

Practical Development of Information System in Business Context: Stock Management and Point of Sale System for Patiparnosod drug store.

Mr. Prinyapong Pukavanich

Submitted in Partial Fulfillment
of the Course BC 4500 280 Hour Training Program
Bachelor's Degree of Business Administration
in Business Computer Program
Assumption University

December 2002

Project Name:

Stock Management and Point of Sale System, Paitparnosod Drug

Store

Intern:

Mr. Prinyapong Pukavanich

Advisor:

A.Krisee Vipulakom

Academic Year:

2002

The Department of Business Computer, ABAC School of Management has approved the aforementioned student's BC 4500 280-Hour Training Project, which includes complete documentation and program as a partial fulfillment of the requirements for the Bachelor's Degree of Business Administration in Business Computer

Advisory Committee:

(A.Krisee Vipulakom)

Advisor

A.Patamate Darnphitsanupan)

Chairperson

(A.Piyabute Fuangkhon)

Member

(A.Vasa Burabhadeja)

Member

Practical Development of Information System in Business Context:

Stock Management and Point of Sale System for Patiparnosod drug store.

Advisor: A. Krisee Vipulakom



Submitted in Partial Fulfillment of the Course BC4500 280 Hour Training Program Bachelor's Degree of Business Administration in Business Computer Program Assumption University

December, 2002

TABLE OF CONTENTS

Cha	pter		Page
LIS	T OF	FIGURES	į
LIS	TOF	TABLES	iv
I.	INT	RODUCTION	1
	1.1	Background of Organization	1
	1.2	Objectives of the System	3
	1.3	Scope of the System	5
	1.4	Project Plan	6
II.	THE	E EXISTING SYSTEM	8
	2.1	Background of Existing System	8
	2.2	Problem Definition	9
III.	THE	E PROPOSED SYSTEM	11
	3.1	System Specification	11
		(1) Hardware Requirements	11
		(2) Software Requirements	11
	3.2	System Design SINCE1969	
		(1) Data Flow Diagram	13
		•	13
		(2) Entity-Relationship Diagram	21
		(3) Database Design	22
		(4) Process Specification	28
		(5) Data Dictionary	44
		(6) Interface Design	48
		(7) Report Design	52

IV. SYSTEM IMPLEMENTATION	54
4.1 Overview of System Implementation	54
4.2 Test Plan	54
V. CONCLUSIONS AND RECOMMENDATIONS	56
5.1 Conclusions	56
5.2 Recommendations	57
APPENDIX A DATABASE DESIGN	58
APPENDIX B INTERFACE DESIGN	66
APPENDIX C REPORT DESIGN	89
BIBLIOGRAPHY	112
SYSTEM INSTALLATION GUIDE RROTHERS OMNIA SINCE 1969 SINCE 1969 PARTIE AND SINCE 1969 SINCE 1969 SINCE 1969 SINCE 1969 SINCE 1969	113

LISTS OF FIGURES

Figu	ure	Page
1-1	Organization Chart	2
1-2	Department chart	3
1-3	Project Plan	7
2-1	Context Diagram of Existing System	8
3-1	Context Diagram of Proposed System	13
3-2	Data Flow Diagram – Level 0	14
3-3	Data Flow Diagram – Level 1 for Process 1	15
3-4	Data Flow Diagram – Level 1 for Process 2	16
3-5	Data Flow Diagram – Level 1 for Process 3	. 17
3-6	Data Flow Diagram – Level 1 for Process 4	18
3-7	Data Flow Diagram – Level 1 for Process 5	19
3-8	Data Flow Diagram – Level 1 for Process 6	20
3-9	Entity-Relationship Diagram	21
B-1	Login Form	67
B-2	Main Page Form	68
B-3	Customer Profile Form	69
B-4	Supplier Profile Form	70
B-5	User Profile Form	71
B-6	Change Password Form	72
B-7	Product Detail Form	73
B-8	Product Type Form	74
B-9	Product Purchasing Form	75
B-10	User Show Form(Purchasing)	76

B-11 Supplier Detail Form(Purchasing)	77
B-12 Product Show Form(Purchasing)	78
B-13 Product Selling Form	79
B-14 Customer Show Form(Selling)	80
B-15 Product Show Form(Selling)	81
B-16 Product Receiving Form	82
B-17 Supplier Detail Form(Receiving)	83
B-18 Product Expired Checking Form	84
B-19 Product Requirement Form	85
B-20 Product Report Preview Form	86
B-21 Total Purchase Form	87
B-22 Total Sale Form	88
C-1 All Customer Report	90
C-2 All Supplier Report	92
C-3 All Product Report	93
C-4 All Product by Type Report	98
C-6 Low Limit Product by Type Report	100
C-6 Low Limit Product by Type Report	101
C-7 All Expired Product (on sale)Report	102
C-8 All Expired Product (in Stock) Report	104
C-9 Expired Product by Type(on sale) Report	105
C-10 Expired Product by Type(in stock) Report	106
C-11 Total Purchase by Date Report	107
C-12 Total Purchase by Order Number Report	108
C-13 Total Sale by Date Report	109

C-15	Receipt Report			111

110

Total Sale by Order Number Report

C-14



LIST OF TABLES

Tabl	le	Page
3-1	Hardware Requirements	11
3-2	Software Requirements	11
3-3	Database Description of Customer Table	22
3-4	Database Description of Supplier Table	22
3-5	Database Description of Product Table	23
3- 6	Database Description of Product Type Table	24
3-7	Database Description of Puser Table	24
3-8	Database Description of Custorder Table	25
3-9	Database Description of CustOrderitem Table	25
3-10	Database Description of SupOrder Table	26
3-11	Database Description of Suporderitem Table	27
3-12	Process Specification for Process 1.0	28
3-13	Process Specification for Process 1.1	29
3-14	Process Specification for Process 1.2	30
3-15	Process Specification for Process 2.0	30
3-16	Process Specification for Process 2.1	31
3-17	Process Specification for Process 2.2	32
3-18	Process Specification for Process 3.0	32
3-19	Process Specification for Process 3.1	33
3-20	Process Specification for Process 3.2	33
3-21	Process Specification for Process 3.3	34
3-22	Process Specification for Process 3.4	35
3-23	Process Specification for Process 4.0	35

3-24	Process Specification for Process 4.1	36
3-25	Process Specification for Process 4.2	36
3-26	Process Specification for Process 4.3	37
3-27	Process Specification for Process 5.0	38
3-28	Process Specification for Process 5.1	39
3-29	Process Specification for Process 5.2	40
3-30	Process Specification for Process 5.3	40
3-31	Process Specification for Process 6.0	41
3-32	Process Specification for Process 6.1	42
3-33	Process Specification for Process 6.2	43
3-34	Data Dictionary of Inventory and Point of Sale System Database	44
3-35	Interface Design	48
3-36	Report Design	52
A-1	Customer Table	59
A-2	Supplier Table	59
A-3	Puser Table	60
A-4	Product Table Product Type Table	60
A-5	Product Type Table	62
A-6	Custorderitem Table	62
A-7	Suporder Table	63
A-8	Custorder Table	64
A-9	Suporderitem Table	64

I. INTRODUCTION

1.1 Background of the Organization

Patiparnosod drug store is chosen for development of information system in business context.

The category of drug store is divided in to 3 categories. The chosen drug store is the 1st category, which sell the modern medicine, medicine by doctor's prescription, the medicine package and medicine by customer demand.

The name of the drug store is Patiparnosod. The owner of this store is Mr.Arunrast Patiparndhewa. This drug store has been established in 1968. Patiparnosod is the family business and now it passing to the second generation. Mrs. Sriwirai ghamramied is a pharmacist who is on service for two or three days in a week. They have little experience in drug store operation so this causes much operation's problems.

Patiparnosod has 3 types of supplier for the products.

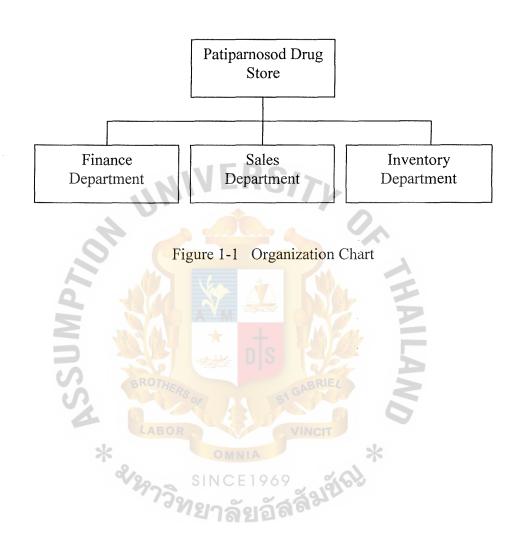
- 1. Sales Representatives from medicine manufacturing company.
- 2. Middleman that purchased the medicines in large quantities from many medicines manufacturing companies.
- 3. Wholesaler. (Siam Makro Co. Ltd.)

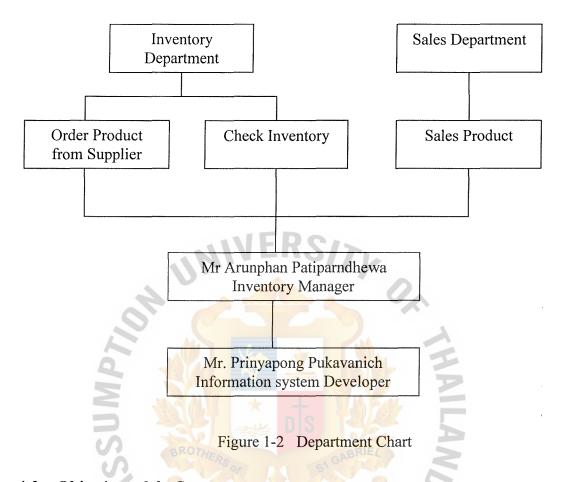
Nowadays, the store prefer buying medicine from wholesaler more than other types of supplier

Patiparnosod has 3 types of customer.

- 1. Walk-in customer.
- 2. Regular customer (The person who always buys medicine from store).
- 3. Customer that buy medicine according to doctor's prescription

It located on 2351/1 Charoenkrung Road, Watprayakrai, Bangkorlaem, BKK, 10120. Tel. (02) 289-1387.





1.2 Objectives of the System

To develop information system in store from manual system to automation by using new information system technology which comprise with computer hardware, software and database management system. All of this will make the store can use the information efficiently and effectively.

There are 4 main parts of User Requirement:

1.2.1 Requirement in Purchasing/Receiving System

There is storing and recording the new coming product information.

When the product was received, it has to add new coming product in stock and calculate the total quantity.

There is storing and recording the name of supplier of each product.

1.2.2 Requirement in Stock Management System.

There is the checking system that checks the product left in inventory below minimum requirement.

There is checking and reporting system that check the expired product in the near future.

There is connecting between Inventory System and Point of Sale System in order to deduct the product quantity in inventory.

There is connecting between Inventory System and Supplier Ordering System in order to increase the product quantity in inventory.

1.2.3 Requirement in Point of Sale System.

There is storing and recording every transaction that happen in store.

Amount of product in inventory will be automatically reduced when the product is sold.

Formal receipt will be given to customer.

1.2.4 Requirement of Reporting System.

Report the list of regular customer information.

Report the list of supplier of each product in store.

Report of the detail of all products in the store.

Report of the detail of the selling and purchasing Transaction.

1.3 Scope of the System

It will have developing 3 core systems in the store.

1.3.1 Main System

The function of this system is about managing the master information within the store. This system comprises with 3 sub-systems:

(1) Customer Information System

This system has functions about management the information about the customer of the store.

(2) Supplier Information System

This system has functions about management the information about the supplier of each product in store.

(3) Product Information System

This system has functions about management the information about the product in the store.

1.3.2 Transaction Processing System

The function of this system is managing the transaction processing in store.

This system comprises with 3 sub-systems:

(1) Selling System

This system has functions in managing the selling transaction between customer and store.

(2) Purchasing/Receiving System

This system has functions in managing the buying transaction between supplier and store.

(3) Inventory Checking System

This system has functions in managing and updating the product in inventory.

1.3.3 Report System

This system will report things along with user's need.

- Report about customer information.
- Report about supplier of each product in store.
- Report about the detail of all products in the store now.
- Report about the detail of all Transaction. Report about relating inventory management.

1.4 Project Plan

Stock Management and Point of Sale System for Patiparnosod drug store is exhibited in Figure 1-3.

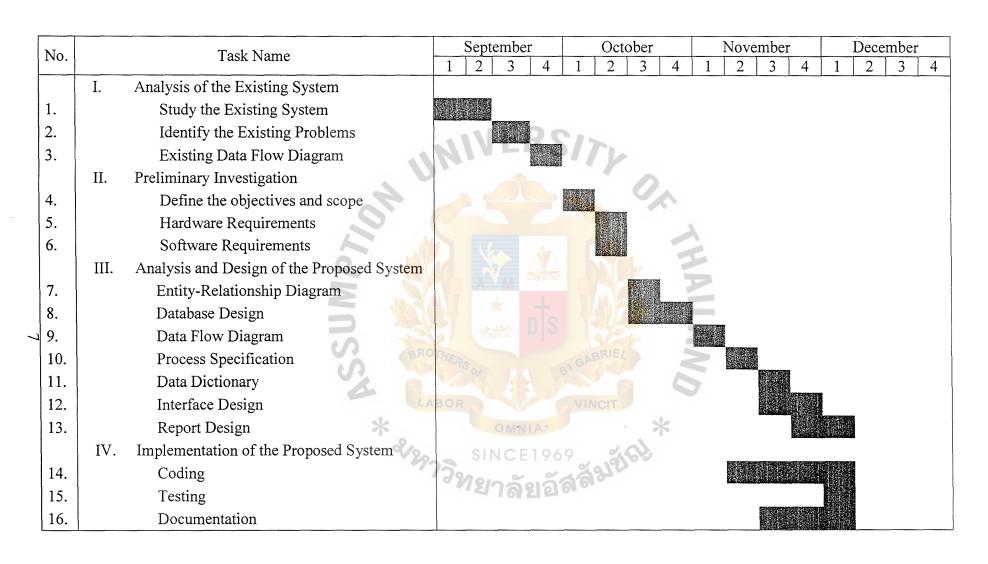


Figure 1-3 Project Plan for Stock Management and Point of sale System for Patiparnosod drug store.

