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Design of Inventory Management Information System (Si Menris) Kamoning Community Health Center Website Based

Safiuddin*, Zainol Fahmi, Fauzan Prasetyo Eka Putra

Faculty of Engineering, Informatics Study Program, Madura University, Pamekasan
Jl. Raya Panglegur No. Km 3.5, West, Panglegur, Kec. Tlanakan, Pamekasan Regency, East Java, Indonesia
Email: [1*]safiuddinsafiuddin12@gmail.com.[2]fahmiikacong@gmail.com, [3]prasetyo@unira.ac.id
Correspondence Author Email: safiuddinsafiuddin12@gmail.com
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Abstract−At the Puskesmas Kamoning health facility, inventory management is still done manually using paper, Microsoft Excel, and Google Spreadsheets shared via WhatsApp. So it's difficult for officers to organise the data and monitor the stock of goods with the available data. It's becoming inefficient and less accurate. In addition, there are limited working hours for accessing equipment data until data is lost or duplication occurs. The researchers developed a web-based inventory information system to replace the manual process. The system will make inventory management easier, ranging from recording to monitoring to stock management, and will also meet information needs faster and more accurately. Stages and procedures for designing an inventory management information system (Si Menris) using the waterfall model. PHP and CSS are programming languages supported by MySQL as a data storage database. This system uses black box testing to test errors in the system. This Inventory Management Information System (Si Menris) helps inventory management get more accurate, faster data. Besides that, the system can make it easier for employees to make inventory service complaints.

Keywords: Information Systems; Inventory Management; Waterfall

1. INTRODUCTION

One of the first-level public health facilities in the city of Sampang that has a very important role in improving public health in the city of Sampang is the Kamoning Health Center. Both outpatient and inpatient treatment can be done at the Kamoning Health Center. The Kamoning Health Center has various inventories to support its services, both inventory of goods and medical equipment. Every year, the inventory of goods must be managed, starting with recording incoming goods, distributing them, meeting requests from each unit, maintaining assets, conducting routine checks, repairing goods that need repair, and making inventory reports. Inventory is a dynamic component of working capital; its nature is constantly changing [1].

It is very important for an organization to have an inventory of goods because if it is disrupted, it will hinder the operation of the agency [2]. The purpose of the inventory is to facilitate supervision and control in the use, maintenance, and saving of goods and to ensure that the data contained in it can be easily found when needed [3]. However, in practice, the inventory management of the Kamoning Health Center is still carried out manually, semi-computerized, namely using paper as an inventory of goods requests so that it contains the risk of loss or tearing [4]. Input into Microsoft Excel [5] and the use of Google Spreadsheets, which are shared through the WhatsApp application[6].

The use of website-based information system services has now been widely applied in various sectors, both in the health, business (manufacture), and education sectors. This is due to the increase in internet access and the existence of various needs to make it easier for internet users to access information. The use of information systems is an important need for health institutions, such as health centers. Some of the benefits of information system development are that it can improve the optimization of operational efficiency, automate routine tasks and business processes, reduce delays, human errors, and operational costs, thereby increasing overall operational efficiency[7]. Inventory management plays a crucial role in efficient business operations, particularly in ensuring optimal stock levels, minimizing costs, and increasing overall productivity. The system aims to simplify inventory-related processes by providing real-time access to inventory data, facilitating inventory tracking, and automating inventory management tasks [8]. The utilization of web-based technology offers the advantage of accessibility from anywhere with an internet connection, allowing employees to manage inventory remotely and improve collaboration between members.

Among the relevant research results that inventory information systems can make inventory management tasks faster, more efficient, and more effective include: Research [9] The method used in his research is rainfall. The results of his research show that the inventory staff at the Gresik Regency Health Office finds it easier to prioritize, register, and manage borrowing and returning goods because of the web-based inventory system. Research [10] The results of the use of the Rapid Application Development (RAD) Method show that the drug inventory data collection program at the Fadhilah Farma Aceh Tengah Pharmacy, which uses a web application, is considered very effective, efficient, and accurate because it makes it easier for operators to collect data and search for drug data for leaders and other parties who need it. By applying the waterfall model, the results of the web-based inventory information system test conducted by [12] shows 100% validity, which means that the application is successful and feasible to be applied to UD SRC A3. The system also makes it easier to manage inventory and related transactions, such as purchases and sales. [13] Using the waterfall method, the results show

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that building an information system makes data management more efficient and effective. By using the information system, health facilities registered with the Banyumas Regency Health Office can see product stock and request products more easily and quickly.

