DEVELOPMENT OF OFFICIAL TRAVEL WARRANT INFORMATION SYSTEM (CASE STUDY: BATUCEPER SUB-DISTRICT)

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Abstract
The development of Information Technology is currently felt in various fields, especially those related to computers. Technological developments also made several new innovations in the current era of globalization. Along with the development of technology, computers that were previously data processing tools systems have increase the capabilities. The usage of computers can increase efficiency and effectiveness in some jobs, so it is not surprising that many organizations or companies use official travel warrant. At Batuceper sub-district, in its office activities, official travel warrant is required when the employee will travel to a certain place. The existing system still using Word or spreadsheet application where the employee should edit the file where the employee want to travel and then input the file to Microsoft Excel, and it requires a lot of time. By making Information Systems of Official Travel warrant can facilitate users in making travel warrant, official travel receipts, official travel reports, recapitulation of official travel expenses, and better management of official travel.

Keywords: *Information Systems, Official Travel, Official Travel Warrant, Spreadsheet, Batuceper.*

1.0 INTRODUCTION

The development of Information Technology is currently felt in various fields, especially those related to computers [1]. Technological developments also made several new innovations in the current era of globalization, such as it can be used to manage company assets [2], and decision making [3].

Along with the development of technology, computers that were previously data processing tools systems have increase the capabilities. The usage of computers can increase efficiency and effectiveness in some jobs [4], so it is not surprising that many organizations or companies use official travel warrant [5].

At Batuceper sub-district, in its office activities, official travel warrant is required when the employee will travel to a certain place. The existing system still using Word or spreadsheet application where the employee should edit the file where the employee want to travel and then input the file to Microsoft Excel, and it requires more time.

2.0 THEORETICAL

A warrant is a letter containing an assignment to someone from an official who authorized carry out official duties. The assignment letter can be in the form of narration and in the form of columns or tables. Official travel is a trip carried out by employee or employee of an institution or company related to official work duties [6].

2.1. Related Works

The Regional Office of the Directorate General of Treasury does not have a special application that helps the Finance Department in managing official travel, so that it is needed

an official travel information system to process official travel management which is still done by recording using Microsoft Excel. With the existence of an official travel information system, it is expected to be able to assist the General Section and Finance Section of the Regional Office of the Directorate General of Treasury to make letters and or reports for official travel better, help oversee official travel activities, and assist in the process of checking official travel data [7].

The preparation of the Official Travel Warrant (SPPD) at Marine Research Center (Pusriskel) only use Microsoft Excel, and this was an obstacle because the average age of the employee working on the task was nearing retirement, so it is necessary to make a system that can facilitate work for employees [6]. Both of the above research can be considered as a reference and the closest in establishing Official Travel Warrant Information System.

2.2. Application Architecture

This application use PHP Programming and MySQL database. The application can be accessed via Internet so the employee can monitor the result anytime and anywhere
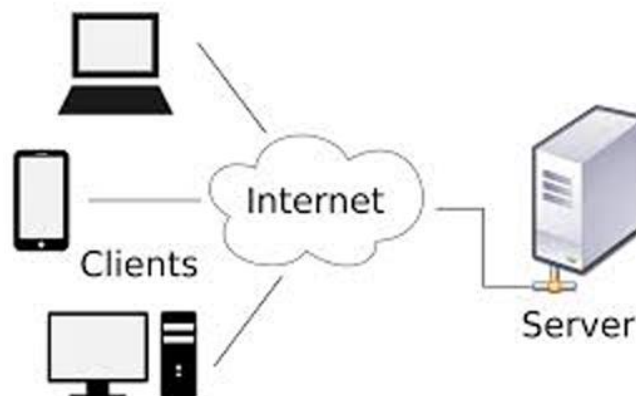

Figure 1. Application Architecture

Our propose system architecture are explain in figure 1. Admin submit the data to the server, and Employee receive data from the server and input the result of the office travel to the system, and print the report of the travel.

