

Design of Dashboard Administration of the Public Sector

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Abstract

This research discusses the design of a public service administration system which is expected to facilitate the processing of public service administration data, the method of implementing activities carried out to achieve the success of the objectives of this activity through mapping indicators and data elements, field surveys, dashboard designs. The results of the design of a public service administration system with the waterfall model stages have resulted in a new system analysis UML modeling approach to systematic and sequential software development starting from the level and progress of the system in analysis, design, code, testing and maintenance of the system, with this system can maximize time and easily find data again.

Keywords— Public administration, waterfall, UML, Services.

INTRODUCTION

The Sector Police is the command structure of the Police at the sub-district level or what is called the Polsek. The Polsek has a vision to create Polri personnel who are professional, moral, clean and trustworthy in law enforcement as well as protecting public servants who are able to provide a sense of security, peace and trust. Service is an activity carried out by a person or group of people on the basis of material factors through certain systems, procedures and methods in an effort to fulfill the interests of other people according to their rights. Seeing the conditions and facts on the ground illustrates that public services provided by the government are still not in line with expectations.

The Police in the Integrated Police Service Center (SPKT) field has functions which include serving complaints from people affected by criminal acts, namely reports of fraud, robbery, embezzlement, theft, loss of valuables and so on. Due to the high number of public complaints at this time, the community really needs fast service at the SPKT section. Because SPKT is the spearhead of police services in providing services to the community, software is needed to improve and facilitate services.

Loss Report Certificate (SKTLK), Crowd Permit, Business Permit Recommendation Letter, schedule for service officers and a service assessment system at the Polsek where this data is still in form and processed using Microsoft office applications (word and excel) in accordance with information needs and processed data.

Microsoft office word and excel applications are very helpful in carrying out tasks and services which range from service administration to implementation of reporting using Microsoft office applications which are currently not well integrated. The use of this application is indeed quite helpful for admin operations at the Kasium Polsek. However, the application is still constrained by the accessibility of the smoothness of information and in terms of time, searching for data in Kasium is still very slow and sometimes it takes time to search for data again and the application is still stored in one place by making a copy of each letter data, this is an error when perform data processing.

To facilitate the management of administrative services, it is necessary to design a public service administration application that can assist in managing data. Dashboard is a visual display that can present important information needed by one or more objectives, combined and arranged on a screen into information that can be seen at a glance. This visual display implies that the presentation of information must be designed as well as possible, so that the human eye can perceive it quickly and the human brain can understand its meaning correctly.

RESEARCH METHODS

Data Type

In this data type section, it describes the supporting research data for the design of public service administration dashboards at the Polsek as follows:

Primary data

Primary data is the source of research data obtained directly from the original source in the form of interviews from individuals or groups (people) as well as observations of an object, event or test result (object) which is the main source in this study which has been used by the author with conduct field studies, interviews and observe processes in management.

Secondary Data

Secondary data is a source of research data obtained through intermediary media or indirectly in the form of books, notes, existing evidence, or archives, both published and not published in general, which are collected to complement primary data.

Data Processing Methods

The data processing method in this study the authors use the research stages are as follows:

1. Data Collection
Data collection taken from primary and secondary data by observing and interviewing.
2. Needs Analysis
The needs analysis was carried out starting from system analysis, problem analysis, ongoing system analysis, analysis of non-functional and functional requirements to support the design of public service administration dashboards at Polsek.
3. System Design, using UML (Unified Modeling Language) starting from using case diagram design, Sequence Diagram design, class diagram design and interface design
4. Writing the public service administration dashboard program code at the Polsek.
5. Testing the public service administration dashboard application system at the Polsek.
6. Implementation of the public service administration dashboard program at the Polsek.
7. Conclusion

HASIL DAN PEMBAHASAN

Functional Requirements Analysis

Functional requirements are the stage of designing information flow patterns which include the design of diagrams and the flow of designing public service administration dashboard applications at the Lubuk Baja Police in Batam City which are represented using the Unified Model Language.

