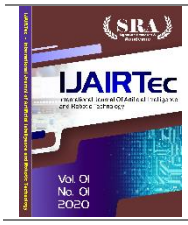

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MOBILE-BASED VACCINATION DATA COLLECTION APPLICATION IN SUKADADI VILLAGE

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Abstract
Vaccination data collection in Sukadadi village is a very important thing to record every resident who has and will carry out vaccinations to overcome and prevent the spread of the COVID-19 virus. Previous research has produced an application that can help the process of collecting vakksination data and contact tracing more accurately and on time and flexibly can be updated in real time so that the process of collecting vakksination data and contact tracing can be accessed by residents and local village officials This research aims to help residents of Sukadadi village in collecting vaccination data that will and has been carried out by local residents using the system Recently, village officials and medical officers in Sukadadi village will find it easier to collect data quickly and computed so that the data produced is more accurate, precise and can be accessed by the community.

I. INTRODUCTION

Covid-19 is a deadly virus virius originating from China which spread throughout the world in a very short period of time Covid-19 is the most devastating disease ever. According to the World Health Organization (WHO) officially declared that covid-19 has spread widely in the world. Globally as of November 29, 2021, there were 260,867,011 confirmed cases of COVID-19, including 5,200,267 deaths, reported to who. As of November 25, 2021, a total of 7,702,859,718 vaccine doses have been administered [1]. This pandemic presents a challenge for society and the economy. in PERMANKES, it is stated that the implementation of vaccination to all Indonesian citizens in the context of overcoming the Covid-19 pandemic NO 10 OF 2021 vaccine is a biological product that contains micro-organism antigens that have been benigned or are still alive.[2] The implementation of the Covid-19 vaccination aims to reduce transmission, reduce exposure

rates and mortality rates. protecting the public from the covid-19 virus and to keep people productive. [3]

According to research conducted by Hilma ratna fatmawati (2021) by utilizing technology, it can make it easier for the management of rw05 pondok sani putra in collecting vaccine data more efficiently.[4] According to research conducted by Francis ganggur (2019) application for data collection of official workers and transmigration of the District, Manggarai makes it easier to collect vaccination data to employees in the service.[5]. According to research conducted by Novianti (2021) web-based data collection of residents in Salatiga village is used to add data to villagers so that they can adjust existing data to be more accurate.[6] According to research conducted by Nilawati (2021) research on the application of vaccine and chicken data collection information systems at PT. Nilawati (2021) Sejahtra Sebapo II Success Egg designed using softwere VB.6.[7]. According to research conducted by Asep Hardianto (2020) the application of population data processing in Kaduronyok Kec village, Cisata, Pandegelang Regency has been built well.[8]

Based on the research above, by applying the web-based vaccination data collection information system method, it will facilitate the data collection of Sukadadi villagers in carrying out the vaccinations that have been recommended and as a government program. Previous research has produced vaccine data collection applications that can be used properly but the access provided is very limited and mobility is low. Based on previous research with the use of a well-computerized data collection system, it will help everyone in carrying out the data collection process besides that the costs incurred are relatively low, can be accessed in various areas and a fairly short time and high mobility. The advantages of the system designed this time are that it is easier to use, the new data can be in real time in the update and a more complete menu.

This time, researchers will design and make applications that are easy to access, high mobility and can be used as an example of other villages in carrying out the covid-19 data collection process and vaccination data collection.

The number of residents in Sukadadi village turned out to be a problem in collecting data on residents who had or had not been vaccinated. By utilizing information technology that can be accessed by residents and can be updated in real time and easy operation is expected to help the data collection of residents in Sukadadi village in carrying out the vaccination process that has been recommended by the government where this system has been widely used to carry out large-scale data collection so that the data collection process runs well, accurate, and reliable.

The purpose of creating a web-based vaccination data collection system in Sukadadi village is to make it easier for Sukadadi village officials to collect data on residents who have or have not been vaccinated, besides that the researcher also intends to help modernize the existing system so that this latest system is more accurate, fast, cost-effective, and can be updated and accessed by the public so that the data will be more accurate with the help of residents in the data collection process.

