <span class="help-block">Help block with error</span>  
    </div>  
  
    <div class="row login_btn_row">  
        <div class="col-xs-8">  
            <!-- <div class="checkbox icheck">  
            <label>  
                <input type="checkbox">  
            Remember Me  
            </label>  
            </div> -->  
            </div>  
            <!-- /.col -->  
            <div class="col-xs-4">  
                <button id="submit_chaptcha"  
                type="submit" class="btn btn-primary btn-block btn-flat" >LogIn</button>  
            </div>  
            <!-- /.col -->  
        </div>  
    </form>
```



**Figure 6 Outgoing Mail**

#### Coding Surat Keluar

```
<div class="col-md-12 col-xs-12" style="padding: 0px; padding-right: 10px;"><div class="form-group td col-xs-12 padding-0 margin-bottom-0 background-white"><label class=" myHoverLabel"><b>1.</b> Nomor Surat *</label>

<div style=""><div class="custom-help-float-container"><i class="icon fa fa-warning"></i>&ampnbsp<span class="custom-help-float" style="display: inline-block;"> (Nomor Surat) Duplicate ! </span></div></div>

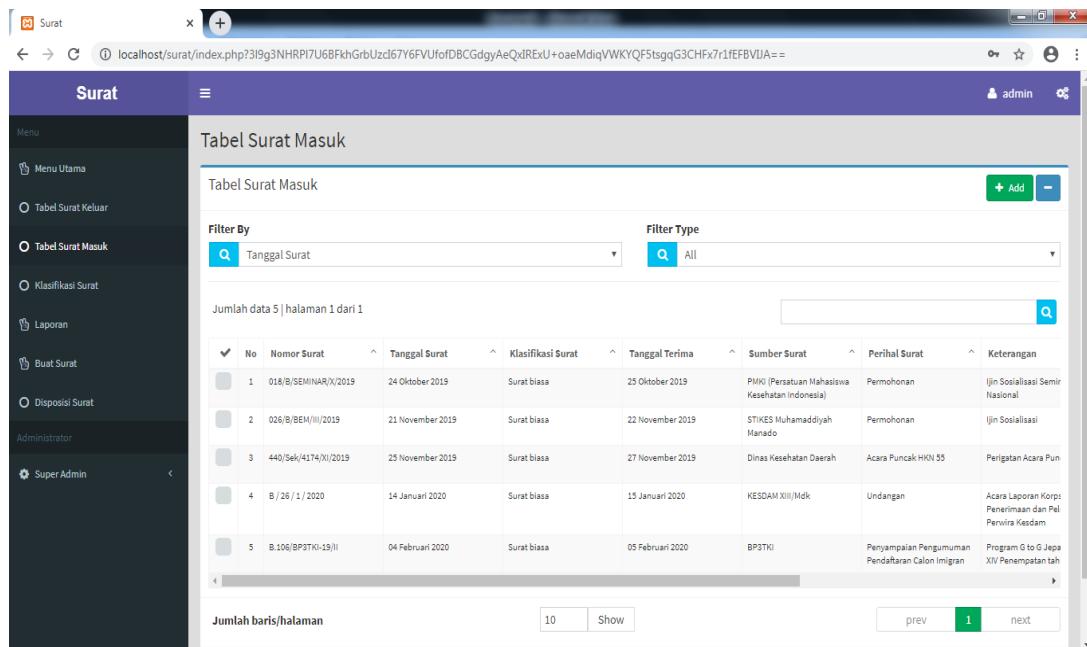
<div class="form-group td col-xs-12 padding-0 margin-bottom-0 background-white input-group" style="min-width: 130px; max-width: 160px; min-width: 50px; ">

<input type="text" max="20" required="" id="input_tabel_surat_keluar_nomor_surat" class="form-control nomor_surat_unique_filed_input" table1="tabel_surat_keluar" name1="nomor_surat" field_title="Nomor Surat" name="tabel_surat_keluar[nomor_surat]" value="" value1="" placeholder="">

</div>

<div style=""><div class="my-custom-error my-custom-limit-error"><i class="icon fa fa-warning"></i>&ampnbsp<span class="help-block" style="display: none;"> (Nomor Surat) Max Digit </span></div></div>

<div style=""><div class="my-custom-error"><i class="icon fa fa-warning"></i>&ampnbsp<span class="help-block" style="display: none;"> (Nomor Surat) Duplicate ! </span></div></div>
</div>
```



**Picture 7 Incoming Mail**

#### Coding Surat Masuk

