



Design of Livestock Chicken Information System in CV Cilacap Indah Abadi, Kebumen Regency Based on Website

Akhmad Fatoni , Candra Mecca Sufyana

Information System, Politeknik Piksi Ganesha Bandung, Indonesia, 40274

 afath02@gmail.com

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Abstract

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CV Cilacap Indah Abadi is a company established in chicken stock. This company cooperates with several suppliers and chicken breeders spread across several sub-districts in Kebumen Regency. In addition to providing farm chickens, CV CIA also provides feed and medicine. This company still uses handwritten or manual recording, causing the process of company management, especially in the inventory field, to take a long time and is less efficient. Underlying the problem above, the company needs an information system that facilitates company performance based on/using a website to store records in the database. The research results are in a website application for poultry stock systems using/based on the CodeIgniter 3.1 framework.

Keywords: Information system, Inventory, Website, Code igniter framework

Abstrak

CV Cilacap Indah Abadi adalah sebuah perusahaan berdiri di bidang persediaan barang ayam ternak. Perusahaan ini bekerjasama sama dengan beberapa supliyer dan peternak ayam yang tersebar di beberapa kecamatan di Kabupaten Kebumen. Selain menyediakan ayam ternak, CV CIA juga menyediakan berupa pakan dan obat-obatan. Perusahaan ini masih menggunakan pencatatan dengan tulis tangan atau manual, sehingga menyebabkan proses suatu manajemen perusahaan khususnya di bidang persediaan barang membutuhkan waktu yang lama dan kurang efisien. Mendasari masalah diatas, maka perusahaan membutuhkan sistem informasi yang mempermudah kinerja perusahaan berbasis/menggunakan website sehingga pencatatan bisa tersimpan di database. Hasil penelitian yaitu berupa aplikasi website sistem persediaan ayam ternak menggunakan/berbasis framework codeignitier 3.1.

Kata-kata kunci: Sistem informasi, Persediaan barang, Website, Framework code ignitier



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1. Introduction

The main goal of the company is to make a profit. This achievement is based on several factors. One of them is smooth production. Efforts in achieving this usually face problems; therefore, the company must have good and orderly management. Good and orderly management will produce quick and appropriate decisions for the company and as a controller of these activities so that they run effectively and efficiently.

With an optimal stock/inventory, the company will control the inventory of goods to minimize wastage of costs because it can lead to the need for the right goods. With optimal stock/inventory, the company easily streamlines company expenses such as storage and goods ordering. The company's policy on inventory will help the company [1].

CV Cilacap Indah Abadi is a company that has a background in chicken farming supplies. The location of the CV CIA company is Perum Selang, Selang Village, Kebumen District, Kebumen Regency. CV CIA has employees with positions as admin and weighing. In addition to providing farm chickens, CV CIA also provides some feed and medicine.

CV CIA collaborates with partner breeders spread across several sub-districts in Kebumen Regency. With many breeders working with companies and calculating records still using handwriting or manuals, it causes company management, especially in the field of inventory, to take a long time and is less efficient. Speed up the process or record the inventory of these goods; it is necessary to create an application using a website-based information system.

2. Method

a. Material

1) Desain

Design is the process of analyzing a job in which something varies from each other. There is a description of the application and details some of the components' limitations and experienced in the process [2].

2) System

The process of developing/composing the first/new information system. In this stage, the system will perform the way it runs [3].

3) Information

Information is the processing of a form of data that is more useful and meaningful by its users to obtain decisions now or in the future [4].

4) Information System

The meaning of an information system is a system that combines users and the use of technology that aims to support management and operational activities [5].

5) Inventory

Inventory is the stock/inventory of goods that generally aims to anticipate/maintain several elements/flows of uncertainty by demand and supply [6].

6) Database

The meaning of a database is a collection of data that is processed in such a way and carries out the provisions as stated in the provisions that make the data interconnected. The data can be obtained easily for processing [7].

