



**Practical Development of Information System in Business Context :
Credit and Inventory System for T&T Auto Sales
and Service Co., Ltd.**

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**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: Practical Development of Inventory System in Business Context:
Credit and Inventory System for T&T Auto Sales and Service Co.,
Ltd.


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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
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PROJECT WRITE-UP

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I INTRODUCTION

1.1 Background of the Organization

T & T Auto Sales and Service Co., Ltd was established in 1993 as a retailer of spare parts for cars' including cover seat, car floor carpet, car bonnet insulator, and console carpet. The company also provides install and maintenance services.

The company was established around 9 years. It has a few competitors in the past but nowadays the company has to face more competitors. This is the reason why the company business processes need to be more efficient in order to gain competitive advantage. The company has about 16 workers and it is operating the whole process in the company annually.

The company is situated Bangkok Province. The company's address is 33/2 Soi Mahadthai (Ladprao 122), Vungthonglang, Vungthonglang, Bangkok 10240

(1) Organization Chart

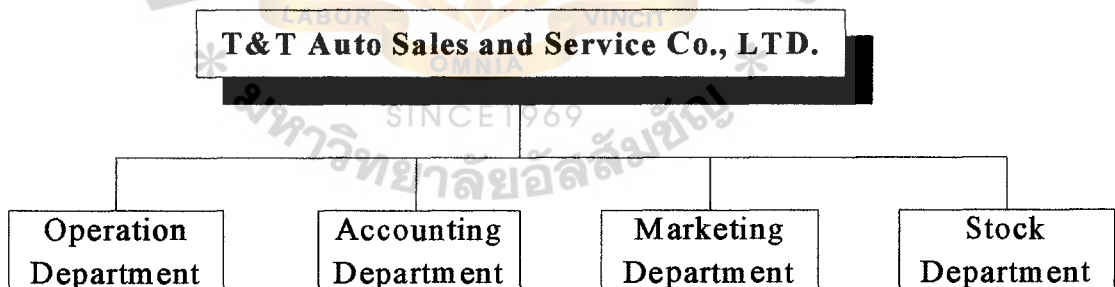


Figure 1-1 Organization Chart

(2) Department Chart

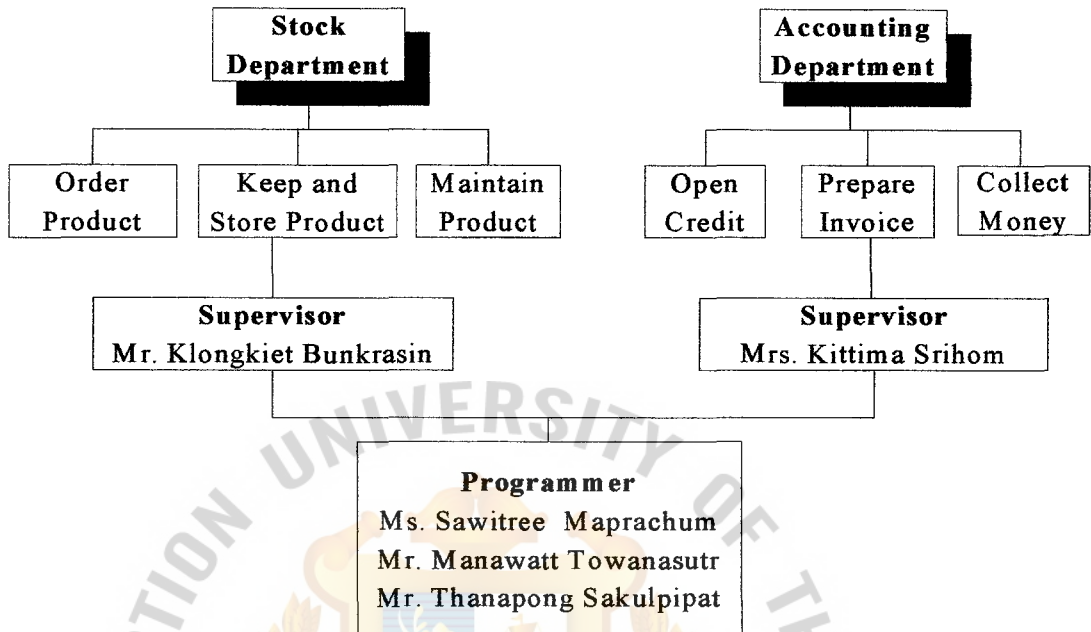


Figure 1-2 Department Chart

1.2 Objectives of the System

The objectives of this project are follows:

- (1) To study existing system for understanding on the current operation.

The reason that we study the existing system because we want to understand how does this business work.

- (2) To analyze the causes of problems of the existing system.

After we study the existing system, many problems were caused by human such as miscount the number of product and time consuming, so we will use computer based to replace the human work.

- (3) To define user requirements that will support in designing the better system.

We gather information from worker by interview with the user who really work with the existing system so they knew about the problem as well, then we can get exactly what they want with the new system.

(4) To improve tasks performance in terms of database management systems in order to reduce operational time and to eliminate error.

We use the benefit of database management system by computer to record, retrieve information so it much faster and low error than human work such as you want to know the quantity of each product in the stock.

(5) To make systematic documentation for future reference.