II. THE EXISTING SYSTEM

2.1 Background of Existing System

Currently, the information system of the store is operated manually. The main process has collected information but some process has not yet collected. All information are paper-based and filed in folder.

The Inventory System is the most important system in drug store business. But once the products are sold, the Pharmacist or seller does not deduct the quantity sold from the inventory. They only note it in a piece of paper and sometime forget to do it. When the inventory level is low, they don't know about it. The quantity purchased and received is manually added to the inventory document.

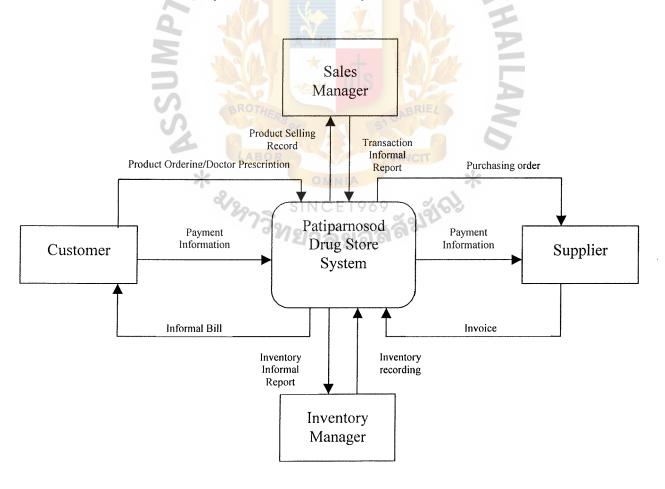


Figure 2-1 Context Diagram of Existing System

2.2 Problem Definition

The problem of this drug store will be divided into 4 main parts.

(1) Problem of Purchasing/Receiving Part

They use manual system in recording and storing information about product ordering and receiving from suppliers, which causes many mistakes.

They have no exact record about type of supplier of each product that causes wasting time and money because they may take time to search the supplier of some product again or purchase from the wrong place that sell the expensive product.

(2) Problem of Inventory Management Part

The amount of money received from medicine selling is less than the actual amount of medicine sold.

There are 3 causes of this problem but they are not sure that which one is the real cause.

- (1) The amount of medicine that receives from supplier is not equal to the amount of medicine ordered because there is no proper record that can be checked about each purchasing order.
- (2) Medicine might be stolen from store.
- (3) There is the mismatch of the amount of actual medicine selling and medicine selling recording.

They do not know when the medicine in stock will expire until the customer purchases those products or recheck stock again.

The decreasing amount of product has not recording when the product is sold.

They don't know that when they should make order for each product.

They don't know the transaction of each product which make them make mistake in calculate ordering the product from supplier. For example, they purchase some product that hard to sell in large amount, which cause the loss of cost or sometime they purchase the product that can sell in large amount in small amount, which not meet the need of customer.

(3) Problem of Point of Sale Part

There are no exact records of each transaction when customer purchases the product because sometimes workers forget to record the transaction or make double recorded.

The record of storing transaction of selling product to customer is not well organized.

The information about amount of product in stock is not reduced when the product was sold.

There is no formal billing of invoice to customer.

(4) Problem of Report Part

There is no daily, monthly and yearly report to check the total selling and purchasing.

There is no report that show amount of all products in the stock.

There is no report that shows the list of supplier.

There is no report that shows the list of regular customer.

III. THE PROPOSED SYSTEM

3.1 System Specification

(1) Hardware Requirements

Table 3-1 Hardware Requirements

Hardware	Specification
COMPATIBLE PCs	IBM PC/AT-Compatible computer
CPU	PENTIUM CLASS running at 200MHz or better
RAM	32MB memory minimum (Suggest 64 MB or more)
DISPLAY	600*800 Pixels VGA 16-bit colors or better
HARD DISK	20 Gigabyte
INPUT OR OTHER SOL	Mouse & Keyboard
OUTPUT	PRINTER

The suggested hardware requirements for using the stock management and point of sale system for Patiparnosod drug store are as Table 3-1.

(2) Software Requirements

Table 3-2 Software Requirements

SPECIFICATION
Windows 98 Second Edition/ME
Microsoft Visual Basic 6.0(SP 5)
Microsoft Access 2000

The suggested Software requirements for using the stock management and point of sale system for Patiparnosod drug store are as Table 3-2.