3.0 RESEARCH METHODOLOGY

A. Method of collecting data

This application use PHP Programming and MySQL database. The application can be accessed via Internet so the employee can monitor the result anytime and anywhere

1. Interview.

as a way to collect data by asking questions to the Head of General Sub-Division and Staffing to find out the process of official travel.

2. Literature study

The process of collecting data obtained by studying references, related scientific studies and literature reviews.

A. Analysis Method

Object Oriented Analysis (OOA) with UML were used as analytical techniques in this research.

B. Design Method

Object Oriented Design (OOD) approach were used as design technique.

C. Implementation

We are using PHP and MySQL to implement the design that previously made.

4.0 RESULANTS AND DISCUSSION

4.1. Analysis of Current System

Below is an analysis of the official travel system procedure in Batuceper sub-district.

1) Official travel warrant procedure.
   ➢ Head of sub district submit assignment warrant
   ➢ Secretary of Sub-district Head and Department of General Sub-Division and Staffing issuing Official Travel Warrant
   ➢ The finance department details the cost of official travel.

- Employees carry out official travel in accordance with the warrant letter.
- The employee make a report on official travel carried out.
- Secretary of Sub-district Head and Department of General Sub-Division and Staffing record data about expenses and results of official travel of employees into Microsoft Word
- At the end of each month the Secretary of Sub-district Head and Department of General Sub-Division and Staffing make Official Travel Warrant data reports to determine the total expenditure and the results of official travel.

Below is flowmap of running systems on Official Travel System activities at Batuceper Subdistrict.
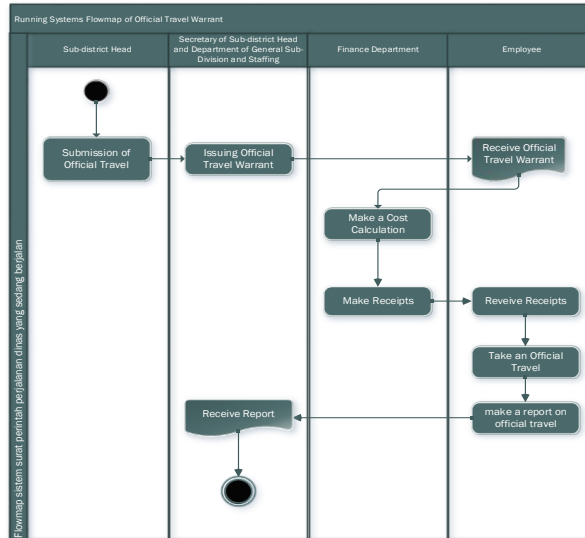
Figure 2. Flow Map of Running System

1. The sub-district head submits an assignment order.
2. Then the sub-district secretariat section and the general & staffing department produce an official travel duty warrant.
3. Then the finance department makes a breakdown of official travel costs.
4. Then the employee goes on a official travel in accordance with his assignment letter.
5. Then employees report from the results of official travel.
6. Then the sub-district secretariat section and the general & staffing department record data on expenses and the results of official travel to the employee in Microsoft Word.
7. Then at the end of each month the sub-district secretariat section and the general & staff section make an SPPD data report to find out the total expenses and results of official travel.

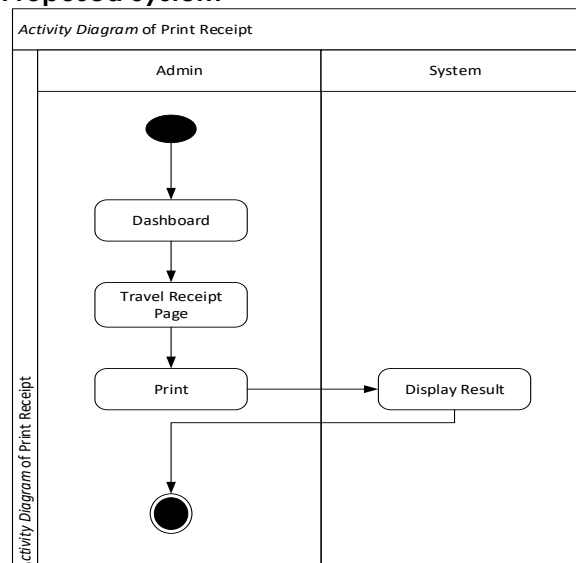## 4.2. Activity Diagram of Proposed System