7) Unified Modeling Language (UML)

UML functions as a requirement definition, design and analysis, and can be described in object-oriented programming [8].

8) Framework

The meaning of framework is the development of code that can help developers consistently. Including in the application, this framework is usually very easy to run and helps developers write text or code orderly [9].

9) Code Igniter

The meaning of Code Igniter is a web application network that generally has an open-source nature which is useful as a facility to build dynamic PHP applications [10].

b. Method

1) Data Collection Technique

a) Observation

Observation is direct observation of an object to be studied quickly and aims to get an overview of the object of research. The authors made direct observations to the CIA's CV against ongoing records to find out the actual situation in this study. The observations were made to obtain data sources, namely inventory data.

b) Interview

The interview is a process carried out to obtain information by asking questions. This study collects data by conducting direct interviews with officers who handle inventory records in the office. Interviews were conducted focusing on the perceived problems in recording inventory that is currently running.

2) Software Development Method

The software method is used to use the waterfall model (linear) and object-oriented software methodology. The following are the stages in the waterfall development method:

a) Analysis

Contains the needs, functions of the software made users, and the limitations of each user.

b) Designing

Translating software development from analysis results in the form of designs to implement the results of their designs.

c) Coding

Translating designs in the programming code process using programming languages.

d) Testing

Tests are carried out to check the suitability of the coding results with the design and analysis [\[11\]](#).

3. Results and Discussion

a. Analysis

1) Flowchart

First, the flowchart of incoming goods data from the supplier will be submitted to employees or company employees. Then it is inputted into the system in the form of a database which will later be printed to be submitted to the head of the company.

The following shows the flowchart of the chicken inventory information system in **Figure 1**.

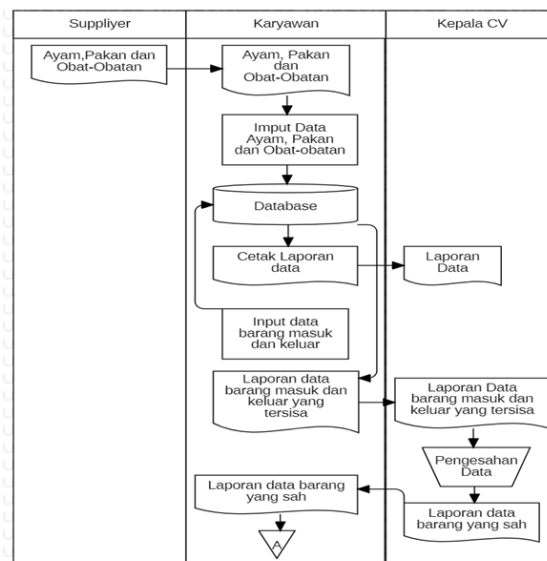


Figure 1. Chicken Inventory Information System Flowchart

2) Use Case Diagram Admin

Use case diagrams can be used or used to illustrate user needs for system functions and limitations. The admin actor can only manage the data on the system. The following is a use case diagram for the chicken inventory information systems design in **Figure 2**.