3.2 System Design

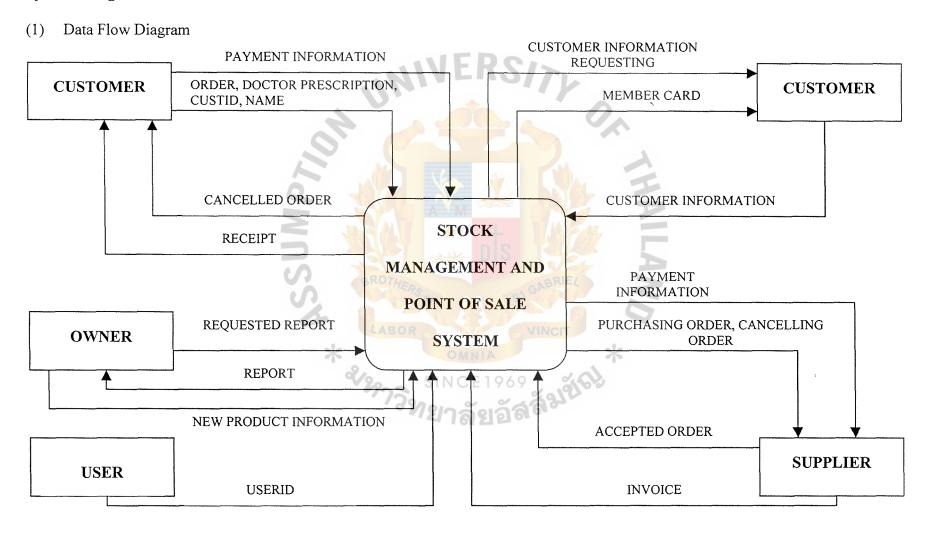


Figure 3-1 Context Diagram

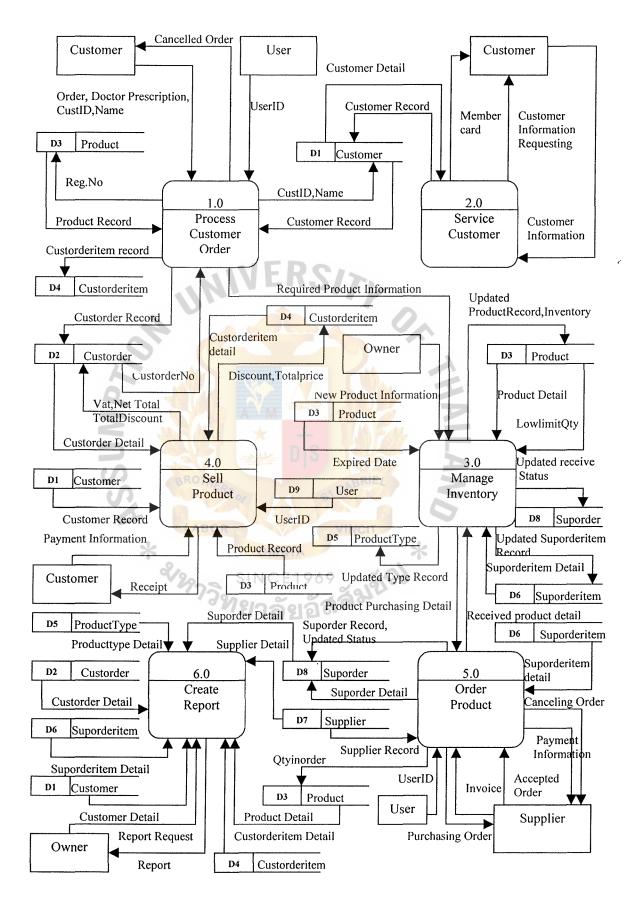


Figure 3-2 Data Flow Diagram – Level 0

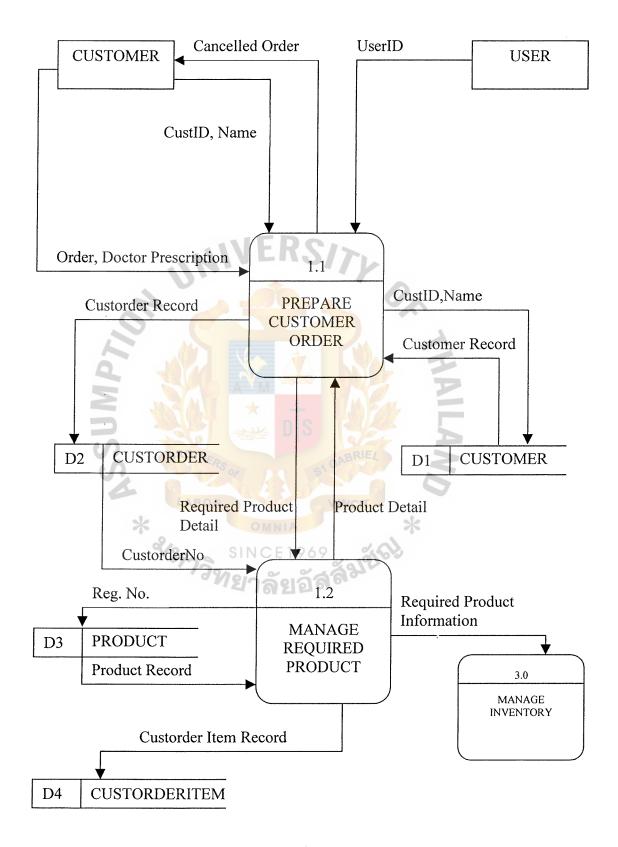


Figure 3-3 Data Flow Diagram – Level 1 for Process 1

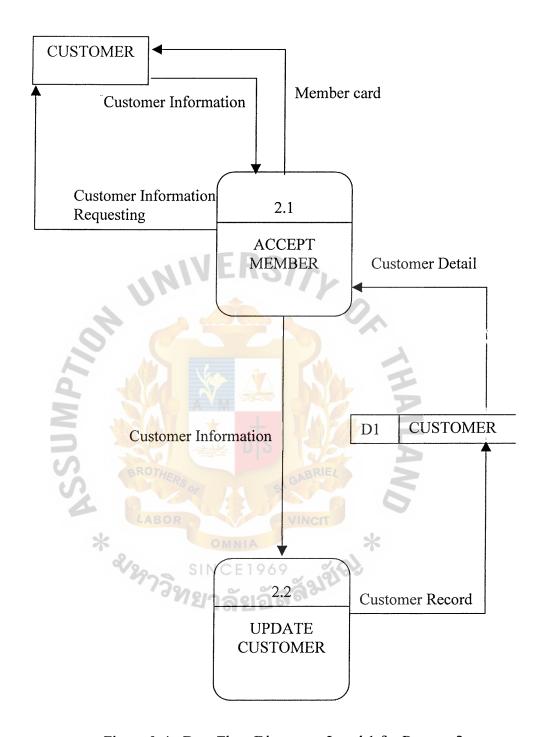


Figure 3-4 Data Flow Diagram – Level 1 for Process 2

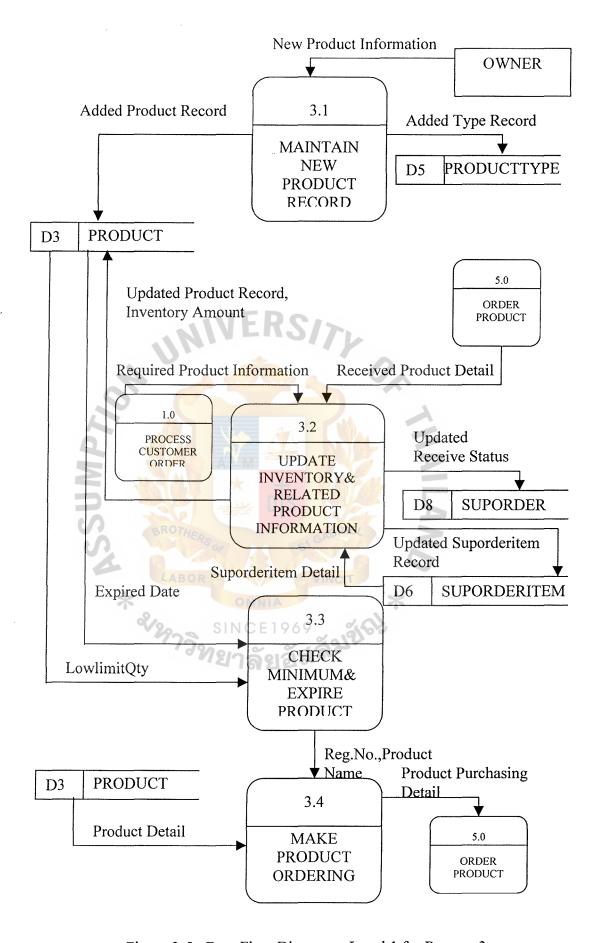


Figure 3-5 Data Flow Diagram – Level 1 for Process 3

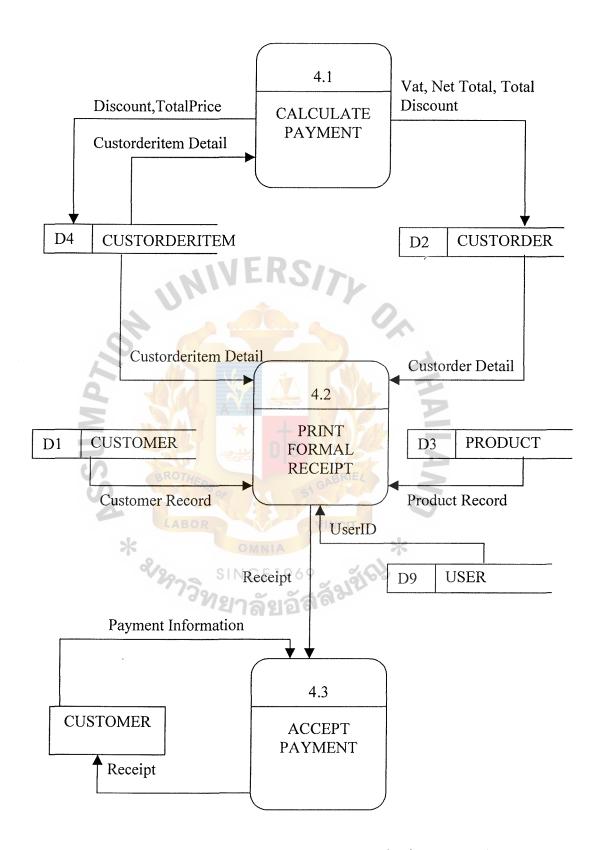


Figure 3-6 Data Flow Diagram – Level 1 for Process 4

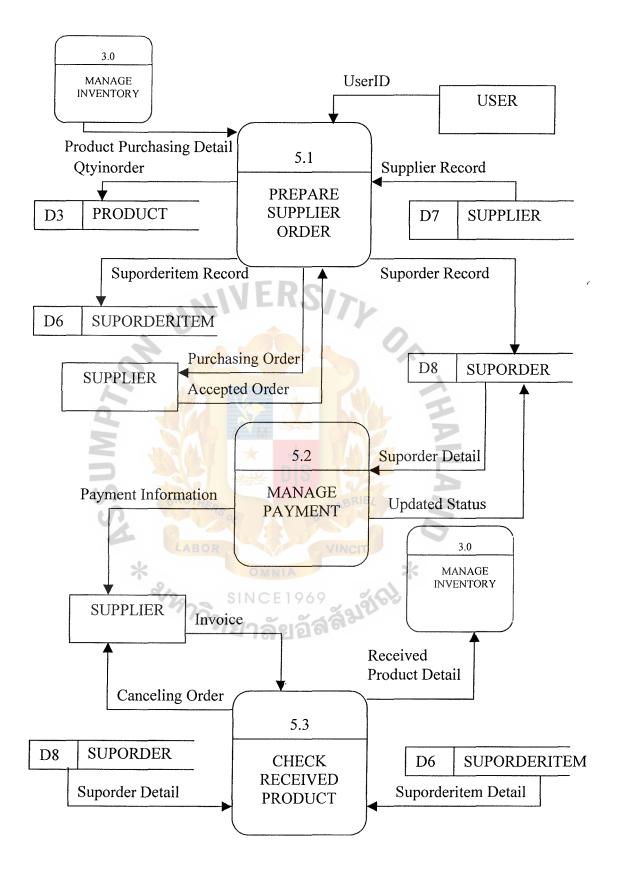


Figure 3-7 Data Flow Diagram – Level 1 for Process 5

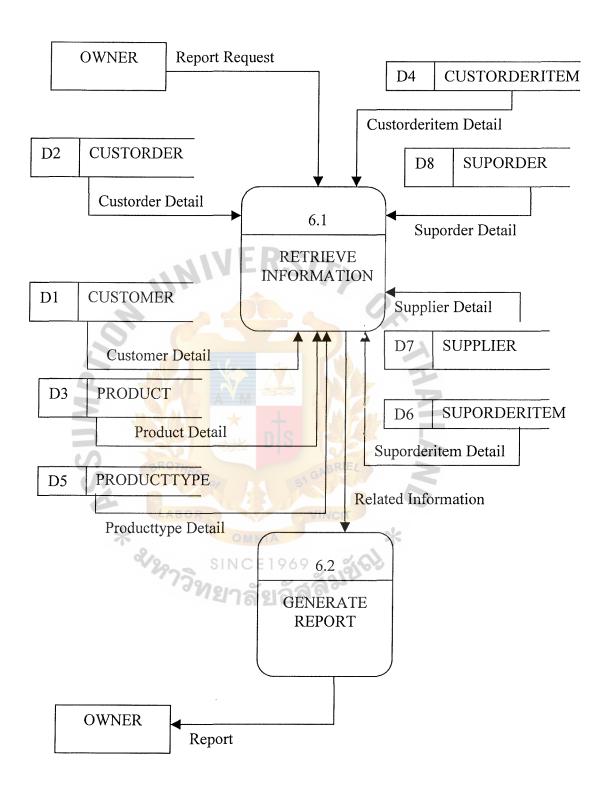


Figure 3-8 Data Flow Diagram – Level 1 for Process 6

(2) Entity-Relationship Diagram

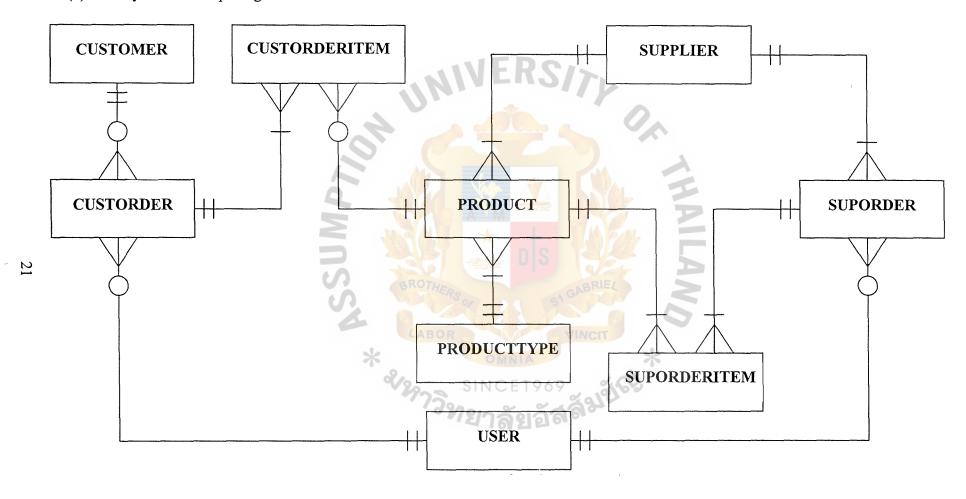


Figure 3-9 Entity-Relationship Diagram

(3) Database Design

The database will be divided into 2 categories.

- (1) Master Tables
- (2) Transaction Table

The master tables consist of 5 tables.

3.1 Customer Table

The purpose of this table is keeping information of each customer. It contains 5 fields. There are 2 types of customer: Walk In customer and Member customer. It is exhibited in Appendix A (Table A-1)

Table 3-3 Database Description of Customer Table

Description		
Assigned Customer ID.		
Customer Name.		
Customer's Address.		
Customer's Address zip code.		
Customer's Telephone number.		
SINCE1969		
^{1/วิท} ยาลัยอัสส์ ³		

3.2 Supplier Table

The purpose of this table is keeping information of each supplier. It contains 5 fields. It is exhibited in Appendix A (Table A-2)

Table 3-4 Database Description of Supplier Table

Description
Assigned Supplier ID.
Supplier's Name.
Supplier's Address.

ContactName	Contact person's name.
ContactTelNo	Telephone number of salesperson or supplier company.

3.3 Product Table

The purpose of this table is keeping information of each product. It contains 13 fields. It is exhibited in Appendix A (Table A-4)

Table 3-5 Database Description of Product Table

Field Name	Description
RegNo	Thai Register number of each product.
TypeID	Type ID of each product type.
Brand	Brand name of each product.
Description	Description of each product.
LowLimitQty	Quantity of minimum requirement of each product.
MfgDate	Manufacturing date of each product.
ExpDate	Expired date of each product.
UnitCost	Cost per unit of each product.
UnitPrice	Price per unit of each product.
QtyonSale	Quantity in store on shelf of each product.
QtyinStock	Quantity in stock of each product.
QtyinOrder	Quantity in order of each product.
SupID	Supplier ID that identify the supply product of each
	supplier.
SaleStatus	Sale status of product(0=Cancel Sale ,1=On Sale)

3.4 Product Type Table

The purpose of this table is keeping information of each product type.

It contains 2 fields. It is exhibited in Appendix A (Table A-5)

Table 3-6 Database Description of Product Type Table

Field Name	Description
TypeID	Type ID that assigned to each product type name.
TypeDetail	Product type name of each product.

3.5 Puser Table

The purpose of this table is keeping information of each user. It contains 6 fields. It is exhibited in Appendix A. (Table A-3)

Table 3-7 Database Description of Puser Table

Field Name	Description
UserID	User ID that assigned to each user.
Name	User's name.
Address	User's address.
TelNo	User's Telephone No.
Password	User's password to verify the authorized access in
	system
Priority	User's priority to verify the section access in system

The transaction table consists of 4 tables.

3.6 Custorder Table

The purpose of this table is keeping information of each customer order. It contains 7 fields. It is exhibited in Appendix A (Table A-8)

Table 3-8 Database Description of CustOrder Table

Field Name	Description
CustorderNo	Customer order number that assigned each order.
CustID	Customer ID.
OrderDate	Date of order of customer order.
TotalDiscount	Total discount of each customer order.
Vat	Total vat of each customer order.
NetTotal	Net total of each customer order.
UserID OR OTHER	ID of user who manages each customer order.

3.7 CustOrderitem Table

The purpose of this table is keeping detail information of each customer order. It contains 6 fields. It is exhibited in Appendix A(TableA-6)

Table 3-9 Database Description of CustOrderitem Table

Field Name	Description
CustOrderNo	Customer order number that assigned to each order.
RegNo	Thai Register number of each product.
Qty	Quantity ordered of each product.
UnitPrice	Price per unit of each product
Discount	Discount unit of each product

TotalPrice	Total price of each product.

3.8 SupOrder Table

The purpose of this table is keeping information of each supplier order. It contains 12 fields. It is exhibited in Appendix A (Table A-7)

Table 3-10 Database Description of SupOrder Table

Field Name	Description
SoŅo	Supplier order number that assigned to each supplier
UN	order.
SupID	Supplier ID that identify the supply product of each
	supplier
OrderDate	Order date of each supplier order.
DeliveryDate	Deliver date of each supplier order.
Receive Date	Receive date of each supplier order.
Vat	Vat amount of each supplier order.
NetTotal	Net total of each supplier order.
PaymentDate	Date of payment for each supplier order.
PaymentStatus	Status of payment.(1 = paid, 0 = unpaid)
ReceiveStatus	Status of receive.(1= received, 0= not yet received)
UserID	ID of each user who manage each supplier order.
CancelStatus	Cancel status. (1= Cancel order, 0= Not Cancel order)

3.9 Suporderitem Table

The purpose of this table is keeping detail information of each supplier order. It contains 5 fields. It is exhibited in Appendix A (Table A-9)

Table 3-11 Database Description of Customer Table

Field Name	Description
SoNo	Supplier order number that assigned to each supplier
1	order
RegNo	Thai Register number of each product
Qty	Quantity ordered of each product
MfgDateStock	Manufacturing Date of the product that received from supplier
ExpDateStock	Expired Date of the product that received from supplier
UnitCost	Cost per unit of each product
TotalCost	Total cost of each product
UpdateProInfo	Status for updating Mfg. Date and Exp. Date of product in store(1 = Updated,0 = Not yet updated)

(4) Process Specification

Table 3-12 Process Specification for Process 1.0

Process Name:	Process Customer Order
Data In:	(1) Customer Order, Doctor Prescription
	(2) Customer ID, Name
	(3) Product Record
	(4) User ID
	(5) Customer Record
UNI	(6) Customer orders No.
Data Out:	(1) Cancelled Order
	(2) Register No.
2 100	(3) Customer order item Record
	(4) Customer ID, Name
BROTHERS	(5) Required Product Information
LABOR	(6) Customer order Record
Process:	(1) Prepare Customer Order and relate other
& 2973998	information and send new customer information
18	to add member in other process.
	(2) Manage Required Product that can available or
	not available and send information to update in
	other process
Attachment:	(1) Customer
	(2) User
	(3) Data Store D1
	(3) Data Store D3

(4) Data Store D4
(5) Process 2.0
(6) Process 3.0

Table 3-13 Process Specification for Process 1.1

Process Name:	Prepare Customer Order
Data In:	(1) Order, Doctor Prescription
	(2) Customer ID, Name
UNI	(3) User ID
A C	(4) Customer Record
	(5) Product Detail
Data Out:	(1) Cancelled Order
5	(2) New Customer
BROTHERS	(3) Customer ID, Name
LABOR	(4) Customer order Record
* %/6	(5) Required Product Detail
Process:	Prepare Customer Order and relate other information
	and send new customer information to add member
	in other process.
Attachment:	(1) Customer
	(2) User
	(3) Data Store D1
	(4) Data Store D2
	(5) Process1.2

Table 3-14 Process Specification for Process 1.2

Process Name:	Manage Required Product
Data In:	Product Record
Data Out:	(1) Register No.
	(2) Required Product Information
	(3) Customer order Item Record
Process:	Manage Required Product that can available or not
	available and send information to update in other
UNI	process
Attachment	(1) Data Store D2
	(2) Data Store D3
	(3) Data Store D4
5	(4) Process 1.1
S BROTHERS	(5) Process 3.0

Table 3-15 Process Specification for Process 2.0

Tuble 5-15 Trocess Specification for Process 2.0		
Process Name:	Service Customer	
- 5/	ปาลยอส ^{อง}	
Data In:	(1) Customer Detail	
	(2) Customer Information	
Data Out:	(1) Member Card	
	(2) Customer Information Requesting	
	(3) Customer Record	
Process:	(1) Request information from customer and give	
	member card to customer	
	(2) Update customer information and assign	

	customer ID to customer
Attachment:	(1) Customer
	(2) Data Store D1

Table 3-16 Process Specification for Process 2.1

Process Name:	Accept Member
Data In:	(1) Customer Information
-111	(2) Customer Detail
Data Out:	(1) Member Card
CH 2	(2) Customer Information Requesting
	(3) Customer Information
Process:	Request information from customer and give
	member card to customer
Attachment:	(1) Customer (1)
LABOR	(2) Data Store D1
**	(3) Process 2.2

Table 3-17 Process Specification for Process 2.2

Process Name:	Update Customer
Data In:	Customer Information
Data Out:	Customer Record
Process:	Update customer information and assign customer
	ID to customer
Attachment:	(1) Data Store D1
	(2) Process 2.1

Table 3-18 Process Specification for Process 3.0

Process Name:	Manage Inventory
Data In:	(1) Required Product Information
	(2) Product Detail
	(3) Low Limit Quantity
	(4) Expired Date
	(5) Received Product Detail
	(6) Supplier Order Item Detail
Data Out:	(1) Updated Record
CH C	(2) Product Purchasing Detail
	(3) Updated Receive Status
Process:	(1) Add new product information
5	(2) Update Product Record, inventory amount and
BROTHERS	supplier order item record and receive status in
LABOR	supplier order
*	(3) Check Expired date and Product Quantity in
* ซื้อการิกา	stock that below than specified minimum limit
~ 1 2	(4) Make Product ordering that below than
	minimum limit by sending information to other
	process
Attachment	(1) Data Store D3
	(2) Data Store D5
	(3) Data Store D8
	(4) Process 1.0
	(5) Process 5.0

