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WEB-BASED HONEY HARVEST SCHEDULING IN THE MUARO BOTUAK JAYA (MBJ) GROUP

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Abstract

This research is motivated by the mechanism of the conventional honey harvesting system. The harvest schedule is carried out irregularly, resulting in honey that is less than the quality and quantity. Usually this problem can be resolved with an integrated information system that is effective and efficient in managing harvest scheduling.

Systems Development Life Cycle (SDLC) SDLC method with a waterfall model approach. The design tools used in this information system are UML, which consists of usecase diagrams, class diagrams, sequence diagrams, activities, collaboration diagrams, implementation. The application used is My SQL database and the PHP programming language.

The design of this system produces an information system in the form of a honey scheduling website for the Muaro Botuak Jaya group which was previously written manually to carry out scheduling and with this website the MBJ group can carry out scheduling more effectively and efficiently.

Web-Based Honey Harvesting Scheduling System in the Muaro Botuak Jaya (MBJ) Group was built to overcome scheduling problems in the Muaro Botuak Jaya (MBJ) Group, Design of a Web-Based Honey Harvesting Scheduling System in the Muaro Botuak Jaya (MBJ).

A. Introduction

The use of technology provides great benefits to the competitive business world. Companies that can compete means that they can implement technology in their company's activities. The technology implementation in question is maximizing the use of technology in honey harvest scheduling. The objective is to predict the right harvest time to obtain good quality honey when breeding honey boars. Harvest timing greatly influences harvest results in terms of quality and quantity of honey collected. Late harvesting, in bad weather, often produces honey of poor quality and in small quantities. If the quality and quantity of the honey harvest is not good, less clean honey will be produced, so not much honey will be processed and too much propolis will be incorporated into the honey.

To maintain the quality of kelenceng honey, the harvest target here tends to be 30 days per harvest. The mechanism of the honey collection system currently used is still conventional. Apart from that, the harvest is carried out on an irregular schedule so that the honey harvest is less than the usual quality and quantity. This is due to the lack of attention to regular harvests in a period that does not comply with the regulations. The honey harvest scheduling application running on the website platform is considered effective and efficient in producing high quality harvests, so that you can produce quality honey harvests, resulting in billing on honey harvest scheduling. the honey harvest. According to Helwig (2021), the website platform is considered very effective in providing information to its users, so that it can make it easier for them to find the information they need.

Along with the development of technology, these problems can be solved with the existence of an information system that has many advantages, including increasing work productivity by saving time, minimizing errors that usually occur in honey collection, using a website, provide times and duration. harvesting, increasing productivity, improving communication and operational speed. The collected data is used for future reference to facilitate honey harvesting, analysis and creating useful reports. Based on this description, this research was carried out to design and implement a honey harvesting application that can predict an accurate honey harvesting schedule. With an accurate honey harvest scheduling app, you can prepare production needs in advance for maximum results. Websites can improve services to the public so that public information can be accessed easily and accurately (Jimi, 2019).