In the future, may be managing director needs to know the historical information for making some decision such as Cash Flow, Sales Forecast, Financial Analysis, and etc. All of these decision need the past information to forecast or plan for the investment so it fast and easy to retrieve that information and sent to them, without finding or recall that who keep that information where and when.

(6) To implement the system in the real working context

Switching from old system to the new system we choose Parallel method because of this method has high security suppose the new system has some mistake or not worked it will not effect with their business because all information were kept in the old system also.

1.3 Scope of the System

The followings are the scopes of the proposed systems:

(1) Using FIFO method to manage quantity of product in stock.

The cost of products for each lot is not the same and it will effect the margin between cost and selling price. Another point is our products were kept in stock and it may be dirt from dust. So we will cut the stock in queue because it take a little time to clean the carpet.

- (2) Using Computer based management in inventory send information to other department.

Because of Inventory department have to keep a lot of information such as unit in stock, cost, quantity of each cost is not stable, supplier information, customer information, customer type such as type A, B, C and etc. So it easy to retrieves the information from the new system. For example if the other department need information about specific customer so we can search faster than search from the document.

- (3) Generation of effective reports to consume less operational time.

Imagine in the old system if manager need to see the report that how long that customers did not buy our product in order to increase sales volume or launch some promotion, employees have to find many documents from many sources and count it. So the new system will kept information in one place and generate effective report to the manager in the range of time depend on their requirement such as week, month, quarter, or year.

- (4) Generation of proper credit to serve customer and raise order quantity.

The one way to get more order quantity is setting credit system. In the old system we use credit system with well-known companies but did not concern other companies or customers. But in the new system we use the credit system with any proper companies and customers. We will use appropriate credit line, a lot of order, and habitual customers to be our creditor. So we will get more order quantity and income level.

1.4 Project Plan

The tentative plan for this project: “Inventory System for T & T Auto Sales and Service Co., Ltd.” is exhibited in figure 1-3. It shows the time line as arrow since September to December. In each month is divided to be four weeks. There are task names that are the step in order to prepare and implement the system and document. And each task or step will show the estimated time for making these system and document.



No.	Task Name	September				October				November				December			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	I. Analysis of the Existing System																
1.	Study the Existing System																
2.	Identify the Existing Problems																
3.	Existing Context Diagram																
4.	Existing Data Flow Diagram																
	II. Preliminary Investigation																
5.	Define the objectives and scope																
6.	Hardware Requirements																
7.	Software Requirements																
	III. Analysis and Design of the Proposed System																
8.	Entity-Relationship Diagram																
9.	Database Design																
10.	Data Flow Diagram																
11.	Functional Description																
12.	Interface Design																
13.	Report Design																
	IV. Implementation of the Proposed System																
14.	Coding																
15.	Testing																
16.	Documentation																

Figure 1-3 Project Plan for T & T Auto Sales and Service Co., Ltd. Credits and Inventory System

II THE EXISTING SYSTEM

2.1 Background of Existing System

Since the company is opened, the information system of the company is operated manually. Each department collects own information separately. And all information are kept on paper and field.

The inventory system of the company will control the number of products purchased and sold. Stock of product will place on the shelf. When the products are sold, the worker will manually deduct the number of products sold from the inventory document.

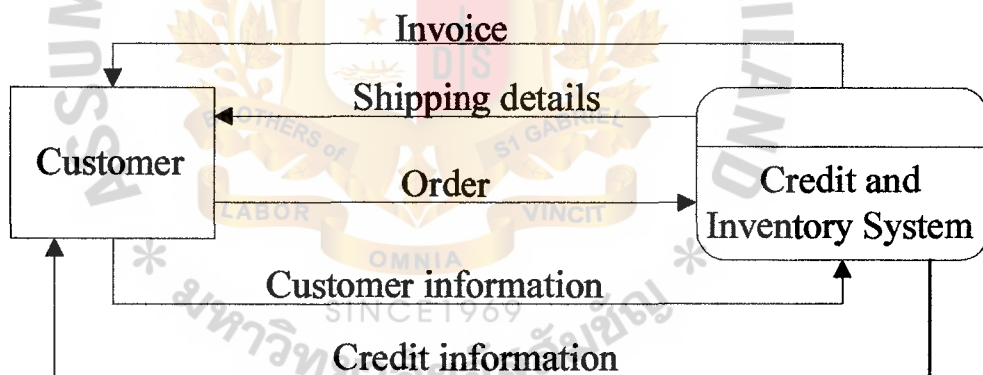


Figure 2-1 Context Diagram of Existing System

2.2 Problem Definition

(1) Ineffective Inventory Management Control

Managing the inventory record is a time consuming task as it done manually. The company checks the stock in each day does not at the same time and person. There is no efficient tracking system for the quantity ordered quantity in stock, price per item, resulting in an inefficient use of financial resources.

(2) Difficult in Retrieving Information

This is the problem is due to the difficulty in searching for documents. It takes a long time to search for documents due to large amount of document and misplacing of information.

(3) Easy in Disappearing of Products on Stock

When the products are passed from operational process to final process as finished products, the workers will take these products to stockroom by unorganized. The workers check the stock by counting then record on manual book. This is a cause that the workers make errors and lead to disappearing of products on stock.

(4) Inefficient Information System Management

Information system in inventory process is operated improperly by any workers. The worker sent information about stock after checking to manager. They use counting method to the product then record on manual book. They have to count again when missing happen. This is a cause of time consuming and inefficient information system management.