```
<div class="col-md-12 col-xs-12" style="padding: 0px; padding-right: 10px;"><div class="form-group td col-xs-12 padding-0 margin-bottom-0 background-white"><label class=" myHoverLabel"><b>1.</b> Nomor Surat *</label>

<div style=""><div class="custom-help-float-container"><i class="icon fa fa-warning"></i>&ampnbsp<span class="custom-help-float" style="display: inline-block;"> (Nomor Surat) Duplicate ! </span></div></div>

<div class="form-group td col-xs-12 padding-0 margin-bottom-0 background-white input-group" style="min-width: 130px; max-width: 160px; min-width: 50px; ">

<input type="text" max="20" required="" id="input_tabel_surat_masuk_nomor_surat" class="form-control nomor_surat_unique_filed_input" table1="tabel_surat_masuk" name1="nomor_surat" field_title="Nomor Surat" name="tabel_surat_masuk[nomor_surat]" value="" value1="" placeholder="">

</div>

<div style=""><div class="my-custom-error my-custom-limit-error"><i class="icon fa fa-warning"></i>&ampnbsp<span class="help-block" style="display: none;"> (Nomor Surat) Max Digit </span></div></div>
```

```
<div style=""><div class="my-custom-error"><i class="icon fa fa-warning"></i>&ampnbsp<span class="help-block" style="display: none;"> (Nomor Surat) Duplicate ! </span></div></div>
```

No	Nama Klasifikasi Surat	Jenis Klasifikasi	Action
1	Surat keterangan	Surat Keluar	
2	Surat biasa	Surat Keluar	
3	Surat perintah	Surat Masuk	
4	Surat biasa	Surat Masuk	

**Figure 8 Letter Classification**

Coding Klasifikasi Surat

```
<div class="form-group td col-xs-12 padding-0 margin-bottom-0 background-white "><label class=" myHoverLabel"><b>1.</b> Nama Klasifikasi Surat *</label>

<div style=""><div class="custom-help-float-container"><i class="icon fa fa-warning"></i>&ampnbsp<span class="custom-help-float" style="display: inline-block;"> (Nama Klasifikasi Surat) Duplicate ! </span></div></div>

<div class="form-group td col-xs-12 padding-0 margin-bottom-0 background-white input-group" style="min-width: 130px; max-width: 720px; min-width: 50px; ">

<input type="text" max="100" required="" id="input_klasifikasi_surat_nama_klasifikasi_surat" class="form-control nama_klasifikasi_surat MUL " table1="klasifikasi_surat" name1="nama_klasifikasi_surat" field_title="Nama Klasifikasi Surat" name="klasifikasi_surat[nama_klasifikasi_surat]" value="" value1="" placeholder="">

</div>
```

```

<div style=""><div class="my-custom-error my-custom-limit-error"><i class="icon fa fa-warning"></i>&nbsp;<span class="help-block" style="display: inline-block;"> (Nama Klasifikasi Surat) Max Digit </span></div></div>

<div style=""><div class="my-custom-error"><i class="icon fa fa-warning"></i>&nbsp;<span class="help-block" style="display: inline-block;"> (Nama Klasifikasi Surat) Duplicate ! </span></div></div>

```

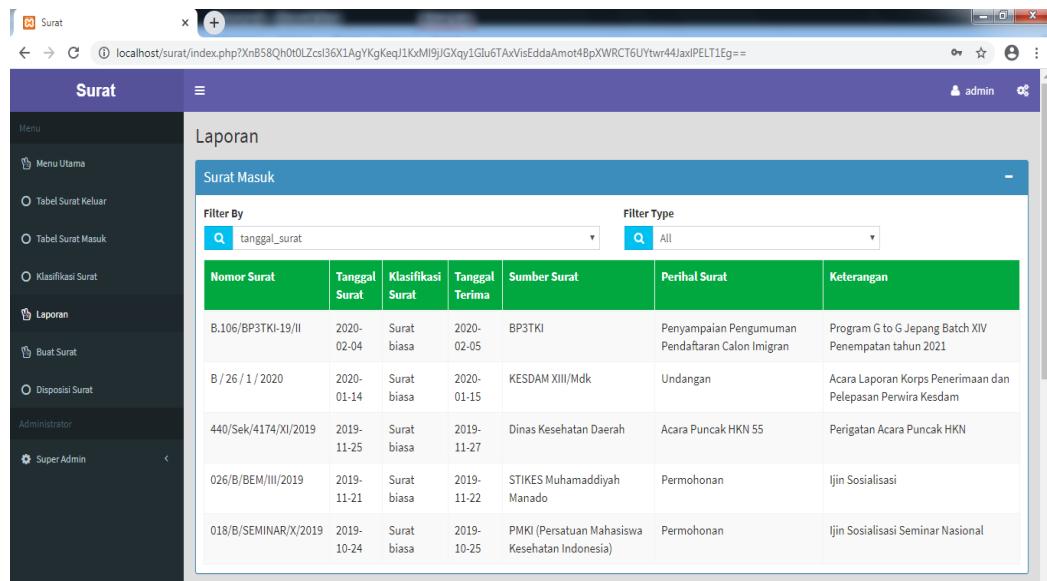


Figure 9 Report

#### Coding Laporan

