LOGISTICS SOFTWARE DEVELOPMENT
PD. Rural Bank of Bandung

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ABSTRACT
In the process of development of this logistics software using descriptive research method with type research of case studies on institutions, which used data collection techniques, among others, namely by observing the direct observation of work processes carried out within the agency to obtain a clear picture of the object under study , interviews, namely to engage in dialogue directly with the authorities in providing information on required data and literature study with looking for supporting libraries. Implementation of logistics information system of goods that is using the control method of procurement that use forecasting methods. Forecasting methods are suitable for procurement of goods logistics are seasonal forecasting methods and distribution of goods in a continuous and have a follow-up examination system which consist of alpha testing where this test using black box testing method that focuses on functional requirements and software testing is test of field betha with accuracy of data processing as the result of choice.

Keywords: software development, information systems, procurement, forecasting methods

1. INTRODUCTION

In connection with the phenomenon that occurs and results of interviews with the personnel and the general logistics department of Information, the problems that exist in the logistics department in PD. Rural Bank city of Bandung can be defined that use Ms.Excel Employees are still difficulties in the process of procurement and distribution logistics and also was recorded into a document logistics, processing the data on the procurement and distribution processes that use existing Ms.Excel to be done twice in the reduction inventory, logistics systems using Ms. Excel is also no estimate of when and how goods should be held or distributed, making of reports on the logistics takes several days, collecting data reports are often late and often not valid

The purpose of this software development is to build a logistics application in PD. RURAL BANKS BANDUNG.
The purpose of this software development is to make the process of procurement and distribution of data processing in logistics no longer have to record the document if the employee does not make the logistics, Making data processing procurement and distribution of goods only once the process, make estimates of when and how many data items must be held and distributed to the section or to a branch, a report to the logistics become more rapid, timely and valid reports generated.

The benefits of making this software is to help the performance of employees, especially the logistics to make and distribute goods

2. MODELS, ANALYSIS, DESIGN AND IMPLEMENTATION

Data analysis techniques in the manufacture of software using incremental model developed from the waterfall method. Incremental model that combines elements of the linear sequential model (applied repeatedly) with the philosophy of iterative prototype of this model proposes an approach to the development of a systematic and sequential devices, designed for the development of a straight line, basically a waterfall pendekatatan presupposes a complete system will be delivered after has a linear sequence

Permintaan (Y)	Bobot (X)
Permintaan 1	-2
Permintaan 2	-1
Permintaan 3	0
Permintaan 4	1
Permintaan 5	2

2.1 Definition of Information Systems

General definition of information system usage information is data that has been processed into a form more useful and more meaningful for the use in making decisions. So the data processing information processing system from useless to useful form for the recipient. The information system is a system that brings in suau organization that supports transaction processing needs of managerial and operations strategy-strategic activities of an organization and provide certain outside parties with the necessary reports. [4]

2.2 Definition of Procurement

system that is able to manage inventory in the warehouse and can provide services on information in the form of data in determining when ordering supplies or stock of goods to suppliers before stock runs out. Inventories can take the form of a depend on the type of business that occupied by the company concerned. Procurement is one of the most expensive assets in a company. On the one hand, corporate management requires that the embedded cost of the minimum inventory, but on the other hand, management also should ensure that supplies are not exhausted.

2.3 Distribution

In delivering the goods to consumers, producers choose some alternatives that occur, for example, distribute directly to consumers or through intermediaries commercial institutions. Distribution system directly from producers to consumers allows companies to control distribution of goods fully.

2.4 Forecasting

Prediction or forecasting is a process to predict some future needs including the needs in the size of the quantity, quality, time and location is needed in order to meet the demand for goods or services. Accurate forecasting is a much-needed information in making management decisions. [2] Forecasting techniques that can be used to exploit this data past

include the following:

a. Freehand Technique

b. Least Square Technique

However, often the data period being owned companies are not always the amount during the same period, in a sense can be odd (3, 5, 11, 25 periods) and can also be fulfilled (10 or 20 periods). This of course requires different treatment in the analysis.

The formula for forecasting the seasonal techniques are as follows

$$Y=a+bx$$

Y = the result of forecasting the demand distribution
a = constant value
b = slope forecasting
x = weight of the actual forecast period
Where in the search for a and b using the formula

$$a = \Sigma Y / n$$

a = constant value
Y = demand distribution
n = number of periods of demand

$$b = \Sigma XY / \Sigma X^2$$

b = slope forecasting
X = actual weight forecast period

Y = demand distribution

If Odd Data
So the weight of X (table 2.1) are as follows:
Table 1 Weight of X if odd data

Even if the data
So the weight of X (table 2.2) are as follows:

Table 2 Weight of X if the data even

Permintaan (Y)	Bobot (X)
Permintaan 1	-5
Permintaan 2	-3
Permintaan 3	-1
Permintaan 4	1
Permintaan 5	3
Permintaan 6	5

3. RESULTS AND DISCUSSION

The data included in this model is
1. Goods Code
2. Total distribution of goods a period of two years prior to forecasting (2008-2009)

3.1 the results of forecasting one quarter

Table 3 the results of forecasting one quarter

	Daftar Cetakan	catur wulan 1		
No.	Nama Barang	nilai trend(a+bx)	Selisih ratio(ratio 2009-ratio 2008)	ramalan(r.rat2+n.trend)
1	Kop Surat PD BPR	1538.333	0.5738	882.66
2	Kop Surat PD BPR ITC	256.6667	0	0
3	kop surat PD BPR Naripan	2590	0	0

