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The Stock System of Contraceptive Devices at the Website-Based BKKBN of Langkat

Muflihan[1], Sri Wahyuni[2]
[1]Sistem Komputer, Universitas Pembangunan Panca Budi, Indonesia
[2]Teknik Komputer, Universitas Pembangunan Panca Budi, Indonesia

A R T I C L E I N F O

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ABSTRACT

The inventory recording system manually has various obstacles and weaknesses, so it requires processing inventory data with a website-based information system. The Badan Kependudukan dan Keluarga Berencana Nasional (BKKBN) is an Indonesian Non-Departmental Government Institution in charge of carrying out government duties in the field of family planning and prosperous families throughout Indonesia. One of the BKKBN programs is to socialize and distribute contraceptives for Indonesian family planning. Contraceptive devices from the center will then be circulated per sub-district in Langkat Regency. In distributing contraceptives in Langkat district, based on reports from each sub-district in Langkat district. User data and demand for each sub-district are still not evenly distributed so that an application program is needed, namely the design of stockpiles of contraceptives in the use of the family planning program which has problems, because there are often orders for contraception for supplies that are not in accordance with the conditions in the field so that contraception accumulates and is not divided into groups. every district. Inventory data processing at the Langkat Regency BKKBN Office is still manual with recording and processing data using a report book, a website-based Information System is needed. The information system that is designed based on the website can make it easier for users, namely admins and leaders to input data, obtain reports with an internet connection that can be accessed anywhere and anytime. Information system built using PHP programming language with MySQL database. The purpose of this research is to build a system to help BKKBN Langkat.

Corresponding Author:

Sri Wahyuni,
Teknik Komputer,
Universitas Pembangunan Panca Budi,
Jl. Jend. Gatot Subroto KM 4.5 Sei kambing, Medan, Sumatera Utara, Indonesia.
Email: sriwahyuni@dosen.pancabudi.ac.id

1. INTRODUCTION

Indonesia is one of the countries with the largest population in the world. According to BKKBN data, there were 272.68 million people in mid-2021. Then, Indonesia's population was reported to have increased again to 275.77 million people by mid-2022. That number was up 1.13% compared to the same period last year. Based on the assessment of the

United Nations Development Program, the quality of a country's human resources is measured not based on the quantity of human resources but through the human development index. Indonesia is ranked 110 out of 177 countries worldwide in terms of the human development index. It is feared that this situation will continue to worsen if the population continues to increase sharply and cause the government's development program to not be enjoyed by the entire community. One of the things suspected to be the cause of overpopulation growth is the rising birth rate. One way to inhibit the population's birth rate is a family planning program with contraceptives.

Contraceptive devices are an important factor in the success of the family planning program. In addition to reducing the birth rate, the use of contraceptives is also to create a quality demographic. Badan Kependudukan dan Keluarga Berencana Nasional (BKKBN) is an Indonesian Non-Departmental Government Institution that carries out tasks in the field of family planning and prosperous families throughout Indonesia. One of the BKKBN programs is to socialize and distribute contraceptives for Indonesian family planning. Contraceptive devices from the center will then be circulated per sub-district in Langkat Regency. In distributing contraceptives in Langkat district, it is based on reports from each sub-district in Langkat district. User data and demand for each sub-district are still not evenly distributed so that an application program is needed, namely the design of contraceptive supplies in the family planning program where there are obstacles, because there are often orders for supplies that are not in accordance with the conditions in the field so that supplies accumulate and are not divided into each sub-district. There have been many studies conducted in predicting the need for the quantity of a product in the future based on stock data and goods in and out (Ezhilarasan & Ramani, 2018), (Muchlis, Fitri, & Nuraini, 2021), (Wahyuni, Suherman, & Harahap, 2018)(Wahyuni, Saragih, & Perangin-angin, 2018).

An information system is needed that can assist the BKKBN Office in knowing what kind of products should be improved according to the population profile, the stock of contraceptives, how to distribute contraceptives in the sub-districts so as to be able to advance and develop in using contraceptives very well. The appropriate application to overcome these problems is the application of the Design and Build of a system. With the web-based program for the contraceptive stock supply system at the Langkat Regency BKKBN, it is hoped that officers or admins can access reports, stocks of contraceptives, making it easier for officers and leaders to make decisions or provide contraceptive stock data. Based on these problems, the title was appointed: "Design and Build a Stock System for Contraceptive Devices at the BKKBN in Kabupaten Langkat".