III THE PROPOSED SYSTEM

3.1 System Specification

(1) Hardware Requirements

HAREWARE	SPECIFICATION
CPU	Intel(R) Celeron 949MHz
RAM	128 MB
Hard disk	20 GB

Table 3-1 Hardware Requirements

(2) Software Requirements

SOFTWARE	SPECIFICATION
Operating System	Microsoft Window 2002 XP Professional
Application	1. Microsoft Office XP Professional with FrontPage 2. Microsoft Visual Basic 6.0 3. Microsoft Visio

Table 3-2 Software Requirements

3.2 System Design

(1) Data Flow Diagram

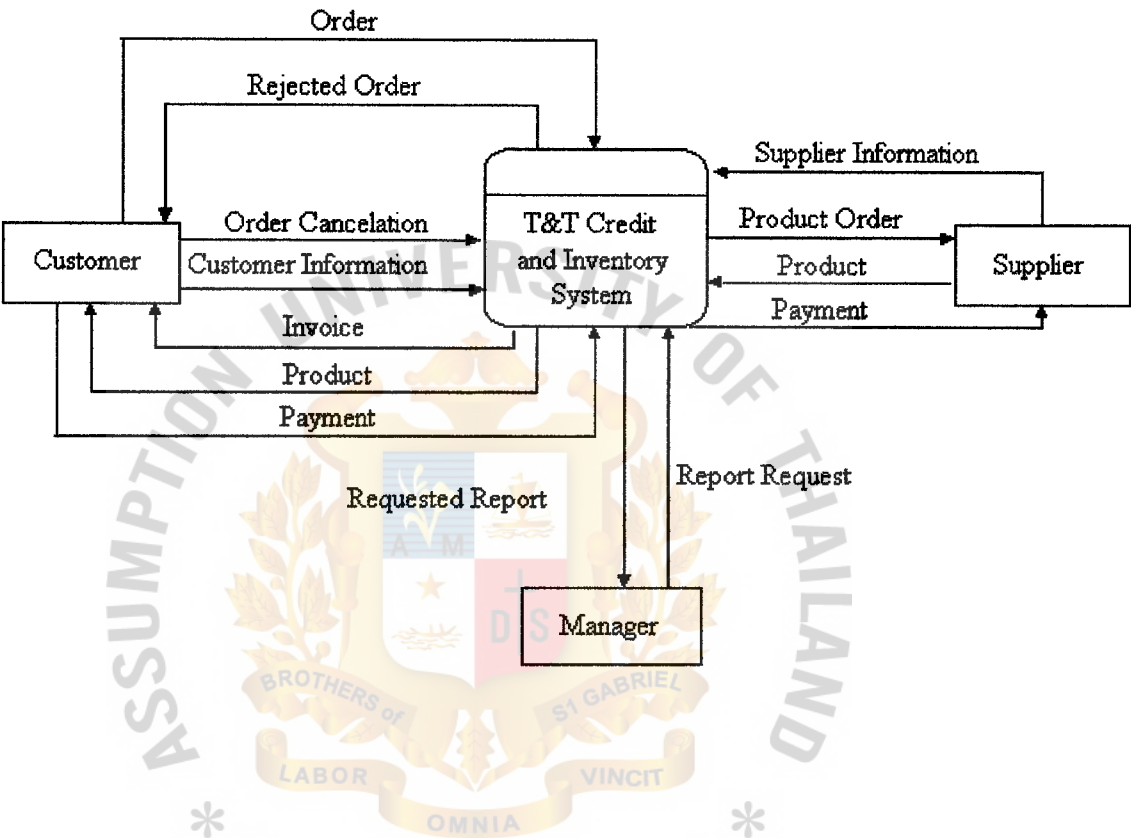


Figure 3-1 Context Diagram