Table 3-19 Process Specification for Process 3.1

Process Name:	Maintain New Product Record
Data In:	New Product Information
Data Out:	(1) Added Product Record
	(2) Added Type Record
Process:	Add new product information
Attachment:	(1) Data Store D3
	(2) Data Store D5
ANI	(3) Owner

Table 3-20 Process Specification for Process 3.2

Process Name:	Update Inventory & Related Product Information
Data In:	(1) Required Product Information
BROTHERS	(2) Received Product Detail
LABOR	(3) Supplier Order Item Detail
Data Out:	(1) Updated Product Record
ขึ้นกรีกร	(2) Updated Inventory Amount
	(3) Updated Supplier Order Item Record
Process:	Update Product Record, inventory amount and
	supplier order item record and receive status in
	supplier order
Attachment:	(1) Data Store D3
	(2) Data Store D6
	(3) Data Store D8
	(4) Process1.0

	(5) Process5.0

Table 3-21 Process Specification for Process 3.3

Process Name:	Check Minimum & Expire Product
Data In:	(1) Expired Date
	(2) Low Limit Quantity
Data Out:	(1) Register No.
' 311	(2) Product Name
Process:	Check Expired date and Product Quantity in stock
OF C	that below than specified minimum limit
Attachment:	(1) Data Store D3
	(2) Process 3.4

Table 3-22 Process Specification for Process 3.4

Process Name:	Make Product Ordering
Data In:	(1) Register No.
2973	(2) Product Name
, 981	(2) Froduct Name
	(3) Product Detail
Data Out:	Product Purchasing Detail
Process:	Make Product ordering that below than minimum
	limit by sending information to other process
Attachment:	(1) Data Store D3
	(2) Process 3.3
	(3) Process 5.0

Table 3-23 Process Specification for Process 4.0

Process Name:	Sell Product
Data In:	(1) Customer Order Item Detail
	(2) Customer Order Detail
	(3) Customer Record
	(4) User ID
	(5) Payment Information
	(6) Product Record
Data Out:	(1) Vat, Net Total, Total Discount
A A	(2) Discount, Total Price
	(3) Receipt
Process	(1) Calculate selling detail as Total Discount, Vat,
5 1	Net Total, Total Price
BROTHERS	(2) Print Formal Receipt by combining related
LABOR	selling information.
*	(3) Accept Payment from customer and give receipt
* & 19973912	for customer.
Attachment:	(1) Customer
	(2) Data Store D1
	(3) Data Store D2
	(4) Data Store D3
	(5) Data Store D4
	(6) Data Store D9

Table 3-24 Process Specification for Process 4.1

Process Name:	Calculate Payment
Data In:	Customer Order Item Detail
Data Out:	(1) Discount, Total Price
	(2) Vat, Net total, Total Discount
Process:	Calculate selling detail as Total Discount, Vat, Net
	Total, Total Price
Attachment:	(1) Data Store D2
UNI	(2) Data Store D4

Table 3-25 Process Specification for Process 4.2

Process Name:	Print Formal Report
Data In:	(1) Customer Order Item Detail
BROTHERS OF	(2) Customer Order Detail
LABOR	(3) Customer Record
*	(4) Product Record
2/2973M2	(5) User ID
Data Out:	Receipt
Process	Print Formal Receipt by combining related selling
	information.
Attachment:	(1) Data Store D1
	(2) Data Store D2
	(3) Data Store D3
	(4) Data Store D4
	(5) Data Store D9

	(6) Process 4.3

Table 3-26 Process Specification for Process 4.3

Process Name:	Accept Payment
Data In:	(1) Receipt
	(2) Payment Information
Data Out:	Receipt
Process:	Accept Payment from customer and give receipt for
UNI	customer.
Attachment:	(1) Customer
	(2) Process 4.2

Table 3-27 Process Specification for Process 5.0

Process Name:	Order Product
Data In: LABOR	(1) User ID
* %/2	(2) Supplier Record
8/2973mg	(3) Supplier Order Detail
	(4) Product Purchasing Detail
	(5) Supplier Order Item Detail
	(6) Accepted Order
	(7) Invoice
Data Out:	(1) Quantity in Order
	(2) Supplier Order Record
	(3) Updated Status
	(4) Received Product Detail

	(5) Supplier Order Item Record
	(6) Cancelled Order
	(7) Payment Information
	(8) Purchasing Order
Process:	(1) Prepare Supplier Order and relate other
	information and contact supplier for ordering
	product.
- 11	(2) Manage Payment to specific date and update
n_{M_1}	payment status.
A P	(3) Check Received Product that along with ordering
	product otherwise cancelled order and send
2	received product detail to other process
Attachment:	(1) User
BROTHERO	(2) Supplier
LABOR	(3) Data Store D3
*	(4) Data Store D6
SNECLES.	(5) Data Store D7
7/2	(6) Data Store D8
	(7) Process 3.0

Table 3-28 Process Specification for Process 5.1

Process Name:	Prepare Supplier Order
Data In:	(1) Accepted Order
	(2) Product Purchasing Detail
	(3) User ID
	(4) Supplier Record
Data Out:	(1) Purchasing Order
	(2) Supplier Order Item Record
UNI	(3) Quantity in Order
OH C	(4) Supplier Order Record
Process:	Prepare Supplier Order and relate other information
	and contact supplier for ordering product.
Attachment:	(1) User
BROTHERS	(2) Supplier Supplier
LABOR	(3) Data Store D3
* .	(4) Data Store D6
* & 29773918	(5) Data Store D7
-12	(6) Data Store D8

Table 3-29 Process Specification for Process 5.2

Process Name:	Manage Payment
Data In:	Supplier Order Detail
Data Out:	(1) Updated Status (2) Payment Information
Process:	Manage Payment to specific date and update

	payment status.
Attachment:	(1) Supplier
	(2) Data Store D8

Table 3-30 Process Specification for Process 5.3

Process Name:	Check Received Product	
Data In:	(1) Supplier Order Detail	
	(2) Invoice	
Alle	(3) Supplier Order Item Detail	
Data Out:	(1) Canceling Order	
	(2) Received Product Detail	
Process:	Check Received Product that along with ordering	
	product otherwise cancelled order and send receives	
BROTHERS	product detail to other process.	
Attachment:	(1) Supplier	
*	(2) Data Store D6	
* 3/2773/12	(3) Data Store D8	
718	(4) Process 3.0	

Table 3-31 Process Specification for Process 6.0

Process Name:	Create Report
Data In:	(1) Report Request
	(2) Customer Detail
	(3) Supplier Order Item Detail
	(4) Customer Order Detail

	(5) Product Type Detail	
	(6) Supplier Order Detail	
	(7) Supplier Detail	
	(8) Product Detail	
	(9) Customer Order Item Detail	
Data Out:	Report	
Process:	(1) Retrieve relating information along with report	
	request from owner	
UNI	(2) Design reports format and print report.	
Attachment:	(1) Owner	
	(2) Data Store D1	
2 196	(3) Data Store D2	
	(4) Data Store D3	
BROTHERS	(5) Data Store D4	
LABOR	(6) Data Store D5	
* .	(7) Data Store D6	
* & 2973998	(8) Data Store D7	
-12	(9) Data Store D8	

Table 3-32 Process Specification for Process 6.1

Process Name:	Retrieve Information
Data In:	(1) Report Request
	(2) Customer Detail
	(3) Supplier Order Item Detail
	(4) Customer Order Detail

	(5) Product Type Detail	
	(6) Supplier Order Detail	
	(7) Supplier Detail	
	(8) Product Detail	
	(9) Customer Order Item Detail	
Data Out:	Related Information	
Process:	Retrieve relating information along with report	
-111	request from owner	
Attachment:	(1) Owner	
CH C	(2) Data Store D1	
	(3) Data Store D2	
2 406	(4) Data Store D3	
5 1	(5) Data Store D4	
BROTHERS	(6) Data Store D5	
LABOR	(7) Data Store D6	
* .	(8) Data Store D7	
* & SANTONE	(9) Data Store D8	
- 1/2	(10) Process 6.2	

Table 3-33 Process Specification for Process 6.2

Process Name:	Generate Report	
Data In:	Related Information	
Data Out:	Report	
Process:	Design reports format and print report.	
Attachment:	(1) Owner	

(2) Process 6.1



(5) Data Dictionary

Table 3-34 Data Dictionary of Stock Management and Point of Sale System for Patiparnosod drug store System Database

Field Name	Meaning
Address	Address of customer ,user or supplier
Brand	Name of product
CancelStatus	Identification Status that supplier order is
- 43	cancelled or not
ContactName	Name of person who the our store usually
A 2:	contact for purchasing product to store
ContactTelno	Telephone number of supplier
CustID	Identification code of customer
CustOrderNo	Identification code of customer order
DeliveryDate	Expect Date on which supplier deliver product to
LABOR	our store
Description	Description of product
Discount	Discount amount per customer order item that sold to our store's customer
ExpDate	Date on which the product in our store is expired
ExpDateStock	Date on which the product that received from
	supplier is expired
LowLimitQty	Specific minimum quantity of product that have
	to maintain in our store
MfgDate	Date on which the sold product in our store is
	manufactured

MfgDateStock	Date on which the product that received from
	supplier is manufactured
Name	Name of customer or user
NetTotal	The total cost of product sold by the supplier to
	our store or total price of product sold by the our
	store to customer
OrderDate	Date on which the our store place order to
- 431	supplier or the customer place order to our store
Password(Puser)	Identification password of user to enter drug
CH C	store system
PaymentDate	Date on which the our store make payment of
2 300	product to supplier
Paymen <mark>tStatus</mark>	Identification Status of our store's payment to
BROTHERS	supplier
Priority LABOR	Identification of different authorization for each
*	user to enter drug store system
Qty Vanagers	Quantity of product per item ordered by
् गृश्	customer or ordered by store
QtyInOrder	Quantity of product is during order period by
	store
QtyInStock	Quantity of product is in stock of store
QtyOnSale	Quantity of selling product on shelf in store
ReceiveDate	Date on which the product is received from
	supplier
ReceiveStatus	Identification Status of receiving product from

	supplier for each order
Regno	Identification code of product
SaleStatus	Identification Status of product in the store that is
-	available or not
Sono	Identification code of the order placed to supplier
	by the store
SupID	Identification code of supplier
Supname	Name of Supplier's company
Telno	Telephone No. of user or customer
TotalCost	The total cost of the product in each order item
3	sold by the supplier
TotalDiscount	The total discount amount of product in each
5	or <mark>der sold by the stor</mark> e to customer
TotalPrice	The total price of product per customer order item
TypeDet <mark>ail</mark>	The detail name of each product type
TypeID	Identification code of each product type
UnitCost	Cost per unit of the product sold by the supplier to store
UnitPrice	Selling price per unit of the product
UnitType	The different form of unit of the product
UpdateProInfo	Identification Status for updating Mfg. date
	and Exp. Date of sold product in store
UserID	Identification code of each user
Vat	The amount of vat in each customer order or
	supplier order

Zipcode	The code of customer's city



(6) Interface Design

The interface design is exhibited in Appendix B.

Table 3-35 Interface Design of Stock Management and Point of Sale

System for Patiparnosod drug store System

Interface Screen Lists	Explanation
(1) Login Form	This screen is security-checking form to
(Figure B-1)	prevent unauthorized user enter the system.
(2) Main Page Form	This screen is the beginning of the drug store
(Figure B-2)	system. The user can enter each screen from
CH 2	this form
(3) Customer Profile Form	This screen is for customer information
(Figure B-3)	management and customer information
	searching.
(4) Supplier Profile Form	This screen is for supplier information
(Figure B-4)	management and supplier information
* OMN	searching.
(5) User Profile Form	This screen is for user information
(Figure B-5)	management and user information searching.
(6) Change Password	This screen is for user's password changing.
Form (Figure B-6)	
(7) Product Detail Form	This screen is for product information
(Figure B-7)	management and product information
	searching. There are three colors to show the
	expired date of product status.
(8) Product Type Form	This screen is for product type information

(Figure B-8)	management. This screen is sub-form of
	Product Detail Form that can enter by
	clicking edit product type button from
·	Product Detail Form.
(9) Product Purchasing	This screen is for product purchasing
Form(Figure B-9)	management from supplier and calculate
	system for support purchasing. The Mfg.
	Date and Exp. date of product will be updated
MIVER	pass by this form, if the product is received
A SO	on order date
(10) User Show Form	This screen is sub-form of product purchasing
(Purchasing) (Figure B-10)	form for browsing and choosing user
	information.
(11) Supplier Detail Form	This screen is sub-form of product purchasing
(Purchasing) (Figure B-11)	form for browsing and choosing supplier
* OMNI	information.
(12) Product Show Form	This screen is sub-form of product purchasing
(Purchasing) (Figure B-12)	form for browsing and choosing product
	information.
(13) Product Selling Form	This screen is used for product selling
(Figure B-13)	management to customer and calculate
	system for support selling.
(14) Customer Show Form	This screen is sub-form of product selling
(Selling) (Figure B-14)	form for browsing and choosing customer
	information.

(15) Product Show Form	This screen is sub-form of product selling
(Selling) (Figure B-15)	form for browsing and choosing product
	information.
(16) Product Receiving	This screen is used for checking received
Form (Figure B-16)	product and updating receive and payment
	status or cancel order. The Mfg. Date and
	Exp. date of product will be updated pass by
MEI	this form. This screen is used when ordered
UNIVE	products delivered or payment to supplier for
The same	product is made.
(17) Supplier Detail Form	This screen is sub-form of product receiving
(Receiving) (Figure B-17)	form for browsing and choosing supplier
5 4304 *	information.
(18) Product Expired	This screen is used for showing the product
Checking Form	details that expired before specific date. It can
(Figure B-18)	be showed by type or showed all of selling
ชื่อการิกายาลัก	product on shelf or showed by type or
" ขายาลร	showed all of product is in stock of store.
(19) Product Requirement	This screen is used for showing product detail
i	
Form (Figure B-19)	that has quantity in stock below specific limit
Form (Figure B-19)	that has quantity in stock below specific limit quantity. It used for informing user to make
Form (Figure B-19)	
Form (Figure B-19)	quantity. It used for informing user to make
Form (Figure B-19) (20) Product Report	quantity. It used for informing user to make more purchasing product. It can be selected
	quantity. It used for informing user to make more purchasing product. It can be selected by type of product or selected all of products.