Problems arise when there are often errors in the inventory of goods between the existing data and when the equipment is physically checked [14]. In addition, the inventory database is still stored on a laptop and then backed up into a flask (a data storage medium), which allows for human error, human fraud, and data inaccuracies. [15]. New, computerized, and well-integrated systems are needed to improve suboptimal data processing [16]. As a solution to this problem, the author designed a web-based inventory system [17] who have the ability to manage assets more efficiently and organically [18]. The system that is designed will have the ability to enter inventory data, group inventory data, and provide an explanation of the condition of each inventory asset [19]. In addition, the design of this system will be equipped with a complaint feature for goods repair services.

The use of web-based technology offers accessibility advantages, allowing employees to manage inventory remotely and improve team collaboration while remaining accessible from anywhere with an internet connection [8]. The design of this system is designed to replace the manual process so that the process of recording, monitoring and managing inventory is easier [20], Where the fulfillment of information needs becomes relatively faster and more accurate so that it can improve services to all stakeholders in need. In addition, it can help with inventory management and improve the visibility of the flow of goods [21].

2. RESEARCH METHODOLOGY

2.1 Research Stage

The waterfall method was used in this study [22]. The waterfall method is also known as the classic life cycle and the linear sequential model. The waterfall method has an easy-to-understand process, and the processes do not overlap [23]. The waterfall method is carried out to collect data owned, controlled, or managed by business organizations or governments [24]. The development of this application is carried out systematically, starting from the analysis, design, code, and testing stages of software development. The following is the waterfall activity model in question [22]:

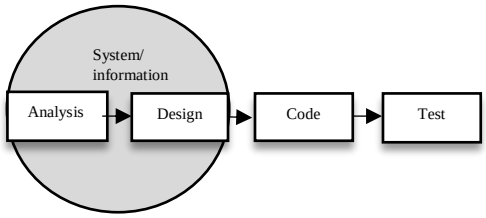

Figure 1. Flow of stages of the waterfall model method

The stages and procedures in research using the waterfall model are as follows:

1) Analysis
   This stage is said to be the first step in the research process, namely data collection and analysis. There are several stages used, namely:
   a. Observation (Observation)
      In this process, researchers directly visited the place that was the object of research, namely the Kamoning Community Health Center, to obtain the necessary information, starting from understanding the basics of creating the system to be created to the performance capabilities of the resulting system.
   b. Interview (interview)
      At this step, several direct questions were asked to the inventory officer, who is the party directly related to the research object, namely Mr. Ferry Septiyono, A.Md.Tekmed. The interview included the functions needed in the system and the user needs in system design.
   c. Literature Review (Literature Study)
      In this process, to support the needs regarding the sources of information needed, researchers looked for various pieces of literature and books.
2) Design System
   After the necessary data has been collected, at this stage, the model design begins to be determined, namely by designing the system architecture using UML (Unified Modeling Language) diagrams for modeling and user interaction.
3) Code/Coding
   This stage is the development of the design results that have been created in the form of program codes and are ready to be realized by the machine.
4) Testing
   To ensure the system is running well, the next step is to test the program codes that have been designed using black box testing. Black box testing is also known as behavioral testing, which is carried out at the final stage

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of software development to determine whether the software can operate properly [25]. Black box testing will show that the input in the software produces output that is as expected and finds errors that occur.

3. RESULT AND DISCUSSION

3.1 System Desain Process

3.1.1 System processes that are currently running

This analysis aims to find out in detail about the system currently running at the Kamoning Community Health Center so that the system requirements regarding the work carried out by users can be understood. Monitoring and managing the incoming and outgoing goods is the main task of inventory management. The first thing to do is check whether the product sent by the provider is the same as the product that has been ordered by the health center through the goods procurement official, starting from the quantity to the desired brand. After that, enter the item inspection step. If the goods sent by the provider are electronic goods, before they are distributed to the recipient, they go through a usable process. Once it is declared suitable and there are no defects in the goods, it will be input into Excel. The next step is distribution and documentation with the recipient of the goods.
Likewise, if there is inventory that needs to be repaired, The employee will contact the inventory officer and then take the item the employee complained about. After that, the reporting process is carried out to the leadership, and then the goods that come out and will be carried out in the maintenance process will be recorded

3.1.2 System analysis required

After understanding the inventory officer's job, the following is an analysis of the user's system needs:
a. access to change and add item inventory data
b. Access to input and edit incoming and outgoing goods data
c. access to input employee service complaints
d. Access for leaders to find out inventory data and reports on items undergoing maintenance