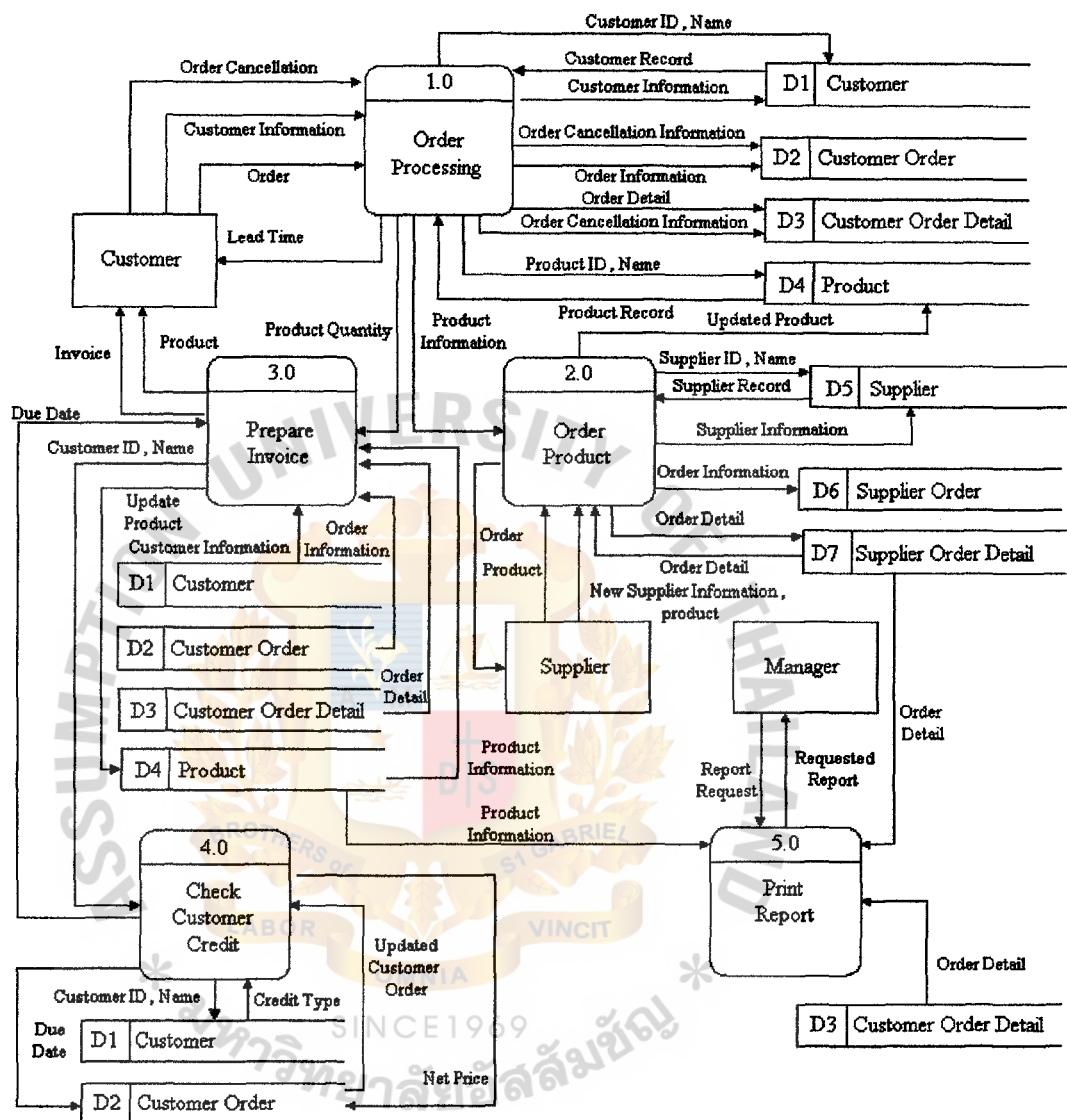


Figure 3-2 Data Flow Diagram – Level 0

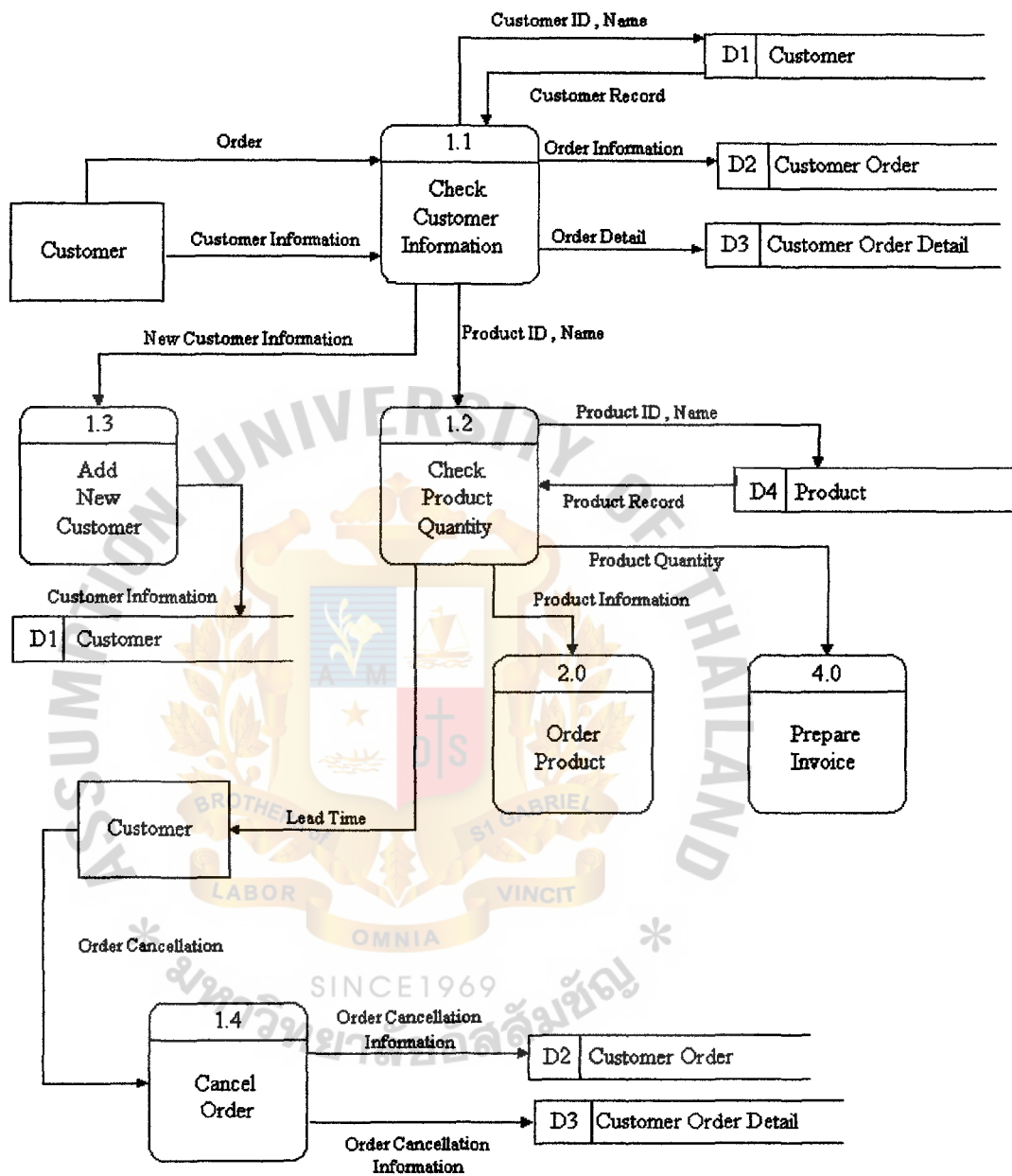


Figure 3-3 Data Flow Diagram – Level 1 (Process 1)

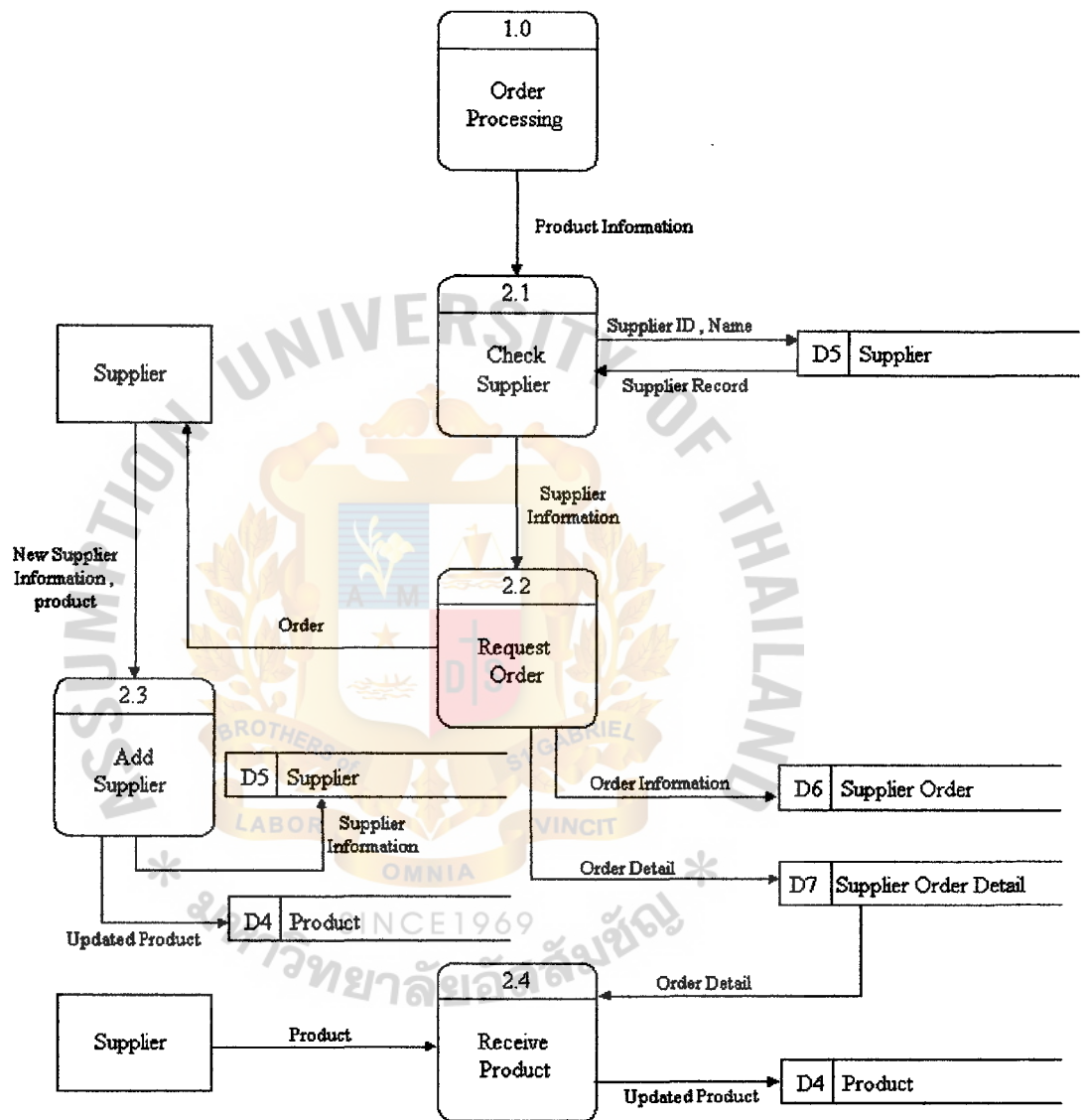


Figure 3-4 Data Flow Diagram – Level 1 (Process 2)