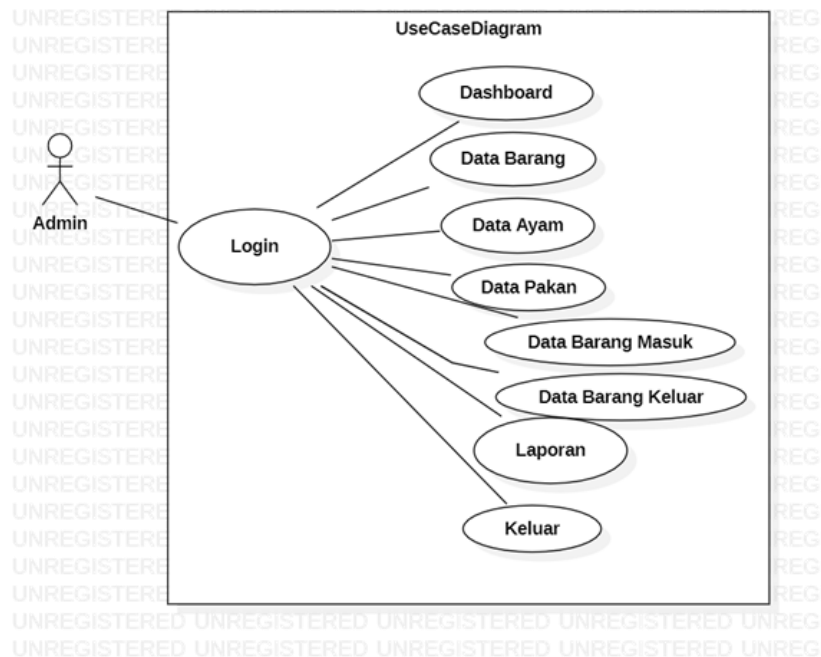


Figure 2. Display Use Case Diagram Admin

3) Class Diagram

In this case, the class diagram contains attributes and methods to the system that will create. This design shows the relationship between tables that will be presented by a class that has fields. The following shows the class diagram of the chicken inventory information system in **Figure 3**.

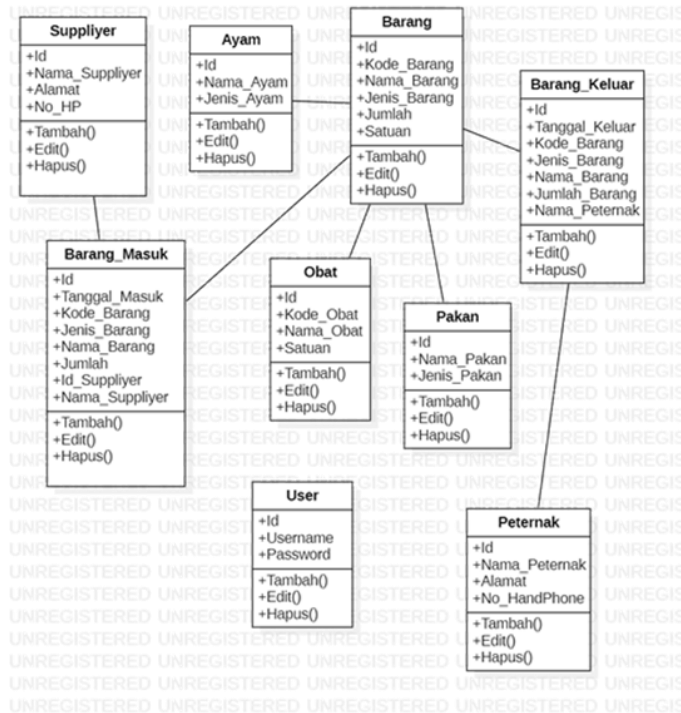


Figure 3. Class Diagram

b. Desain

1) Login Display

The login screen contains the username and password input form. The following is the display or the login menu page in **Figure 4**.

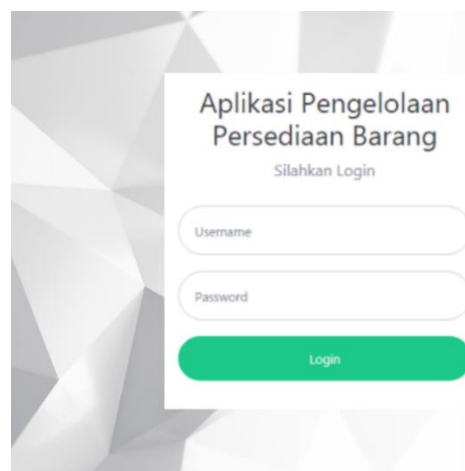


Figure 4. Display Menu Access Login

2) Dashboard Page

This dashboard page has several menus, Master Data, Transaction Data, Reports, User Manager, and LogOut. The dashboard page is presented on [Figure 5](#).