Figure 3 Activity Diagram of Print Travel Receipt

The following is an explanation of the activity diagram accepting official travel receipts:
1. Employees access dashboard
2. Employees choose the official travel receipt menu, and the system displays official travel receipt data.
3. Employees see receipt of official travel receipt data, and choose print receipts.
4. The system will display a receipt for official travel
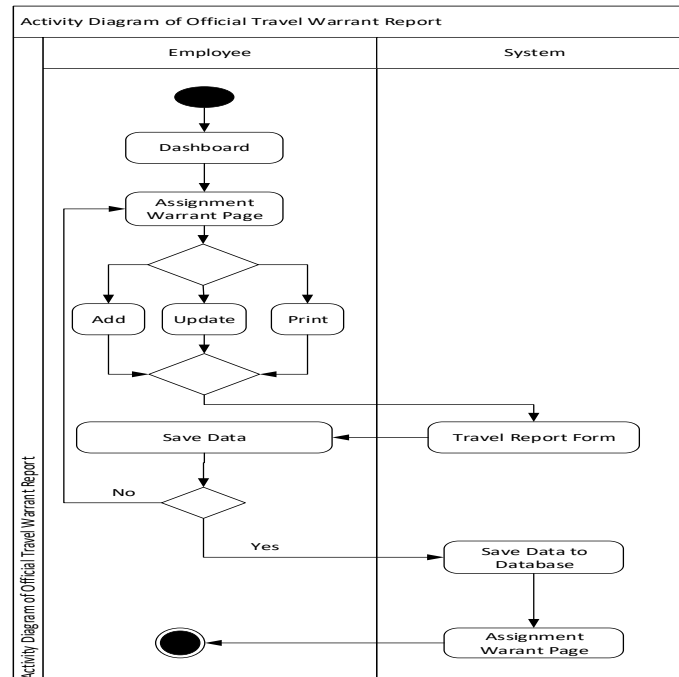5. The process is complete.

Figure 4 Activity Diagram of assignment warrant

The following is an explanation of the activity diagram from the official travel assignment letter:
1. Admin access the dashboard page
2. Admin selects the assignment warrant page
3. Admin choose whether to add, update, or delete data.
4. The system will display assignment warrant page
5. Admin will choose to save data, if the data is correct then the system will save to the database.
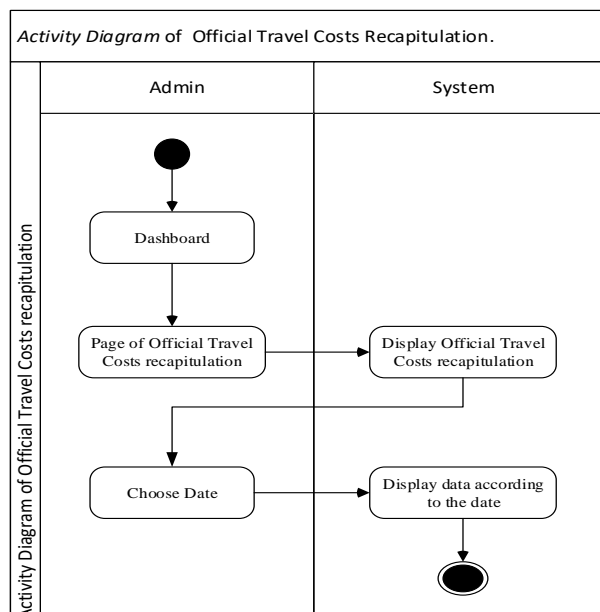6. The system will display an assignment warrant page

Figure 5 Activity Diagram of Official Travel Costs recapitulation

The following is an explanation of the activity diagram for the Official Travel Costs recapitulation.
1. Admin access the dashboard page
2. Admin chooses the Official Travel Costs recapitulation
3. The system displays the Official Travel Costs recapitulation form
4. Admin choose the date of Official Travel cost recapitulation
5. The system will check Official Travel cost recapitulation.

