

Model Design of Motor Sales Information System in Cv. Jaya Baru Motor

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ABSTRACT

The purpose of this research is to build a system that is expected to facilitate the input of sales data and minimize errors in the sales data processing process. The data collection method used is by means of interviews, observations, and coupled with literature studies that have a relationship with the problem at hand. While the research method used is descriptive qualitative research with the Waterfall model development system. CV. Jaya Baru Motor In transaction data processing and processing activities are still manual, so there are often many errors. The effort to solve this problem is to create a web-based sales information system model.

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1. INTRODUCTION

The development of Information Technology today causes the flow of information that was once difficult to obtain can now be easily obtained as needed. With the development of increasingly advanced technology, it demands a performance in an agency or company that is relatively fast and precise to produce the information needed. One of them is the application of computer technology as an absolute tool used and needed as the main support in business competition and good human resource support. To be able to create and face such conditions, it is necessary to have an Information System that can serve all aspects of information concerning the abilities, skills, expertise, experience and potential of

employees quickly, precisely, and accurately which can then be used in determining policies or decisions and implementing data processing.

CV Jaya Baru Motor is a company that is one of the companies in Bogor engaged in motorcycle sales, both sales made in cash and sales made on credit. Processing sales in cash or credit is one of the activities that is very important for the company's progress. In processing activities and processing transaction data that is still manual, many errors often occur. Data processing that has been carried out so far is only done in a book and receipt as evidence. Not only sales data carried out in cash, but including credit sales data, errors often occur. In supporting these sales activities, a

computerized sales system is needed that can facilitate and facilitate the sales process.

The purpose of this research is to build a system that is expected to facilitate the input of sales data and minimize errors in the process of processing sales data whether carried out on a cash or credit basis, and assist data processing at the CV. Jaya Baru Motor deler so that motorcycle sales become fast and correct.

2. LITERATURE REVIEW

2.1 *Definition of Design*

Design is defined as the process of applying various techniques and principles for the purpose of defining a device, a process and or a system in sufficient detail to enable its physical realization [1].

System design is the activity of designing and determining how to process information systems from the results of system analysis so that the system is in accordance with the requirements [2].

Based on the explanation of the experts above, the researcher concluded that design is an activity of describing and planning a system from the results of the analysis so that the system is in accordance with the requirements.

2.2. *Definition of Model*

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2.2 *Definition of Information System*

A system is a set of elements / elements that are interrelated and influence each other in carrying out joint activities to achieve a goal [3].

Information is data that is processed through a model into information, the

recipient then receives the information, makes a decision based on the information and takes action, which means producing another action that will create some data again. The data will be recaptured as input, processed again through a model and so on which is a cycle [3].

Information systems are a combination of information technology and the activities of people who use technology to support operations and management [4].

3 METHODS

This research includes descriptive qualitative research. According to qualitative research, namely the appearance in the form of spoken words which are then observed by the researcher, as well as objects that are observed until completion so that the meaning implied in the document or file can be drawn.

Furthermore, it is descriptive because in solving the problem under investigation, namely by describing the state of the subject and object under study at the present time based on the facts that appear as they are.

The techniques used by the author in this study, namely:

- 1) Observation

Make direct observations to the location of CV. Jaya Baru Motor. This is done to find out the problems that occur

- 2) Interview

Researchers meet face to face with sources of information to ask questions directly. Interviews were conducted with the owner of CV Jaya Baru Motor

- 3) Literature study

At this stage the author searches for references in the form of books and journals related to this research.

To help and facilitate this research, the author compiled a framework which is a step-by-step description of the stages of activities that will be carried out during the research. The stages are shown in the figure below:

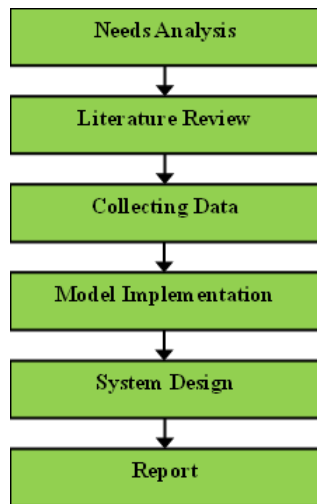


Figure 1. Research Framework

The model used in designing this system uses the Waterfall model, this model is also known as the waterfall model where this method takes a systematic and neatly arranged approach like a waterfall starting from the level of system requirements then continuing to the stages of analysis, design, coding, testing / verification, and maintenance.

