



IMPLEMENTATION OF THE WEBSITE-BASED SCHOOL-BASED SPP PAYMENT BILLING APPLICATION

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ARTICLE INFO	ABSTRACT
Date received : 22 Oct 2022 Revision date : 19 Nov 2022 Date received : 26 Nov 2022	<i>In the SPP payment system at SMK Negeri 9 Medan, it is currently still being done manually, namely by means of transactions in cash and handwritten notes, thus slowing down work in the process of paying spp bills. With this, the SPP payment process has not run optimally. For this reason, it is necessary to have an SPP bill payment application to make it easier to make payments digitally. The system is designed using the PHP programming language and using the MySQL server database. The purpose of the system is to make it easier to archive spp bill payment data. It is hoped that the application will maximize admin work so that the target of delivering information and work can run more efficiently and effectively.</i>
Keywords: <i>Diversion; Restorative Justice; Child Crime</i>	

INTRODUCTION

Along with the rapid advancement of technology at this time, information technology has a major influence on human development in carrying out daily activities. This is because information technology is used to assist humans in processing data and presenting quality information. To present this information, a media is needed to help process the data so that it can be presented as information.

The information system is a unit of many interconnected elements that collect (input), manipulate (process), store and distribute (output) data or information and cause reactions to fulfill a goal. SMK Negeri 9 Medan is an educational institution that has used computers in carrying out its work activities, but in use it is only used for small things such as correspondence and making reports that still use Microsoft Word and Microsoft Excel, causing data to be unorganized neatly and resulted in delays in compiling reports. Education support contributions (SPP) are contributions or monthly payments from students which are mandatory for students at school, SPP payments are intended to support the improvement of the quality of education related to facilities and infrastructure for teaching and learning activities.

The SPP payment management system that is currently running at SMK Negeri 9 Medan is carried out by means of bookkeeping and then storing it in a data storage cabinet which results in accumulation and damage to documents, besides that it takes quite a long time to find the data needed. This can cause the performance of officers to be less efficient because it makes it difficult for the finance department to compile and present data. As a solution to fixing this problem, a system is needed that can process spp payments in which the storage and presentation of the data can be arranged properly so that it can help make it easier for officers to store, search and present data..

LITERATURE REVIEW

Definition of SPP

According to Imam Soleh Ma'Rifati in the journal (Ma'rifati, 2015) SPP is a contribution to mentoring that is paid by students in schools. The purpose of the SPP is so that schools can finance the needs of education so that teaching and learning activities can run well. Tuition fees are generally paid monthly by students.

Definition of Payment



The definition of payment according to H.Malay S.P Hasibuan is "The transfer of ownership rights to an amount of money or and from the payer to the recipient, either directly or through the media of banking services. From this understanding it is clear that payment is a way to fulfill a certain obligation by issuing money either in cash or through the delivery of property in the form of services and payment can be defined as the transfer of the owner's ownership of funds from the payer to the recipient. The school payment system is really needed because it helps make it easier for the school to know how much money is paid by students. Not only the nominal amount paid, but also the time and type of payment can be known. This is done so that the existing system can be properly organized and appropriate.

METHOD

The stages carried out in this study are as follows:

- a) Problem Identification
Problem identification is the first step in this research. At the problem identification stage it is intended to be able to understand the problem to be studied,
- b) Problem Analysis
The problem analysis step is a step to understand the problem whose scope or boundaries have been determined.
- c) Setting Goals
This goal is determined by the targets to be achieved, especially those that can overcome existing problems.
- d) Studying Literature Related to the Title
To achieve the goal, then studied some of the literature that is expected to be used. Then the literature studied is selected to determine which literature will be used in this study.
- e) Data Collection
The data needed is data along with photos in the Medan 9 State Vocational School where the data is taken manually.
- f) System design
At this stage the author will design a new system proposal, the author uses the system design method with the Prototype model.
- g) Final evaluation
Make a research report containing a research report on the problems and solutions that exist in the object researched by the author, namely the application for paying SPP bills at SMK Negeri 9 Medan, the theories taken by the author which are used as supports in research, the author's way of conducting research , research results and analysis as well as some complements to the research report.