(Figure B-20)	preview product report before printing.
(21) Total Purchase Form	This screen is used for preview the total
(Figure B-21)	purchasing reports and shows the store total
	outcome by specified condition. It can be
	selected by specified date period or order
	number.
(22) Total Sale Form	This screen is used for preview the total
(Figure B-22)	selling report and show store income by
MINIT	specified condition. It can be selected by
4	specified date period or order number.



(7) Report Design

The report design is exhibited in Appendix C.

Table 3-36 Report Design of Stock Management and Point of Sale System for Patiparnosod drug store System

List the Report	Explanation				
(1) All Customer Report	Report list of all customer information.				
(Figure C-1)					
(2) All Supplier Report	Report list of all supplier information.				
(Figure C-2)	SITY				
(3) All Product Report	Report list of all Product information.				
(Figure C-3)					
(4) All Product By Type	Report list of all Product information by				
Report (Figure C-4)	specific product type.				
(5) Low Limit Product	Report list of all product information that				
Report (Figure C-5)	quantity in stock lower than specific				
* OMNIA	minimum quantity.				
(6) Low Limit Product By	Report list by specific product type of all				
Type Report (Figure C-6)	product information that quantity in stock				
	lower than specific minimum quantity.				
(7) All Expired Product (on	Report list of all expired selling product on				
sale) Report (Figure C-7)	shelf information that expired date less than				
	specific date.				
(8) All Expired Product (in	Report list of all expired product in stock				
stock) Report (Figure C-8)	information that expired date less than				
	specific date.				

(9) Expired Product By	Report list by specific product type of
Type(on sale) Report	expired selling product on shelf information
(Figure C-9)	that expired date less than specific date.
(10) Expired Product By	Report list by specific product type of
Type(in stock) Report	expired product in stock information that
(Figure C-10)	expired date less than specific date.
(11) Total Purchase By Date	Report list of all purchasing order that
Report (Figure C-11)	contain List of product by specific date
MIVER	period.
(12) Total Purchase By	Report list of purchasing order that contain
Order Numb <mark>er Report</mark>	list of product by specific order number
(Figure C-12)	range
(13) Total Sale By Date	Report list of customer order selling that
Report (Figure C-13)	contains list of product by specific date
LABOR	period.
(14) Total Sale By Order	Report list of customer order selling that
Number Report	contains list of product by specific order
(Figure C-14)	number range.
(15) Receipt Report	Report list of the product and other relate
(Figure C-15)	information that give to customer as
	evidence for customer selling.

IV. SYSTEM IMPLEMENTATION

4.1 Overview the System Implementation

The system implementation is the process of putting new system and retiring the old system. There are four implementation strategies: Direct cut over, Pilot implementation, Phased implementation, and Parallel implementation. The stock management and Point of sale system for Patiparnosod drug store system use Direct Cut over Strategy for implementation. It is the transition from existing system to new system immediately. This strategy uses low cost and minimal time required but high risk.

The reason for using Direct Cut over Strategy is the new system is extremely different from old system. Besides, there is not transfer transaction information between existing system and new system because existing system is manual system that have no correctly recording about transaction so new system can begin new transaction operation. So existing system is cancelled and replaced with new system.

This strategy has high risk so the system should be tested many times with real and large enough quantity information in order to confirm validity and have training period for user. There is the good management in transferring data from old to new system. The training is very necessary because new system is different from existing system.

4.2 Test Plan

Test plan is the steps in testing that the system works as designed and meet the user requirement. Test plan will be developed for checking system performance and usability. The stock management and Point of sale system for Patiparnosod drug store system divided test plan into 3 steps.

First step in system testing is using unit testing for testing small component of the system to guarantee it is running the proper operation and eliminate execution errors and logic errors.

Next step is link testing. It is testing between two or more components that depend on each other. The data that use for link testing come from both normal and unusual situations. This testing examine the interaction of a series of components within the system that work together properly such as the testing with the inventory updating in transaction processing.

Last step is system testing that involves entire information system. The system will move through testing environments before releasing into a real environment. Then the user can test the system by data entering, including samples of actual, or live data, perform queries, and print reports to simulate actual operating conditions. After that, the user can test in real environment. Finally, check them that satisfy user's need or some parts have to be modified.

V. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The stock management and Point of sale system for Patiparnosod drug store system will develop information in store from manual system to automation system by using new information technology, which comprise of computer hardware, software and database management system. The main activities of this system development are studying the existing system, defining problems, collecting user requirements, and designing the proposed system, programming and testing the system.

This system uses the five phases of the system development life cycle to develop the system: System Planning: System Analysis: System Design: System implementation and System Operation and Support.

The new system has four main parts: Purchasing/Receiving system, Stock management system, Point of sale system, Reporting system. Database management system is the most important part that is behind the new system. It performs tasks previously done by people. The new system will increase the efficiency and reduce the cost of performing various tasks in the store. This system will solve the problems of old system and make the store can use information efficiently and effectively.

However, There are some problems occur during system developing. The system cannot check the expired date and unit cost of medicine from purchasing same product in different supplier order. The system cannot classify between the selling product in store with the product in stock. The system cannot transfer the product in stock to the selling product in store when the product in store is sold out. Finally, all these problems can be solved.

5.2 Recommendations

First it should have user training to help user familiar with the new system and make them can use system resource more effectively, to provide answer for technical and operational question and to make user more productive by teaching them how to meet information need.

Feedback should be collected from user after they use system within a period. In the future, the data report system should be improved to have more flexibility and use less paper space. The order canceling should have putting remark about the cause of canceling. Finally, it should have system changing to match with environment change to make it more efficient and reliable or maintainable. The changing may be hardware/software changing or information updating to match with the operation in the future.



Table A-1 Customer Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	CustID	varchar (5)	Y	Y		Custorder		Primary Key
2	Name	varchar (50)	Y		RSY	Ph.		Attribute
3	Address	varchar (70)			Y			Attribute
4	Zipcode	varchar (5)			Y		<5 digits>	Attribute
5	TelNo	varchar (30)			Y			Attribute

Table A-2 Supplier Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	SupID	varchar (4)	YV	Y	DS	Product, Suporder		Primary Key
2	SupName	varchar (50)	Y					Attribute
3	Address	varchar (70)	LABO	R	Y	CIT		Attribute
4	ContactName	varchar (50)		OM	Y	× .		Attribute
5	ContactTelNo	varchar (30)	9,_		Y			Attribute

Table A-3 Puser Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Кеу Туре
1	UserId	varchar (3)	Y	YE	RS/7	Custorder, Suporder		Primary Key
2	Name	varchar (50)	Y					Attribute
3	Address	varchar (70)			Y			Attribute
4	TelNo	varchar (30)			Y)		Attribute
5	Password	varchar (15)	(4)	16.	Y			Attribute
6.	Priority	varchar (1)		1 872	44		<1 or 2>	Attribute

Table A-4 Product Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Кеу Туре
1	RegNo	varchar (20)	Y Y	Yomi		Custorder item, Suporderitem		Primary Key
2	TypeId	varchar (20)	Y	Meinő	ພລັສສີ່	Product		Foreign Key
3	Brand	varchar (20)	Y	-4 16I	Y			Attribute
4	Description	varchar (20)			Y			Attribute
5	LowLimitQty	Number (Integer)			Y			Attribute

6	MfgDate	Date/Time (Short Date)		-	. Y		<dd mm="" yyyy=""></dd>	Attribute
7	ExpDate	Date/Time (Short Date)	111	IVE	RY //	7	<dd mm="" yyyy=""></dd>	Attribute
8	UnitType	varchar (30)			Y			Attribute
9	UnitCost	Number (Single)			Y			Attribute
10	UnitPrice	Number (Single)		A A	Y	ARIL		Attribute
11	QtyonSale	Number (Integer)	BROTHE	PS OF	Y	RIEL		Attribute
12	QtyinStock	Number (Integer)	LABO	OMI	YVIN	ж *		Attribute
13	QtyinOrder	Number (Integer)	18973	SINC ทยาลั	1969 ยอัสล์	ग्रह्मा		Attribute
14	SupID	varchar (5)	Y				Suporder	Foreign Key
15	SaleStatus	varchar (1)					< 1 or 0 >	Attribute

Table A-5 ProductType Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	TypeID	varchar (3)	Y	Y	Do.	Product		Primary Key
2	TypeDetail	varchar (30)	Y	NVE	M9//			Attribute

Table A-6 Custorderitem Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	CustorderNO	varchar (7)	Y	Y		V 3		Foreign Key
2	RegNo	varchar (20)	Y			4 204		Foreign Key
3	Qty	Number (Integer)	BROTHE	PS OF	Y	RIEL		Attribute
4	UnitPrice	Number (Single)	LABO	ROMI	Y	сп *		Attribute
5	Discount	Number (Single)	12973	sinc ทย าลั	¹⁹ ଦୁର ହାରୁ ଶର୍ଷ	गज्ञांथी		Attribute
6	TotalPrice	Number (Single)		-	Y			Attribute

Table A-7 Suporder Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	SoNo	varchar (7)	Y	Y		Suporderitem		Primary Key
2	SupID	varchar (4)	Y	NVE		Product		Foreign Key
3	OrderDate	Date/Time (Short Date)			Y	0	<dd mm="" yyyy=""></dd>	Attribute
4	DeliveryDate	Date/Time (Short Date)		V ₍₅₎	Y	4 =	<dd mm="" yyyy=""></dd>	Attribute
5	ReceiveDate	Date/Time (Short Date)		A M	LY ns		<dd mm="" yyyy=""></dd>	Attribute
6	Vat	Number (Single)	BROTHE	RS of	Y	RIEL		Attribute
7	NetTotal	Number (Single)	LABO	SINC	TIA Y	CIT *		Attribute
8	PaymentDate	Date/Time (Short Date)	273	ทยาลั	ยอังส์ลั	37.87	<dd mm="" yyyy=""></dd>	Attribute
9	PaymentStatus	varchar (1)					< 1 or 0 >	Attribute
10	ReceiveStatus	varchar (1)					< 1 or 0 >	Attribute
11	UserID	varchar (3)				Custorder		Foreign Key
12	CancelStatus	varchar (1)					< 1 or 0 >	Attribute

Table A-8 Custorder Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key to	Check	Key Type
1	CustorderNo	varchar (7)	Y	Y	DC.	CustorderItem		Primary Key
2	CustId	Text(5)	Y		49			Foreign Key
3	OrderDate	Date/Time (Short Date)		25	Y	00	<dd mm="" yyyy=""></dd>	Attribute
4	TotalDiscount	Number (Single)		×*	Y			Attribute
5	Vat	Number (Single)		* .	DY			Attribute
6	NetTotal	Number (Single)	LABO	PS OF	S1 GA	CIT		Attribute
7	UserID	varchar (3)	Y	CM		Suporder		Foreign Key

Table A-9 Suporderitem Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key to	Check	Key Type
1	SoNo	varchar (3)	Y	Y		Custorderitem		Foreign Key
2	RegNo	varchar (3)	Y			Custorderitem		Foreign Key

	_
(ゝ
۲	7
`	

3	MfgDateStock	Date/Time (ShortDate)			Y		<dd mm="" yyyy=""></dd>	Attribute
4	ExpDatestock	Date/Time (ShortDate)	.IN	IVE	R\$/7	1	<dd mm="" yyyy=""></dd>	Attribute
5	Qty	Number (Integer)			Y	0		Attribute
6	UnitCost	Number (Single)		XX	Y	H		Attribute
7	TotalCost	Number (Single)		X	Y			Attribute
8	UpdateProInfo	varchar (1)	BRUTHE	Ro	GA GA	KIEZ Z	<1 or 0>	Attribute
* OMNIA * OMNIA * SINCE 1969 SINCE 1969								



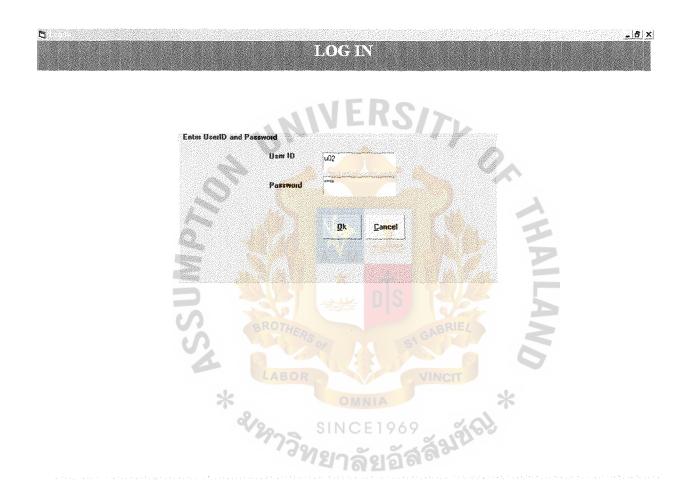


Figure B-1 Login Form



Figure B-2 Main Page Form

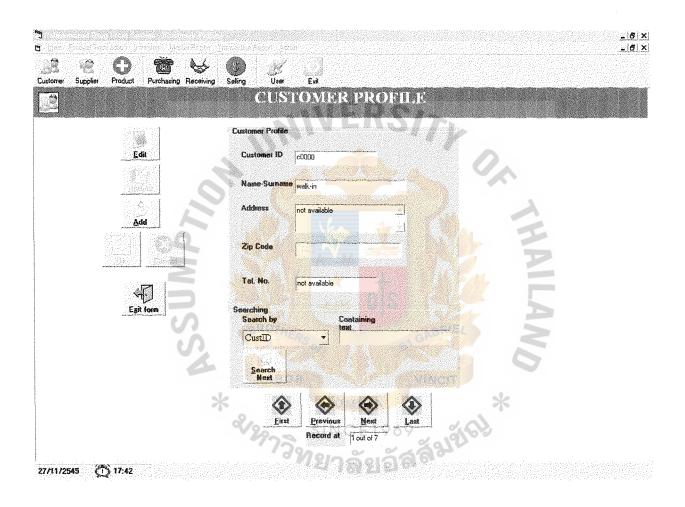


Figure B-3 Customer Profile Form

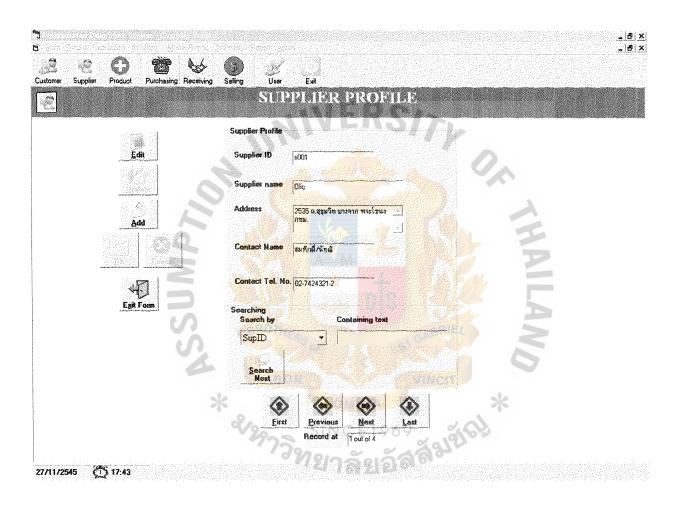


Figure B-4 Supplier Profile Form

er Supplier Product Purchasing Receiving	Selling User Evil USER PROFILE	
	User Profile	
Edit	User ID u01	
	Name Surname 9851a shazifin	
<u> </u>	Address 1520 ถ.นจังวัฒนะ บางตลาด ปาก เกร็ด นนาบุรี	4
Add	Tel. No. 02-5310996	
	Password	
	Confirm Password	
	Priority 2	
Egit form		
acción por estado con constituido de la constituida del constituida del constituida de la constituida	Searching Search by Containing	
~ ~ ~	UserID Cout	2
0,		
	Search Next	
	K A A A	L
		T
	First Previous Next Last Record at 1 out of 3	,