System design is a computer information system whose activity is to analyze the results of the analysis into the form of a software package in order to create a new system or improve existing systems, especially in the existing system at the Langkat district BKKBN office to record family planning usage (Marjianto & Wirowicaksono, 2019),(Jaya & Hanadwiputra, 2021). The application of a good information system can overcome the problems experienced by the organization or agency manually (Hariyanto, Wahyuni, & Iqbal, 2019), (Wahyuni, 2018)(Jaya & Hanadwiputra, 2021)(Putri & Munawar, 2019). Website-based information systems can facilitate organizations and agencies in accessing data, data recap, data input and data processing, anywhere and anytime as long as they are connected to the internet (Julianto, Hendrik Setyo Utomo, & Herpendi, 2019),(Soetikno & Harlina, 2018),(Sulistyo & Saputri, 2020)(Kusrini, Herpendi, & Noor, 2019), (Hariyanto et al., 2019), (Budhiarti Nababan & Sitompul, 2012).

2. RESEARCH METHOD

The system design is carried out to make it easier to design applicationsin detail, as well as providing an overview of the interrelationships between the sub-systems. This research uses Unified Model Language (UML) modeling which includes Use Case

Diagrams, Activity Diagrams, Sequence Diagrams, Class Diagrams.

2.1 Use case diagrams

The use case diagram of the The Stock System of Contraceptive Devices at the Website-Based BKKBN of Langkat occurs as follows:

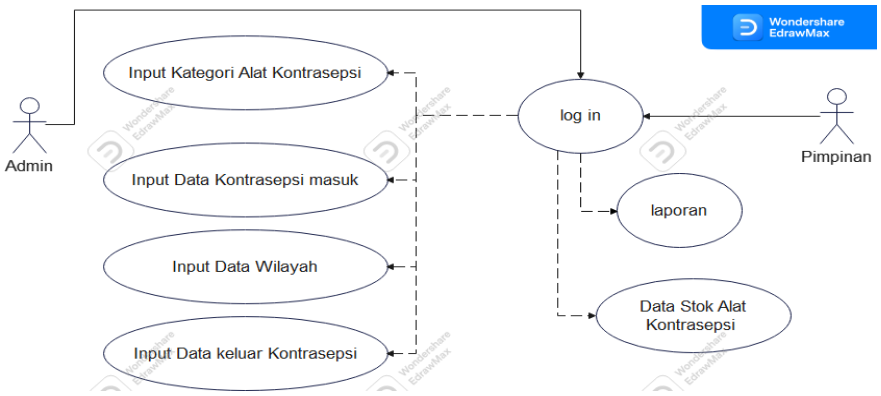

Figure 1. Usecase Diagram

2.2 Actifity Diagram

Activity Diagram is a form of visual modeling for describes a workflow that contains activities and actions that can performed on the application to be designed. The following is the design of the Activity Diagram on The Stock System of Contraceptive Devices at the Website-Based BKKBN of Langkat:

a. Actifity Diagram Admin

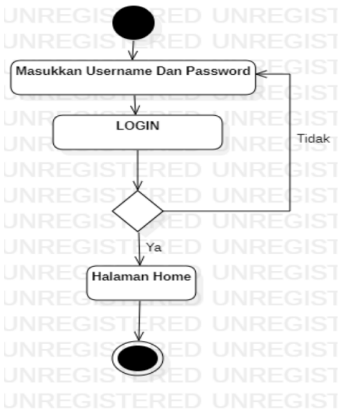

Figure 2. Actifity Diagram Admin Login

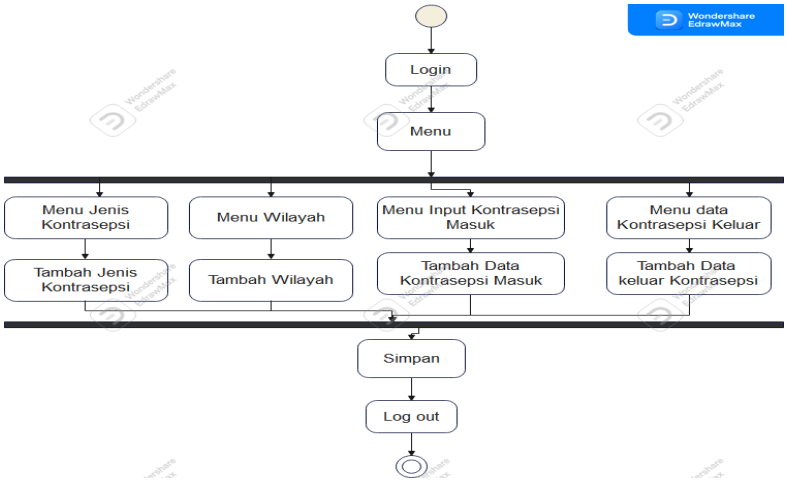

Figure 3. Actifity Diagram Admin

b. Actifity Diagram Pimpinan

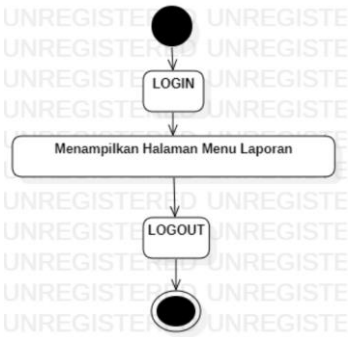

Figure 4. Actifity Diagram Pimpinan

3. RESULTS AND DISCUSSIOS

The initial stage is the design and then the system is built. The Contraceptive Device Stock System on the Langkat-Based BKKBN Website has been built. Below will be shown some views of the program that has successfully passed the test. Then several stages of testing and testing have been carried out. Especially testing the location of the garbage collection point error. The following is the initial appearance of the Android-Based Garbage Bank Application as shown in Figure 5. As follows:

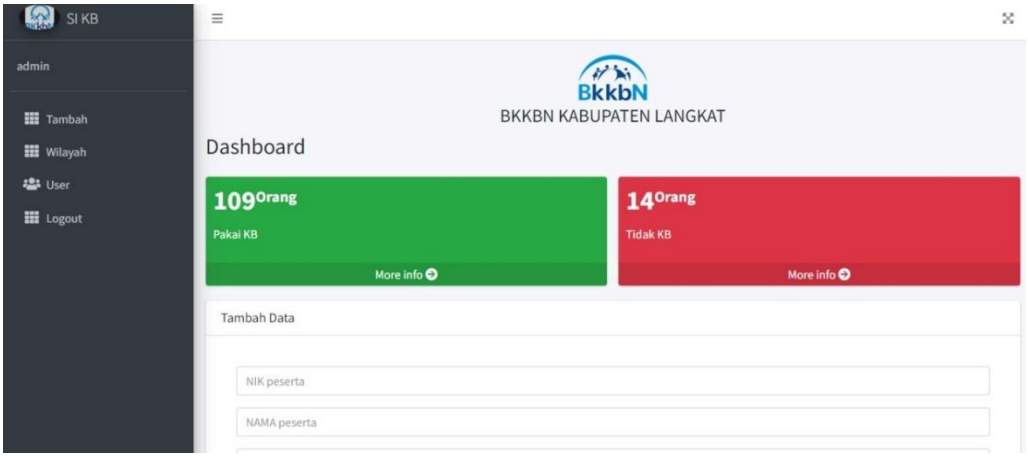

Figure 5. Home Page View

In the application there are several menus in which there are sub menu items on the Android-based Mozaic Waste Bank application as follows:

a. Menu Input stock Contraceptive devices
b. The report print menu in Excel format makes it easier for admins and officers to process data.
c. The goods exit menu, where when the goods are out they will be recorded in the subdistrict menu so that it can be seen the amount of stock that came out in which subdistrict.
d. Regional menu, there is information data on the number of tools distributed to the sub-districts.
e. Menu Stock Contraceptive tools.

NIK	NAMA	KELAMIN	WILAYAH	JENIS KB
1205016704900002	NOVITA SARI	P	BAHOROK	PIL
1205016804790001	AFIDAH	P	BAHOROK	PIL
1205016810910002	Rozhana Syahfitr	P	BAHOROK	PIL
1205021401700001	KUSMAYADI	L	SALAPIAN	KONDOM
1205024308980002	RIA FEBRIANI	P	SALAPIAN	SUNTIK
1205025412680003	ERNI	P	SALAPIAN	SUNTIK
1205025606810001	SRI WAHYUNI	P	SALAPIAN	SUNTIK
1205025911940002	FERA ANGGRIANI	P	SALAPIAN	SUNTIK
1205026808700004	SABARIAH	P	SALAPIAN	SUNTIK
1205031205590002	MISDI	L	KUALA	KONDOM