1. Use case diagrams

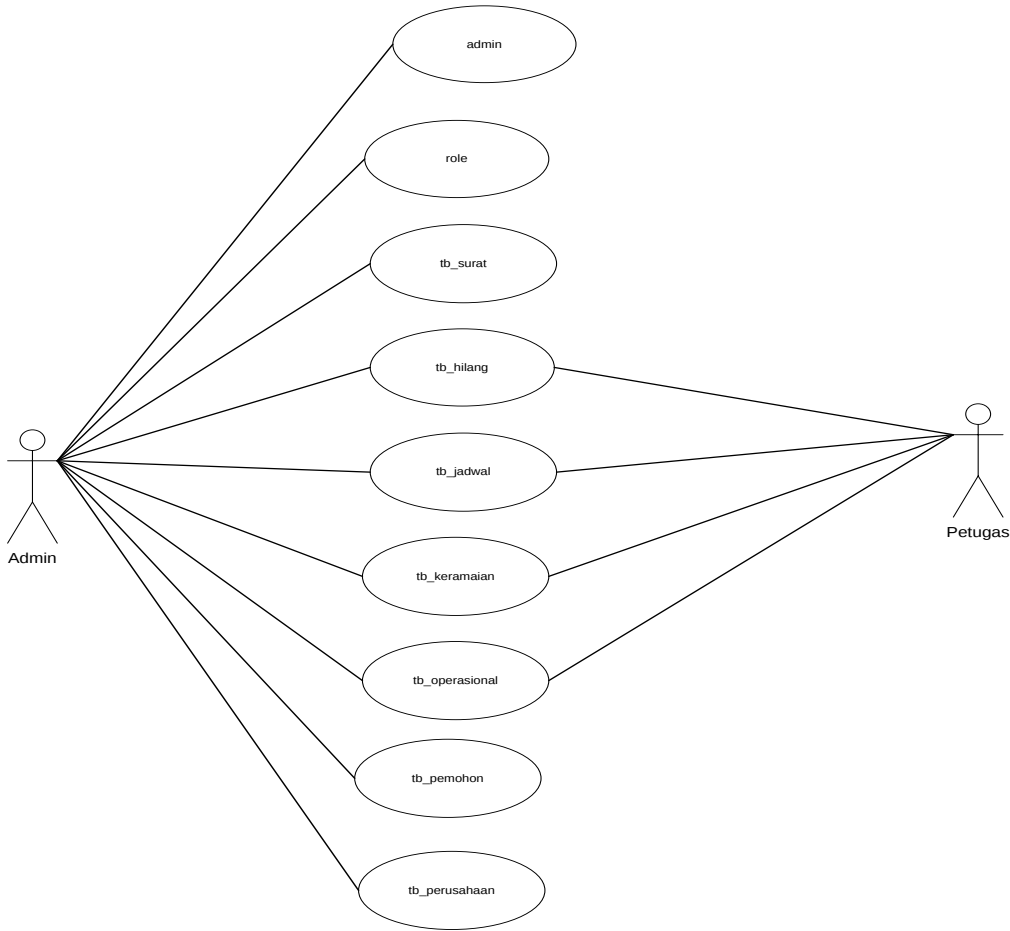


Figure 1 Admin Use Case Diagram

The description of defining the officer actor proposed in the design of the public service administration dashboard at the Polsek.

1. Activity diagram

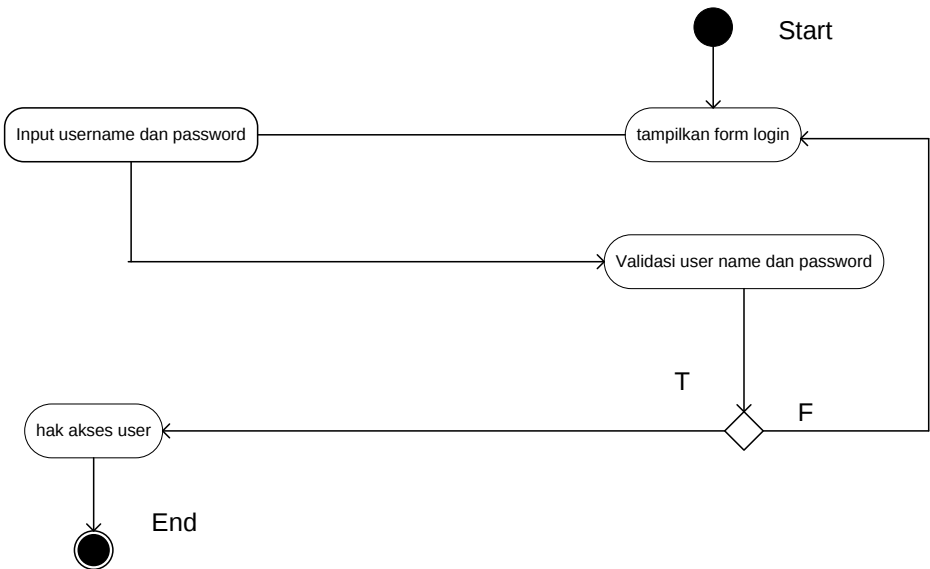


Figure 2 Officer activity diagram

The officer activity diagram in the picture above shows officers can access the system and display the login page. For system users when accessing the login must match the username & password stored in the database. If the username and password is correct, it will display the main page of the system officer, but if it is wrong, it will remain on the login menu and display a notification that the username or password is wrong.