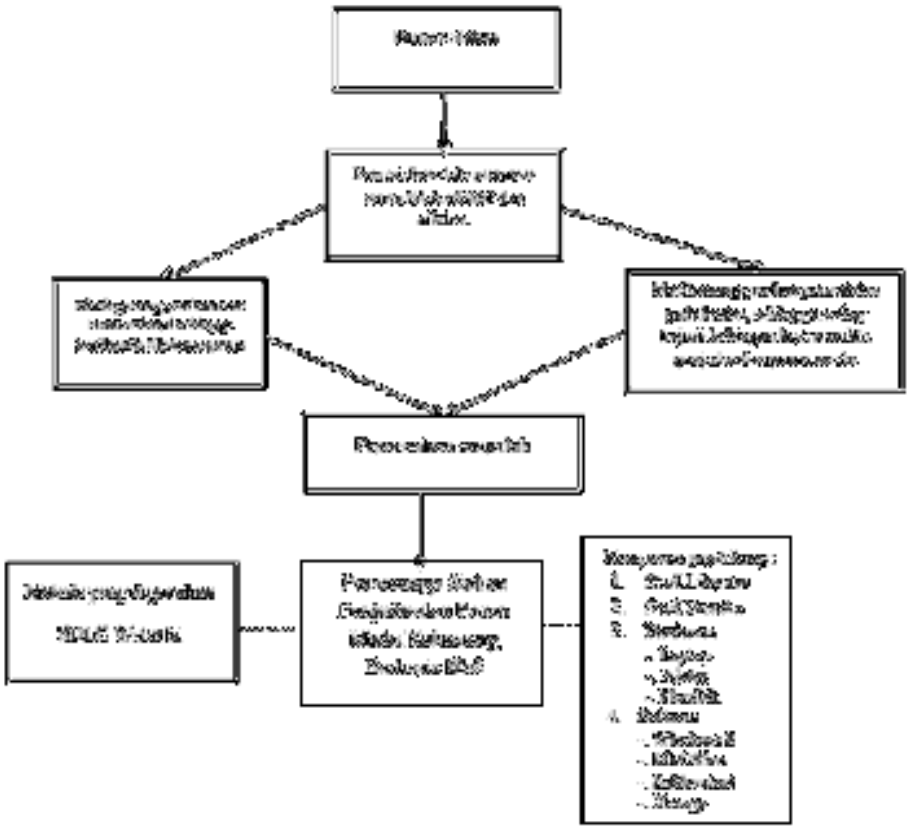

Figure 1. Mind Mapping Designing a Web-Based Klanceng Honey Harvest Scheduling System

B. Research Methods

SDLC (Software Development Life Cycle) is the process of developing or changing a software system using models and methodologies that people used to develop previous software systems (based on best practices or methods that have been well tested).

The SDLC method is a software development model that uses several specific stages, namely: Planning Phase, Analysis Phase, Design Phase, Implementation Phase, Use Phase.

SDLC are the stages of work performed by systems analysts and programmers in building information systems. There are 6 general stages in SDLC, namely system analysis, system requirements specification design, system construction, system implementation, system testing, and system maintenance (Lucini, 2021).

C. Results and Discussion

Running System Procedures

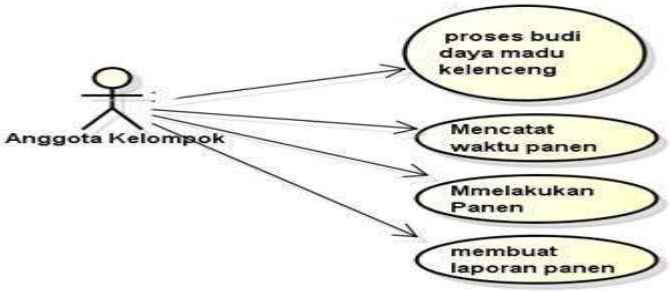

Figure 2. Current Use Case Diagram

The use case narrative can be seen in table 1.

Table 1. Explanation of Running Usecases

Picture	***Explanation***
Members of the group	*Carry out the process of recording the honey start schedule, then record the harvest schedule and prepare a report on the kelengeng honey harvest schedule.*
View Schedule	*View the honey harvest time schedule.*
Carry out the cultivation process	*See which boxes will have to be harvested.*
Record harvest time	*Honey that has been harvested will be recorded at the next harvest time.*
Doing the harvest	*Honey that is mandatory for harvesting will be harvested by the Muaro Batu Jaya group.*
Make harvest reports	*Make a report on honey that has been harvested.*

The current working procedures of the system are as follows: Carry out the schedule registration process, starting with the placement of the kelanceng bee record, then record the harvest schedule, and make a report on the harvest schedule of kelanceng honey .