3.2 System Design

3.2.1 Use Case Diagram

The following is a use-case diagram of the system being designed. The use case diagram is the user structure of the system being designed. Use case diagrams are created to provide an explanation and visual identification of the data flow of the system being designed. The following are the specifications of the use case diagram in question:

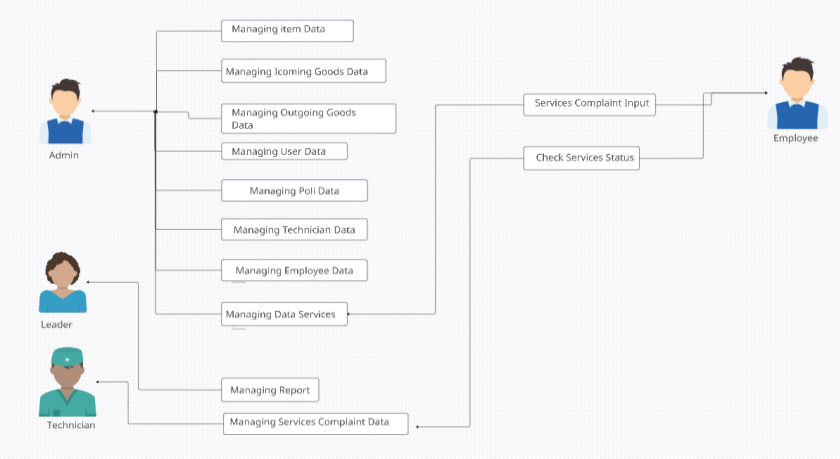

Figure 2. Use Case Diagram of the inventory management information system

The activities in the use case diagram in this system involve four users, namely admin, leadership, technicians, and employees. The user use case can be seen in Figure 2, where the admin has access to manage goods data, both incoming goods data and outgoing goods data, then manage user data, manage POLI data, manage technician data, manage employee data, manage service data, and view complaint input data. services provided by employees. Meanwhile, users as leaders have access to the system, namely managing reports in the system, while users as technicians have access to managing service complaint data, including providing the progress status of service complaints. Employees have access to input service complaints and check their service status.

3.2.2 Sequence Diagram

The following is the sequence diagram of the inventory management information system at the Kamoning Community Health Center, which shows the work sequence of the application.

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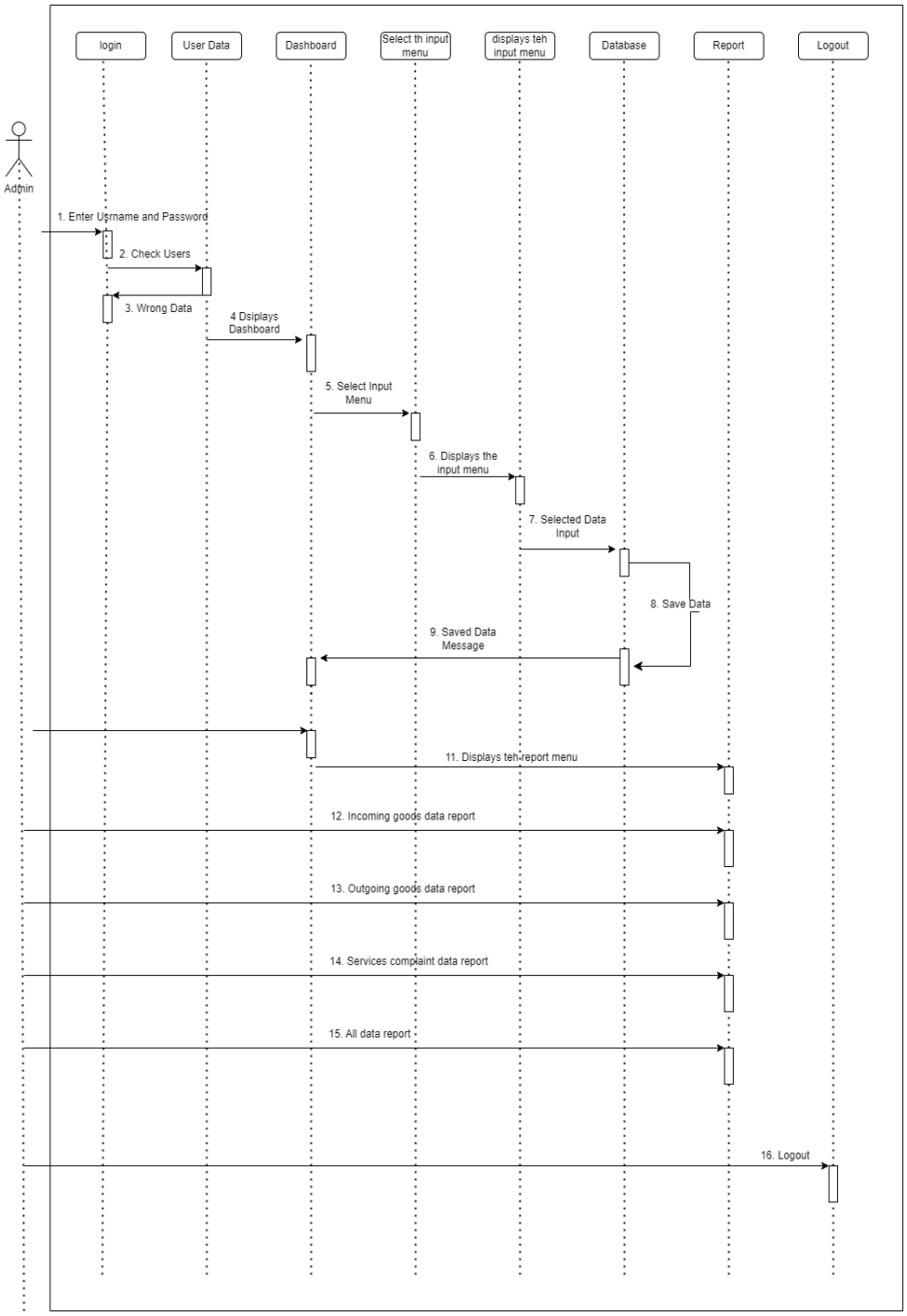