RESULTS AND DISCUSSION

Modelling

Modeling is given to provide an overview of the research design. This design refers to the interface that will be built for each part of the tuition billing system at SMK Negeri 9 Medan

Use case Diagram

The use case is a model that displays the flow of the tuition billing system at SMK Negeri 9 Medan. Figure 1 is a use case design for information system research that is built.

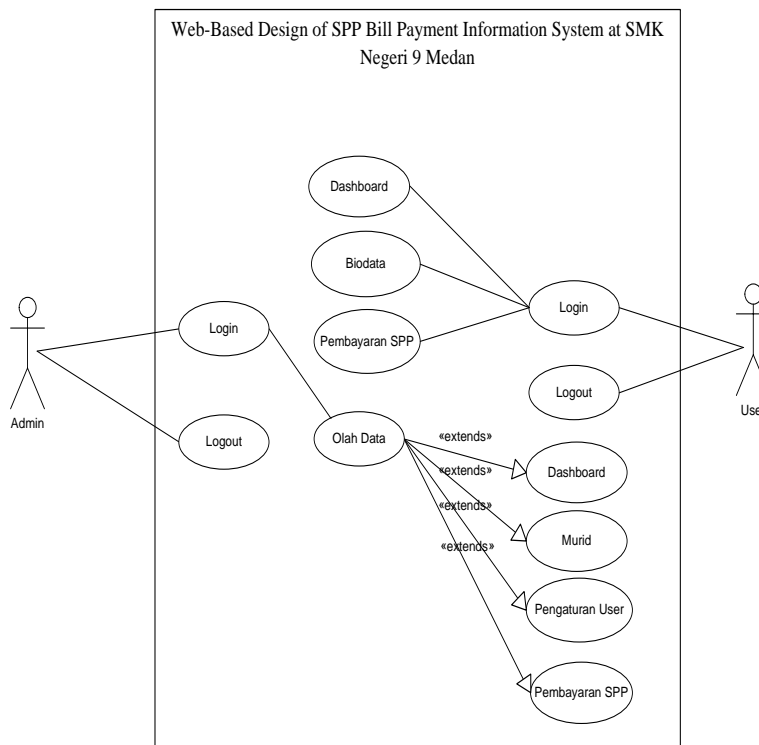


Figure 1. Use Case Research Diagram

Activity Diagram

Activity Diagram describes the activities carried out by the user on the system. For this Activity Diagram, it will explain how the Admin process interacts with the designed system. Figure 2 is an Admin Activity Diagram of the designed system.