Usecase of the Proposed System for Honey Harvest Scheduling

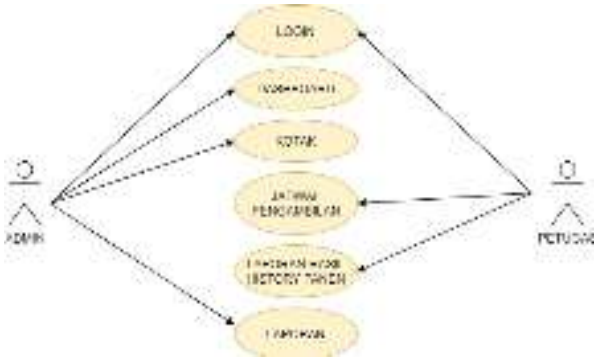

Figure 3. Use Case Diagram of the Designed System

Proposed Usecase Components, as follows :

Table 2. Actor Table

Picture	***Explanation***
Admin/Owner	*Admin is the one who controls the entire system workflow which will be done by logging in first, viewing Home, importing boxes, viewing the harvest schedule and viewing reports.*
Officer	*The officer functions as a schedule maker for the Klanceng honey harvest, making reports on the honey harvest.*
Login	*Actors who will enter the system must log in first*
Home	*Overwiew of the initial website display page.*

Table 3. Actor Function Table

Picture	***Explanation***
Input Box	*How many and how many boxes of Honey Klanceng are collected?*
Pick-up schedule	*Which functions to input the honey harvest schedule?*
Report	*Make a report on the results of the honey harvest that has been carried out.*

Class Diagram

In software modeling, a class diagram is a type of diagram used to describe the static structure of a system or application being developed. Class diagrams show a visual representation of the classes in the system, as well as the relationships and interactions between these classes. Class names, attributes, and methods are the three main components of a class diagram.

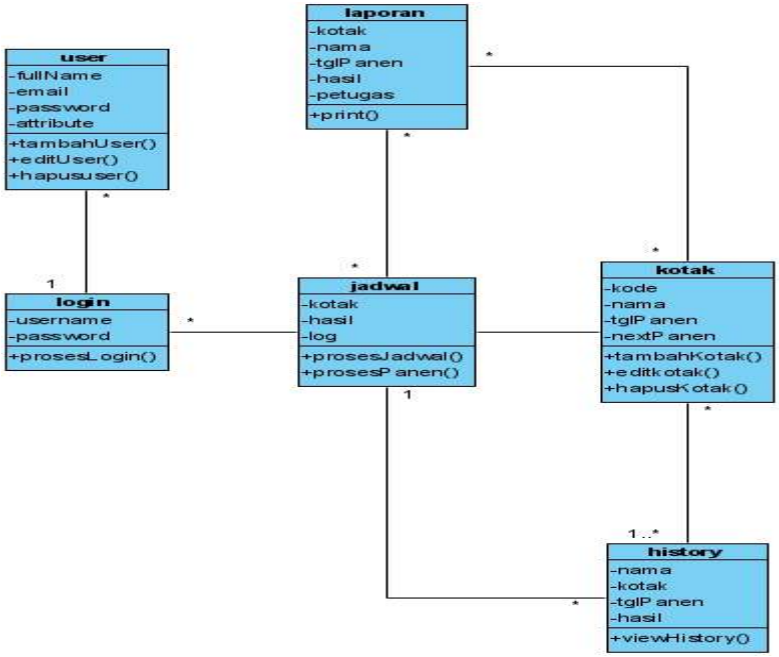

Figure 4. Class Diagram

Sequence Diagram

In software modeling, a sequence diagram is a type of interaction diagram used to show the sequence of interactions between objects in a system or application. Sequence diagrams show a visual representation of messages sent between objects over a period of time and represent the execution flow of a scenario or process.

In a sequence diagram, each object is represented by a vertical box located on a timeline, representing a sequence of times from top to bottom. Additionally, the horizontal arrows connecting each object indicate the messages sent between them, and the arrows indicate the direction. of the flow of messages from the sender object to the receiver object.

