# *DEVELOPMENT OF MERDEKA HANDPHONE SQUARE E-COMMERCE APPLICATION*

Hari Suhariman

Universitas Komputer Indonesia (UNIKOM)
Jl. Dipati Ukur No. 112-116, Bandung 40132
Email: clpd_rie@yahoo.co.id

## ABSTRACT

*Sentracom store is a store that specializes in the sale of modems and other electronic devices. Development of e-commerce application refers to a manual system that is running on Sentracom Stores. The system in place here is a sales system that requires the buyer directly come to the shop. In addition, the accounting system for the manufacture of recapitulation reports sales are still done manually so that the sales report has not been well detailed.*

*In the process of development of e-commerce sites are using a waterfall development techniques. While the system data stream method use structure method, in which its tolls are the DFD (Data Flow Diagram) to depict functional model and ERD (Entity Relationship Diagram) to illustrate data model. Process payment transactions can be made via bank transfer or paypal account, in terms of security, this aplikasdi implement the MD5 algorithm, while the objective to be achieved from the development of e-commerce system is easier for buyers to make purchases without having to come directly to the Store Sentracom and facilitate the Sentracom in managing goods. In addition, to facilitate in making the sales summary report.*

*After going through the stages in accordance with the selected development method hence in implementing e-commerce system has a follow-up examination system which consist of alpha testing where this test using black box testing method that focuses on functional requirements and beta testing software that is field-testing by providing questionnaires to employees in the store Sentracom as administrators and the general public as users of the web that contain the questions refer to the final destination that is easier for consumers to obtain information about the products they want and can make transactions from anywhere online, and can accelerate the performance of parties in the Store managing goods data and sales reports. After alpha and beta testing, can be deduced that the functional e-commerce systems are able to produce the expected output and is user friendly.*

*Keyword: e-commerce, md5, waterfall.*

## 1. INTRODUCTION

Sentracom is a central place for the sale of modems and other electronic equipment, located on Mall Road office Setrasari II A 7-8 Bandung.

Based on the interview to one store clerk sentracom, there are some things that a consumer advice to the shop, which is about the media information and transaction medium. at this time the media the information obtained by consumers is still a brochures and pamphlets or recommendations from friends who had bought products from this Sentracom.Hal Stores perceived less effective, because if there is a new product or there is change in the price of goods the store should make atupun re-edit an existing sheet.

In terms of the transaction, the consumer expects to get the goods they want without having to come to the store, and currently processes transactions in stores, meaning the buyer must come to the store to buy things he wants.

To solve that problem occur, we need a system that can handle these problems, one of which is to build e-commerce applications in the store Sentracom.

The intent and purpose of writing this essay is as follows:
Based on the problems studied, the purpose of this thesis is to build e-commerce applications in the store Sentracom.
While the goal to be achieved in this study are:

1. This application allows consumers to obtain the desired goods.
2. Process transactions conducted by the seller and buyer can be done online from anywhere.
3. Facilitate the seller in managing the data report.

## 2. MODEL, ANALYSIS, DESAIN, DAN IMPLEMENTATION

### 2.1 Model

Data analysis techniques in the making software using modeling software with waterfall method, which involves several processes including:

a. *Requitment definition*

Gather complete requirements then analyzed and defined as needs that must be met by the program that will be built.

b. *System and software design*

Design is done after completion requirements are collected in full.

c. *Implementation and unit testing*

Design courses translated into codes using a specified programming language.

d. *Integration and system testing*

Unification of the program units are then tested as a whole (systemtesting).

e. *Operation and maintenance*

Operate the program in their environment and perform maintenance, such as adjustment or change because adaptation to the real situation..

### 2.2 Analysis

#### 2.2.1 Analysis Of Current Procedure

Based on the results of research, there are several procedures performed in the shop Sentracom, including:
1. Sale of Goods Procedure
2. Procedure Sales Reports

After conducting an analysis of current procedures, can be seen that in thesale of of goods ,customers have come to the store and in a recapitulation of sales is still manual .

The proposed solution is to build e-commerce to overcome these problems.

