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Website-Based Information System on Drug Purchases and Sales at Pharmacy

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INTISARI

Tujuan dari penelitian ini adalah untuk mengetahui permasalahan yang dihadapi dan mengusulkan perancangan sistem, pengujian sistem dan implementasi sistem informasi jual beli obat di apotek. Metode yang digunakan adalah metode waterfall meliputi analisis kebutuhan, desain, implementasi, pengujian dan pemeliharaan. Hasil penelitian ini menyajikan fungsi sistem sebagai penjualan, fungsi sistem sebagai pembelian, fungs pengeloaan stok obat, serta pembuatan laporan secara otomatis melalui sebuah aplikasi sehinnga dapat mempermudah proses penjualan obat kepada pasien, pembelian obat kepada supplier serta pengelolaan ketersediaan stok serta fungsi pembuatan laporan. Dengan adanya aplikasi ini 1, meningkatkan proses pelayanan transasksi, yaitu dengan meminimalisir transaksi yang dilakukan secara tulis tangan, yang sering menyebabkan informasi yang diberikan tidak jelas ataupun adanya salah perhitungan dalam menentukan jumlah obat, serta penggunaan obat.. 2)Meningkatkan kualitas informasi dengan menyediakan pembuatan bukti transaksi dan semua jenis laporan secara akurat.

Kata kunci: *Sistem, Informasi, Apotek, Obat.*

ABSTRACT

The purpose of this research is to find out the problems faced and propose system design, system testing and implementation of information systems to buy drugs in pharmacies. The method used is the waterfall method including needs analysis, design, implementation, testing and maintenance. The results of this study present the function of the system as, the function of the system as a purchase, the function of managing stock of drugs, as well as making reports automatically through the application so that it can facilitate the process of selling drugs to patients, purchasing drugs to suppliers and managing stock availability and the function of making sales reports. With this application, 1, improving the transaction service process, namely by minimizing transactions made in writing, which often causes the information provided is not clear or there is a miscalculation in determining the amount of medicine, as well as the use of drugs. 2) Improving the quality of information by providing accurate proof of transactions and all types of reports.

Keywords: *Information, System, Pharmacy, Medicine.*

INTRODUCTION

In 2019, information becomes a major need for the community, especially since the use of smartphones and other smart electronic devices began to be in great demand by the community. These smart computer technologies make people access and get information more easily. This makes information such as demanded to be processed quickly in order to be able to meet the needs of the community on actual and trusted information. An information system is a system created with the aim of facilitating the process of a business, and web-based systems have become one form of information systems that are widely used until today. Web-based information system technology can be a tool to create an information system to be faster and actual. The development of information systems today has made stakeholders and decision-makers engaged in various fields rely on the use of computers to solve the problems they encountered.

The system is an important instrument in the process of creating information systems. In general, every organization always has an information system to collect, store, view, and distribute

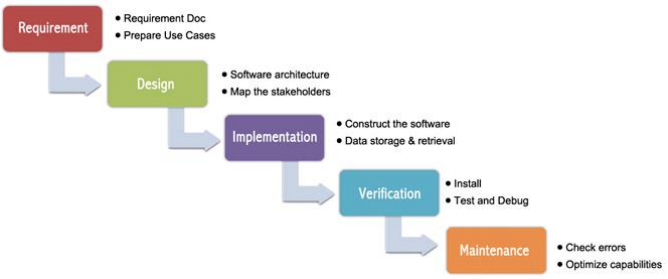
information. Information systems can be created because of the increasing need for information for the purposes of the decision-makers [1]. According to Soeherman and Pinontoan, a system is a series of components that interact with each other and work together to achieve certain goals [2]. The information system is a system that exists in an organization that aims to meet the organization's daily transaction processing needs, to support the operation of the organization, also to meet the managerial needs and strategic activities of an organization. In addition, it also provides information for outsiders by making the necessary reports [3,4]. On the other hand, pharmacy is "A place of health services, as well as a place of business that applies the profit principles. Both functions are performed simultaneously without leaving each other" [5]. Pharmacy is one of many forms of health services, particularly in the field of drug supply, both prescription drugs, and non-prescription drugs, to help people get health services. Satisfaction and convenience of the community in getting services is a major factor and is very important for the pharmacy business to make profits [6]. As for drugs, it is a substance used to cure disease, relieve symptoms of disease in the body. A drug is a substance or a combination of substances used to establish a diagnosis, prevent disease, reduce pain, eliminate disease, cure disease or eliminate symptoms of the disease, or physical and spiritual disorders in living beings [7]. Purchases have the function to hold materials and materials with the right quality as well as the available quantity to be used in the production process at the right time and place [8]. Purchases can also be said as the process of finding materials, services, or equipment, also commonly called the procurement of goods. The aim is to get the highest quality ingredients but at an affordable price. Purchases also serve to ensure the availability of goods in a company [9]. Sales is an activity that aims to look for buyers, influence buyers, and also give direction to buyers so that purchases can be tailored to the needs of the offered products. In addition, it is also to make agreements regarding the price so that it can be beneficial for both parties [10].