Figure B-5 User Profile Form

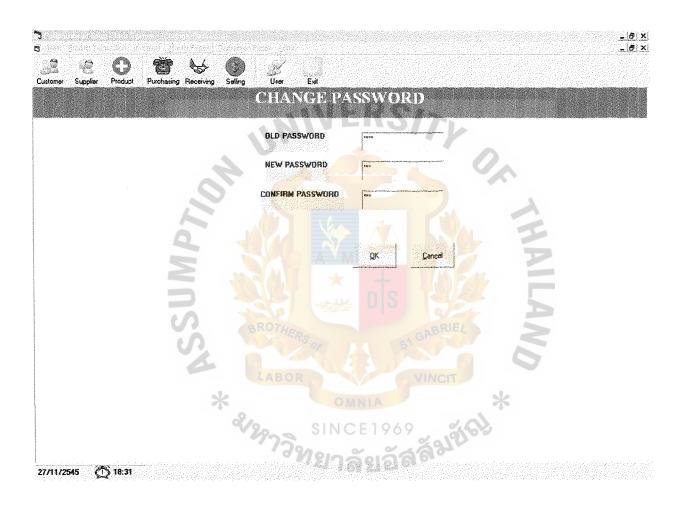


Figure B-6 Change Password Form

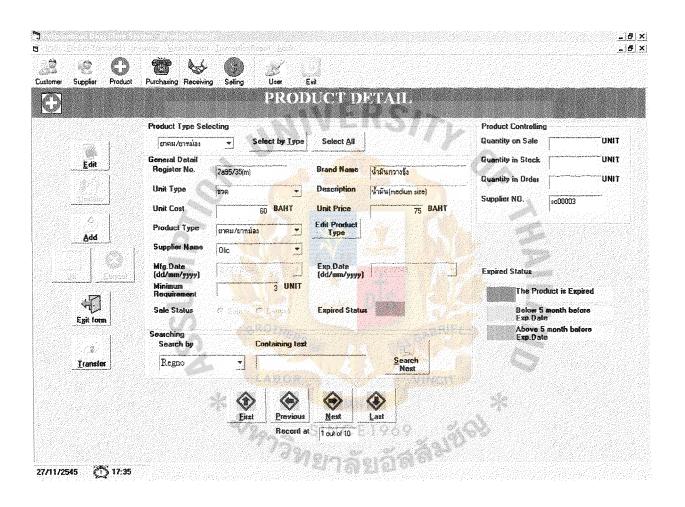


Figure B-7 Product Detail Form

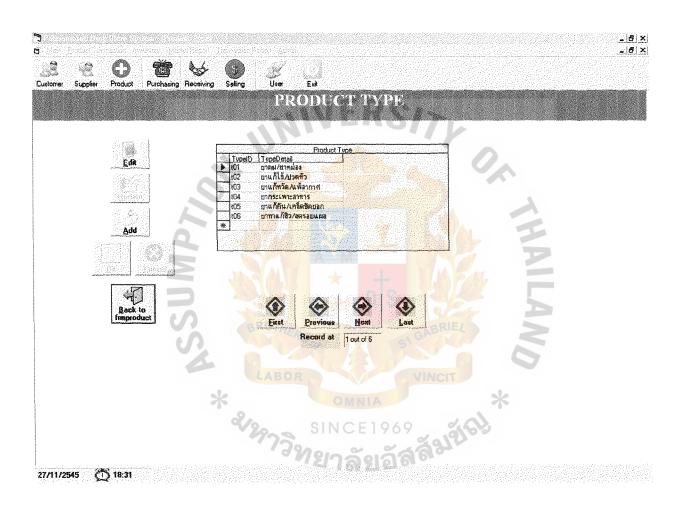


Figure B-8 Product Type Form

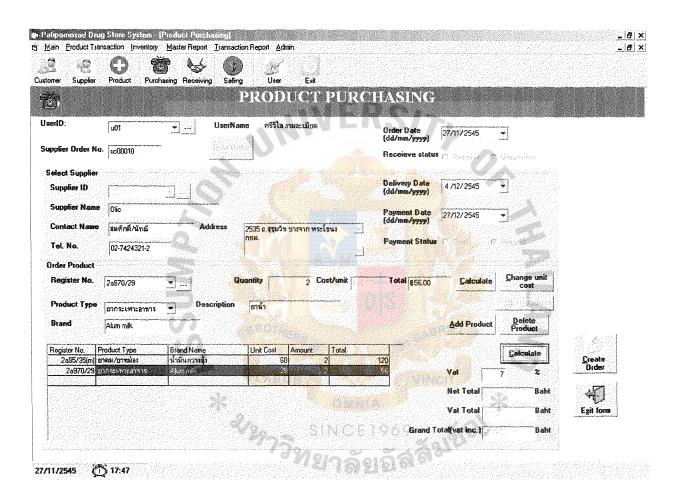


Figure B-9 Product Purchasing Form

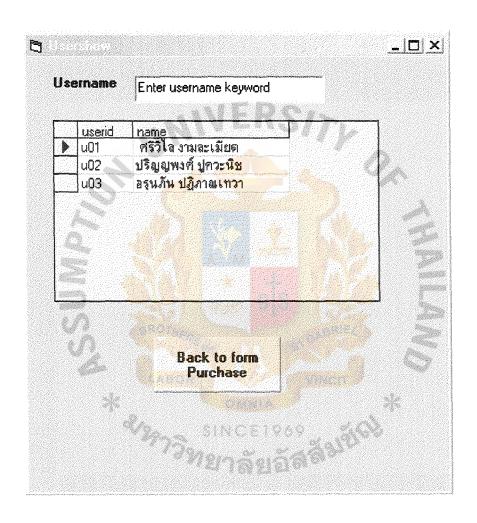


Figure B-10 User Show Form(Purchasing)

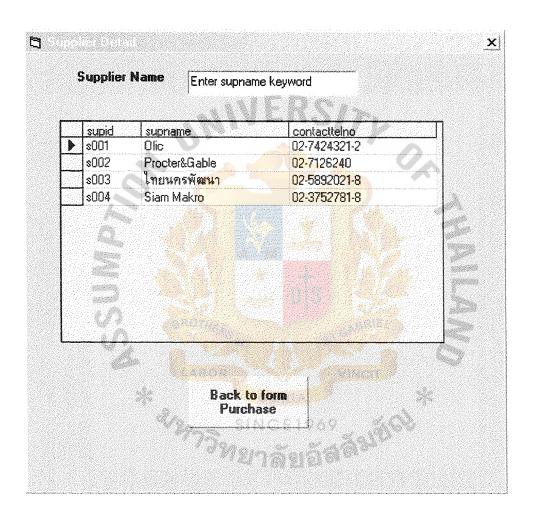


Figure B-11 Supplier Detail Form(Purchasing)

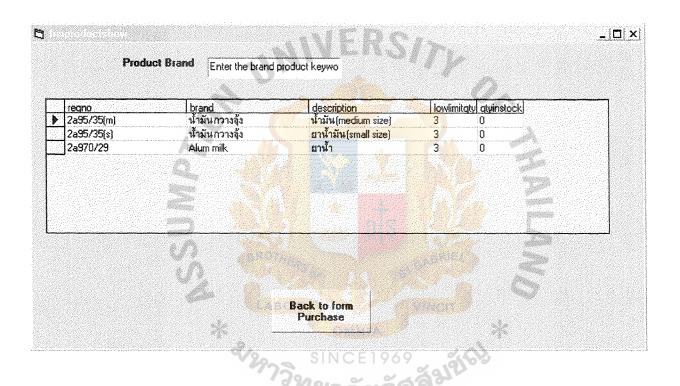


Figure B-12 Product Show Form(Purchasing)

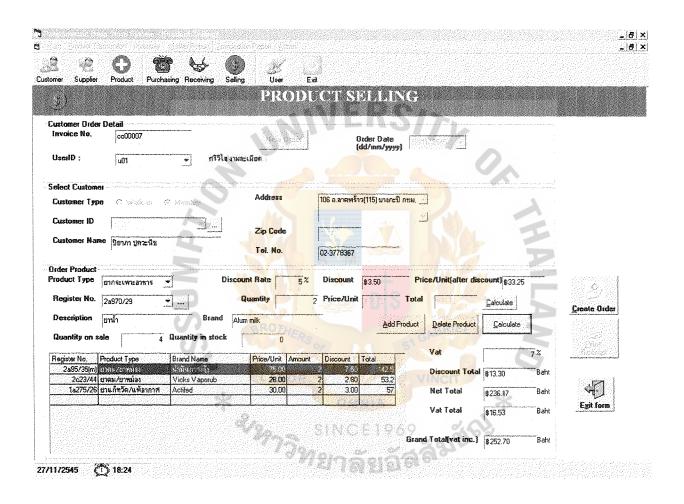


Figure B-13 Product Selling Form

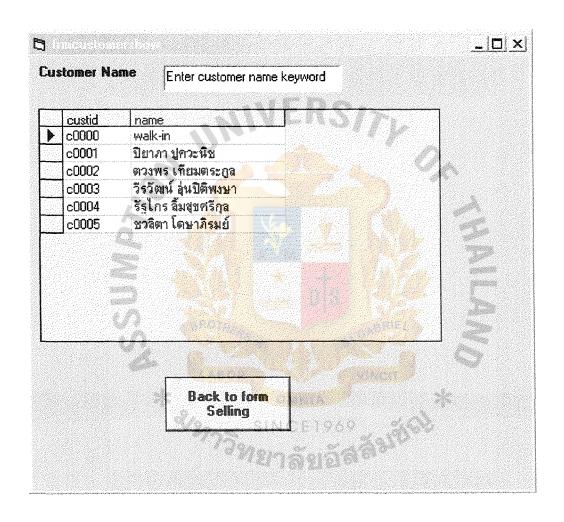


Figure B-14 Customer Show Form(Selling)

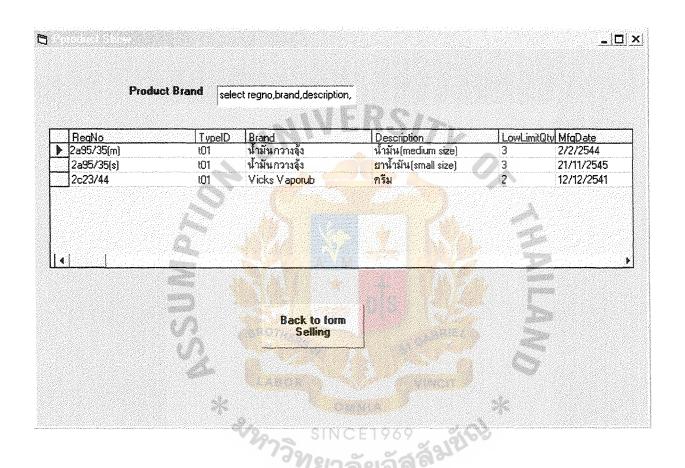


Figure B-15 Product Show Form(Selling)

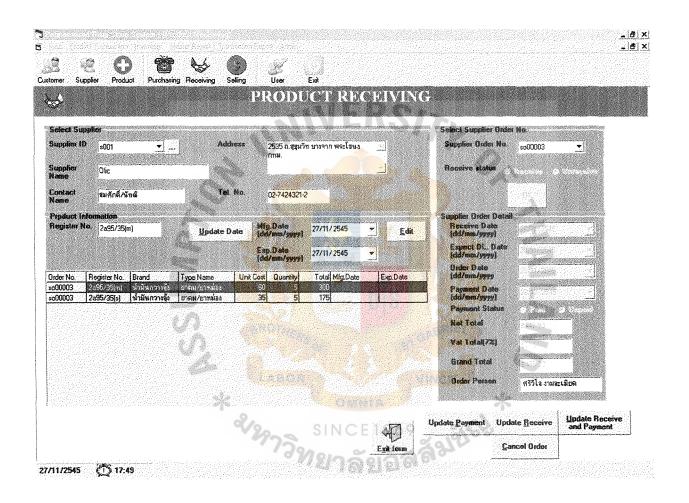


Figure B-16 Product Receiving Form

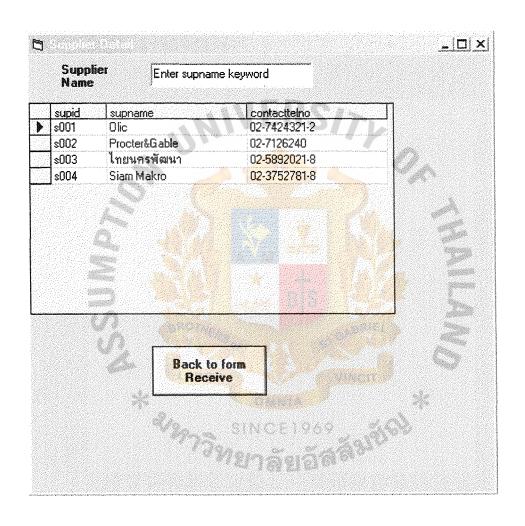


Figure B-17 Supplier Detail Form(Receiving)