#### 2.2.2 Functional Requirements Analysis

##### 2.2.3.1 *Diagram Context*

Context diagram is a tool for structural analysis. This structural approach to depict the outline or the system as a whole ..

Context Diagram of e-commerce site in the store Sentracom can be seen in Figure 1.

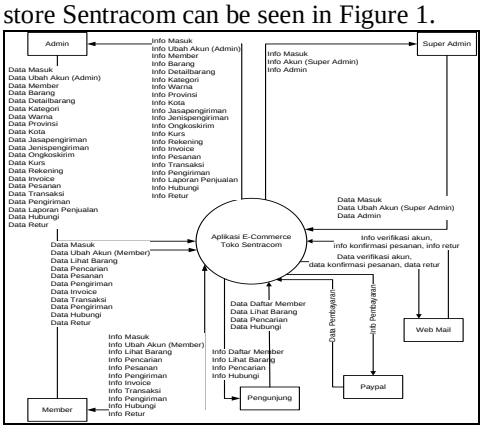



Figure 1. Context Diagram of E-commerce Site in store Sentracom.

##### 2.2.3.2 DFD Level 1

DFD Level 1 for e-commerce sites on Sentracom store can be seen in Figure 2.

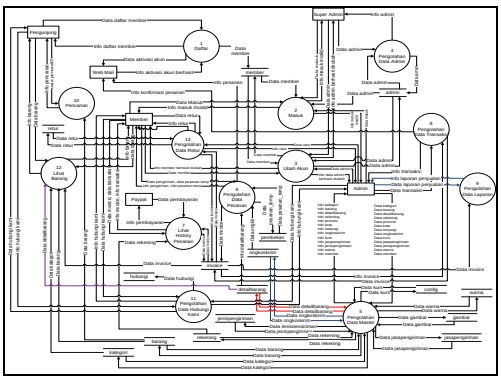


Figure 2. DFD Level 1 Site E-commerce in store Sentracom.

##### 2.2.3.3 Relation Diagram

Relation diagram of e-commerce site in the store Sentracom can be seen in Figure 3.

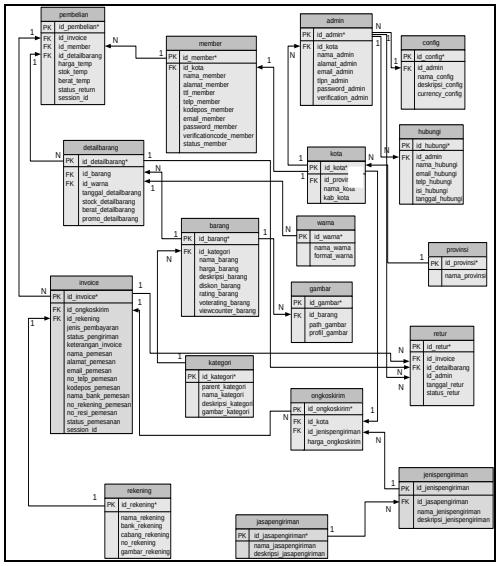



Figure 3. Database Relationship Diagram on the application of E-commerce in store Sentracom.

## 2.3 Desain

Design the menu structure is the use of point systems that are easy to understand and easy to use. The design of the menu structure of e-commerce site is divided into three:

a. Visitor menu structure
   It can be seen in Figure 4.

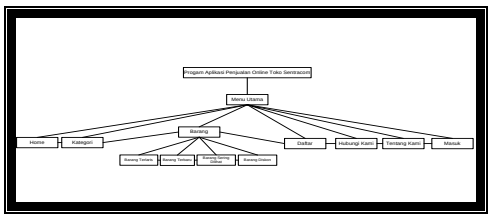



Figure 4. Visitor Menu Structure

b. Member menu structure
   It can be seen in Figure 5.