Therefore, by analyzing the system currently running at the pharmacy, the authors expect an information system design that can provide precise and accurate information can be obtained. Thus, it can create services in pharmacy that are more satisfying to the consumers. With this background, the researchers were intrigued to improve the information system at the pharmacy by lifting the title "Website-Based Information System on Drug Purchases and Sales at the Pharmacy." The aims of this study is to determine the problems faced by the current system, make the proposed system design, after that, test the system, and finally implement the information system on drug purchases and sales at the pharmacy. The method used is a structured development method, and the waterfall method is a software development method.

METHOD

The descriptive method was used in this research. In addition, researchers also used structured methods as a method for the system approach and used the waterfall method as a method in developing software. These methods are considered appropriate for this research because it is considered to be able to decipher the data used with the existed situation in the Pharmacy (See Figure 1).

Figure 1. System Development Life Cycle Waterfall



1. Requirements
   The process of collecting data needs includes data on pharmacies, drugs, doctors, prescriptions, and customer data, both in documents and verbally. this is needed in mapping the problems that occur.
2. Design
   After the problem mapping can be described, at this stage the solution mapping process is carried out by making a computerized function design through the application
3. Implementation
   At this stage the results of the design are translated using the programming language of the required application so that it can become a ready-to-use application
4. Verification
   This is important so that the application can be tested through transactions between the pharmacy and the customer or other parties

involved, so that errors can be corrected both functionally and other errors.

5. Maintenance
   In this section it is important to do, because the transaction process will multiply, it will provide opportunities for application errors to occur.

RESULTS AND DISCUSSION

After the systems analysis phase is completed, the next step is how to create the system, namely by building information systems for drug purchases and sales that aim to help the work of each Pharmacy employee.

With the implementation of the information system for drug purchases and sales, it is expected to be able to process data in making sales notes automatically, also can perform data processing to generate reports automatically as well. In addition, the system is expected to be able to carry out automatic drug inventory checks and be able to store data securely and computerized.

This information system on drug purchases and sales at the pharmacy is a website-based information system that facilitates employees in charge of sales and inventory at the Pharmacy [1,2]. This information system supports data management in creating sales notes automatically, generate reports automatically, and checking inventory automatically, as well as able to make data processing on ordering goods to suppliers (See Figure 2).

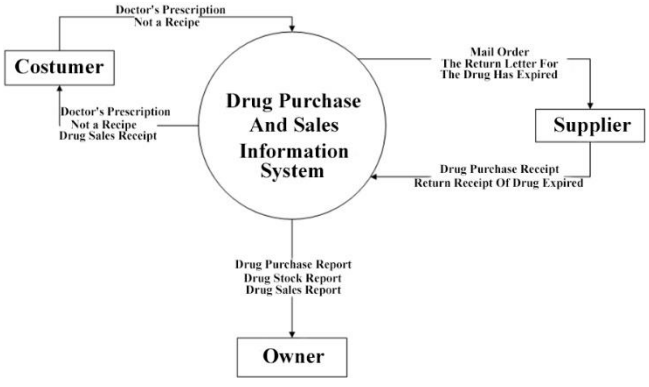


Figure 2. Proposed Context Diagram

The following is a picture in the login process (See Figure 3).