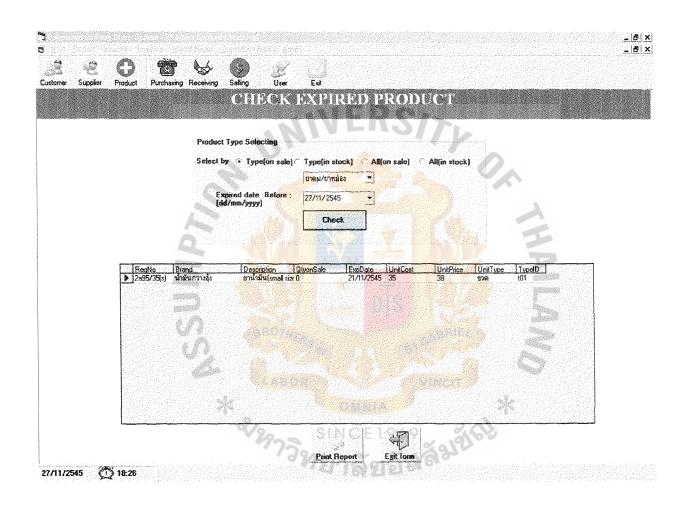


Figure B-18 Product Expired Checking Form

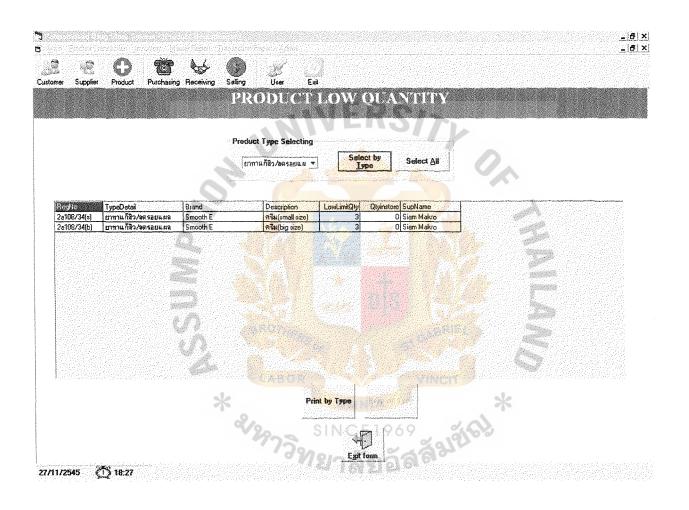


Figure B-19 Product Requirement Form

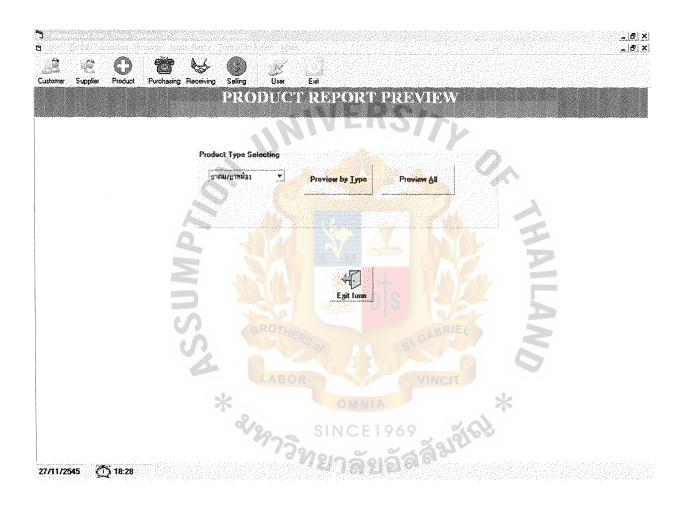


Figure B-20 Product Report Preview Form

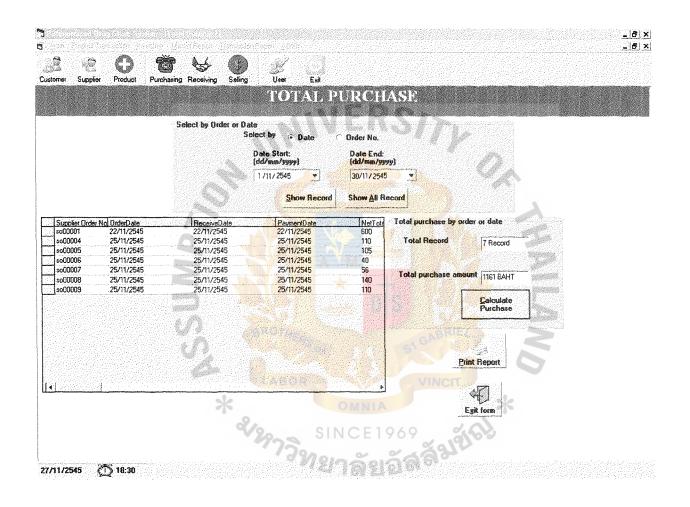


Figure B-21 Total Purchase Form

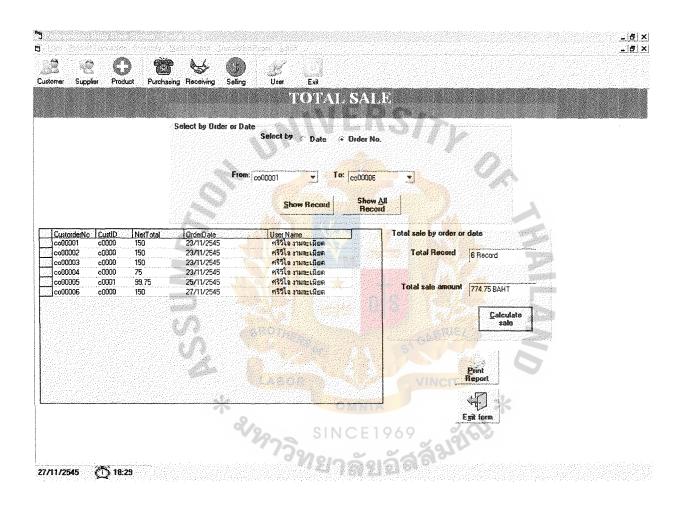


Figure B-22 Total Sale Form



Patiparnosod Drug Store

All Customer Report

Date: 1 ธันวาคม 2545

Page 1 Out of 2

CustomerID:

c0001

Name:

ปียาภา ปูควะนิช

Address:

106 ถ.ลาดพร้าว(115) บางกะปี กทม.

ZipCode:

10240

TelNo:

02-3778367

CustomerID:

c0002

Name:

ตวงพร<mark>เทียมตระกูล</mark>

Address:

229/36 ถ.บางนา-ตราด บางนา บางนา กทม.

ZipCode:

10260

TelNo:

02-3994780

CustomerID:

c0003

Name:

วีรวัฒน์ อุ่นปิติพง<mark>ษา</mark>

Address:

55/92 ซ.เพชรเกษม(94) บางแค ภาษิเจริญ กทม.

ZipCode:

10500

TelNo:

02-4214807

CustomerID:

c0004

Name:

รัฐใกร ลิ้มสุขศรีกุล

Address:

35/1 เพชรบุรี พญาไท ราชเทวี กทม.

ZipCode:

10400

TelNo:

02-3994780

CustomerID:

c0005

Name:

ชวถิตา โคษาภิรมย์

Address:

116 ลาคพร้าว(115) บางกะปี กทม.

ZipCode:

10240

TelNo:

02-7340448

Number of all customer: 5

Persons



Figure C-1 All Customer Report

Patiparnosod Drug Store All Supplier Report

Date: 1 ธันวาคม 2545

Page 1 Out of 1

SupID: SupplierName: ContactName: ContactTelNo:

s001 Olic สมศักดิ์/นัทณี 02-7424321-2

Address: 2535 ถ.สุขุมวิท บางจาก พระโขนง กทม.

s002 Procter&Gable ทรงชัย 02-7126240

Address: 622 ชั้น20-22 อาคารเอ็ม โพเรียมทาวเวอร์ ถ.สุขุ<mark>มวิท คลอ</mark>งตัน คลองเตย กทม.

 s003
 ไทยนครพัฒนา
 เกียรติสักดิ์
 02-5892021-8

Address: 94/7 หมู่ 9 ซ.ยิ้มประกอบ <mark>ถ.งามว</mark>งศ์<mark>วาน บางเขน นนทบุรี</mark>

s004 Siam Makro 02-3752781-8

Address: 3498 ลาดพร้าว คลองจั่น บางกะปี กทม.

Number of all Supplier: 4 Lists

Figure C-2 All Supplier Report

Patiparnosod Drug Store

All Product Report

Date: 1 ธันวาคม 2545

Page 1 Out of 5

2a95/35(m)
ยาคม/ยาหม่อง
น้ำมันกวางลุ้ง
น้ำมัน(medium size)
60
75
ขวด
4 1 1 1
0
DIS S
Olic
VINCIT
2a95/35(s)
ยาคม/ยาหม่อง
ยาคม/ยาหม่อง น้ำมันกวางสุ้ง
ună uă a â â b
น้ำมันกวางลุ้ง
น้ำมันกวางลุ้ง ยาน้ำมัน(small size)
น้ำมันกวางกุ้ง ยาน้ำมัน(small size) 35
น้ำมันกวางสุ้ง ยาน้ำมัน(small size) 35
น้ำมันกวางกุ้ง ยาน้ำมัน(small size) 35 38

Olic

Supplier Name:

RegNo: 2a970/29 ยากระเพาะอาหาร Type Name: Brand: Alum milk ยาน้ำ Description: Cost/Unit: 28 Price/Unit: 35 UnitType: ขวค QtyonSale: QtyinStock: Qtyinstore: Supplier Name: Olic RegNo: 2c23/44 ยาคม/ย<mark>าหม่อง</mark> Type Name: Brand: Vicks Vaporub ครีม Description: 21 Cost/Unit: Price/Unit: ฅถับ UnitType: QtyonSale: 0 QtyinStock: **Qtyinstore:** 5 Procter&Gable Supplier Name: RegNo: 1a822/43 ยาแก้ไข้/ปวดหัว Type Name:

Page 3 Out of 5

Brand: Sara เม็ค(10 เม็ค) Description: Cost/Unit: 8 Price/Unit: 10 UnitType: แผง QtyonSale: 5 QtyinStock: 0 **Qtyinstore:** Supplier Name: RegNo: 2a133/40(s) ขาแก้คัน/เค<mark>ล็</mark>คขัค<mark>ขอก</mark> Type Name: Brand: Neotica Balm Description: ครีม(small size) Cost/Unit: 22 Price/Unit: 30 UnitType: QtyonSale: QtyinStock: **Qtyinstore:** 7 ไทยนครพัฒนา Supplier Name: RegNo: 2a133/40(m) Type Name: ยาแก้คัน/เคล็ดขัดยอก Brand: Neotica Balm ครีม (medium size) Description:

28

Cost/Unit:

Page 4 Out of 5

Price/Unit:	40
UnitType:	หลอด
QtyonSale:	5
QtyinStock:	5
Qtyinstore:	10
Supplier Name:	ใทยนครพัฒนา
RegNo:	1a275/26
Type Name:	ยาแก้หวัด/แพ้อากาศ
Brand:	Actifed
Description:	เม็ค(10 เม็ค)
Cost/Unit:	22
Price/Unit:	30
UnitType:	IIIA DIS TANG
QtyonSale:	2 GI GABRIEL
QtyinStock:	O VINCIT
Qtyinstore:	20MNIA *
Supplier Name:	Siam Makro
0 1/1	ยาลัยอัส ^ล ์
RegNo:	2a108/34(s)
Type Name:	ขาทาแก้สิว/ลครอยแผล
Brand:	Smooth E
Description:	ครีม(small size)
Cost/Unit:	50
Price/Unit:	55
UnitType:	หลอด
QtyonSale:	1

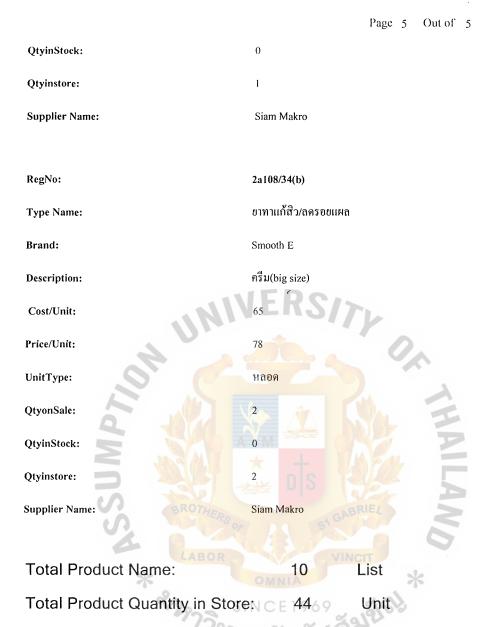


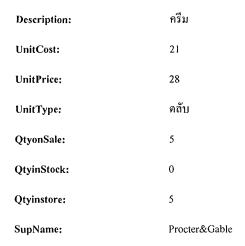
Figure C-3 All Product Report

Patiparnosod Drug Store Product by Type Report

Date: 1 ธันวาคม 2545

Page 1 Out of 2

Product Type:	ยาดม/ยาหม่อง
RegNo:	2a95/35(m)
Brand:	น้ำมันกวางลุ้ง
Description:	น้ำมัน(medium size)
UnitCost:	60
UnitPrice:	75
UnitType:	ขวด
QtyonSale:	
QtyinStock:	
Qtyinstore:	P. 4
SupName:	Olic
LA	BOR VINCIT
RegNo:	2a95/35(s)
Brand:	น้ำมันกวางสุ้ง 🖹 📗
Description:	ยาน้ำมัน(small size)
UnitCost:	35
UnitPrice:	38
UnitType:	ขวด
QtyonSale:	5
QtyinStock:	0
Qtyinstore:	5
SupName:	Olic
RegNo:	2c23/44
Brand:	Vicks Vaporub



