

Designing an Information System for Recording Assets (Equipment) and Lending of Goods UHAMKA Information Technology Development Agency

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ABSTRACT: The development of Information Technology makes it very easy for jobs that require data processing, recording and other matters related to information systems. The recording system at the UHAMKA Information Technology Development Agency still uses manual methods, such as writing in books and printing using a printer, this is very dangerous if the book or paper is exposed to water or torn. Therefore, this research was designed to design an information system for recording assets and borrowing goods for the web-based UHAMKA information technology development agency. The methods used are observation and interviews as well as library research. This recording system provides views, the number of items, item data, borrower's personal information, the date of the loan and the date of return.

KEYWORDS: Multimedia Equipment; Recording information system; web.

I. INTRODUCTION

The development of information technology is inseparable from the rapid development of computer technology, this is because the demands of work are so heavy that it requires us to be able to work more easily, efficiently and save time[1][2][3]. In the case of work that requires convenience in doing something such as work with a lot of data, of course the computer plays an important role[4][5][6]. Today, the majority of all activities use information technology aimed at facilitating all forms of

work[7][8] large and small businesses both in public and private institutions[9]. The existence of Information Technology is very helpful for agencies, organizations or companies in obtaining information[10][11]. Assets are important in terms of supporting the movement of an organization. Assets can be in the form of goods, human resources and money[12]. Assets are an important part in supporting the movement of an organization or agency. Assets consist of two types, namely fixed assets and current assets. Fixed assets are assets that have benefits for more than one year and current assets for less than one year[13].

Inventory of goods, namely activities to arrange goods, record goods or materials[14]at an instance[15]exist correctly, the purpose of the inventory of goods is to facilitate the implementation of supervision or control activities, both in the use of goods and in assessing the responsibility for maintaining and saving the organization's property. Inventory, namely the activities or actions of recording, calculating existing assets in agencies, managing assets and reporting assets[16]. Inventory also carries out the process of managing procurement or inventory of goods owned by an agency to carry out its activities[17].

In this case the focus of research is on assets in the form of tools or goods. The recording system carried out by the UHAMKA Information Technology Development Agency is related to the list of goods or equipment owned and the borrowing records are still ancient, still using the

manual method, namely by using book records, printing paper and storing them in Microsoft Office or Microsoft Excel files. In connection with manual notes, which still use books, they are very prone to damage and it is difficult to find the pages, as well as the results of the printed note paper, which is also susceptible to water and is also easily torn. Recording using Microsoft Office and Excel is very unfriendly and it is also difficult to find items and it is too difficult to record tools that are still borrowed by units, faculties, Manual strategy, obviously takes quite a long time and requires a lot of energy and lacks in writing stuff, while web-based computerized techniques are more efficient and productive[18]. What makes this research different[6][14]. namely in this study there is a record of borrowing so that you can find out the remaining items and the research objects are different.

From the explanation above, the UHAMKA Technology and Information Development Agency really needs an application for recording inventory of goods or tools as well as those that can record borrowing and returning inventories of tools or goods. Seeing this problem, the authors designed and compiled concepts related to information systems for recording goods or equipment owned by the UHAMKA Information Technology Development Agency and borrowing data systems carried out by units, faculties and student institutions within UHAMKA. With the hope that the recording or inventory of goods and tools can be recorded neatly and loans can be accommodated properly and anticipate loss of goods due to loans that are not returned.

II. RESEARCH METHODOLOGY

This research is a type of descriptive qualitative research[19]. Qualitative research method is a research method used to research on natural object conditions where the researcher is the key instrument. Data collection techniques carried out by the author are interview techniques and observation techniques.

a. The interview technique was carried out by asking questions related to the recording of goods or equipment to the secretariat section

b. Observation techniques are carried out by observing or researching agencies, institutions or agencies.

1. Research object, the author conducted research at the UHAMKA Information Technology Development Agency on Jalan Tanah Merdeka, Ciracas, East Jakarta. Research is conducted to inventory goods or tools owned.

2. Problem Solving After getting the manual recording problem, the authors propose an alternative solution to the problem, namely by creating an information system for recording goods or equipment and recording items being borrowed or returned.

III. RESULT AND DISCUSSION

A. System Design Diagram

The design of this system is the stages that will be formed, in the form of a description of the goods or tools that are owned.