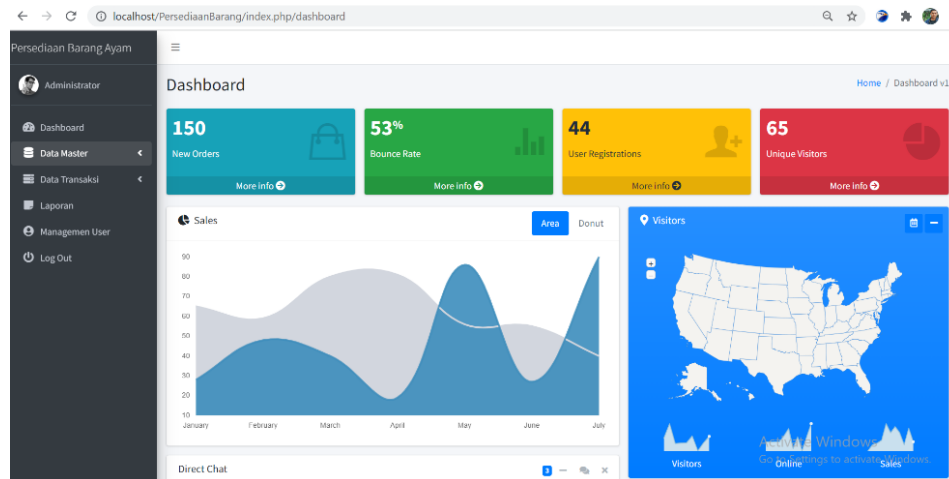


Figure 5. Dashboard Page

3) Item Data Display or Menu Page

The display or menu page for chicken stock items displays or generates chicken item data on CV Cilacap Indah Abadi. This page contains the inventory of goods. The dashboard page is presented in [Figure 6](#).

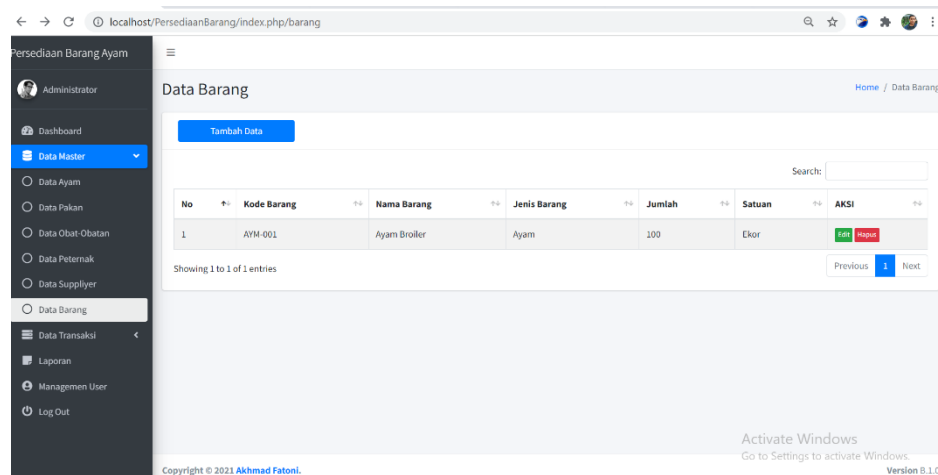


Figure 6. Inventory

4) Feed Data Menu Input Page Display

The input page view of the feed data menu is used or aims to enter feed data so that the feed data in the company can be recorded properly. The dashboard page is presented in [Figure 7](#).