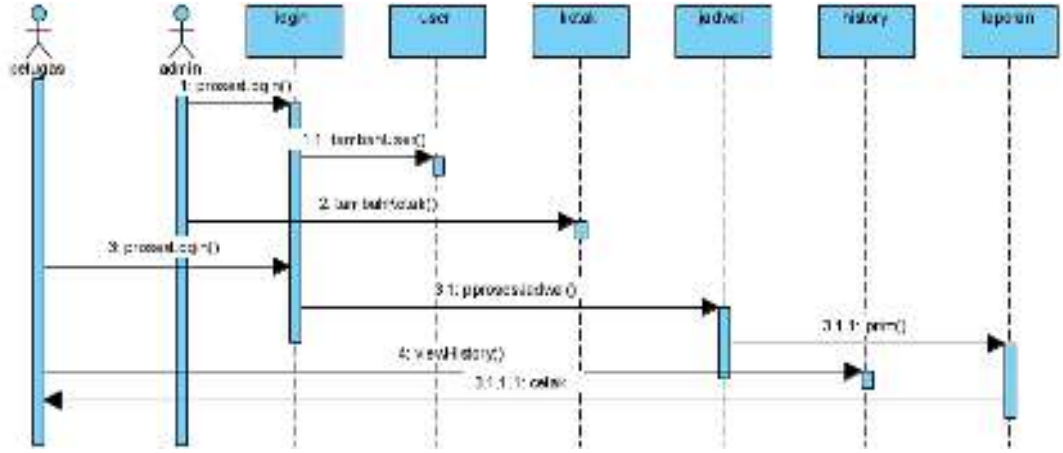

Figure 4. Sequence Diagram

Activity Diagram

In software modeling, a behavior diagram is a type of diagram used to show the workflow of a process, activity, or function in a system or application. This diagram shows a visual representation of the sequence of activities, decisions, and control flow involved in a scenario or process.

In an activity diagram, each activity is represented by a box that has the name of each activity. The arrows connecting each activity indicate the flow of control and order of execution for that activity.