Figure 3. Sequence Diagram of the inventory management information system

Figure 3 depicts the sequence of activities of the system from start to finish. Starting with the user (admin), enter the username and password in the log-in form. If the validation of the username and password entered is incorrect, the system will automatically display the log-in menu again and provide a notification so that the user (admin) rechecks the username and password entered. If the user (admin) validation is valid, then the system will display a dashboard. If the user selects the data input menu, then the system will save the data input by the user into the database. A notification that the input data has been saved will be displayed. Once complete, the system will display the admin dashboard again and display the access menu available to the user (admin), starting from displaying the report menu, incoming goods data reports, and outgoing goods data reports to service complaint reports to all data reports. System activity can be ended by clicking the logout menu.

3.2.3 Acitivity Diagram

The item activity diagram shows the process of changing or adding inventory data. Activity diagrams in this system include incoming goods activity diagrams, outgoing goods activity diagrams, and service complaint (maintenance) activities. The following is an illustration of each activity diagram:

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Figure 4. (a) Activity Diagram for Incoming Goods (b) Activity Diagram for Outgoing Goods

Figure 4 (a) depicts the activity diagram for incoming goods, where the steps start with the admin selecting the incoming goods menu, then the system will display the incoming goods. The admin will see the incoming goods data displayed by the system. If the admin wants to input goods, the system will display the goods input form, and then the admin can input detailed data on the incoming goods, which the system will validate. Admins can choose to save or cancel the input data. If the admin selects save, the system will display a notification that the data has been saved successfully, but if the choice is canceled, the system will take you to the dashboard home page. (b) depicts the activity diagram for outgoing goods, where the steps start with the admin selecting the outgoing goods menu, then the system will display the outgoing goods. The admin will see the outgoing goods data displayed by the system. If the admin wants to input goods, the system will display an input form for outgoing goods, and then the admin can input detailed data on outgoing goods, after which the system will validate. Admins can choose to save or cancel the input data. If the admin selects save, the system will display a notification that the data has been saved successfully, but if the choice is canceled, the system will take you to the dashboard home page. (c) The service complaint activity diagram depicts the steps starting with the employee selecting the service complaint menu, then the system will display the service complaint data. The employee will see the service complaint data displayed by the system. If an employee wants to input service complaint data, the system will display a service complaint input form, and then the employee can input detailed service complaint data, which the system will validate. Employees can choose to save or cancel the service complaint data entered. If the employee selects save, the system will display a notification that the data has been saved successfully, but if the choice is canceled, the system will take him to the dashboard home page.

2.3 Software Architecture

The results of implementing the display interface in the Inventory Information System Maintenance Report menu at the Kamoning Community Health Center health facility.

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2.3.1 Log-in page

Enter the username and password data. Here is the application displayed on the log-in page.