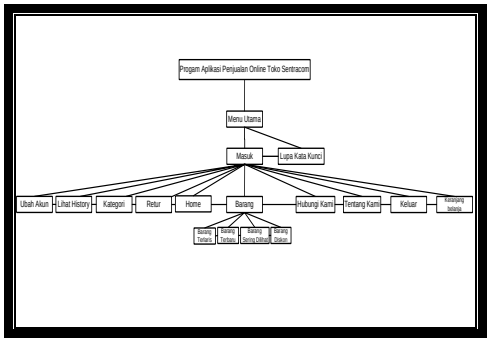



Figure 5. Member Menu Structure

c. Menu structure super administrator
   It can be seen in Figure 6

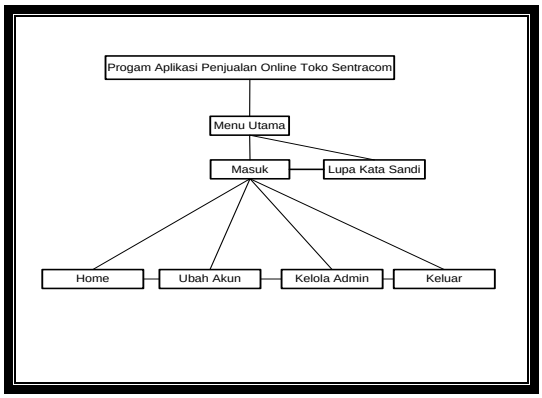



Figure 6. Super Administrator Menu Structure

d. Structure of the administrator menu
   It can be seen in Figure 7.

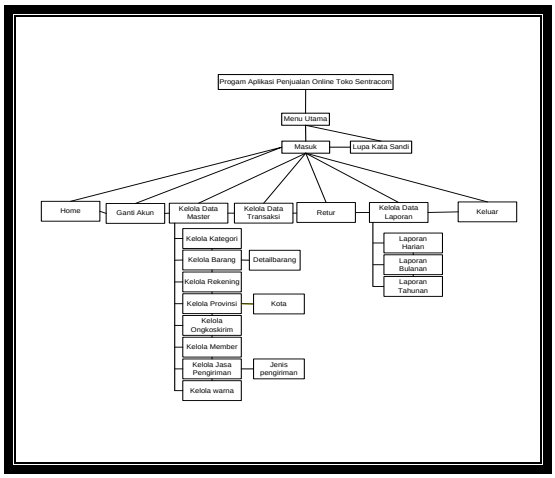



Figure 7. Admininistrator Menu Structure

## 2.4 Implementation

Plan testing will be done by testing the alpha and betha system.

Based on the results of alpha testing and test samples that have been the case can be concluded that, in each process still allows for errors in syntax and logical errors, because error handling capability has not been fully dealt with, but functionally the system is expected to generate output.

Based on test results betha with sample test cases that have been made to provide conclusions that are functionally the system

is to produce the expected output and looks user friendly.

## 3. RESULT AND DISCUSSION

From analysis and design that has been done, the results from one application built to look like in Figure 8. Below :




Figure 8. Display applications

## 4. CONCLUSIONS AND RECOMMENDATIONS

### 4.1 Conclusions

Based on research conducted, it can be concluded from the development of e-commerce site in the store Sentracom as follows:

a. Implementation of e-commerce system for selling system can be run in accordance with its objectives, namely to help in promoting goods sellers online.
b. Facilitate in making sales report
c. Enables buyers to purchase goods without a limited time and place.
d. Ease in managing goods data.
e. Can provide appropriate information to buyers about the merchandise.

### 4.2 Recommendations

Based on the above conclusions, the suggestions that are expected of providing design and payment not only through paypal and bank transfer but can be via credit card

## 5. BIBLIOGRAPHY

[1]. Al-Bahra Bin Ladjamudin (2005), Analisis dan Desain Sistem Informasi, Graha Ilmu, Yogyakarta.

[2]. Bunafit Nugroho (2004), PHP & mySQL dengan Editor Dreamweaver MX,Andi, Yogyakarta..

[3]. Kadir,(2008),Dasar Pemrograman Web Dinamis Menggunakan PHP,Andi,Yogyakarta.

[4]. M. Suyanto (2003), Strategi Periklanan pada E-Commerce Perusahaan Top Dunia, Andi, Yogyakarta.

[5]. Sommerville Ian (2001), Software Engineering, Addison Wesley, Massahusetts.