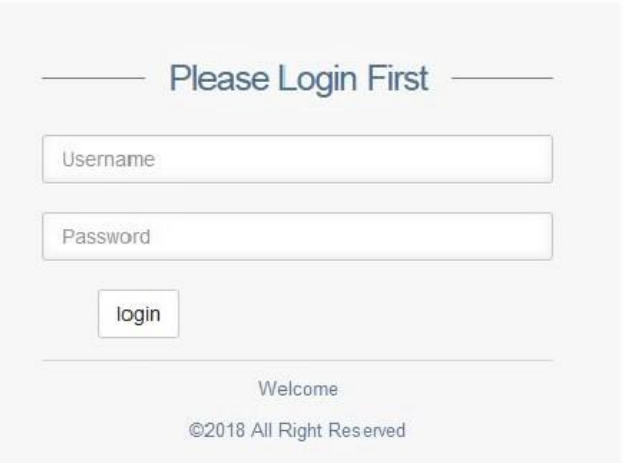


Figure 3. Login Menu Interface

Enter the account available to access the web page. The following is a picture in the main menu page process (See Figure 4).

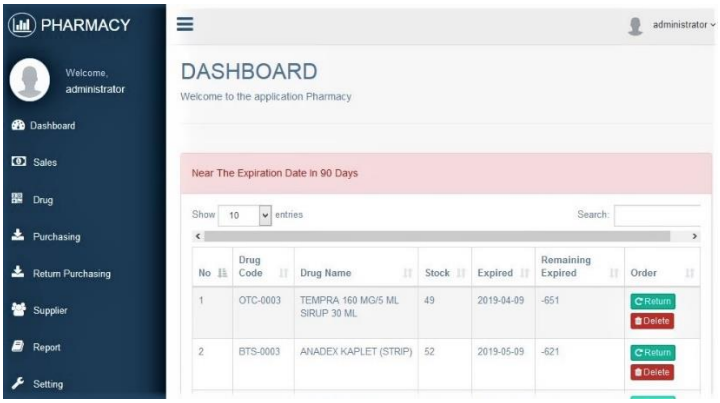


Figure 4. Main Menu Interface

After successfully logging in, the main menu page will appear. On this main menu page, the web will provide pharmacy facilities. The following is a picture in the Prescription Drug Transaction Page process (See Figure 5).

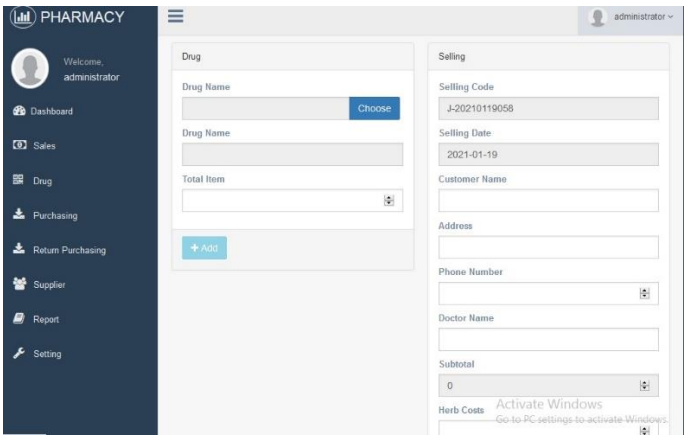


Figure 5. Prescription Drug Transaction Process Interface

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To conduct a prescription drug transaction, the user is instructed to input the required data. The following is a picture in the Non-Prescription Drug Transaction Page process (See Figure 6).