3.2 second quarter results of forecasting

Table 4 results forecasting second quarter

	Daftar Cetakan	catur wulan 2		
No.	Nama Barang	nilai trend (a+bx)	Selisih ratio(ratio 2009-ratio 2008)	ramalan(r.rat2+n.trend)
1	Kop Surat PD BPR	1705.9	0.999	1704.7
2	Kop Surat PD BPR ITC	303.81	3.39	1029.9
3	kop surat PD BPR Naripan	3110	1.58	4913.8

3.3 third quarter results of forecasting

Table 5 the results of forecasting third quarter

	Daftar Cetakan	catur wulan 3		
No.	Nama Barang	nilai trend(a+bx)	Selisih ratio(ratio 2009-ratio 2008)	ramalan(r.rat2+n.trend)
1	Kop Surat PD BPR	1873.48	3.082	5773.4
2	Kop Surat PD BPR ITC	350.952	0	0
3	kop surat PD BPR Naripan	3630	0.74	2686.2

3.4 Entity Relationship Diagram (ERD)

Entity-Relationship is a technique to describe the information required in the system, and the relationship between these data.

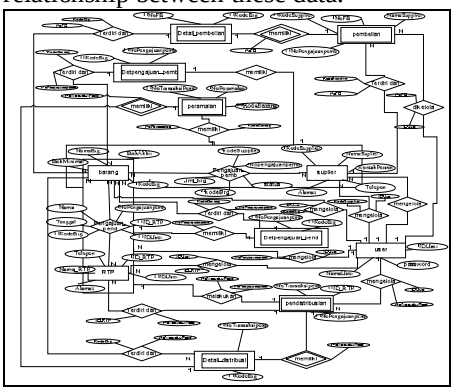


Figure 1. Entity-Relationship logistics software

3.5 Data Flow Diagrams (DFD)

Data Flow Diagram is a system diagram illustrating how the application logic. Starting from the highest level to lowest level.

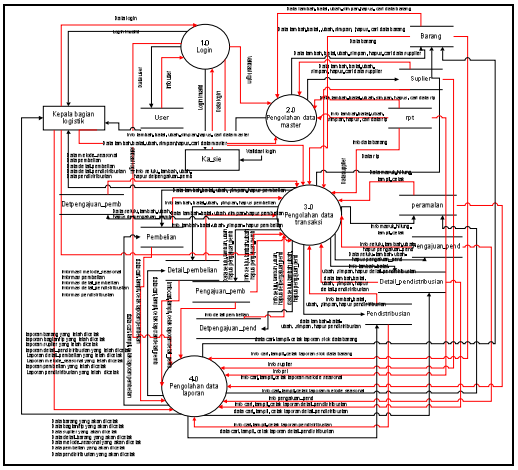


Figure 2. DFD Level 1 Software Logistics

3.6 Relationship Diagram

Relationship diagram is a relationship between two tables or more on the system

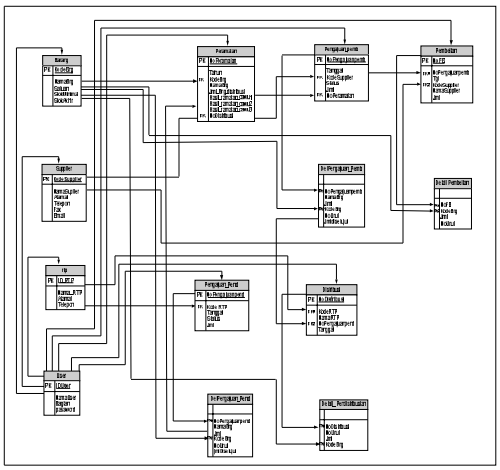


Figure 3. Relationship Diagram Software Logistics

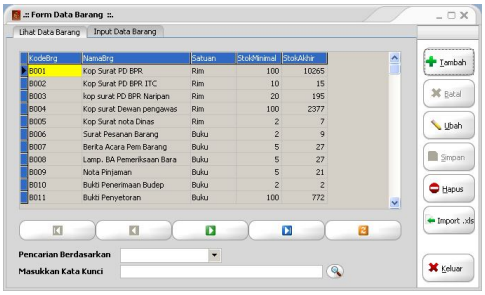
3.7 Display Software program that has been in Build Logistics

3.7.1 The initial view program



Figure 4. The initial view program

3.7.2 Data Display of Goods on Program



3.7.3 Forecasting the Program Data Display

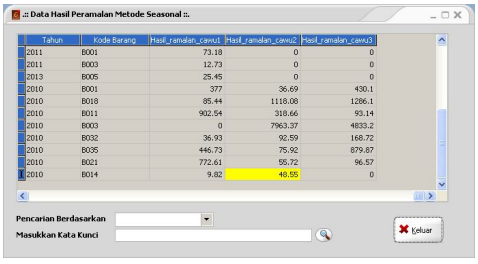


Figure 6. Forecasting Data Display in Program

4. CONCLUSIONS AND SUGGESTIONS

4.1 Conclusion

1. Information systems are built to make the process of procurement and distribution of data processing in logistics no longer be noted on the document
2. Information systems are built to make the process of procurement of data processing and distribution of goods only once the process
3. Information systems are built to make an estimate when and how the data items that must be held and didstribusikan into parts or to a branch
4. The information system is built to produce a report in the form of statements such as statements of the goods master data, RTP, suppliers and also generate reports such transaction forecasting report, report the purchase and distribution of reports, which can provide information about the data item,, RTP data, supplier data , data forecasting, data purchase and distribution of accurate data and efficient for the parties in need.

4.2 Suggestions

1. Further optimize the use of computers in processing data.

2. Existing information systems and the design of the system to be developed more widely to the network.

5. REFERENCES

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