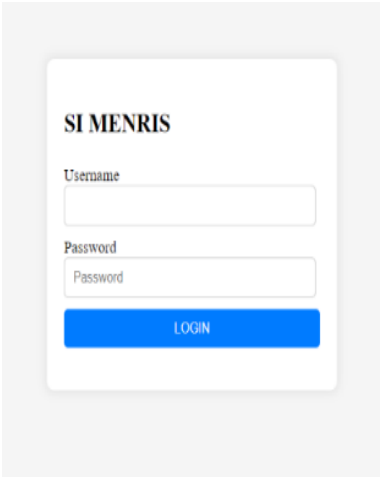
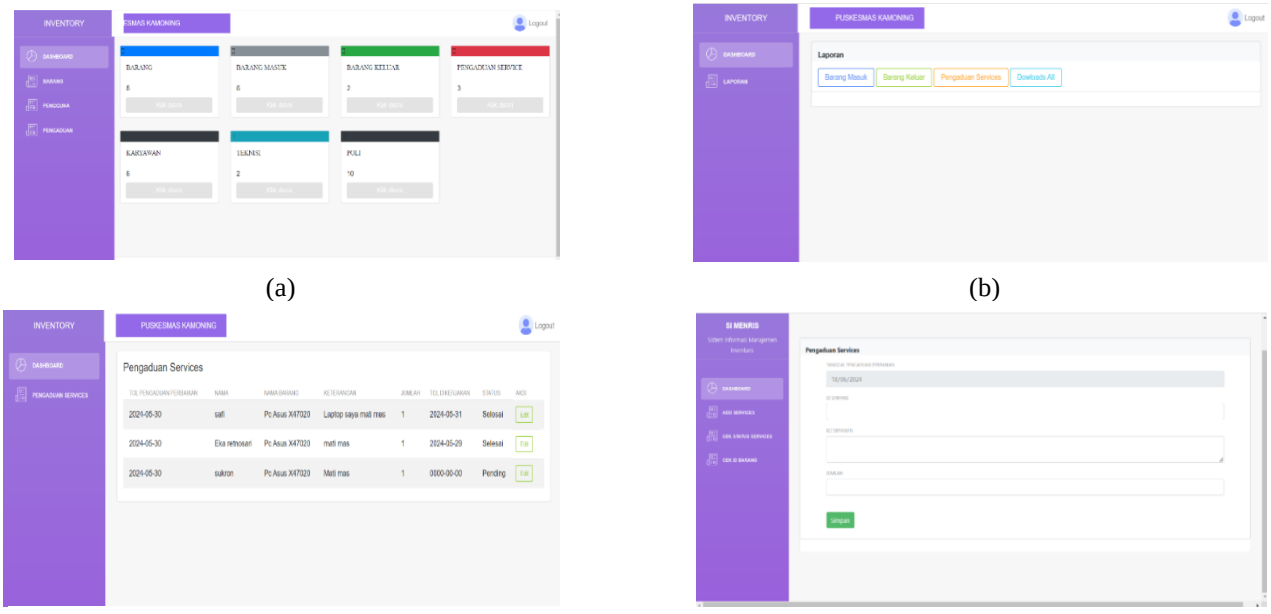


Figure 5. Log-in page

Figure 6 is a display of the log-in page for the design of the web-based inventory management information system (Si Menris) for Kamoning Community Health Center.

2.3.2 Main Menu/Dashboard

This page will open if you successfully log in, and it is the initial display of the system if you successfully enter the username and password data.



(a) (b)

(c) (d)

Figure 6. (a) Admin Dashboard display (b) Leadership Dashboard display (c) Technician Dashboard display (d) Employee Dashboard display

Figure 6 (a) is the admin dashboard display, which has access to manage incoming goods data and outgoing goods data, view service complaint data, manage employee data, manage technician data, and manage poly data. (b) is a dashboard display for leaders who have access to manage reports. (c) is a dashboard display for technicians who have access to manage service complaints. (d) is an employee dashboard display that has access to input service complaint data and check the progress status.

2.3.3 Incoming goods input display

Figure 7 (a) displays the input form for incoming goods, where the admin fills in the date of incoming goods, name of goods, number of goods, and placement of goods distribution (poly). Meanwhile, (b) displays the incoming goods data report that has been input by the admin into the system.