Interface Design

Interface design or interface design for the system to be built is differentiated according to the type of user, namely the admin and the user. The interface design and navigation of the public service administration dashboard application at the Polsek can be seen in the following figure:

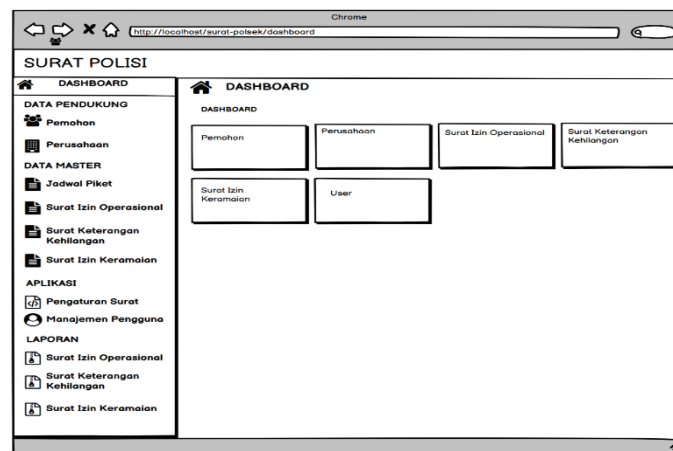


Figure 3 Dashboard page design

In the dashboard interface design in the image above there is a menu for the applicant, company, operational permit, missing certificate, crowd permit and system user.

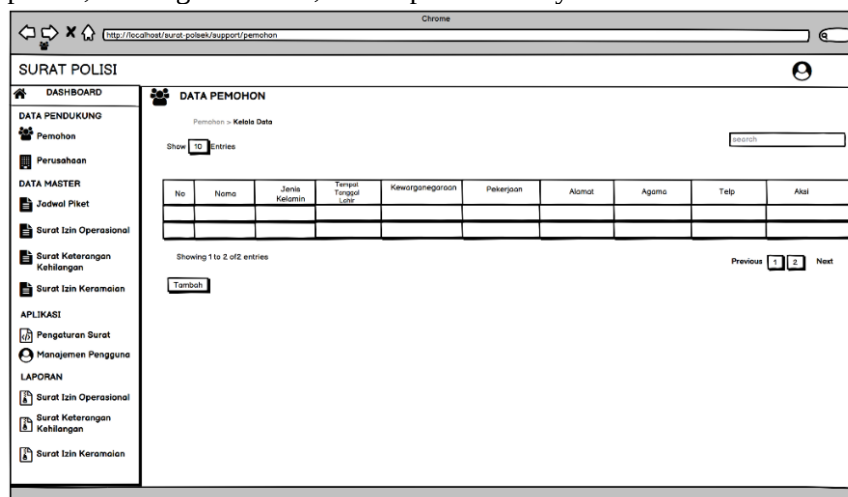


Figure 4 Applicant page design

In the applicant page interface design in the image above there are menus and functions for adding, changing, deleting as well as a search menu on the system.

SURAT POLISI

DASHBOARD

DATA PENDUKUNG

- Pemohon
- Perusahaan

DATA MASTER

- Jadwal Piket
- Surat Izin Operasional
- Surat Keterangan Kehilangan
- Surat Izin Keramaian

APLIKASI

- Pengaturan Surat
- Manajemen Pengguna

LAPORAN

- Surat Izin Operasional
- Surat Keterangan Kehilangan
- Surat Izin Keramaian

TAMBAH PEMOHON

Pemohon > Tambah

Nik:

Nama:

Jenis Kelamin:

Tempat / Tgl Lahir: Tgl Lahir:

Kewarganegaraan:

Pekerjaan:

Alamat:

Agama:

Telp:

Figure 5 The design of the applicant's added page

In the interface design of the add applicant page in the image above there is a form entry to add applicant data as well as save and return buttons to the system.