II. RESEARCH METHODS

Sistem Development Life Cycle (SDLC)

In this study, the method used is a development lifle cycle system through a waterfall model approach in the sense of a cyclical approach where the sequence is interconnected with each other so that the desired results will be in accordance with the needs of the user or client, the steps of the sdlc anataralain system process as shown below:

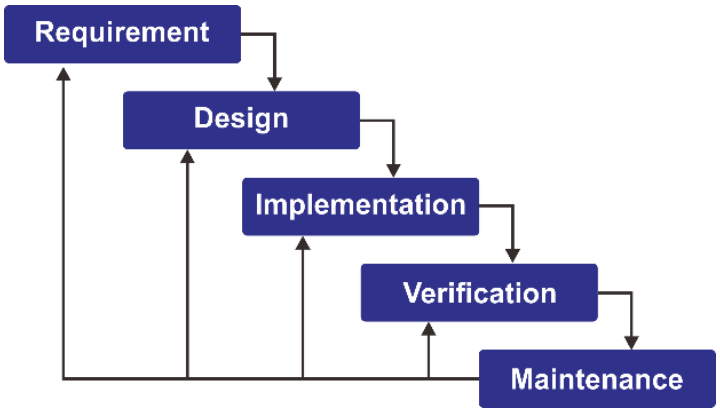

Figure 1. SDLC process with Waterfall approach

Requirement
At this stage the Researcher explores the needs of the system desired by the user. The results that can be obtained will be written in detail and structured to meet the needs of users.
Design
At this stage the researcher makes a design design a work program in which the design that can be implemented after it is implemented into the system. A context diagram is the smallest or lowest image in the process flow structure that depicts the system interacting with external entities.

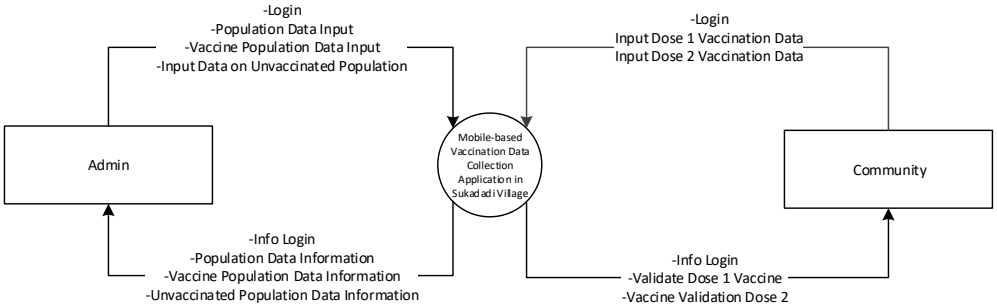

Figure 2. Context diagram

The system has 2 external Admin and Resident Entities. The admin logs in the system and inputs resident data by making the resident's NIK into a username and password to be used by residents. Residents log in to the system and input dose 1 and dose 2 vaccination data by inputting the Date of Vaccine and the Type of Vaccine used and uploading a picture of the vaccine certificate. The admin recapitulates the data and then updates the data of residents who have been vaccinated and who have not been vaccinated into the system.