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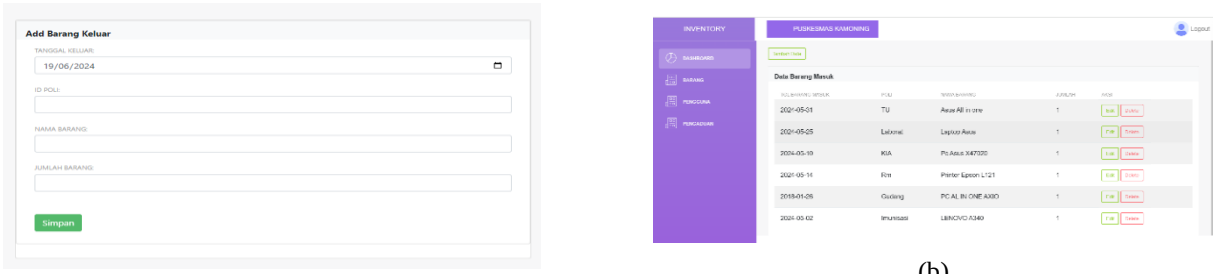
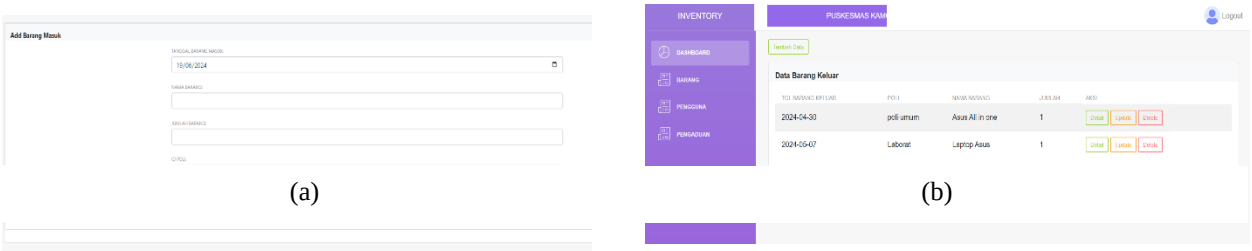


(a) (b)

Figure 7. (a) Incoming goods input display (b) Incoming goods report display

2.3.4 Outgoing goods input display

Figure 8 (a) Displays the outgoing goods input form where the admin fills in the date the goods went out, the origin of the goods distribution (poly), the name of the goods, and the total number of goods. Meanwhile (b) displays the outgoing goods data report that has been input by the admin into the system.

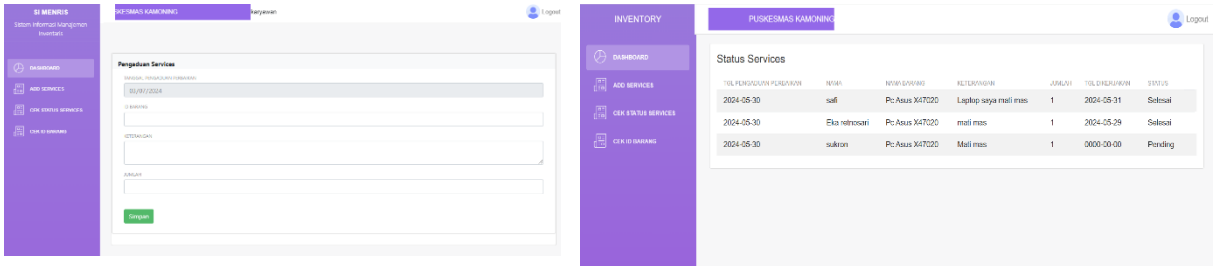


(a) (b)

Figure 8. (a) Outgoing goods input display (b) Outgoing goods report display

2.3.5 Service Complaints Display

Figure 9 (a) displays the service complaint input form by employees, where the system will display the service complaint date in real time (automatically), the origin of the distribution of goods (poly), which is represented by an ID code. The ID code can be seen on the employee dashboard display, and then the employee fills in complaints about goods according to the number of goods. Meanwhile, (b) displays the outgoing goods data report that has been input by employees into the system. Employees can see the progress or follow-up status of items that have been complained about.



(a) (b)

Figure 9. (a) Display of service complaints (b) service complaints report display

2.3 Validity Test

To test the validity of this research, researchers used black box testing. Black box testing is a method of testing software for software purposes. By using black box testing, researchers can correctly confirm whether the log-in data is received and whether the output data produced is in accordance with what was previously designed.