4 RESULTS AND DISCUSSION

System Requirements Analysis

Analysis of system requirements is carried out to determine the input procedures in the design of the Motorcycle sales information system. The analysis of the necessary system requirements can be described by the author as follows:

- A. Procedures for ordering system requirements carried out by a user.
 - 1) User can register
 - 2) User can do transaction
 - 3) User can upload proof of payment
 - 4) User can view transaction data

- B. The system requirement procedure for processing Motorcycle sales transaction data by an admin.
 - 1) Admin can verify item order data
 - 2) Admin can process item data
 - 3) Admin can process sales reports and item order reports.
 - 4) Admin can process transaction data.

Proposed System Modeling

System modeling that the author uses using UML (Unified Modeling Language) is:

- A. Use Case Diagram
- B. Activity Diagram
- C. Sequence Diagram
- D. Class Diagram .

A. Use Case Diagram

The following is a description of the use case diagram of the Motorcycle sales information system design.

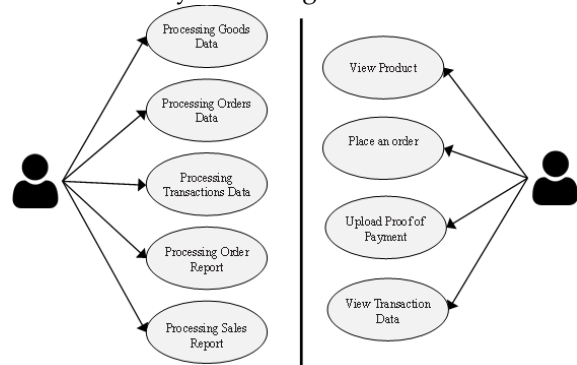


Figure 2. Use Case Diagram

The use case diagram above tells 2 actors, namely admin and user, where an admin can process data such as item data, verification of order data, processing transaction data and processing sales reports and ordering reports, while the user can register to order goods in the form of a motorbike by selecting goods according to user needs, after which the user can input proof of payment into the system.

B. Activity Diagram Admin Manage Data

1) Activity Diagram Admin Processing Data

The picture below is an activity diagram of the admin managing data on goods, orders, and sales.

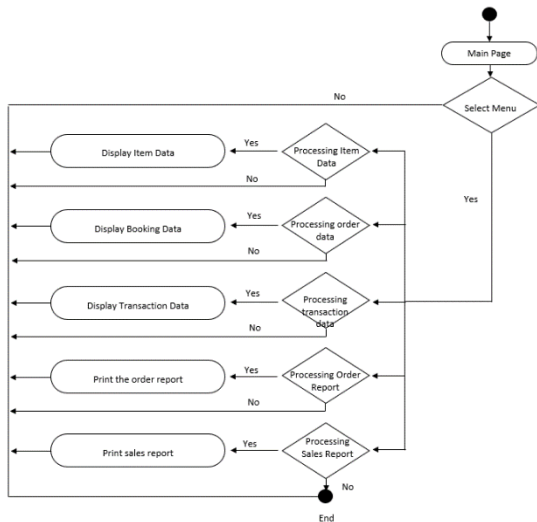
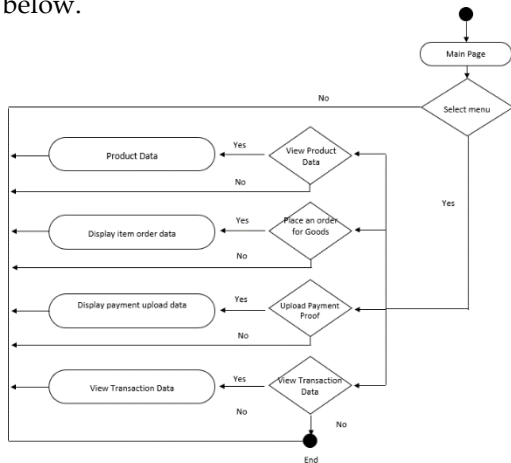


Figure 3. Activity Diagram Admin Processing Data

2) Activity Diagram User Processing Order

The activity diagram of the user placing an order/purchase can be seen in the figure below.



Gambar 4. Activity Diagram User Place an Order

C. Sequence Diagram

Sequence diagram describes the activity of a website in the process of flowing the appearance of messages inputted to the system. The following is a description of the sequence diagram of the motorcycle sales information system design.