Context Diagram Derived Hierarchy

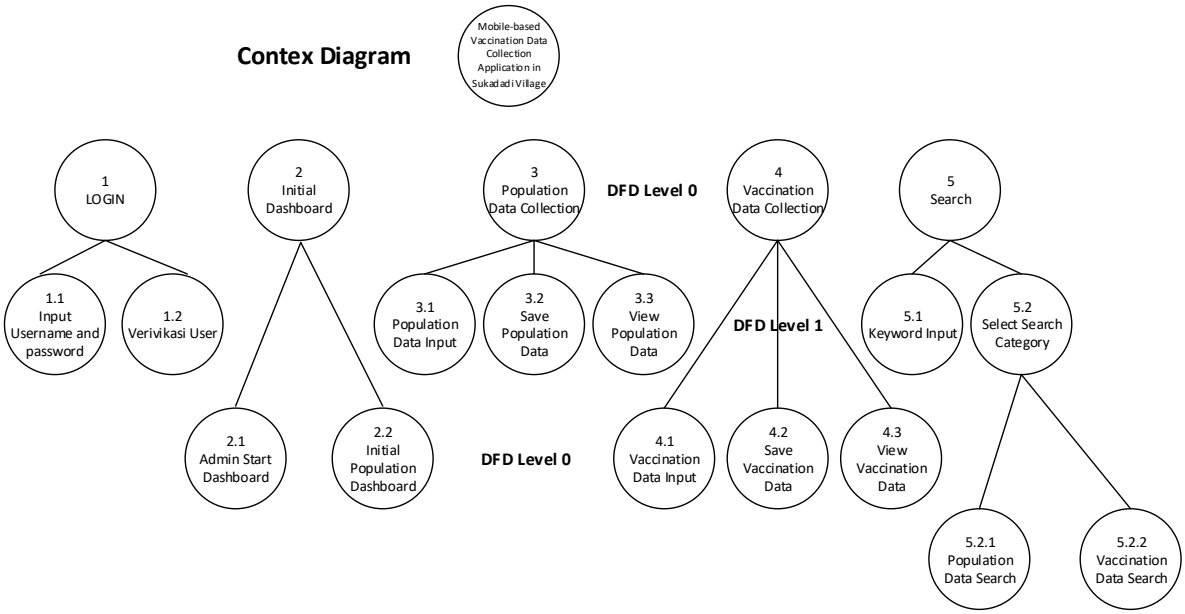

Figure 3. Context Diagram Derived Hierarchy

DFD Level 0

DFD level 0 is a further stage of the Context Diagram, where the Overall System contained in the Context Diagram will be divided into processes accompanied by a data store .

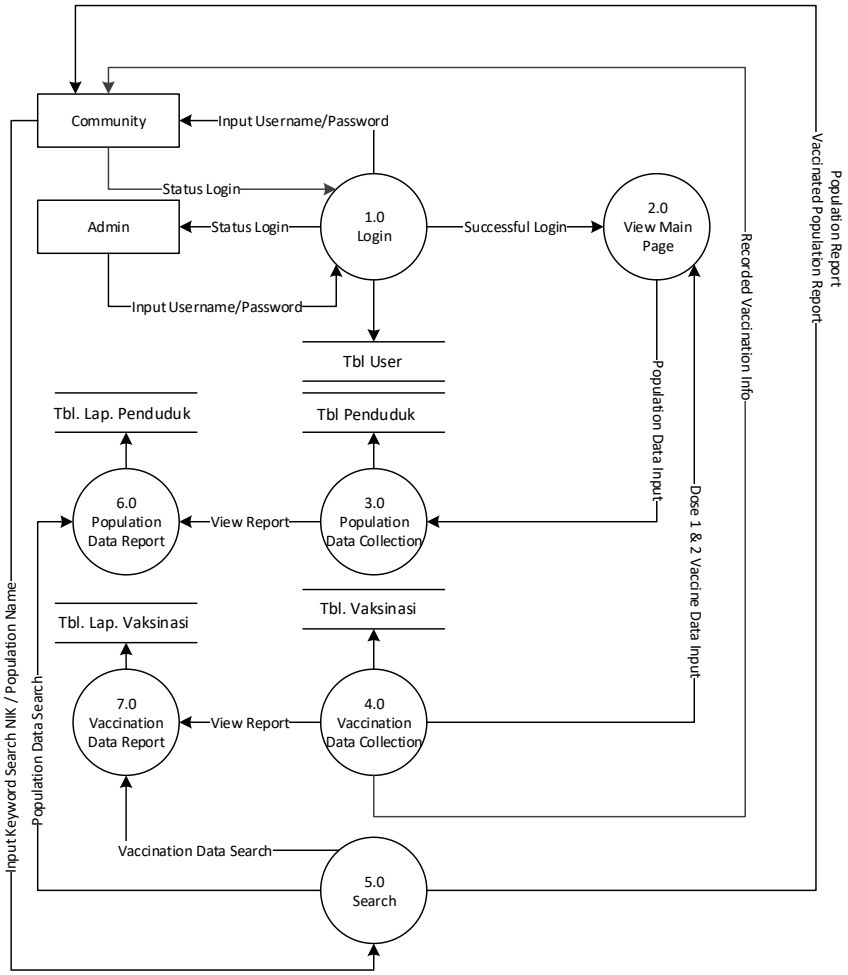

Figure 4. DFD Level 0

DFD Level 1

DFD level 1 is the stage after DFD level 0, All processes in DFD Level 0 will be detailed in more detail and details and processes will be divided into several sub-processes. This DFD Level is the first stage where the sub-process of residents and admins log in to the first display in the form of inputting usernames and passwords then will be verified by the user.