Table 1. Blackbox Testing

No	Testing Scenarios	Expected results	Evidence
1	Fill in the incorrect data, then immediately select “log in.	System access will be canceled, and the message "Username or password is incorrect" will be displayed.	**Valid**
2	Enter the correct username and password, then log in.	The system will respond if the username and password entered are correct.	**Valid**
3	Enter incoming goods data	The system will respond to save the data	**Valid**

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No	Testing Scenarios	Expected results	Evidence
4	Enter outgoing goods data	The system will respond to save the data	**Valid**
5	Employees input goods and service complaints.	The system will respond to the status of the service complaint that will be displayed	**Valid**
6	Leaders can download all report data from the system.	The system will respond and download the report in Excel format (.xlsx).	**Valid**

4. CONCLUSION

With this system, it is hoped that it will make it easier for inventory workers to inventory goods; the data will be stored properly because it uses an information system; it will make it easier to search for the distribution of goods locations more quickly and accurately; and it will make it easier for inventory workers to make reports, both incoming and outgoing goods reports and goods-in reports. goods that undergo maintenance quickly and on time. In addition, with a web-based inventory management system, employees can submit goods maintenance reports electronically through the system and track the maintenance progress status. For the increasing need for inventory of goods, researchers need to update or develop the Inventory Management Information System (Si Menris) at the Kamoning Community Health Center so that it becomes more perfect.

REFERENCES

[1] D. Ratnaningtias, “Penerapan Sistem Informasi Persediaan Barang pada Klinik Kesehatan,” Akad. J. Mhs. Humanis, vol. 4, no. 1, pp. 96–103, Jan. 2024, doi: 10.37481/jmh.v4i1.716.
[2] L. H. Hajid, C. Naury, and E. Purbiyanto, “Information System for the Inventory of Census Needs at the Central Statistics Agency of Sragen Regency: Sistem Informasi Inventaris Keperluan Sensus Badan Pusat Statistik Kabupaten Sragen,” Radiant, vol. 5, no. 1, pp. 30–44, May 2024, doi: 10.52187/rdt.v5i1.183.
[3] C. Christian and A. Voutama, “Rancang Bangun Aplikasi Sistem Informasi Inventaris Berbasis Website,” J. Inform. Dan Tek. Elektro Terap., vol. 12, no. 2, Apr. 2024, doi: 10.23960/jitet.v12i2.4259.
[4] M. T. Tanaman, J. L. A. Baylosis, B. J. A. Abiles, M. L. P. Catungal, and D. P. C. Encarnacion, “Web-based Inventory Management System,” Int. J. Sci. Appl. Inf. Technol., vol. 12, no. 5, pp. 44–48, Oct. 2023, doi: 10.30534/ijsait/2023/021252023.
[5] D. P. P. Hadi, D. Irawan, E. Tay, F. Alpiyasin, and F. I. Abdurahman, “Information System of Office Stationery Inventory PT. Jagad Kreatif Nusantara,” Inform. Manag. Eng. Inf. Syst. J., vol. 1, no. 1, pp. 46–50, Jul. 2023, doi: 10.56447/imeisj.v1i1.212.
[6] N. Saputra and B. Mulyawan, “Web-Based System Inventory at PT Sapta Tunas Teknologi,” Int. J. Softw. Eng. Comput. Sci. IJSECS, vol. 3, no. 3, pp. 334–340, Dec. 2023, doi: 10.35870/ijsecs.v3i3.1831.
[7] Y. D. D. A, S. Kumara and S. N. Wahyuni, "Perancangan Sistem Informasi Berbasis Web Pada D'Lofa Laundry Menggunakan Metode Waterfall," IJCSR. The Indonesian Journal of Computer Science Research, vol. 3, no. 1, pp. 2963-9174, Jan. 2024. doi: 10.37905
[8] Samsudin and C. Bisri, “Design of Inventory Information Systems at CV Company. Web-Based Berjaya Jaya Abadi,” J. Multimed. Dan Teknol. Inf. Jatilima, vol. 6, no. 01, pp. 46–56, Mar. 2024, doi: 10.54209/jatilima.v6i01.420.
[9] N. Hafizah and S. Agustin, “Sistem Informasi Inventaris Barang Berbasis Web Pada Dinas Kesehatan Kabupaten Gresik,” J. Ilm. Tek. Inform. Dan Komun., vol. 4, no. 1, pp. 224–232, Jan. 2024, doi: 10.55606/juitik.v4i1.771.
[10] E. Lusiana, Imelda , and A. Salam, " Perancangan Sistem Informasi Inventory Obat Berbasis Web Pada Apotik Fadhila Farma," SISKOM. Jurnal Sistem Komputer, vol 4, no. 1, pp. 2775-3115, Feb. 2024, doi:10.35870/siskom.v4if.810.
[11] A. Pratama, and Rusliyawati,“Analisis Dan Perancangan Sistem Informasi Persediaan Barang Berbasis Web,” J. Teknol. DAN Sist. Inf., vol. 4, no. 2, 2023. doi: 10.33365/jtsi.v4i2.2558
[13] S. I. P. Putri, S. P. Rahayu, and Nofiyati, “Web-Based Information System Design Of Inventory And Covid-19 Vaccine Distribution In Banyumas Regency,” JUTIF. Jurnal Teknik Informatika, vol 4, no. 1, Feb. 2023, doi:10.20884/1.jutif.2023.4.1.529.
[14] T. A. Pradiasa, “Perancangan Sistem Informasi Persediaan Barang (Inventory Application) Berbasis Web dan Bootstrap Css,” Phys. Sci. Life Sci. Eng., vol. 1, no. 2, p. 13, Jan. 2024, doi: 10.47134/pslse.v1i2.200.
[15] K. Angellin, R. S. Oetama, and M. Amri, “Web-Based Inventory and Sales Information System: Indonesian Micro Small Medium Enterprise Case Study,” JOINS J. Inf. Syst., vol. 8, no. 1, pp. 57–66, Jun. 2023, doi: 10.33633/joins.v8i1.7977.
[16] H. Handayani, K. U. Faizah, A. M. Ayulya, M. Fikri, D. Wulan, and M. L. Hamzah, “Perancangan Sistem Informasi Inventory Barang Berbasis Web Menggunakan Metode Agile Software Development,” Jurnal Testing dan Implementasi Sistem Informasi. vol. 1, no. 1, pp. 29-40, 2023.
[17] P. N. Ibrahim and R. Rinawati, “Medical Equipment And Medication Inventory Information System At West Citarip Puskesmas Is Based On A Website,” Inform. Manag. Eng. Inf. Syst. J., vol. 1, no. 1, pp. 23–34, Jul. 2023, doi: 10.56447/imeisj.v1i1.217.
[18] P. P. Kusumojati and E. Mediawati, “Web-Based Asset Management Information Systems in Higher Education,” Int. J. Bus. Law Educ., vol. 5, no. 1, pp. 398–411, Jan. 2024, doi: 10.56442/ijble.v5i1.382.
[19] M. Hamidi, “Sistem Informasi Inventaris Laboratorium Komputer SMP Swasta IT Ad Durrah,” Cybern. J. Educ. Res. Soc. Stud., pp. 1–11, Oct. 2023, doi: 10.51178/cjerss.v4i4.1764.
[20] Abigael, M. Anggraeni, Z. A. Cahyani, and W. Windihastuty, “Rancangan Sistem Informasi Persediaan Barang Pada PT Jaya Duta Indonesia,” IKRA-ITH Inform. J. Komput. Dan Inform., vol. 8, no. 1, pp. 127–133, Mar. 2024, doi: 10.37817/ikraith-informatika.v8i1.3207.

