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Design of Web-Based Patient Receivables Collection Information System at RSU Imelda

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ABSTRACT

Keywords: Patient receivables, accounts receivable, payment system, Utilization of Information Technology (IT) now plays an essential role in the success of an organization's business. By storing information digitally, a company is able to access customer information and process orders quickly. A doctor can immediately give action to the patient after accessing the patient's complete medical record without having to disassemble the paper archives stored in the hospital. This can be done thanks to the existence of a computer-based system that is used to process information, specifically the Management Information System (MIS). Imelda Pekerja Indonesia Hospital is a Type B referral hospital in the city of Medan, North Sumatra, where it often happens that patients are unable to make payments after treatment, both outpatient and inpatient, especially patients who pay for themselves, where every patient who is unable to pay, this is The author makes a patient receivables payment system. Management utilizes the PHP programming language and MySQL database where the patient's receivable data has been recorded by the computer as well as the patient's receivable payment validation process, as for some of the features that exist in this patient receivables information system where patient data input can be done and record of patient receivables.

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INTRODUCTION

The use of Information Technology (IT) now plays an essential role in the success of an organization's business. By storing information digitally, a company is able to access customer information and process its orders quickly. A doctor can immediately give action to patients after accessing complete patient medical records without having to unpack paper files stored in the hospital. This can be done thanks to the computer-based system used to process information, specifically the Management Information System (MIS). Management has the task to supervise and plan both in the field of general management, as well as special management such as information technology or information system management. In carrying out these responsibilities and achieving the objectives of the agency, management must understand the condition of information technology and information systems of the agency and decide what governance must be done and how to control it.

Hospitals as places of public health services began to change their management patterns, including BPJS Health, Public Services, Insurance and other payment methods. The shift in the pattern of public health financing for hospital service users from their own costs to financing through third parties, forces hospitals as one of the public health service institutions to be able to compete with other hospitals through ease in patient administration services. Hospitals not only receive revenue from cash payments but also from credit payments for services rendered. Credit receipt occurs when cash is not received directly by patients who have finished treatment at the hospital, but the patient uses a health insurance card or company guarantee so that there is a certain grace period for cash receipt.

Imelda Pekerja Indonesia Hospital is a Type B referral hospital in Medan City, North Sumatra, where there are often patients who are unable to make payments after treatment both outpatient and inpatient, especially patients who pay themselves, where every patient who cannot afford to pay then the patient is required to leave or provide guarantees in the form of objects such as motorcycles, Land certificates and others, the process of recording patient receivables and calculating the collection of overdue patient receivables is difficult to obtain information at Imelda Medan Hospital because the process of recording lists of patients who have collection debts is carried out manually.



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METHOD

Research methodology is carried out so that the process of implementing this research can run according to plan and stages so as to obtain the expected results. The method that the author uses, namely the waterfall method, is a systematic and sequential software development method that starts at the level and progress of the system to analysis, design, code (Implementation), test (Testing), and maintenance. Data collection techniques use field and library methods.

RESULTS AND DISCUSSION

Analysis of running systems

Based on the analysis and evaluation of the system that is currently running at Imelda Hospital, where the receivables information of RSU Imelda Medan is still a manual system using excel where the cashier has difficulty in recording and calculating the costs of patients who have debts and recording financial reporting sourced from patient payments and patient bill information where it is difficult to distinguish which patients have paid off payments and which patients are still running debt payments, so this author made the design of a receivables information system at Imelda Medan Hospital aimed at making it easier for cashiers to process patient debt transactions. The system to be designed is a general patient receivables information system at RSU Imelda Medan using a MySQL database and PHP programming language, it is hoped that the system will be designed to solve problems at RSU Imelda Medan.

Data Processing Procedure

The following is the data processing procedure that is currently running at RSU Imelda Medan.

- 1. Procedure for Recording Receivables
 Inpatient units and outpatient units report their patients to cashiers who cannot afford to pay so that cashiers can record and ask for statement requirements to patients to validate data.
- 2. Payment Procedure
 - The patient makes a payment to the cashier, then the cashier verifies the data for payment settlement and provides a payment receipt to the patient.
- 3. Reporting Process
 - The cashier recapitulates the receipt report and the list of patients who have debts at Imelda Medan Hospital so that the director can re-evaluate.

Flow of Document

The following information flow of the ongoing tape system at RSU Imelda Pekerja Indonesia can be seen in figure 1.