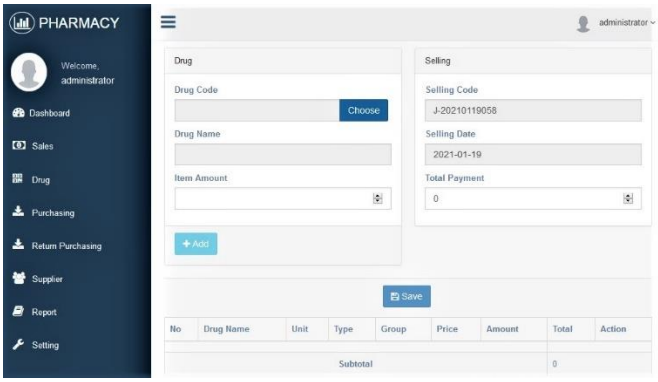

Figure 6. Non-Prescription Drug Transaction Interface

On the drug transaction page without a prescription, the user enters the drug name and the drug code. The following is a picture in the Transaction Data Page process (See Figure 7).

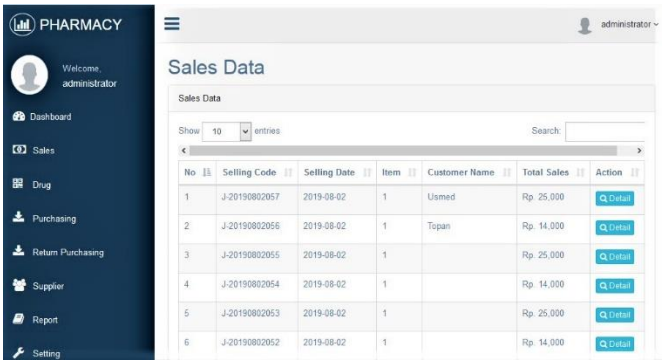

Figure 7. Transaction Data Interface

On the transaction data page, users can see the transaction data interface. The following is a picture in the Drug Data Page process (See Figure 8).

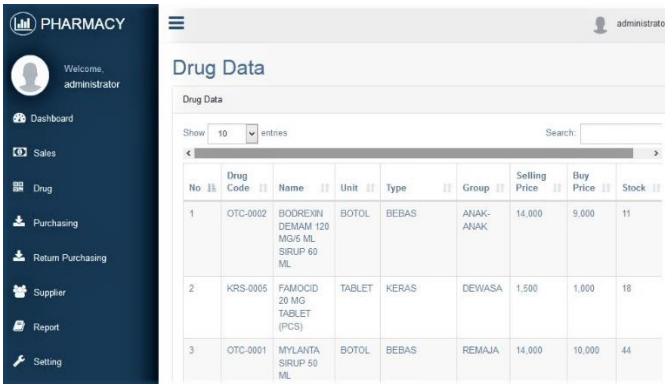

Figure 8. Drug Data Interfaces

On the drug page, users can see a list of available drugs and their drug prices. The following is a picture in the Drug Purchase Page process (See Figure 9).

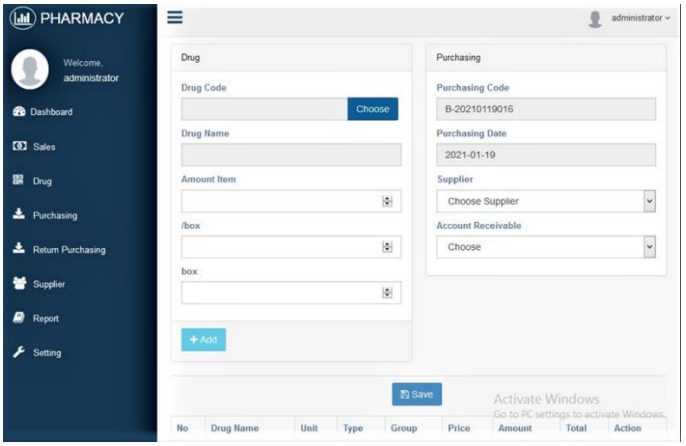

Figure 9. Drug Purchase Interface

If users make a drug purchase, then users must enter the data drug name, drug code, and the number of items. The following is a picture in the Drug Receipt Page process (See Figure 10).