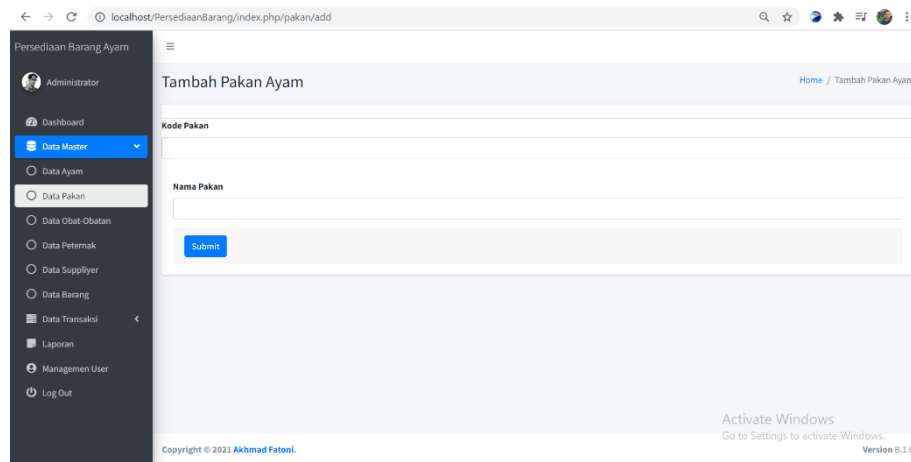


Figure 7. Feed Data Input Page

5) Farmer Data Input Menu Page Display

The display of the farmer data, the input menu functions display the inputted farmer data by entering the farmer data. Every farmer who will carry out transactions can be properly recorded. The dashboard page is presented in **Figure 8**.

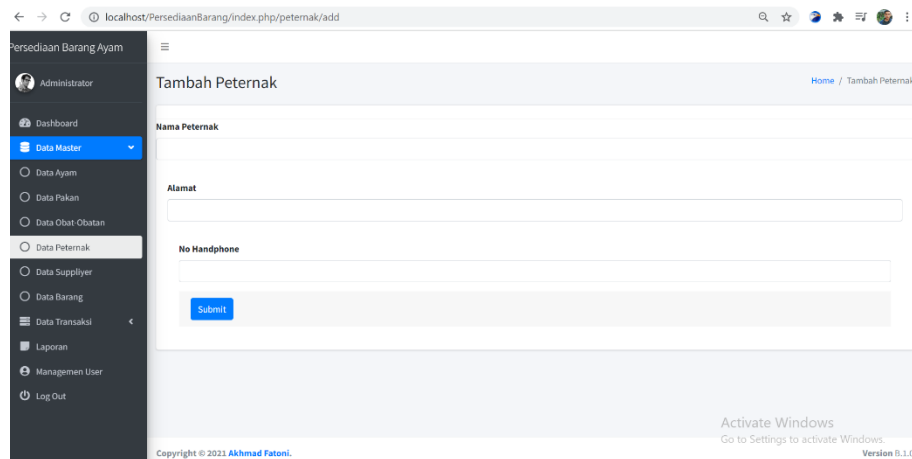


Figure 8. Farmer Data Input

6) Login Item Data Page

This display of incoming goods data aims to display the input results in the poultry inventory information system. With the data of incoming goods, the company can record it properly. The dashboard page is presented in **Figure 9**.