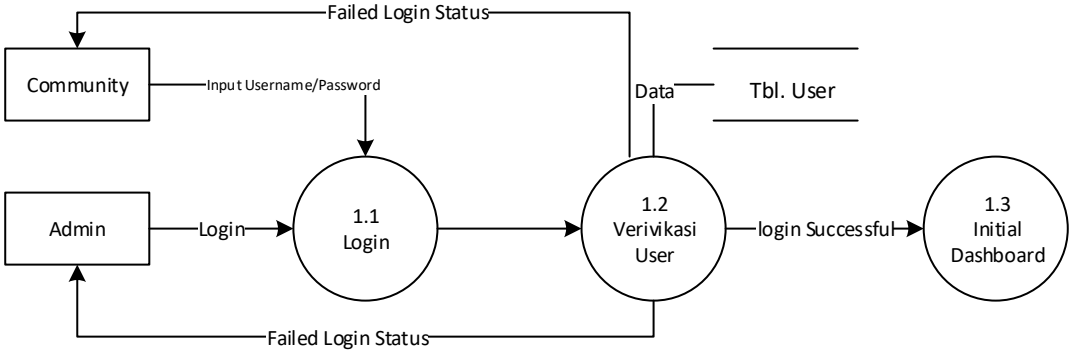

Figure 5. DFD Level 1 Login Process

DFD Level 1 Process 2 (Initial Dashboard) At level 1 of process 2, a preliminary display will appear. Which is an initial view for admins and residents.

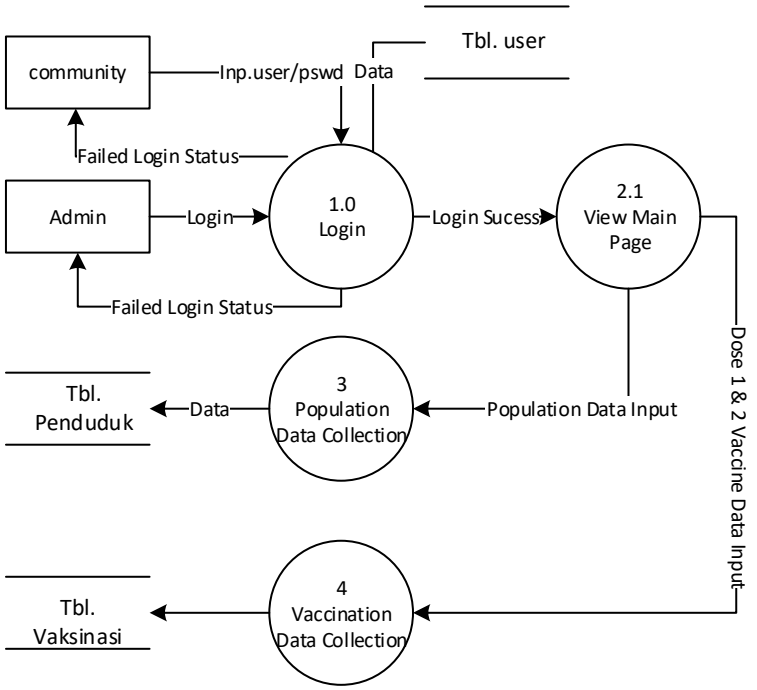

Figure 6. DFD Level 1 Initial Dashboard Process

DFD Level 1 Process 3 (Population Data Collection) At level 1 of process 3, the admin performs population data collection such as: input population data, save population data then the admin sees population data