```

<form action="action.php" method="GET" class="form_index_page no_ajax1"><input type="hidden" name="r" value="05d427a24563d97a8d40a9d057ab7dc4a06ec4abf668157a953757635088a9ed">
<input type="hidden" name="id" value="76"><input type="hidden" name="custom_chart_type" value=""><input type="hidden" name="page" value="laporan_surat"><input type="hidden" name="search_date_filter" value="true">
<input type="hidden" name="enct1" value="true">
<input type="hidden" name="custom_where_select" value=""><div class="row">
    <div class="col-lg-6 col-md-6 col-xs-12">
        <div class="form-group">
            <label> Filter By </label>
            <div class="input-group margin" style="margin: 0px;">
                <div class="input-group-btn">
                    <button type="submit" class="btn btn-info btn-flat pull-right form-control"><i class="fa fa-search"></i></button>
                </div>
                <select class="form-control" name="search_date_filter_table" id="select_search_date_filter_table">
                    <option

```

```
value="tabel_surat_masuk.tanggal_surat">tanggal_surat</option><option value="tabel_surat_masuk.tanggal_terima">tanggal_terima</option>
                                </select><input type="hidden" name="date_filter_type"
value="undefined">
                                </div>
                            </div>
                        </div>

<div class="col-lg-4 col-md-6 col-xs-12 filter_date_container">
    <div class="form-group">
        <label> Filter Type </label>
        <div class="input-group margin" style="margin: 0px;">
            <div class="input-group-btn">
                <button type="submit" class="btn btn-info btn-flat pull-right form-control"><i class="fa fa-search"></i></button>
            </div>
            <select id="select_filter_waktu" class="form-control" name="filter_waktu">
                <option value="All" selected="">All</option><option value="Date">Date</option><option value="Year-Month">Year-Month</option><option value="Year">Year</option><option value="Date--Date">Date--Date</option><option value="Year-Month--Year-Month">Year-Month--Year-Month</option><option value="Year--Year">Year--Year</option>
            </select>
            </div>
        </div>
        <div class="row">
            <div class="col-xs-6">
                <div class="form-group" id="tanggal_select" style="display: none;">
                    <label>Date</label>
                    <div class="form-group input-group">
                        <span class="input-group-addon" style="font-size: 12px; width: 50px; text-align: center;"><i class="fa fa-calendar"></i></span>
                        <span
                            class="Zebra_DatePicker_Icon_Wrapper" style="display: block; position: relative; float: left; top: auto; right: auto; bottom: auto; left: auto;"><input readonly="read-only" class="form-control date" name="tanggal" style="width: 120px; position: relative; top: auto; right: auto; bottom: auto; left: auto;" value="2020-03-16" load_class="true"><button type="button" class="Zebra_DatePicker_Icon_Zebra_DatePicker_Icon_Inside" style="top: 13.5px; left: 116px;">Pick a date</button></span>
                    </div>
                </div>
            <div class="form-group" id="tahun_select" style="display: none;">