SURAT POLISI

DASHBOARD

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LAPORAN

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- Surat Izin Keramaian

PERUSAHAAN

Perusahaan > Kelola Data

Show Entries

No	Nama Perusahaan	Pimpinan	Alamat	Keterangan	Aksi

Showing 1 to 2 of 2 entries

Figure 6 Company page design

In the applicant page interface design in the image above there are menus and functions for adding, changing, deleting as well as a search menu on the system.

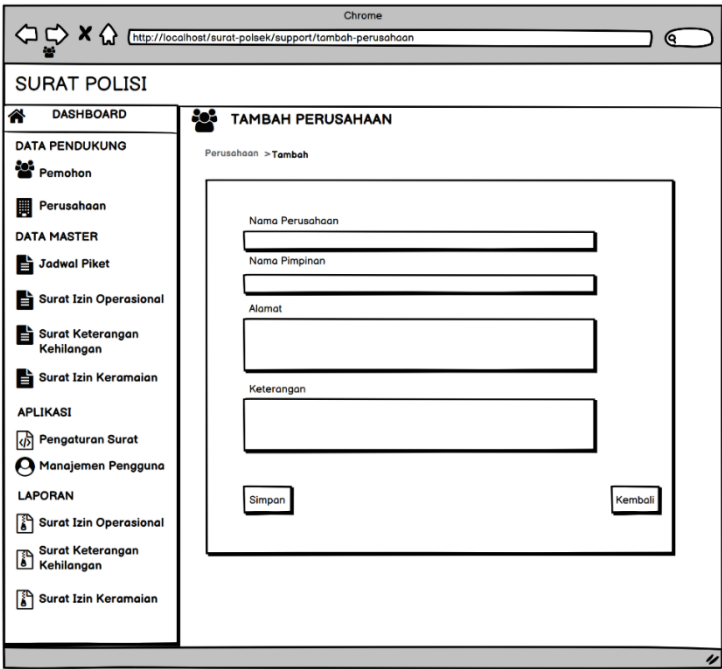


Figure 6 The design of the added company page

In the interface design for the added company page in the image above, there is a form to add applicant data as well as save and return buttons to the system.

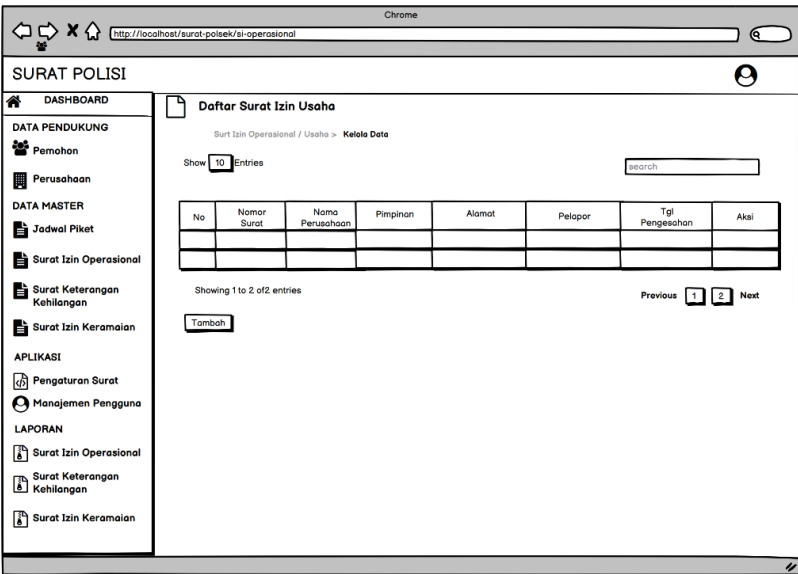


Figure 7 Design of a business license page

In the interface design for the business license page in the image above, there are menus and functions for adding, changing, deleting as well as a search menu on the system.