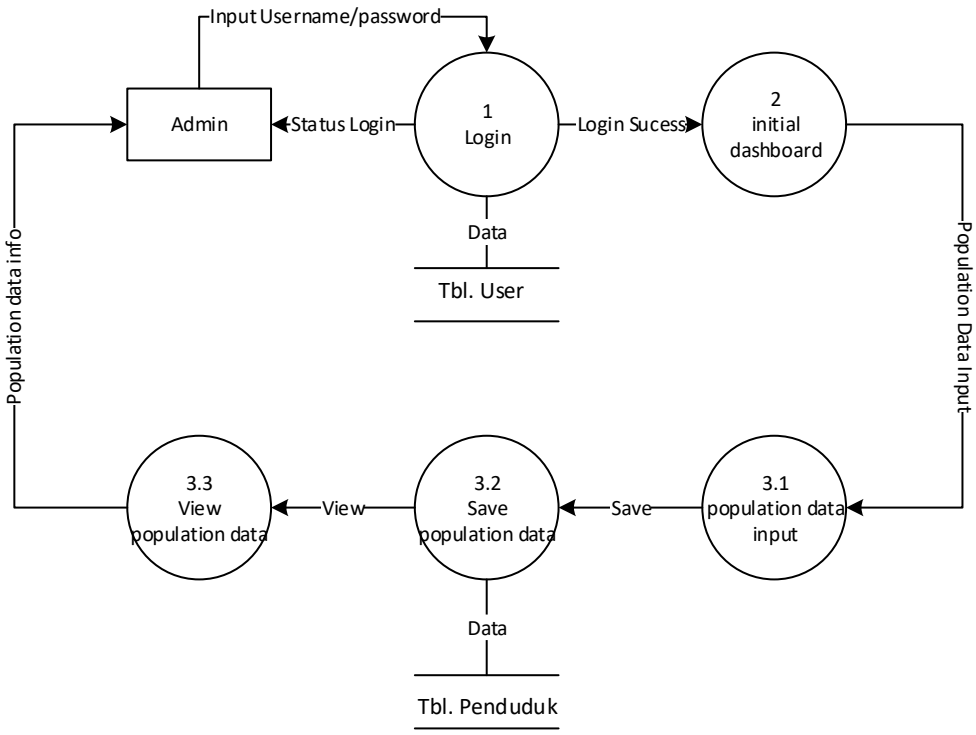

Figure 7.DFD Level 1 Population Data Collection Process

III. RESULTS AND DISCUSSION

3.1. Design system

In building and designing a vaccination data collection application in Sukadadi Village, it refers to a concept, among others, as follows:

a) Main Menu

This design describes when users will enter the vaccination data collection application in Wono Dadi Village, including the following :

Figure 8. Main menu design and admin login

c) User Login Menu

The design of the user or user login menu is used by the user or villagers of Sukadadi to find out the people who have vaccinated.

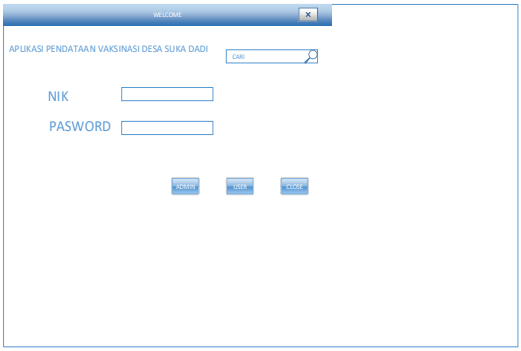

Figure 9. User login menu design

3.2. Implementation

Implementation is a system design that has been made and poured it in a work system or commands in a computer for the following is the result of the implementation that has been designed, among others, as follows:

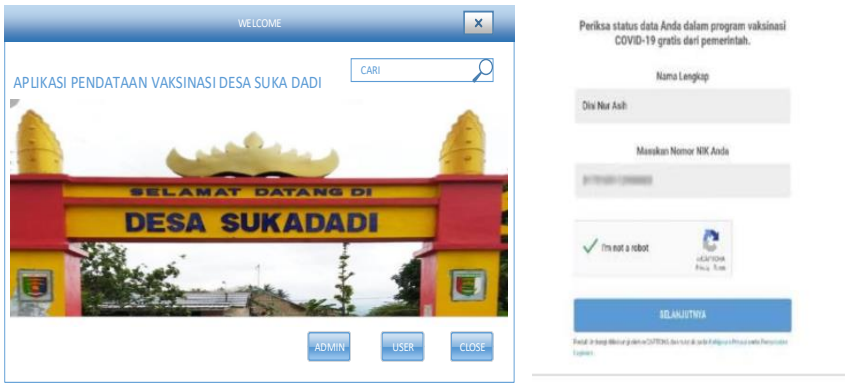

Figure 12. Main Menu and Vaccine Print

The menu of this page describes when users or residents when they want to check the status of vaccinations that have been done. In this menu, it shows the history of vaccines that have been carried out starting from the first dose and the second dose.