1) Sequence Diagram Admin Processing Goods Data

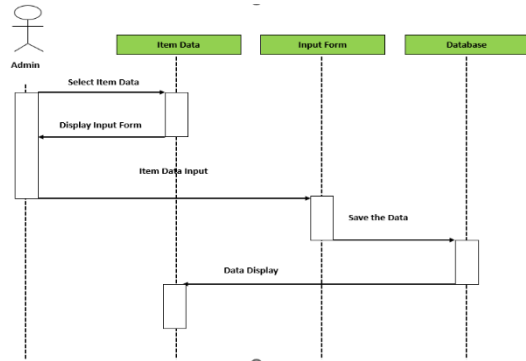
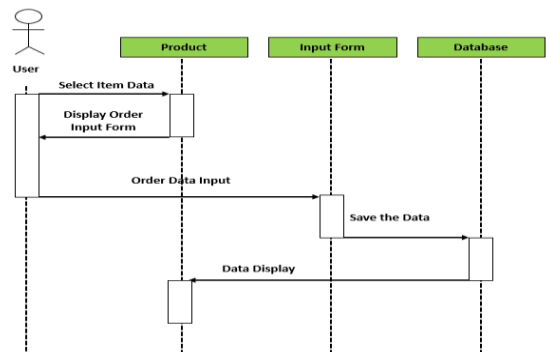


Figure 5. Sequence Diagram Processing Item Data

2) Sequence Diagram User Place an Order/Purchase



Gambar 6. Sequence Diagram User Melakukan Pemesanan/Pembelian

3) Sequence Diagram User Make Proof of Payment

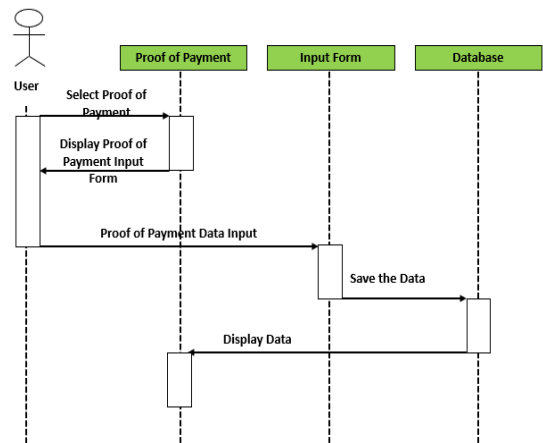


Figure 7. Sequence Diagram User Make Proof of Payment

D. Class Diagram

Class diagram shows the relationship between classes and a detailed explanation of

each class in the design model of a system. The class diagram description in this system design is as follows.

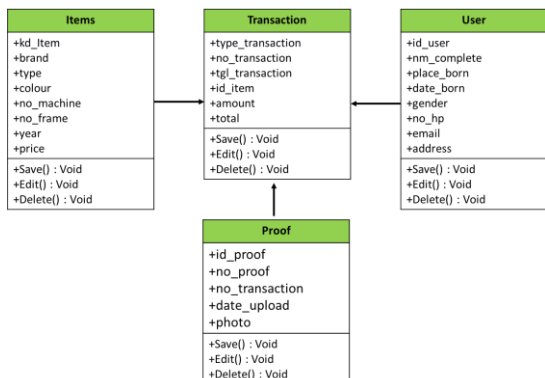


Figure 8. Class Diagram

User Interface Design

The user interface design that the author made is as follows.

1) *Item Data Input Form Design*

This form will be used to enter data on goods, namely motorbikes produced by CV. Jaya Baru Motor.

Item Data Form Input	
Item Condition	X (30)
Item Brand	X (30)
Item Type	X (25)
Colour	X (20)
Motive	X (20)
No Machine	X (15)
No Frame	X (15)
Year	99 (4)
Price	99 (5)
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

Figure 9. Item Data Input Form Design

2) *Consumer Registration Form Design*

This form is used by a user, namely a consumer who will order a motorcycle.

Registration Form	
Complete Name	X (30)
Place / Date Born	dd/mm/yyyy
Gender	X (25)
HP Number	X (12)
e-Mail Address	X (30)
Address	X (100)
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

Figure 10. Consumer Registration Form Design

3) *Design of Transaction Data Input Form*

After the customer has registered, they can then input the motorcycle order/purchase transaction data.

Transaction Item Input Form	
Type Transaction	X (15)
Transaction Number	X (30)
Item Name	X (25)
Item Type	X (20)
Colour	X (20)
Price	X (15)
Amount	99 (12)
Total	99 (12)
Complete Name	99 (5)
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

Figure 11. Transaction Data Input Form Design

2) *Design of Proof of Payment Input Form*

This form is used after a customer has placed an order/purchased a Motorcycle.

Proof of Payment Form Input	
Proof Number	X (15)
Transaction Number	X (30)
Upload Date	dd/mm/yyyy
Proof of Payment	X (100)
Save	Cancel

Figure 12. Design of Proof of Payment Input Form

5. CONCLUSION

Based on the results obtained through interviews and observations at CV Jaya Baru Motor, the authors can conclude that in marketing and recapitulating motorcycle sales is still less effective, therefore with the design of this motorcycle sales information system can market products at the company widely, and be able to provide convenience in processing data in a computerized manner where the system can process data.

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