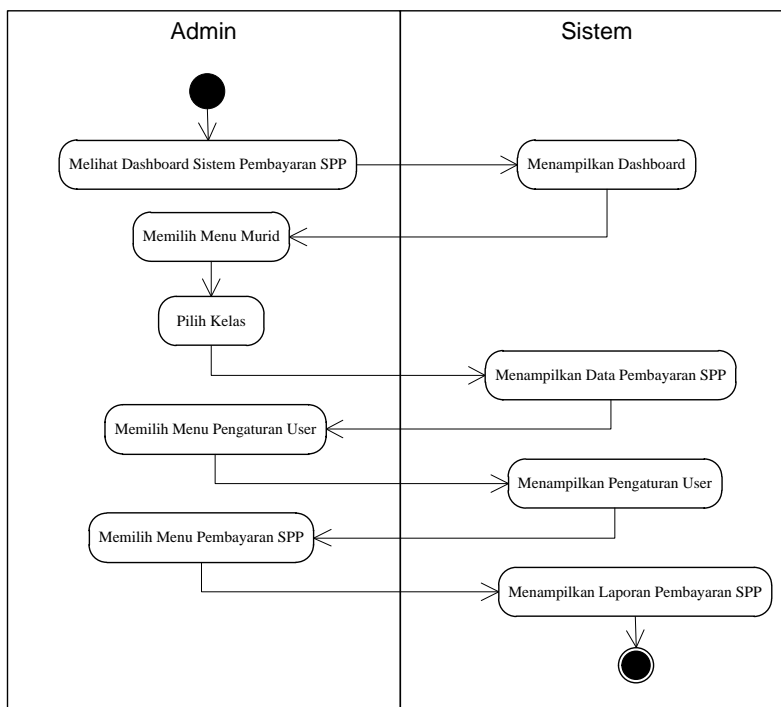
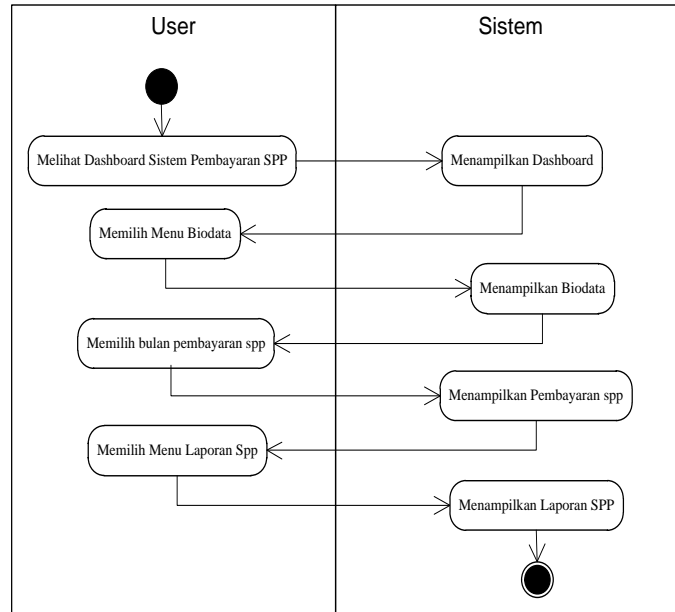


Figure 2. Admin Activity Diagram



The picture above explains how the process of Admin activities is in selecting menus on the spp payment system. The system will display if the admin selects several menus and submenus. The admin also functions to set student user passwords if you forget your password and print tuition payment reports. Next, it will display how the process of user activities uses the spp payment system. Figure 3 displays the activity diagram user process.



Gambar 3. Activity Diagram User

Interface Design

Interface design is useful for designing a mock up display before applying it to a programming language to make it into a real system. The following section is the overall interface design stage.

Admin Login Page

The login page is used to enter the system. This access right is only for admin.

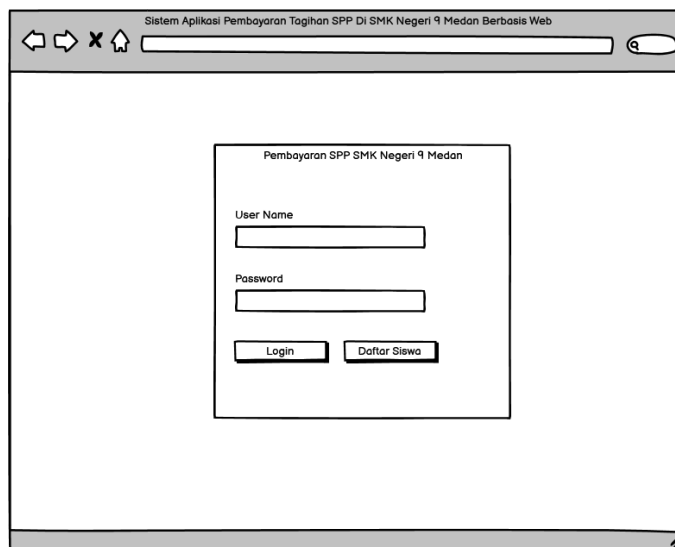


Figure 4. Login Page



Dashboard page

The Main Menu page is the main page that will appear after the admin has successfully logged in.