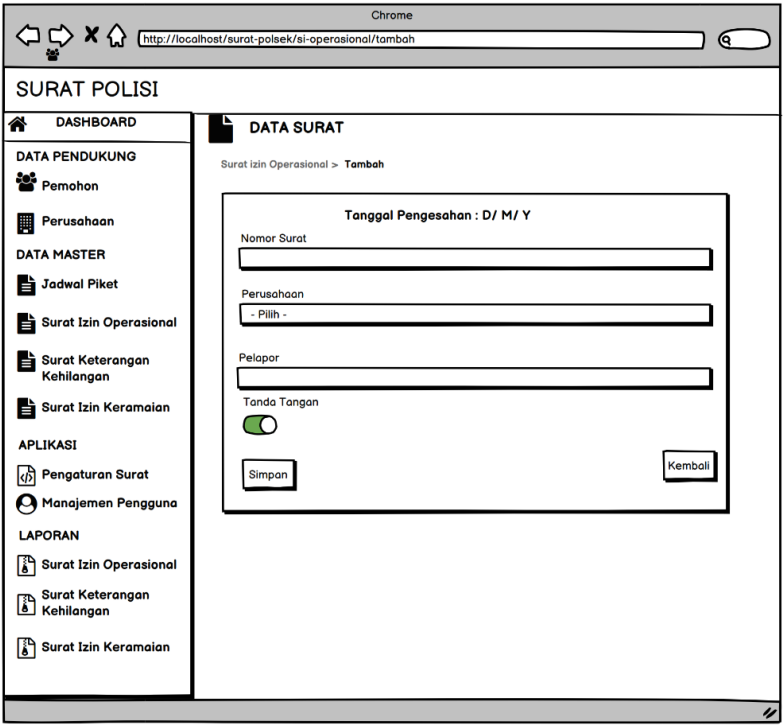


Figure 8 The design of the added business license page

In the interface design for the added business license page in the image above, there is a form entry to add applicant data as well as save and return buttons to the system.

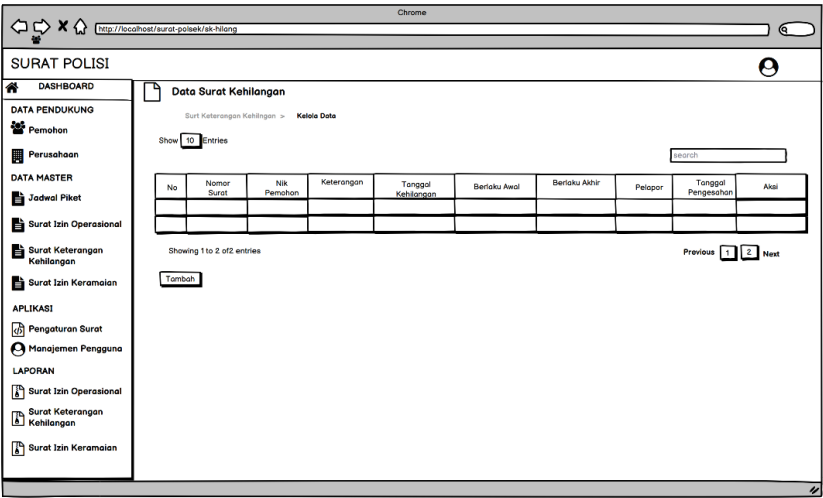


Figure 9 Design of loss letter pages

In the missing letter page interface design in the image above there are menus and functions for adding, changing, deleting as well as a search menu on the system.

The screenshot displays the 'SURAT POLISI' dashboard with a sidebar menu on the left. The main content area is titled 'DATA SURAT KEHILANGAN' and shows a form for adding a lost letter. The form includes fields for 'Tanggal Pengesahan : D/ M/ Y', 'Nik Pemohon', 'Nama', 'Tempat Tgl Lahir', 'Agama', 'Pekerjaan', 'Alamat', 'Telepon', 'Nomor Surat', 'Keterangan', 'Tanggal Kehilangan', 'Berlaku Awal', 'Berlaku Akhir', 'Pelapor', and 'Tanda Tangan'. There are 'Simpan' (Save) and 'Kembali' (Back) buttons at the bottom.

Figure 10 The design of the lost letter added page

In the interface design for the add missing letter page in the image above there is a form entry to add applicant data as well as save and return buttons to the system.

The screenshot shows the 'SURAT POLISI' dashboard with the 'Pengaturan Surat' (Letter Settings) page. The form includes fields for 'Kep Surat', 'Nama Polisi', 'NRP Polisi', 'Jabatan', and 'Tanda Tangan Polisi'. There is a 'Browse' button for the 'Tanda Tangan Polisi' field and a 'Hapus Gambar' (Delete Image) button. At the bottom, there are 'Simpan' (Save) and 'Reset' buttons.

Figure 11 Letter settings page design

In the interface design for the letter typing page in the image above, there are menus and functions to edit, delete images as well as save and reset buttons.