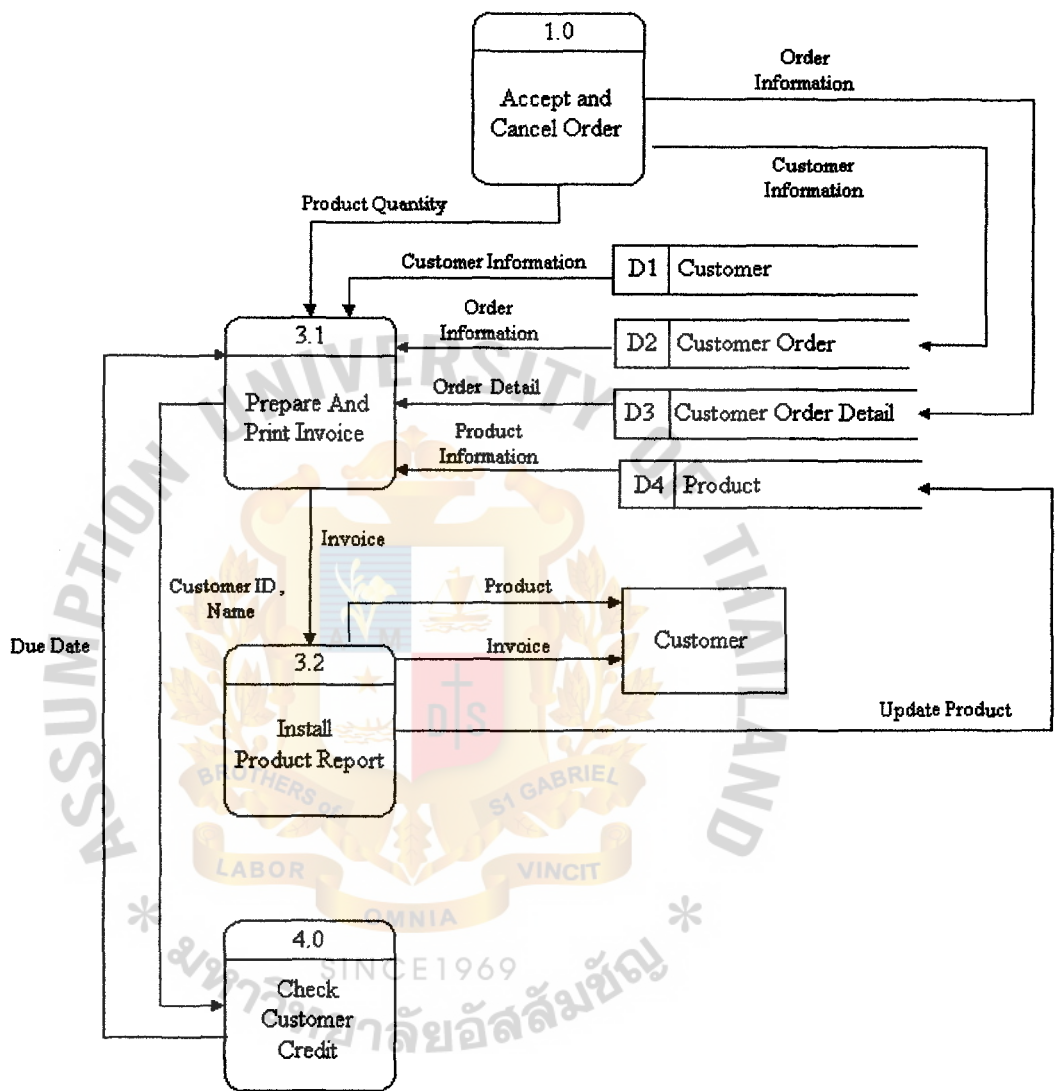


Figure 3-5 Data Flow Diagram – Level 1 (Process 3)