The use case diagram proposed on this website system consists of 2 actors namely Admin and Employee. Use case diagrams illustrate the relation between actor with the system. Following is the use case diagram for the official travel order systems.
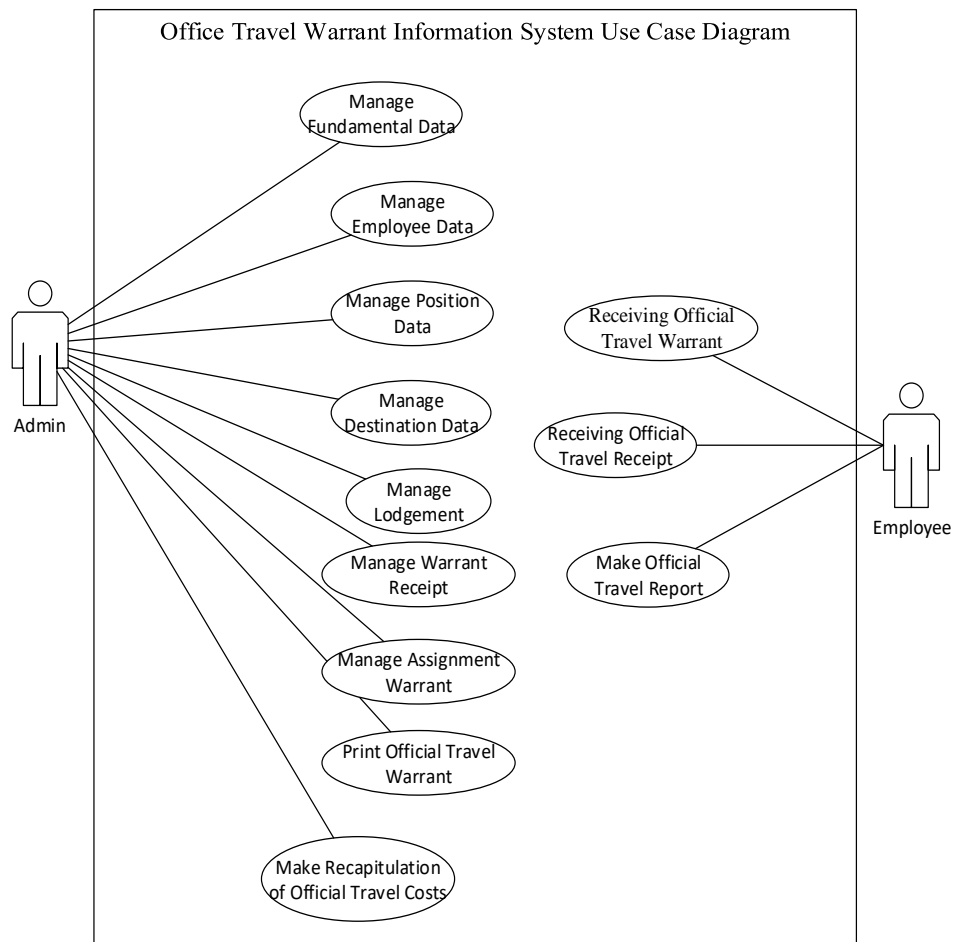
Figure 6 Use Case Diagram of Official Travel Warrant