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https://ejurnal.seminar-id.com/index.php/josh/
DOI 10.47065/josh.v5i4.5433

[21] L. P. Wijaya and S. Rosyida, "Sistem Informasi Persediaan Barang Berbasis Web Pada PT. Arina Multikarya Jakarta," Indonesian Journal on Software Engineering (IJSE), vol. 9, no. 2, pp. 101-106, Des. 2023.
[22] Y. Anis, E. N. Wahyudi, and H. C. Kurniawan, "Metode Waterfall dalam Pengembangan Sistem Inventaris Guna Meningkatkan Efisiensi Manajemen Stok Barang," J. Teknol. Dan Sist. Inf. Bisnis, vol. 6, no. 2, pp. 329–338, Apr. 2024, doi: 10.47233/jteksis.v6i2.1351.
[23] V. A. Syah and G. Farell, "Rancang Bangun Sistem Informasi Antrian Pengambilan Obat Berbasis Web", Scientica. Jurnal Ilmiah Sain dan Teknologi, vol 2, no. 4, pp. 109-115, Feb. 2024.
[24] D. R. Manday, S. Wijaya, and J. Waruwu, "Perancangan Sistem Informasi Inventaris Barang Berbasis Web Secara Online Pada Universitas Prima Indonesia," J. Teknol. DAN ILMU Komput. PRIMA JUTIKOMP, vol. 6, no. 2, pp. 98–105, Oct. 2023, doi: 10.34012/jutikomp.v6i2.4039.
[25] P. H. Shabtina, S. Zharfa, A. S. Pratama, and E. Arribe, "Rancang Bangun Sistem Informasi Inventory Menggunakan Metode Rapid Application Development (Rad) Pada Toko Abadi Jaya," J. Ilm. Inform., vol. 12, no. 01, pp. 44–52, Mar. 2024, doi: 10.33884/jif.v12i01.8731.