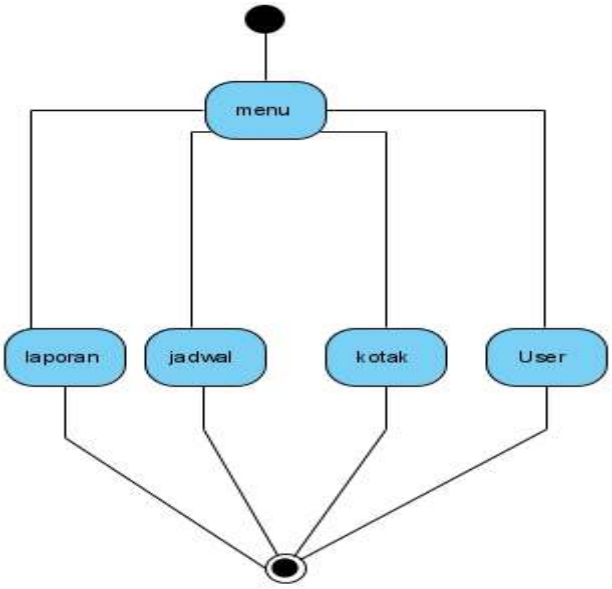

Figure 5. Activity Diagram

IMPLEMENTATION AND TESTING

1. *Login Page*

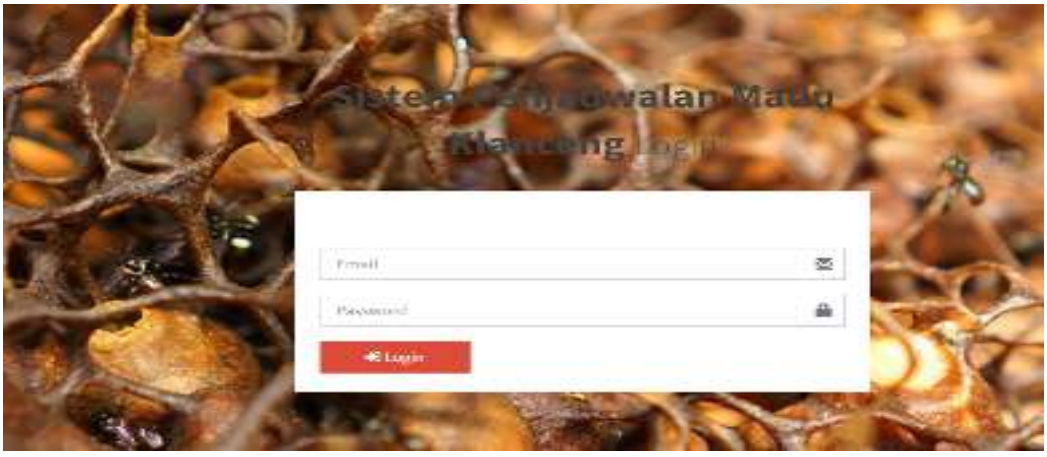

Figure 6. Login Page

The login page is the page that users use to enter the system.

2. *Dashboard Page*

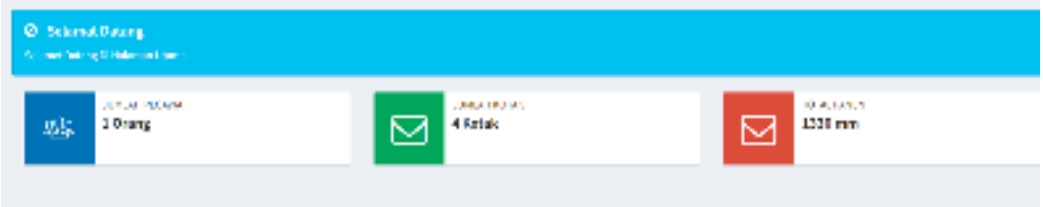

Figure 7. Dashboard Page

The dashboard is a page that appears after the user logs in with a registered account. The dashboard displays menus that can be accessed.

3. User Data Management

Figure 8. User Data Management

User data management is a user data management page that can be accessed by the admin.

4. Box Page

Figure 9. Box Page

The box data menu is a page that can be accessed by the admin to manage honey box data.

5. Reports Page

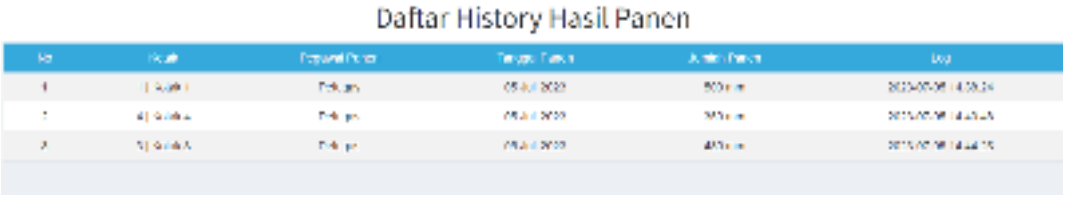

Figure 10. Reports Page

The report data page displays the history of honey harvest reports carried out by officers. This menu can be accessed by the admin.

6. Harvest Page

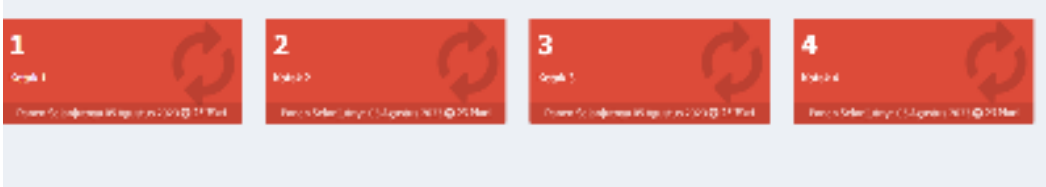

Figure 11. Harvest Page

The harvest page is a menu that displays all the harvest box data in the system.

D. Conclusion

Based on the entire discussion on the design of a web-based honey harvest scheduling system for the Muaro Botuak Jaya (MBJ) group, several conclusions can be drawn, including that the design of a web-based honey harvest scheduling system Web-based honey for Muaro Botuak Group Jaya (MBJ) was created to overcome programming problems in Muaro.botuak Group Jaya (MBJ). Designing a web-based honey harvest scheduling system for the Muaro Botuak Jaya (MBJ) group can produce an accurate and registered scheduler.

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