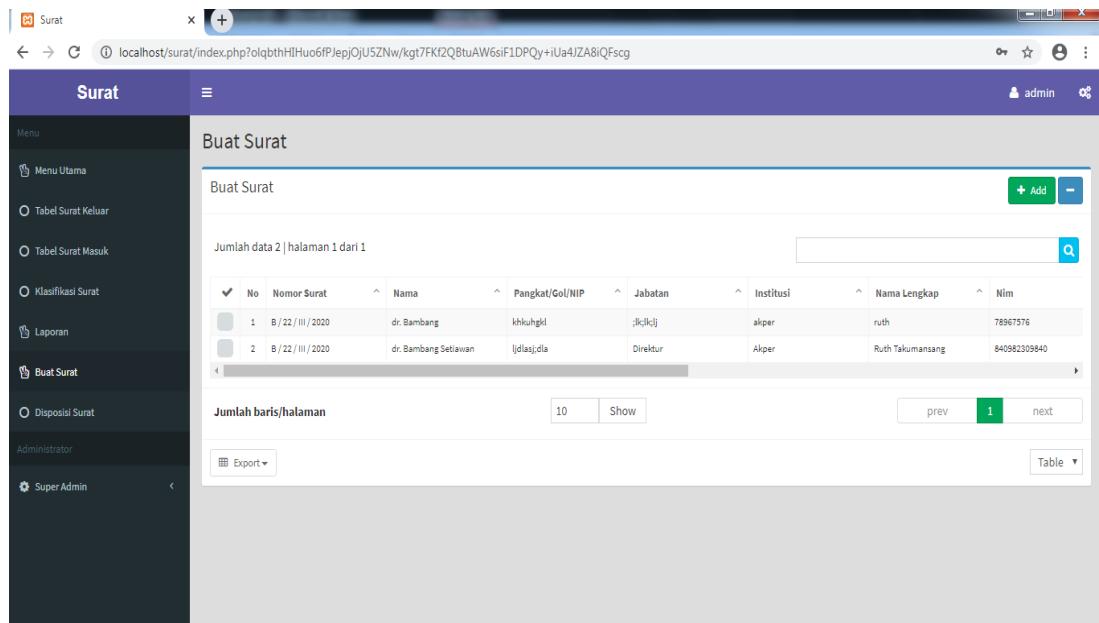
```

```
<label>Year</label>
<div class="form-group input-group">
    <span class="input-group-addon" style="font-size: 12px; width: 50px; text-align: center;"><i class="fa fa-calendar"></i></span>
        <span class="Zebra_DatePicker_Icon_Wrapper" style="display: block; position: relative; float: left; top: auto; right: auto; bottom: auto; left: auto;"><input readonly="read-only" class="form-control date_year" name="tahun" style="width: 100px; position: relative; top: auto; right: auto; bottom: auto; left: auto;" value="2020"><button type="button" class="Zebra_DatePicker_Icon Zebra_DatePicker_Icon_Inside" style="top: 13.5px; left: 96px;">Pick a date</button></span>
    </div>
</div>

<div class="form-group" id="tahun_bulan_select" style="display: none;">
    <label>Year-Month</label>
    <div class="form-group input-group">
        <span class="input-group-addon" style="font-size: 12px; width: 50px; text-align: center;"><i class="fa fa-calendar"></i></span>
        <span class="Zebra_DatePicker_Icon_Wrapper" style="display: block; position: relative; float: left; top: auto; right: auto; bottom: auto; left: auto;"><input readonly="read-only" class="form-control date_year_month" name="tahun-bulan" style="width: 100px; position: relative; top: auto; right: auto; bottom: auto; left: auto;" value="2020-03"><button type="button" class="Zebra_DatePicker_Icon Zebra_DatePicker_Icon_Inside" style="top: 13.5px; left: 96px;">Pick a date</button></span>
    </div>
</div>

<div class="col-xs-6" style="display: none;">
    <div class="form-group" id="tanggal_select1" style="display: none;">
        <label><i class="fa fa-long-arrow-right"></i> Date</label>
        <div class="form-group input-group" style="font-size: 12px; width: 50px; text-align: center;">
            <span class="input-group-addon" style="font-size: 12px; width: 50px; text-align: center;"><i class="fa fa-calendar"></i></span>
            <span class="Zebra_DatePicker_Icon_Wrapper" style="display: block; position: relative; float: left; top: auto; right: auto; bottom: auto; left: auto;"><input readonly="read-only" class="form-control date" name="tanggal1" style="width: 120px; position: relative; top: auto; right: auto; bottom: auto; left: auto;" value="2020-03-16">
        </div>
    </div>
</div>
```

```
load_class="true">><button type="button" class="Zebra_DatePicker_Icon  
Zebra_DatePicker_Icon_Inside" style="top: 13.5px; left: 116px;">Pick a  
date</button></span>  
                                </div>  
                            </div>  
  