Figure 6. Display of Contraceptive User Data

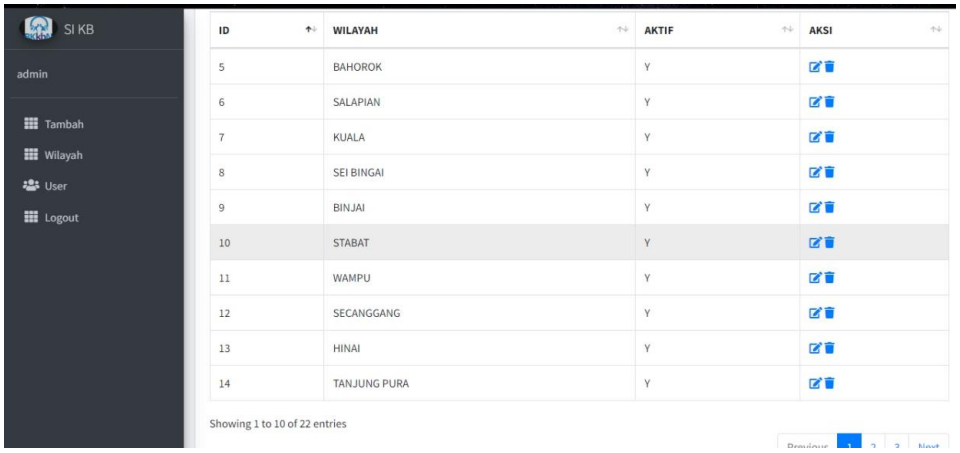

Figure 7. Display of Regional Contraceptive User Data

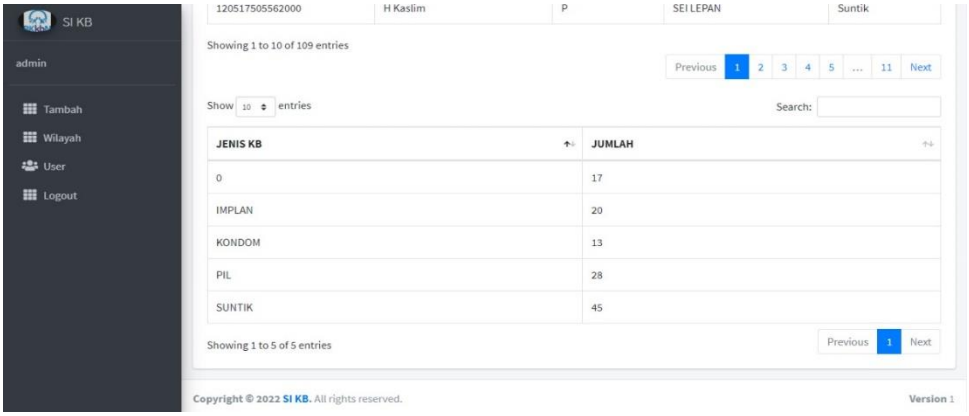

Figure 8. Contraceptive Device Type Data Display

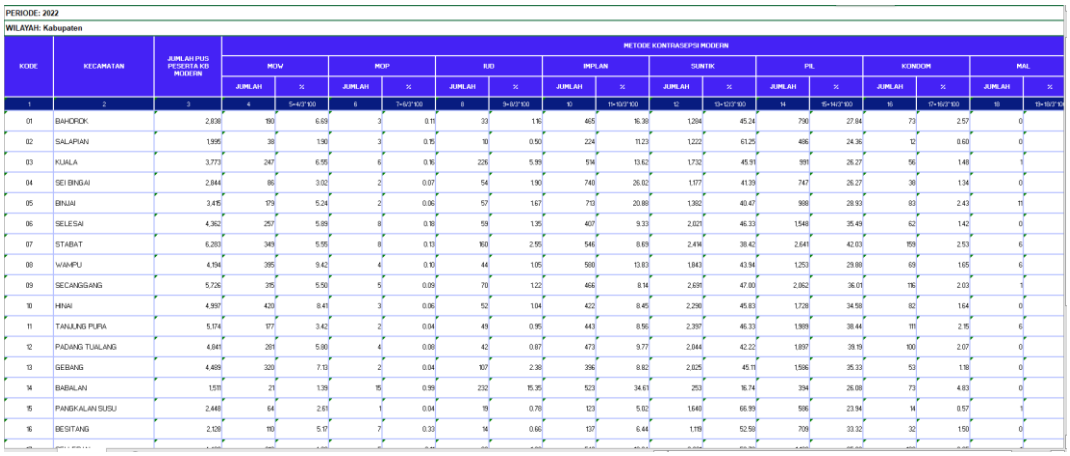

Figure 9. Report View

4. CONCLUSION

The Website-Based Contraceptive Device Stock System at BKKBN Langkat assists the Langkat BKKBN office in providing optimal services to the community with a website-based application. The system built was designed based on the problems encountered in the Langkat BKKBN. Data storage with a database, so that data access, input, stock figures

and regional data as well as personal data of contraceptive users can be accessed via an internet connection. With the system that has been designed, it is hoped that the use of contraceptives can be more evenly distributed in the sub-districts and can further minimize unused contraceptive devices because demand is in accordance with data needs in the field, thus minimizing the stock of contraception that accumulates. Together with parties related to the data obtained, the data is processed and analyzed to find solutions to problems in the community due to the lack of information obtained by the community about contraceptives.

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