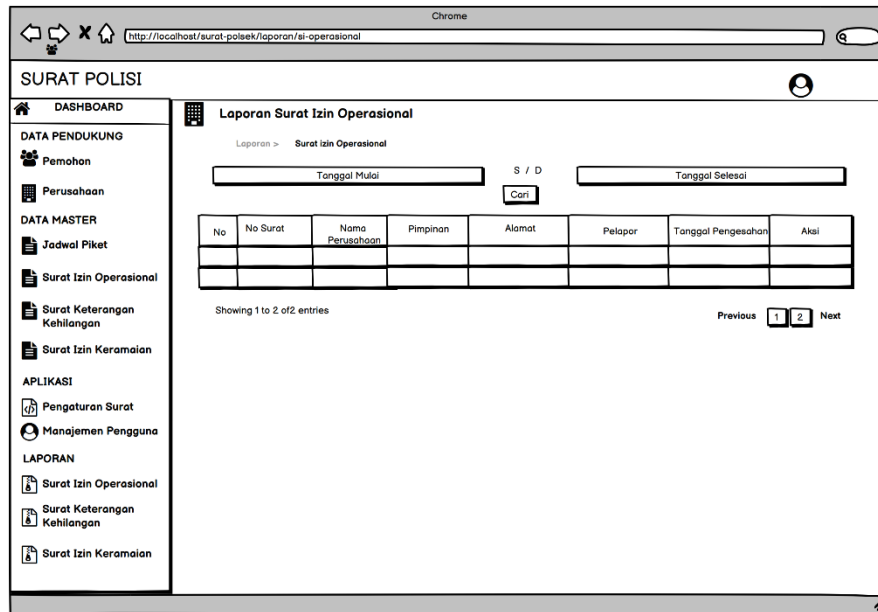


Figure 12 Design of operational permit report page

In the interface design for the operational permit report page in the image above, there are menus and functions for adding, changing, deleting as well as a search menu on the system.

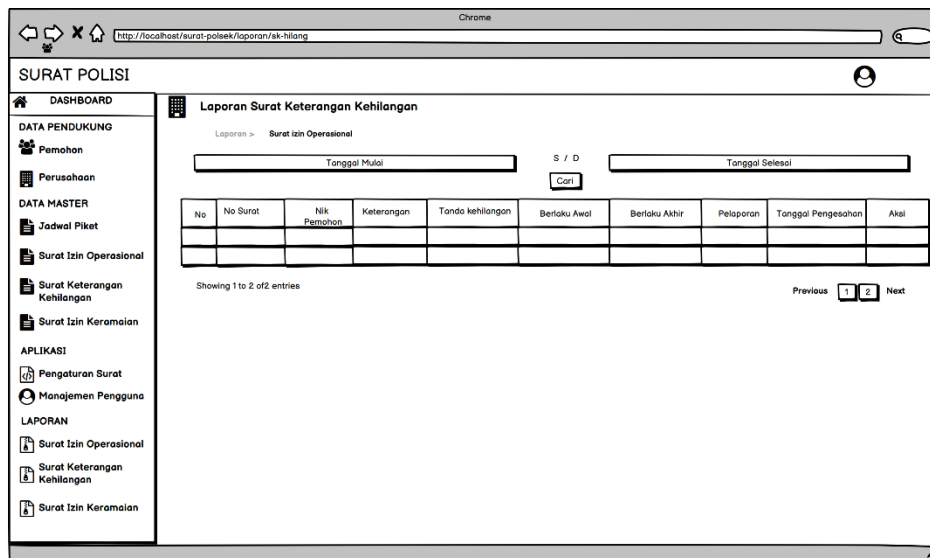


Figure 13 Design of loss certificate report page

In the interface design of the lost letter report page in the picture above there are menus and functions for adding, changing, deleting as well as a search menu on the system.

CONCLUSION

From all the aspects that have been explained and arrived at the results of the study with the title dashboard of public service administration at the Polsek, the author draws the following conclusions:

1. The results of the design of the public service administration dashboard at the Polsek with the waterfall model stages have resulted in a new UML modeling system analysis

and consists of nine tables to support application development, with this system it can maximize time and easily retrieve data.

SUGGESTION

Based on the results of this study the authors propose several suggestions for future improvements. The author realizes that this research still needs improvement and development to be better, both in writing and in the applications that have been built, the authors suggest the following:

1. The design of the public service administration dashboard at the Polsek is limited to admin and officer pages, the system needs to support online services to apply for mail services.
2. To support the existing system, it is necessary to increase human resources, namely resources in operating the system and being able to care for and maintain the system properly.

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