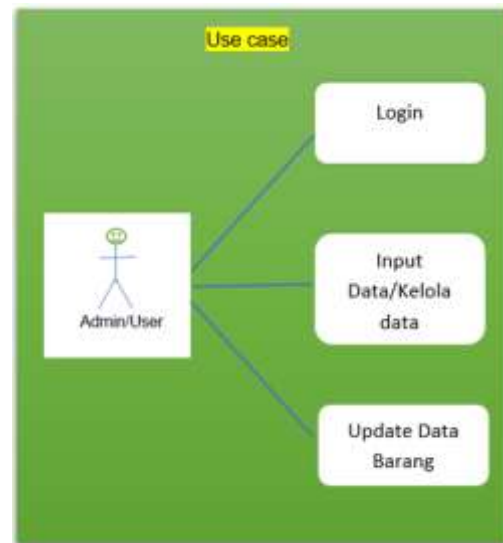


Figure 1. The proposed Use Case Diagram

Figure 1 shows that there is only 1 admin or user who is responsible for managing goods or tools.

Actor	Description
Admins/Users	Has a duty to record on the application system, namely data input and updating data on goods that have been borrowed or returned

Activity Diagrams (Activity diagram) is a diagram that describes the workflow of a system and can also be used to describe the flow of events.

B. Display Design

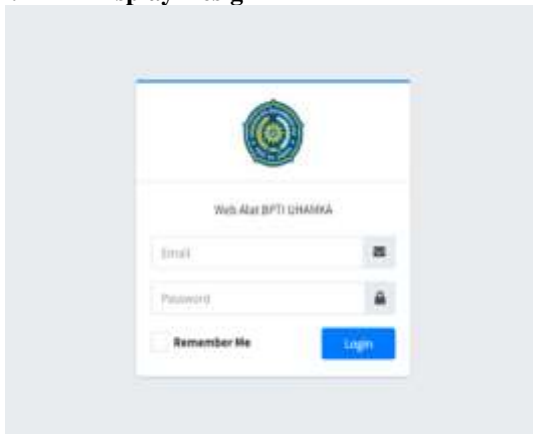


Figure 3. Login Display.

Figure 3 Visualizing the login menu, in the login menu there are email and password fields that must be entered to be able to enter the next page. After logging in the user will be taken directly to the Dashboard page 1 which can be seen in Figure 4.



Figure 4. Dashboard page 1



Figure 5. Dashboard 2

On the dashboard page or the main page of this application, the sidebar is made to collapse or close automatically. On the dashboard page there are two widgets that contain tool data and loan data, both of which have made direct links to the tool data table and the loan data table.

While in the sidebar there are 4 pieces of data, namely the dashboard to go to the dashboard page, tool data to go to the tool data table page, loan data to go to the loan data table. And logout to exit tool inventory app.

If the user interacts with the tool data widget or through the tool data sidebar, it will go to the tool data table page which can be seen in Figure 6.



Figure6. Tool data table page 1

On this page there is a table containing the number, tool name, stock, description, last updated, and the action which contains Edit and Delete. The data above is just an example.

Outside the table there is a search function that functions to search for data, then there is an 'Add +' button which will go to the tool data addition page as shown in Figure 7.

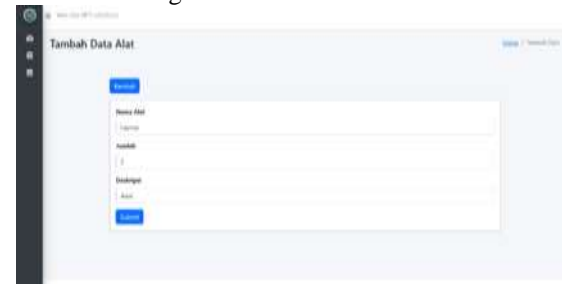


Figure 7. Add Tool Data page

On this page, there is a 'back' button which will perform an action that will bring the user back to the tool's data table. For the form, there is data entry for the name of the tool, amount and description. Then there is a 'Submit' button which will enter all the data entered in the form into the database. Here as an example the author will add data as shown in Figure 8. and the data entered will appear in the tool data table as shown in Figure 8.



Figure 8. Tool Data Table Page 2

An information balloon will appear in the form of 'Data successfully added' as before. Figure 8 and will display the data that was just entered in the data form.