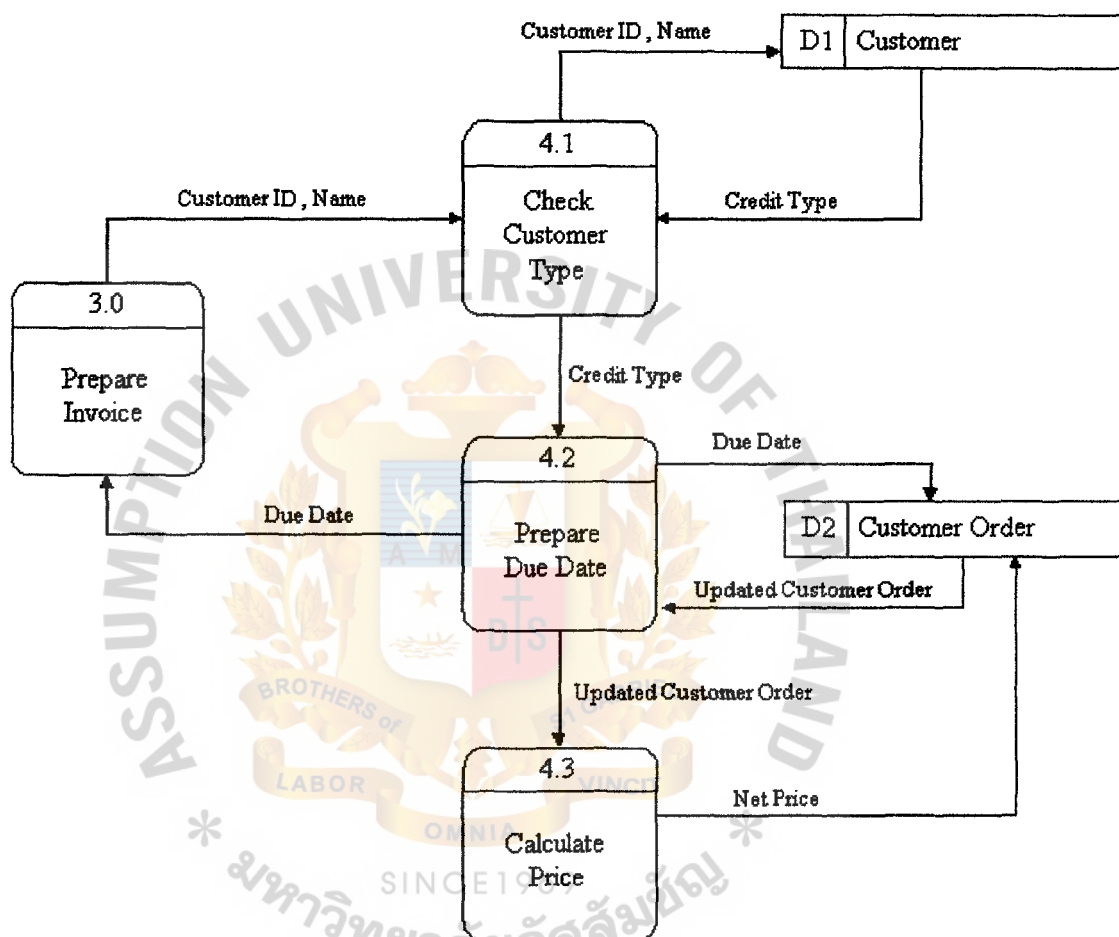


Figure 3-6 Data Flow Diagram – Level 1 (Process 4)

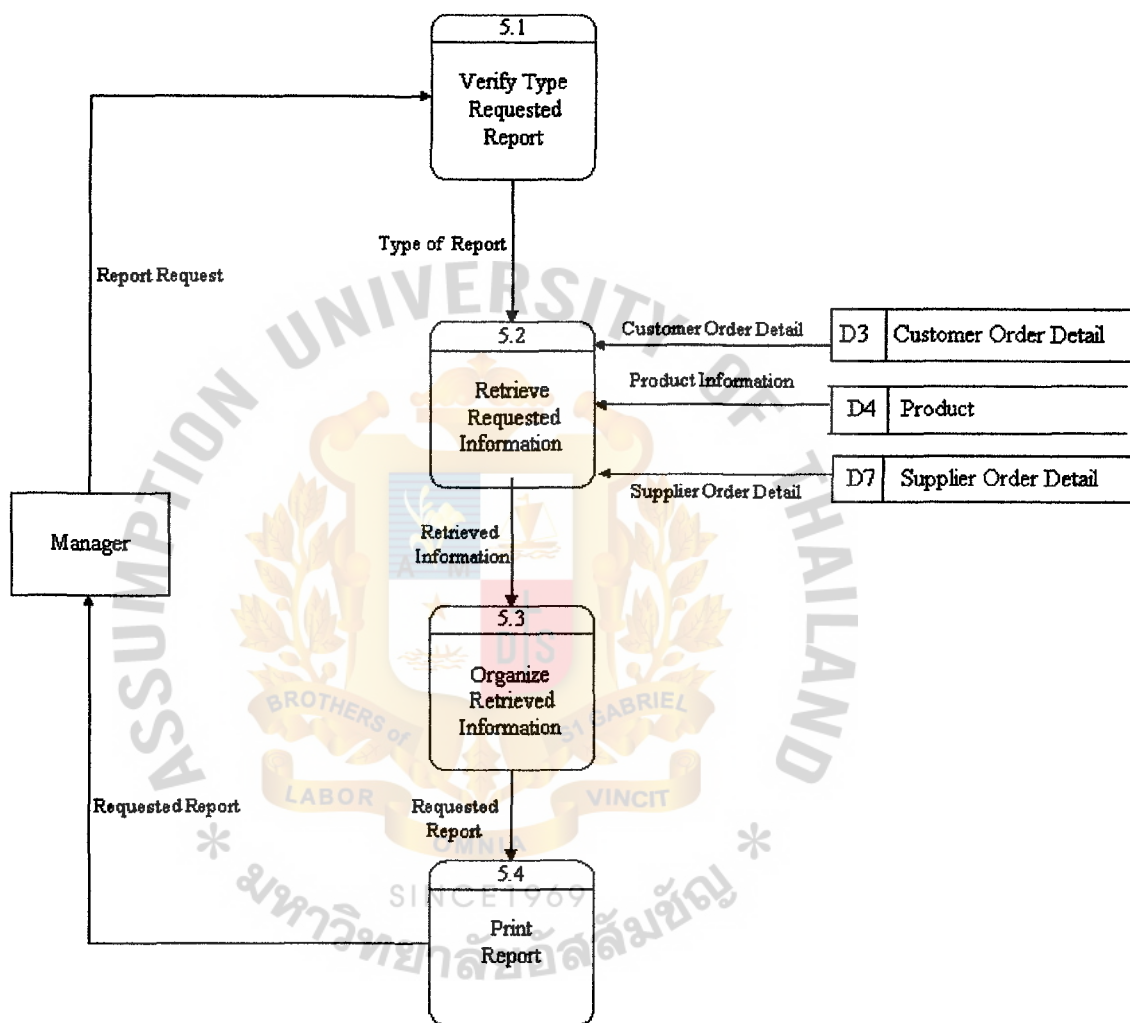


Figure 3-7 Data Flow Diagram – Level 1 (Process 5)