Total Product Quantity in Store (by Type): 14 Uni



Figure C-4 All Product by Type Report

Product Low Quantity Report

Date: 2 ธันวาคม 2545

Page 1 Out of 1

RegNo: 2a133/40(m)

Brand: Neotica Balm

TypeDetail: ยาแก้คัน/เคล็ดขัดยอก

UnitCost: 28

UnitType: หลอด

LowLimitQty: 3

AllProductQty:

SupName: ใทยนครพัฒนา

RegNo: 2a103/38

Brand: Mybacin

TypeDetail: ขาอมแก้เจ็บคอ

UnitCost: 8

UnitType: Wol

LowLimitQty: 3

AllProductQty:

SupName: Greater Pharma

RegNo: G361/28

Brand: โบตัน

TypeDetail: ขาอมแก้เจ็บคอ

UnitCost: 8

UnitType: ชอง

LowLimitQty:

AllProductQty;

SupName: โอสถสภา

Total Product low Quantity: 0 Unit

Figure C-5 Low Limit Product Report 100

Patiparnosod Drug Store Product Low Quantity by Type Report

Date: 15 ชันวาคม 2545

Page 1 Out of 1

ยาทาแก้สิว/ลดรอยแผล TypeDetail: 2a108/34(s) RegNo: Smooth E Brand: UnitCost: UnitType: AllProductQty LowLimitQty: Siam Makro SupName: ยาทาแก้สิว/ลดรอยแผ<mark>ล</mark> TypeDetail: RegNo: 2a108/34(b) Brand: Smooth E UnitCost: UnitType: หลอด AllProductQty: LowLimitQty: SupName:

Product Low Quantity(by type):

Figure C-6 Low Limit Product by Type Report

All Expired Product(on sale) Report

1 ธันวาคม 2545 Date:

Page 1 Out of 2

RegNo:

2a95/35(m)

Brand:

น้ำมันกวางถุ้ง

TypeDetail:

ยาคม/ยาหม่อง

Description:

น้ำมัน(medium size)

QtyonSale:

ExpDate:

1/10/2545

UnitType:

ขวด

RegNo:

2a133/40(s)

Brand:

Neotica Balm

TypeDetail:

ยาแก้คัน/เคล็ดขัดยอก

Description:

ครีม(small size)

QtyonSale:

ExpDate:

1/11/2545

UnitType:

หลอด

RegNo:

2a133/40(m)

Brand:

Neotica Balm

TypeDetail:

ยาแก้คัน/เคล็ดขัดยอก

Description:

ครีม (medium size)

QtyonSale:

ExpDate:

1/10/2545

UnitType:

หลอด

RegNo:

2a108/34(s)

Brand:

Smooth E

TypeDetail:

ขาทาแก้สิว/ลครอยแผล

Description:

ครีม(small size)

QtyonSale:

Page 2 Out of 2

ExpDate:

21/11/2545

UnitType:

หลอด

Total all Expired Product(on sale):

17

Unit



Figure C-7 All Expired Product (on sale) Report

All Expired Product(in stock) Report

1 ธันวาคม 2545 Date: Page 1 Out of 1 SoNo: so00017 RegNo: 2a133/40(m) Brand: Neotica Balm ยาแก้คัน/เคถ็ดขัดยอก TypeDetail: ครีม (medium size) Description: Qty: ExpDateStock: 17/10/2545 UnitType: หลอด Total all Expired Product(in stock): Unit

Figure C-8 All Expired Product (in stock) Report

Expired Product by Type(on sale) Report

Date: 2 ธันวาคม 2545

Page 1 Out of 1

TypeDetail: ยาแก้คัน/เคล็ดขัดยอก

RegNo: 2a133/40(s)

Brand: Neotica Balm

Description: ครีม(small size)

QtyonSale: 0

ExpDate: 1/11/2545

UnitType: หลอด

TypeDetail: ยาแก้คัน/เคล็ดขั<mark>ดย</mark>อก

RegNo: 2a133/40(m)

Brand: Neotica Balm

Description: ครืม (medium size)

QtyonSale: 0

ExpDate: 1/10/2545

UnitType: หลอด CE1969

Total Expired Product by Type(on sale):

Figure C-9 Expired Product by Type (on sale) Report

Patiparnosod Drug Store Expired Prooduct by Type(in stock) Report

Date: 1 ธันวาคม 2545

Page 1 Out of 1

TypeDetail: ยาแก้คัน/เคล็ดขัดยอก so00017 SoNo: RegNo: 2a133/40(m) Neotica Balm Brand: Description: ครีม (medium size) Qty: ExpDateStock: 17/10/2545 UnitType: หลอด Total Expired Product by Type(in stock): Unit

Figure C-10 Expired Product by Type (in stock) Report

Patiparnosod Drug Store Total Purchase by Date Report

Date: 1 ธันวาคม 2545 Page 1 Out of 1

PaymentDate:	30/11/2545	OrderDate:	:	30/11/2545			
SupordNo:	so00015	Supplier Name:	:	Siam Makro)		
ReceiveDate:	30/11/2545	545 User Name:		ศรีวิไล งามละเมียด			
RegisterNo:	Brand:	Description:	Cost/Unit	: Qty:	UnitType:	TotalCost	
2a108/34(b)	Smooth E	ครีม(big size)	B65.00	4	หลอด	B260.00	
		V.		NetTotal:	B2	60.00	
PaymentDate:	30/11/2545	OrderDate:	3	30/11/2545			
SupordNo:	so00016	Supplier Name:		ท <mark>ยน</mark> ครพัฒ	นา		
ReceiveDate:	30/11/2545	User Name:		ศรีวิไล งาม	ละเมียด		
RegisterNo:	Brand:	Description:	Cost/Unit	: Qty:	UnitType:	TotalCost:	
2a133/40(m)	Neotica Balm	ครีม (m <mark>edium</mark> size)	B28.00	5	หลอด	B140.00	
	S	THERS OF	51 GA	NetTotal:	B1	40.00	
PaymentDate:	30/11/2545	OrderDate:		0/11/2545			
SupordNo:	so00017	Supplier Name:	Ŋ	ทยนครพัฒ	นา		
ReceiveDate:	30/11/2545	User Name:	969	สรีวิไล งามเ	ละเมียด	20 ayan - wan a sa da 3 ki 3 d 10 40 k 3 ma ayan a sa da	
RegisterNo:	Brand:	Description:	Cost/Unit:	Qty:	UnitType:	TotalCost:	
2a133/40(m)	Neotica Balm	ครีม (medium size)	B28.00	5	หลอค	B140.00	
			NetTotal:		₿140.00		

Total Purchase:

B540.00

Figure C-11 Total Purchase by Date Report

Patiparnosod Drug Store Total Purchase by Order No. Report

Date: 1 ธันวาคม 2545

B690.00

Page 1 Out of 1 SupordNo: so00003 PaymentDate: 28/11/2545 ศรีวิไล งามละเมียด OrderDate: 23/11/2545 User Name: ReceiveDate: 28/11/2545 Supplier Name: Olic RegNo: Brand: Description: Cost/Unit Qty UnitType: **TotalCost** น้ำมันกวางถุ้ง ยาน้ำมัน(small size) 2a95/35(s) 5 B175.00 ขวด B35.00 NetTotal: **B475.00** 25/11/2545 SupordNo: so00004 PaymentDate: OrderDate: 25/11/2545 <mark>อรุนกั</mark>น ปฏิภาณเทวา User Name: ไทยนครพัฒนา ReceiveDate: 25/11/2545 Supplier Name: RegNo: Brand: Cost/Unit UnitType: Description: Qty TotalCost 2a133/40(s) Neotica Balm ครีม(small size) **B22.00 B**110.00 หลอด NetTotal: B110.00 so00005 SupordNo: PaymentDate: 25/11/2545 ศรีวิไล งามละเมียด OrderDate: 25/11/2545 User Name: ReceiveDate: 25/11/2545 Supplier Name: Procter&Gable Cost/Unit Brand: Description: UnitType: **TotalCost** RegNo: Qty 2c23/44 ครีม ฅถับ B105.00 Vicks Vaporub **B21.00** 5 **B**105.00 NetTotal:

Figure C-12 Total Purchase by Order Number Report

Total Purchase:

Patiparnosod Drug Store Total Sale by Date Report

1 ธันวาคม 2545

Page 1 Out of 1

Date:

Order Date: 23/11/2545 CustomerID: c0000 ศรีวิไล งามละเมียด Customer order No: co00001 User Name: RegNo: **Brand:** Description: UnitType: UnitPrice: TotalPrice: น้ำมันกวางลุ้ง 2a95/35(m) น้ำมัน(medium size) 2 **B75.00** B150.00 ขาวด NetTotal: B150.00 OrderDate: 23/11/2545 c0000 CustomerID: ศรีวิไล งามละเมียด co00002 Customer order No: User Name: RegNo: Brand: Description: UnitType: UnitPrice: TotalPrice: น้ำมันกวางลุ้ง 2a95/35(m) <mark>น้ำมัน(medium size)</mark> B75.00 B150.00 NetTotal: B150.00 OrderDate: 23/11/2545 c0000 Customer order No: co00003 User Name: <mark>ศรีวิ</mark>ใล งามละเมียค RegNo: Description: Qty: UnitType: UnitPrice: TotalPrice: น้ำมันกวางถุ้ง 2a95/35(m) น้ำมัน(medium size) B75.00 B150.00 B150.00 NetTotal: OrderDate: 23/11/2545 CustomerID: c0000 ศรีวิไถ งามละเมียด Customer order No: co00004 User Name: RegNo: Brand: Description: UnitType: UnitPrice: TotalPrice: น้ำมันกวางลุ้ง น้ำมัน(medium size) 2a95/35(m) B75.00 ขวด B75.00 **B**75.00 NetTotal: B525.00 **Total Sale:**

Figure C-13 Total Sale by Date Report

Patiparnosod Drug Store Total Sale by Order NO. Report

Date: 1 ธันวาคม 2545

Page 1 Out of 1

Customer order		0 00001 /11/2545	CustomerID: User Name:		c0000 ศรีวิไล งามละเ	มียด	
RegNo:	Brand:	Desc	ription:	Qty:	UnitType:	UnitPrice	TotalPrice
2a95/35(m)	น้ำมันกวางลุ้ง	น้ำมัน(medium size)	2	ขวค	75	150
					NetTotal:	B150.00	
Customer order l	No: co	00002	CustomerID:		c0000		
OrderDate:	23/	11/2545	User Name:		ศรีวิไล งามละเ	มียด	A 11/1/4/27 / 77 - 1 1/1/27 - 1 1/1/27 1/1/27
RegNo:	Brand:	Descr	iption:	Qty:	UnitType:	UnitPrice	TotalPrice
2a95/35(m)	น้ำมันกวางลุ้ง	น้ำมัน(เ	nedium size)	2	ขวด	75	150
					NetTotal:	B 150.00	
Customer order N	No: co	00003 ^{RO7}	CustomerID:		c0000	2	
OrderDate:	23/	11/2545	User Name:		ศรีวิไล งามละเ	มียค	
RegNo:	Brand:	Descr	iption: OMNIA	Qty:	UnitType:	UnitPrice	TotalPrice
2a95/35(m)	น้ำมันกวางลุ้ง	น้ำมัน(r	nedium size)	69	ขวค	75	150
			ไขาลัยอ	161	NetTotal:	B150.00	
				Total S	Sale:	B450.00	

Figure C-14 Total Sale by Order Number Report

RECEIPT Patiparnosod Drug Store

235/1 ถนนเจริญกรุง วัคพระชาไกร บางคอแหลม กรุงเทพฯ 10120 tel.(02)289-1387

Receipt No.:	co00012 1/12/2545		UserID: Username:		u01 สรีวิไล งามละเมียด		
Customer ID:	c0001 Name: ปี		ไยาภา ปูควะนิช				
Address:	106 ถ.ลาคพร้าว(115	ร) บางกะปี กทม.		ZipCode:	10240		
Register No.:	Brand:	Price/Unit:	Qty:	UnitType:	Discount:	TotalPrice:	
2a970/29	Alum milk	B35.00	1	ขวค	2	₿33.00	
2a95/35(m)	น้ำมันกวางลุ้ง	В75.00	1	ขวค	4	B71.00	
And Andrew Andrews			TotalDiscount(5%):		186.00		
	2		Vat:		B6.80		
			NetTotal(vat inc.):		B104	1.00	
	In s		× □				
	S.						
				VINCIT			
	*				*		
		& 2973 SII	NCE1	969	(C)		
		129001	~	~ ಇತ್ತಿತಿ			

Figure C-15 Receipt Report

BIBLIOGRAPHY

- Gary B. Shelly, Thomas J. Cashman, Harry J. Rosenblatt, System Analysis and Design, Third Edition, Course Technology, 1998
- Judith R. Gordon, Steven R. Gordon, Information Systems A Management
 Approach, Second Edition, The Dryden Press, 1996
- 3. ศุภชัย สมพานิช, สัจจะ จรัสรุ่งรวีวร, Database Programming ด้วย Visual Basic ฉบับมืออาชีพ, สำนักพิมพ์อิน โฟเพรส, 2000
- 4. ศุภชัย สมพานิช, สัจจะ จรัสรุ่งรวีวร, สร้างระบบงานฐานข้อมูลด้วย Visual Basic ฉบับโปรแกรมเมอร์, สำนักพิมพ์อิน โฟเพรส, 2001
- 5. กิตติ ภักดีวัฒนะกุล-จ<mark>ำลอง ครูอุตสาหะ, Visual Basic 6 ฉบับโปรแก</mark>รมเมอร์, เคทีพี คอมพ์ แอนด์ คอนซัลท์,

2000 SS PROTHERS OF SINCE 1969 SI

SYSTEM INSTALLATION GUIDE

- 1. Insert CD-ROM into CD-ROM Drive.
- 2. Open folder Patiparnosod DrugStore System in CD-ROM.
- 3. Open folder Support, Copy DrugSystem Database file(drugsytem.mdb) to drive C:.
- 4. Double click at setup icon in folder Patiparnosod DrugStore System.
- 5. Follow installation guide.
- You can run program by click Start menu > Programs > Patiparnosod Drugsystem> Patiparnosod DrugStore System.exe.