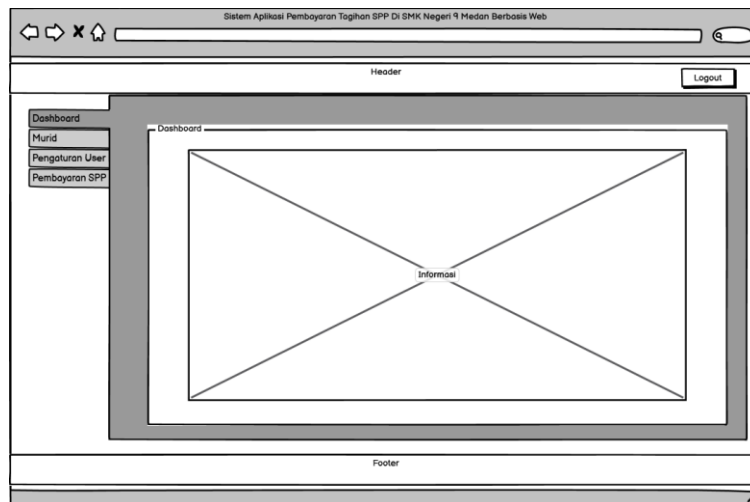


Figure 5. Dashboard Page Design

Student Page

The design of the student page is a page to view students who make spp bill payments and validate proof of transfer of spp bill payments. The student page design can be seen in Figure 6

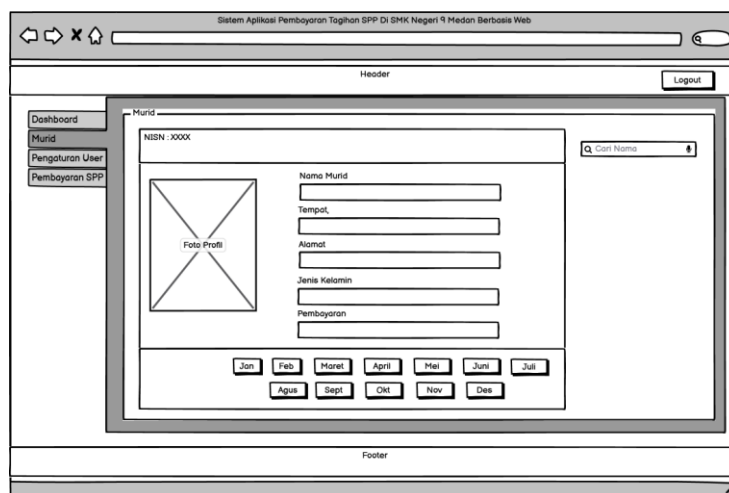


Figure 6. Student Page Design

User Settings page

On the user settings page is a page where admins manage to reset student account passwords if they forget the password. The design of the user settings page can be seen in Figure 7.