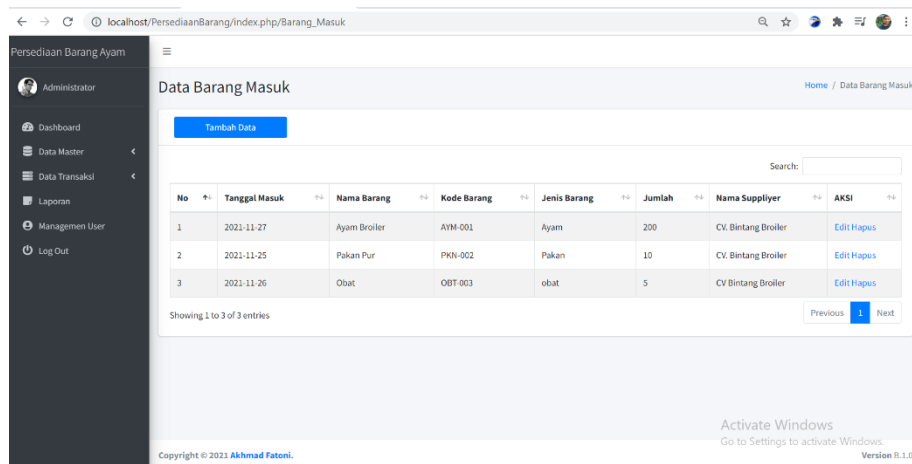


Figure 9. Login Item Data Page

c. Testing

Blackbox testing aims to see how the process is the same as the task of the program without knowing the program code that will be used [11].

Table 1. Testing Use Case Login

Test Case	Hasil Yang diHarapkan	Status
Opening Login	Menu Login Menu Displayed	Appropriately
Entering or inputting incorrect access password and username	Login Failed	Appropriately
Enter or input the correct password and username access	Login Successful	Appropriately

Table 2. Testing Use Case Menu Dashboard

Test Case	Hasil Yang diHarapkan	Status
Opening the Dashboard Menu	Dashboard Menu Displayed	Appropriately
Opening the Dashboard Menu without logging in first	Login Show	Appropriately

Table 3. Testing the Chicken Data Use Case

Test Case	Hasil Yang diHarapkan	Status
Open the Chicken Data Menu	Chicken Data Menu Displayed	Appropriately
Add Chicken Data	Chicken Data Added Successfully	Appropriately
Changing Chicken Data	Chicken Data Changed Successfully	Appropriately
Deleting Chicken Data	Chicken Data successfully deleted	Appropriately

Table 4. Drug Use Case Testing

Test Case	Hasil Yang diHarapkan	Status
Opening Drug Data Menu	Drug Data Menu Displayed	Appropriately
Adding Drug Data Menu	Drug Data Menu Added Successfully	Appropriately
Changing Drug Data Menu	Drug Data Menu Changed Successfully	Appropriately
Deleting Drug Data Menu	Medication Data Menu successfully deleted	Appropriately

Table 5. Testing the Use Case of Feed Data

Test Case	Hasil Yang diHarapkan	Status
Opening the Feed Data Menu	Feed Data Menu Displayed	Appropriately
Adding Feed Data	Feed Data Added Successfully	Appropriately
Changing Feed Data	Feed Data Changed Successfully	Appropriately
Deleting Feed Data	Feed Data Deleted successfully	Appropriately

Table 6. Testing the Use Case of Farmer Data

Test Case	Hasil Yang diHarapkan	Status
Opening the Farmer Data Menu	Farmer Data Menu Displayed	Appropriately
Adding Farmer Data	Farmer Data Added Successfully	Appropriately
Changing Farmer Data	Farmer Data Changed Successfully	Appropriately
Deleting Farmer Data	Farmer Data Deleted Successfully	Appropriately

Table 7. Incoming Goods Data Use Case Testing

Test Case	Hasil Yang diHarapkan	Status
Opening the Contents Menu Login	Contents menu of Incoming Items is displayed	Appropriately
Adding Incoming Items Adding Incoming Items	Contents Menu Item Login Successfully Added	Appropriately
Change the contents of Incoming Items	Contents menu of Incoming Items Successfully Changed	Appropriately
Deleting the contents of Login	The contents menu of Incoming Items has been successfully deleted	Appropriately

Table 8. Testing Use Case Data Items Out

Test Case	Hasil Yang diHarapkan	Status
Opening the Contents Menu Out Items	Outgoing Item Contents Menu Displayed	Appropriately
Adding Exit Items	Contents Menu Items Out Successfully Added	Appropriately
Change the contents of Outgoing Items	Item Contents Menu Changed Successfully	Appropriately
Deleting the contents of Outgoing	The contents menu of Outgoing Items has been successfully deleted	Appropriately

4. Conclusion

From the results or discussion of the design of the chicken stock information system at CV Cilacap Indah Abadi, it can be used using the waterfall system development method. The design of the poultry supply process consists of a flowchart, use case diagram, and class diagram. The design of an information system for livestock stock at CV Cilacap Indah Abadi uses the PHP programming language and uses the IGnitier Code framework. For processing the database using MySQL. The information system for livestock stock at CV Cilacap Indah Abadi functions as a farmer data processor, transacting incoming and outgoing goods. From the results of testing using the Blackbox method, the results of recording data in the application are easier to store and well organized.