                            <div class="form-group" id="tahun_select1"  
style="display: none;">  
                                <label><i class="fa fa-long-arrow-right"></i>  
Year</label>  
                                <div class="form-group input-group">  
                                    <span class="input-group-addon" style="font-size: 12px; width: 50px; text-align: center;"><i class="fa fa-  
calendar"></i></span>  
                                    <span  
class="Zebra_DatePicker_Icon_Wrapper" style="display: block; position: relative;  
float: left; top: auto; right: auto; bottom: auto; left: auto;"><input readonly="read-only"  
class="form-control date_year" name="tahun1" style="width: 100px; position: relative;  
top: auto; right: auto; bottom: auto; left: auto;" value="2020"><button type="button"  
class="Zebra_DatePicker_Icon Zebra_DatePicker_Icon_Inside" style="top: 13.5px; left:  
96px;">Pick a date</button></span>  
                                </div>  
                            </div>  
  
                            <div class="form-group" id="tahun_bulan_select1"  
style="display: none;">  
                                <label><i class="fa fa-long-arrow-right"></i>  
Year-Month</label>  
                                <div class="form-group input-group">  
                                    <span class="input-group-addon" style="font-size: 12px; width: 50px; text-align: center;"><i class="fa fa-  
calendar"></i></span>  
                                    <span  
class="Zebra_DatePicker_Icon_Wrapper" style="display: block; position: relative;  
float: left; top: auto; right: auto; bottom: auto; left: auto;"><input readonly="read-only"  
class="form-control date_year_month" name="tahun-bulan1" style="width: 100px;  
position: relative; top: auto; right: auto; bottom: auto; left: auto;" value="2020-  
03"><button type="button" class="Zebra_DatePicker_Icon  
Zebra_DatePicker_Icon_Inside" style="top: 13.5px; left: 96px;">Pick a  
date</button></span>  
                            form>
```



**Figure 10 Create a Letter**

#### Coding Buat surat

```
$template_loc = $all_action_location.$root_location_custom.$tables[0];
$template = $template_loc.'/template.docx';

spl_autoload_register(function ($class) {
    $class = ltrim($class, '\\');
    $prefix = 'PhpOffice\\PhpWord';
    $prefix1 = 'PhpWord';
    $prefix2 = 'PhpOffice\\Common';
    if (strpos($class, $prefix) === 0) {
        $class = str_replace('\\', DIRECTORY_SEPARATOR, $class);
        $file = __DIR__ . DIRECTORY_SEPARATOR . $class. '.php';
        if (file_exists($file)) {
            require_once $file;
        }
    }
    else if (strpos($class, $prefix1) === 0) {
        $class = str_replace('\\', DIRECTORY_SEPARATOR,
$class);
        $class = implode(DIRECTORY_SEPARATOR, array('PhpOffice',
'PhpWord')) . substr($class, strlen($prefix1));
        $file = __DIR__ . DIRECTORY_SEPARATOR . $class. '.php';
        if (file_exists($file)) {
            require_once $file;
        }
    }
    else if (strpos($class, $prefix2) === 0) {
        $class = str_replace('\\', DIRECTORY_SEPARATOR,
$class);
        $file = __DIR__ . DIRECTORY_SEPARATOR . $class. '.php';
    }
})
```

```
if (file_exists($file)) {
    require_once $file;
}
}

$template_word = new
PhpOffice\PhpWord\TemplateProcessor($template);

$template_word->setValue('nomor_surat', $this_data['nomor_surat']);
$template_word->setValue('tahun_surat', date('Y'));
$template_word->setValue('bulan_surat', setMonthToString(date('m')));

$template_word->setValue('nama_1', $this_data['nama_1']);
$template_word->setValue('pangkat_1', $this_data['pangkat_1']);
$template_word->setValue('jabatan_1', $this_data['jabatan_1']);
$template_word->setValue('institusi_1', $this_data['institusi_1']);

$template_word->setValue('nama_lengkap', $this_data['nama_lengkap']);
$template_word->setValue('nim', $this_data['nim']);
$template_word->setValue('jurusan', $this_data['jurusan']);
$template_word->setValue('tahun_lulus', $this_data['tahun_lulus']);
$template_word->setValue('tanggal_sumpah',
$this_data['tanggal_sumpah']);
$template_word->setValue('tempat', $this_data['tempat']);

$template_word->setValue('isi_surat', str_replace(PHP_EOL, '<w:br/>',
$this_data['isi_surat']));

$template_word->saveAs($template_loc."\MyWordFile
('.$my_temp_id.').docx');
```

## **Conclusion**

With the creation of incoming and outgoing mail archiving applications that can be built to manage mail data as expected. Archiving letters will be more optimal when using this application and reduce problems that often occur in the archiving process. For future development, the application can be developed for the better and not only record incoming and outgoing letters, but have the ability to make letters automatically in accordance with the administrative provisions of Akper Rumkit TK.III Manado.

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