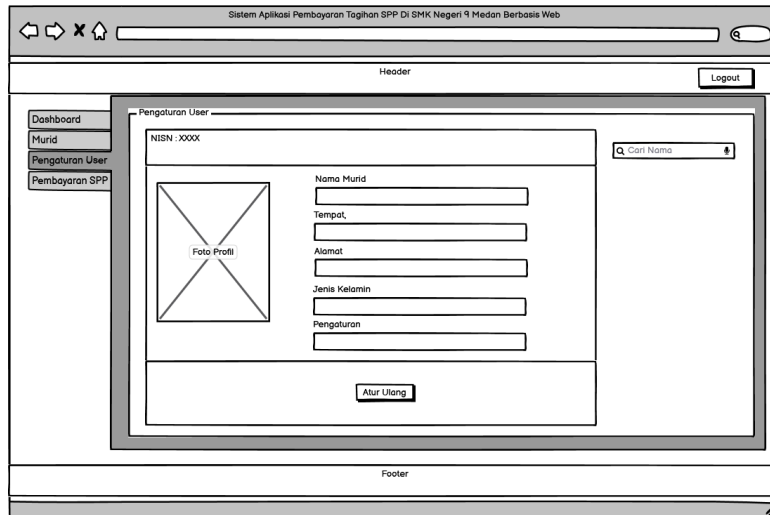


Figure 7. Student Page Design

SPP Payment Page

In the design of the spp payment page, it is a page where the admin sees reports on the number of students making payment of spp bills. Admin can also print reports every month. The spp payment page design can be seen in Figure 8

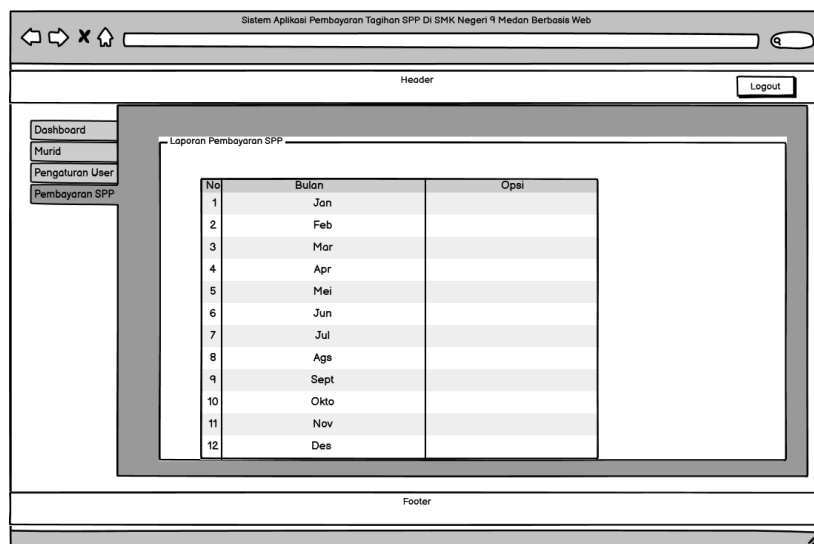


Figure 8. SPP Payment Plan

Blackbox Test Results

The following is a table of system test results using a black box on the implementation of a web-based tuition payment information system at website-based SMK Negeri 9 Medan. The black box test table for the SPP payment system is shown in the table below.

Table 1. The black box test table for the SPP payment system

No	Test Cases	Test Step	Expected Results	Accurate Results	Information
1.	Log in	Fill in the Login Form, click the login button	Displays the Home page	Show Home	In accordance
2.	Admin Data	Click Admin Data	Displays admin data, Form Add, Edit and Delete	Show Data Admin, Forms Add or Edit and	In accordance



				Delete.	
3.	SPP Payment Data (Admin)	Click SPP Payment Data	Displays SPP Payment Data, Form Add and Delete	Show Data Payment SPP, Forms Add and Remove	In accordance
4.	Login User Data (Admin)	Click Data User Login	Displays User Login Data, Edit and Delete Forms	Display User Login Data, Edit form and Delete	In accordance
5.	SPP Payment Data (Student)	Click Data Payment SPP	Displays SPP Payment Data and Print	Show Data Payment of SPP and Print	In accordance
6.	Unpaid Student Data	Click Student Data Not Yet Pay	Displays Unpaid Student Data	Show Student Data Not yet Pay	In accordance

CONCLUSION

1. y using the spp payment system it is faster, more effective, consistent with a better program that can reduce data duplication and redundancy, and the data storage becomes more secure.
2. This website-based student payment administration information system was built with the stages of requirements analysis, modeling analysis, modeling design and construction.
3. With the creation of this system, it is hoped that it will make it easier for treasurers to process and manage student tuition payment data and make it easier for parents/guardians of students to find out information on student tuition payments and arrears

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