The description of the proposed system use case is as follows:
1. Admin can manage fundamental data of official travel warrant (Add, Edit, Delete).
2. Admin can manage employee data (Add, Edit, Delete).
3. Admin can manage position data (Edit).
4. Admin can manage place data (Add, Edit, Delete).
5. Admin can manage the destination data (Add, Edit, Delete).
6. Admin can manage task orders (Add, Edit, Print).
7. Admin can print the assignment letter.
8. Admin can manage official travel receipts (Add, Print).
9. Admin can see the recapitulation of official travel costs
10. Employees can see official business receipts
11. Employees can input and print task orders
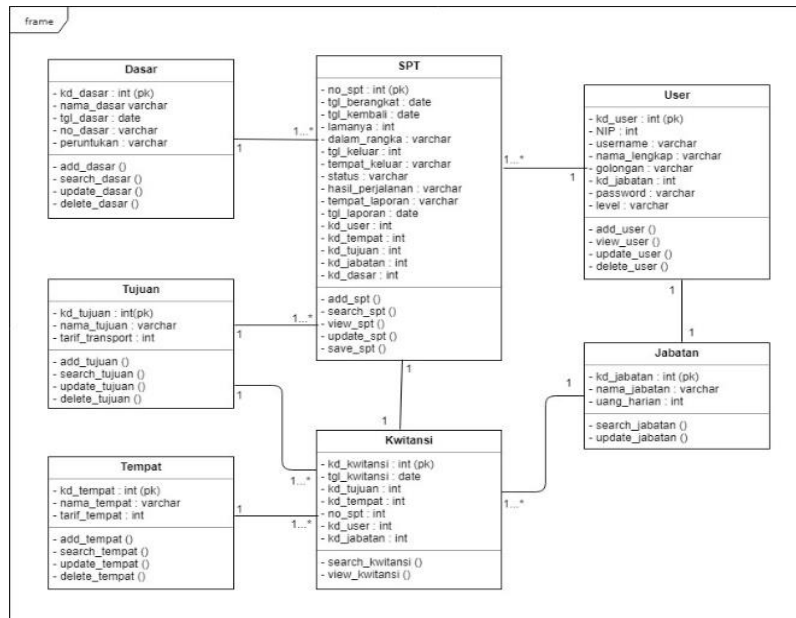12. Employees can print official travel reports

Figure 7 Class Diagram of Official Travel Warrant

The class diagram design is based on objects found in the environment in Batuceper sub-district. Figure 7 below is the Class Diagram as the basis for the formation of files or data tables supporting the computer application program module which is designed to increase the activities of Official Travel Warrant at Batuceper sub-district.

4.3. User Interface

Figure 8 Page View of Manage Basic Data

Figure 8 shows the basic data of the official travel information system that was developed, where the display provides information about basic data for official travel warrant information systems.

Figure 9 Page View of Official Travel Receipt

Figure 9 shows the data about official travel receipt, that consist of information about official travel receipt such as the No. of official travel warrant, Departure Date, Return Date, Purpose of Official Travel, and Status of Official Travel Warrant. If the employee has carried out the assigned task, he must change the status of the official trip to be carried out and input the results of the official trip that has been carried out.

Figure 10 Page View of Assignment Warrant

Figure 10 displays a page about the assignment warrant. On this page, admins can view, add, update, and print official travel data that have been carried out by employees.

Figure 11 Page View of Recapitulation of official travel expenses

Figure 11 displays data regarding the recapitulation cost of the trip that has been done. On this page, the user should be input a range of date for official travel that has been done to see a recapitulation the costs for official travel.

Figure 12 Page View of Official Travel Reports

Figure 12 displays the official travel page that displays data about the results of official travel made by employees. The information displayed on this page is the name of the employee, position and results of official travel that has been done.

Figure 13 Page View of Official Travel Warrant

Figure 13 displays the official travel warrant page that can be accessed by employees. This page displays data about No. SPT, employee's name, date of departure, date of return, and reason for conducting official travel.

5.0 CONCLUSION

1) Official travel system can assist to make Official Travel Warrant, Official Travel Reports, Official Travel Receipts and Official Travel Cost Recapitulation.
2) Official travel system can help the process of storing official travel data without having to be afraid to lose the letter or damaged due to things that are not desired.
3) The system can help in giving official travel orders to be structured and there will be no errors in official travel schedules.
4) The system can print official travel expenses, assignment orders, official travel reports, and official travel expense reports per period so it can help to obtain the official travel data.

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