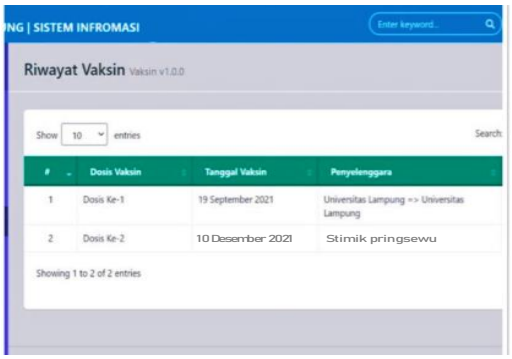

Figure 10. Vaccine history data

IV. CONCLUSION

Based on the results of the Research on vaccination data collection applications in Sukadadi Village based on the Mobile web is to create and design a web-based vaccination data collection system in Sukadadi village This application can make it easier for the village to collect data on people who have vaccinated and every resident can access and see the data of residents who have obtained the vaccine, besides that the data collection process carried out is faster and can be updated realtime and can be accessed in various places. By implementing the latest system replacing the existing system, it is able to speed up the data

collection process and data can be updated in real time based on the latest data. Based on the results of the discussion and design of the vaccination data collection application in Sukadadi Village based on the Web Mobile application that was built by MASI has several shortcomings. it is suggested that researchers or readers who will be dating to be able to develop a better vaskin data collection application.

REFERNCES

[1] H. R. Fatmawati, W. Suryani, D. S. Sari, and N. Rahayu, "Pendataan penerima vaksin covid-19 pada rw 05 pondok sani putra berbasis web," vol. 1, no. 3, pp. 100–108, 2021, doi: 10.36418/comserva.v1i3.15.

[2] F. Z. Ganggur, Y. Malelak, S. Informasi, and S. Informasi, Website aplikasi berbasis website pendataan pencari," vol. 3, no. 1, 2019.

[3] W. N. Dewi, A. Sulhan, and D. F. Santhia, "KEDAWUNG BERBASIS WEB (STUDI KASUS : POLSEK KEDAWUNG)," vol. 9, no. 2, pp. 225–236, 2019.

[4] P. Noviyanti, "Pendataan Penduduk pada Desa Salatiga Kecamatan Mandor Kabupaten Landak Berbasis Website," vol. 1, no. 1, pp. 29–36, 2021.

[5] M. R. Julianti, M. I. Dzulhaq, and A. Subroto, "Sistem Informasi Pendataan Alat Tulis Kantor Berbasis Web pada PT Astari Niagara Internasional," vol. 9, no. 2, 2019.

[6] H. Nugroho and T. Rohimi, "Perancangan Aplikasi Sistem Pengolahan DataPenduduk Dikelurahan Desa Kaduronyok Kecamatan Cisata , Kabupaten Pandeglang Berbasis Web," vol. 8, no. 1, pp. 1–15, 2020.

[7] B. Web and D. I. Kelurahan, "3 1,2,3," vol. 3, no. 2, pp. 342–348, 2021.

[8] K. Yuliana and M. Afiffudin, "Rumusan Masalah Berdasarkan latar belakang di atas , maka penulis merumuskan beberapa masalah sebagai," vol. 3, no. 2, pp. 190–207.

[9] A. Magfirah, M. Arsyad, and A. Banjari, "APLIKASI PENDATAAN SISWA DAN ALUMNI PADA MADRASAH TSANAWIYAH NEGERI 3 HULU SUNGAI TENGAH BERBASIS WEB."

[10] A. Science, "Sistem Informasi Vaksinasi," vol. 6, no. 1, pp. 132–147, 2020.

[11] D. Sebagai, S. Menyelesaikan, M. Kuliah, and P. Kerja, "APLIKASI PENDATAAN KARYAWAN PADA PT . DHD," 2021.

[12] M. N. Ridwan, "APLIKASI PENDATAAN SAPI DAN KERBAU DI UPTD RUMAH POTONG HEWAN (RPH) KOTA BANJARMASIN BERBASIS WEB."

[13] F. Ekonomi, U. Pasir, K. Devi, and K. K. Pendataan, "Abstrak : Pendataan beasiswa Aplikasi Pendataan Mahasiswa Penerima Beasiswa Berbasisi Web Pada Fakultas Ekonomi Universitas Pasir Pengaraian," vol. 05, no. 02, pp. 116–129, 2019.

[14] I. Suana, "SISTEM INFORMASI DATA VAKSIN DAN PAKAN AYAM PADA PT . TELUR SUKSES SEJAHTERA SEBAPO II MENGGUNAKAN SCAN BARCODE," pp. 1–5, 1907.

[15] R. Kurniawan, E. U. Artha, and F. M. Wibowo, "Sistem Informasi Vaksinasi Pada Balita Menggunakan Metode Waterfall," pp. 34–39.