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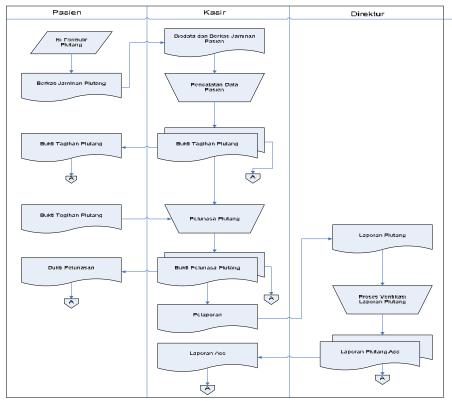


Figure 1. Flow Of Document

Database Relationship Design

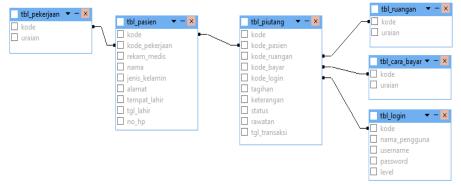


Figure 2. Database Relationship Design

Data Flow Diagram



Figure 3. Context Diagram

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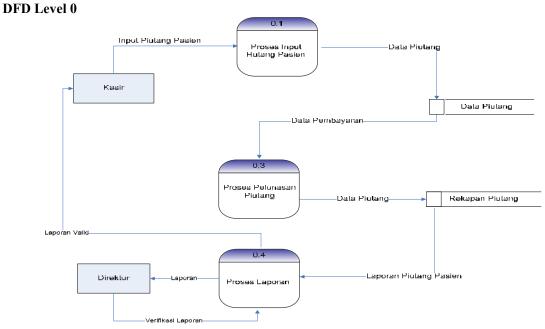


Figure 4. DFD Level 0

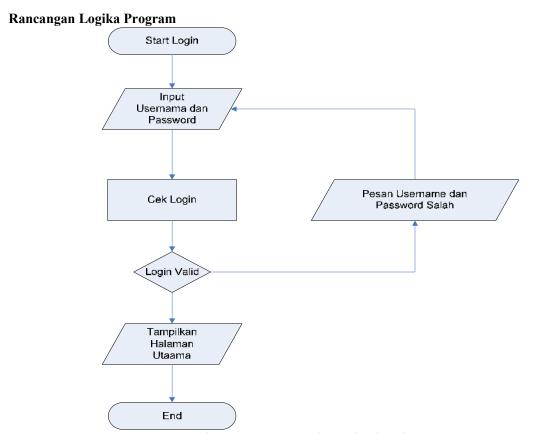


Figure 5. System Login Logic Flowchart

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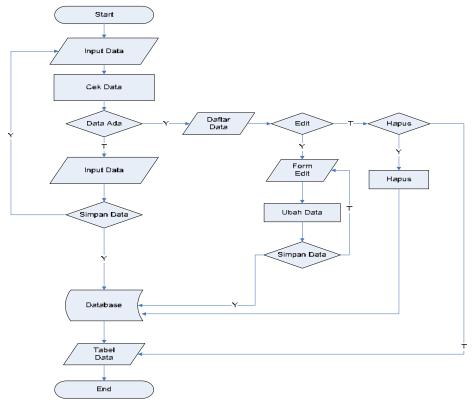


Figure 6. Flowchart Master Data

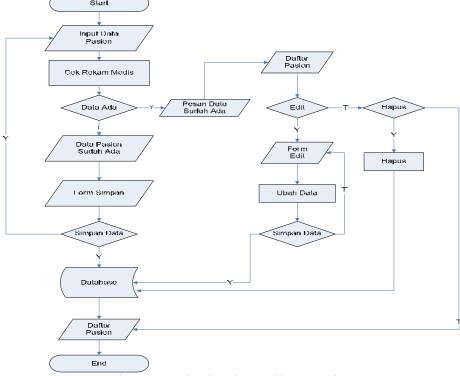


Figure 7. Logic Flowchart Add New Patient

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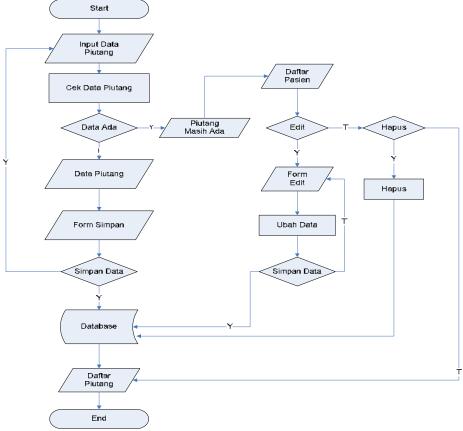


Figure 8. Flowchart Logic Add Receivables

CONCLUSION

Based on current technological developments, the author concludes that at RSU Imelda Medan, a special system for receivables payment must be implemented. The patient receivables payment information system at Imelda Medan Hospital is still recorded using *excel* so that errors often occur, so the author designed a special system for patient receivables payments. This accounts receivable system the author uses *PHP* (Personal Home Page) *programming language* and uses *mysql database* for *frontend* using *html and CSS scripts* so that users can do good interactive on the system that has been built.

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