In the action table there are two buttons in the form of Edit and Delete, both of which have their own functions. First the edit button will direct to the tool data edit page which can be seen in Figure 9

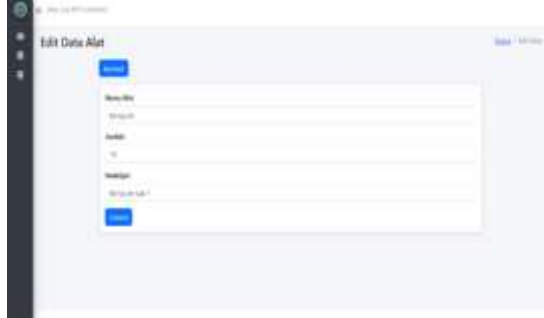


Figure 9. Tool Data Edit Page 1

The application will automatically retrieve the previous data. Here the author chooses data number 1 which contains the data in Figure 10. and as an example, the author will change the name 'Computer' to 'Mouse', 'total 10' will become 'total 5' and the description 'Computer Lab 1' will become 'Computer Lab 1' Logitech black'. As in Figure 10 which will produce data in Figure 11.



Figure 10. Data Edit Page 2



Figure 11. Tool Data Table Page 11

An information balloon will appear in the form of 'Data successfully updated' as shown in Figure 12 and will display the data that was just entered in the previous data form.

Then the Delete button will perform the function of dropping data from the database, or deleting data from the database.



Figure 12. Delete Tool 1 data

There are two options, namely cancel and OK, in order to minimize errors in deleting data, there is a cancel option so the data will not be deleted as shown in Figure 13 and will be deleted as shown in Figure 14 if you select OK.



Figure 14. Data does not get deleted



Figure 15. Successfully Deleted Data

C. Pages of Loan Equipment Data Tables

Alf the user interacts with the lending data widget on the dashboard or through the lending data sidebar, it will go to the lending data table page which can be seen in Figure 16

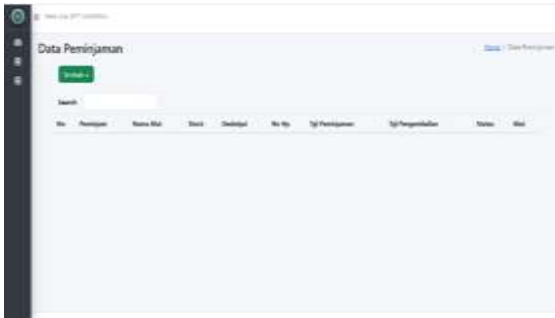


Figure 16. Loan Data Table

On this page there is a table containing the number, borrower, tool name, stock, description, cellphone number, loan date, return date, status and action. The search function functions to find item data or tools that have been entered. then there is an 'Add +' button which will go to the tool data addition page as shown in Figure 17.



Figure 17. Add loan data page

For an example, the current data and stock are in Figure 18. And will make a loan with data as shown in Figure 19.



Figure 18. Data before borrowing

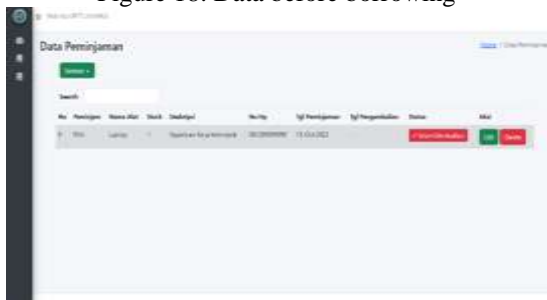


Figure 19. Borrowing data table page
 There is 1 empty table in the form of return date. What will be triggered if the user will return the tool by pressing the button has not been returned. As in figure 20.

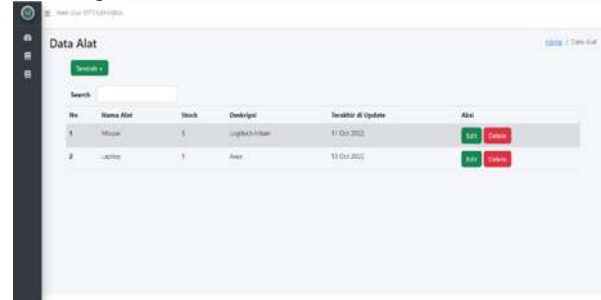


Figure 20. Borrowed data page

Laptop data that previously had 2 stocks is now reduced to only one stock when borrowing has taken place.



Figure 21. Data table after goods are returned

When the user presses the 'Not yet returned' button, there will be an action to change the name of the button to 'Already returned'



Figure 22. Data When all items have been returned

automatically populates the 'return date' table. And stock items will return to the way they were before they were borrowed.

IV. CONCLUSION

By designing a web-based application information system, it provides an understanding of the importance of this application because it is very helpful in terms of time and energy efficiency and makes it easier to record tools and goods at the UHAMKA Information Technology Development Agency.

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