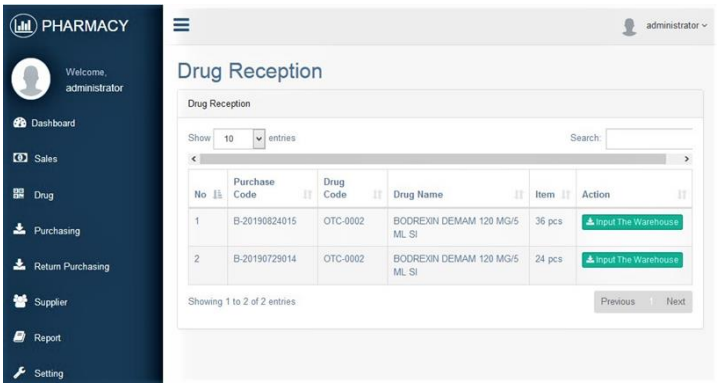

Figure 10. Drug Receipt Interface

On the drug receiving page, users can see what drugs have been received. The following is a picture in the Drug Data Purchase Return Page process (See Figure 11).

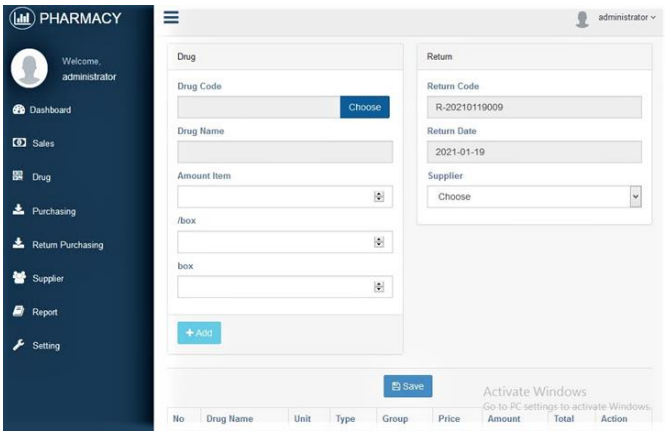

Figure 11. Drug Purchase Returns Interface

If the users want to make a repurchase, users go to the repurchase page (return purchasing). The following is a picture in the Reports Page process (See Figure 12).

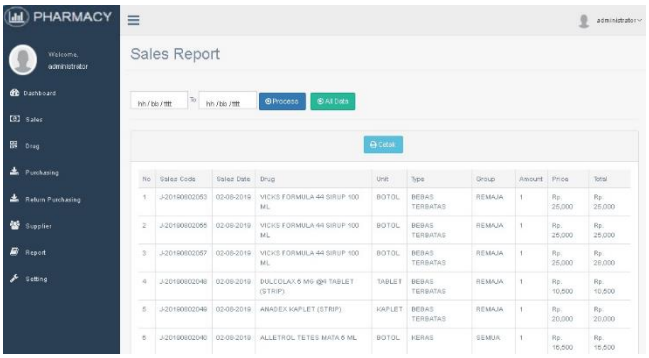

Figure 12. Sales Report Interface

On the report page, the owner can see the sales report. Health information technology is a system that can help make the work of pharmacists easier. it is also integrated with pharmacy operations and management, which provides benefits for patients during medical treatment procedures, especially in drug purchase transactions [11]. The main application of the pharmacy information system (PIS) relates to features such as drug dispensing, and is followed by providing consultation on drug use and dosing to provide more detailed information to patients [12]. The clear difference in previous studies is that this study provides an integrated information system design and can be directly implemented in the pharmaceutical world

CONCLUSION

With this application, it improves the performance of employees in carrying out the calculation process quickly, where the application can create transaction notes automatically, provide information on drug stock available or not, and avoid errors in recording information to customers including transactions, drug names, and how to use drugs. In addition, this application helps pharmacies in making transaction reports, drug stock reports automatically based on the reporting time period..

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