References

- [1] R. Budiono, M. Arifin, and A. Widodo, "SISTEM INFORMASI ADMINISTRASI DAN PEMESANAN KEBUTUHAN AYAM PADA PT MURIA JAYA RAYA KUDUS Penulis Korespondensi." [Online]. Available: <http://www.jurnal.umk.ac.id/sitech>
- [2] S. Program, S. Teknik, I. Sekolah, T. Teknologi, and P. Bangsa, "SISTEM INFORMASI TERNAK AYAM BROILER BERBASIS WEB," 2017.
- [3] Soetam Rizky Wicaksono, "Rekayasa Perangkat Lunak - Soetam Rizky Wicaksono - Google Buku," p. 400, 2017, Accessed: Dec. 05, 2021. [Online]. Available: <https://books.google.co.id/books?id=h7o0DwAAQBAJ&pg=PA353&dq=black+box+adalah&hl=id&sa=X&ved=0ahUKEwjY9M2rmffaAhXRq5QKHeG6DsEQ6AEIVDAJ#v=onepage&q=black+box+adalah&f=false>
- [4] S. Program, S. Teknik, I. Sekolah, T. Teknologi, and P. Bangsa, "SISTEM INFORMASI TERNAK AYAM BROILER BERBASIS WEB," 2017.
- [5] M. Muslihudin and Oktafianto, "Definisi Diagram Konteks," Analisis dan Perancangan Sistem Informasi Menggunakan Model Terstruktur dan UML, p. 48, 2016.
- [6] A. Eunike, N. W. Setyanto, R. Yuniarti, I. Hamdala, R. P. Lukodono, and A. A. Fanani, "Perencanaan Prodksi dan Pengendalian Persediaan," p. 236, 2018.

- [7] Sucipto, "Perancangan Active Database System pada Sistem Informasi Pelayanan Harga Pasar," Jurnal INTENSIF, vol. 1, no. 1, 2017.
- [8] A. Hendini, "PEMODELAN UML SISTEM INFORMASI MONITORING PENJUALAN DAN STOK BARANG (STUDI KASUS: DISTRO ZHEZHA PONTIANAK)," 2016.
- [9] M. Ramdhani Yanuarsyah and R. Napianto, "ARSITEKTUR INFORMASI PADA SISTEM PENGELOLAAN PERSEDIAAN BARANG (STUDI KASUS: UPT PUSKESMAS RAWAT INAP PARDASUKA PRINGSEWU)," Jurnal Teknologi dan Sistem Informasi (JTISI), vol. 2, no. 2, pp. 61–68, 2021, [Online]. Available: <http://jim.teknokrat.ac.id/index.php/JTISI>
- [10] M. Destiningrum and Q. J. Adrian, "SISTEM INFORMASI PENJADWALAN DOKTER BERBASIS WEB DENGAN MENGGUNAKAN FRAMEWORK CODEIGNITER (STUDI KASUS: RUMAH SAKIT YUKUM MEDICAL CENTRE)," 2017.
- [11] M. S. Mustaqbal, R. F. Firdaus, and H. Rahmadi, "PENGUJIAN APLIKASI MENGGUNAKAN BLACK BOX TESTING BOUNDARY VALUE ANALYSIS (Studi Kasus : Aplikasi Prediksi Kelulusan SNMPTN)," 2015.