(2) Process Specification

Table 3-3 Process Specification for Process 1.0

Process Name:	Accept and Cancel Order
Data In:	(1) Customer Information (2) Order Cancellation (3) Order (4) Customer Record (5) Product Record
Data Out:	(1) Customer ID , Name (2) Customer Information (3) Order Cancellation Information (4) Order Information (5) Order Detail (6) Order Cancellation Information (7) Product ID , Name (8) Product Information (9) Product Quantity (10) Lead Time
Process:	(1) Get necessary customer data and assign new customer id (2) Get necessary customer data and check whether customer already exist in the database (3) Check whether there is enough stock on hand

	(2) Data Store D1
	(3) Data Store D2
	(4) Data Store D3
	(5) Data Store D4
	(6) Process 2.0
	(7) Process 3.0

Table 3-4 Process Specification for Process 1.1

Process Name:	Check Customer Information
Data In:	(1) Customer Information (2) Order (3) Customer Record
Data Out:	(1) Customer ID , Name (2) Order Information (3) Order Detail (4) New Customer Information
Process:	Get necessary customer data and assign order detail.
Attachment:	(1) Customer (2) Data Store D1 (3) Data Store D2 (4) Data Store D3 (5) Process 1.2 (6) Process 1.3

Table 3-5 Process Specification for Process 1.2

Process Name:	Check Product Quantity
Data In:	(1) Product ID , Name (2) Product Record
Data Out:	(1) Product ID , Name (2) Product Quantity (3) Order Detail (4) Lead Time
Process:	Get product quantity and assign lead time.
Attachment:	(1) Customer (2) Data Store D4 (3) Process 2.0 (4) Process 4.0 (5) Process 1.1

Table 3-6 Process Specification for Process 1.3

Process Name:	Add New Customer
Data In:	New Customer Information
Data Out:	Customer Information
Process:	Get necessary customer data and assign new customer.
Attachment:	(1) Data Store D1 (2) Process 1.1

Table 3-7 Process Specification for Process 1.4

Process Name:	Cancel Order
Data In:	Order Cancellation
Data Out:	Order Cancellation Information
Process:	Get orders cancellation and sent order cancellation to customer.
Attachment:	(1) Customer (2) Data Store D2 (3) Data Store D3



Table 3-8 Process Specification for Process 2.0

Process Name:	Order Product
Data In:	<ul style="list-style-type: none"> (1) Product Information (2) Supplier Record (3) New Supplier Information , product (4) Product (5) Order Detail
Data Out:	<ul style="list-style-type: none"> (1) Supplier ID , Name (2) Supplier Information (3) Order Information (4) Order Detail (5) Order (6) Updated Product
Process:	Get necessary product data and assign product order.
Attachment:	<ul style="list-style-type: none"> (1) Supplier (2) Data Store D4 (3) Data Store D5 (4) Data Store D6 (5) Data Store D7 (6) Process 1.0

Table 3-9 Process Specification for Process 2.1

Process Name:	Check Supplier
Data In:	(1) Product Information (2) Supplier Record
Data Out:	(1) Supplier ID , Name (2) Supplier Information
Process:	Get product data and check supplier.
Attachment:	(1) Data Store D5 (2) Process 1.0 (3) Process 2.2

Table 3-10 Process Specification for Process 2.2

Process Name:	Request Order
Data In:	(1) Supplier Information
Data Out:	(1) Order Information (2) Order Detail (3) Order
Process:	Get supplier data and request order.
Attachment:	(1) Supplier (2) Data Store D6 (3) Data Store D7 (4) Process 2.1

Table 3-11 Process Specification for Process 2.3

Process Name:	Add supplier
Data In:	(1) New Supplier Information , product
Data Out:	(1) Supplier Information (2) Updated Product
Process:	Get necessary supplier data and add new supplier.
Attachment:	(1) Supplier (2) Data Store D4 (3) Data Store D5

Table 3-12 Process Specification for Process 2.4

Process Name:	Receive product
Data In:	(1) Order Detail (2) Product
Data Out:	Updated Product
Process:	Get order detail and assign order update.
Attachment:	(1) Supplier (2) Data Store D4 (3) Data Store D7

Table 3-13 Process Specification for Process 3.0

Process Name:	Prepare Invoice
Data In:	<ul style="list-style-type: none"> (1) Product Quantity (2) Due Date (3) Customer Information (4) Order Information (5) Order Detail (6) Product Information
Data Out:	<ul style="list-style-type: none"> (1) Product (2) Invoice (3) Customer ID , Name (4) Update Product
Process:	Get due date data and assign invoice.
Attachment:	<ul style="list-style-type: none"> (1) Customer (2) Data Store D1 (3) Data Store D2 (4) Data Store D3 (5) Data Store D4 (6) Process 1.0 (7) Process 4.0

Table 3-14 Process Specification for Process 3.1

Process Name:	Prepare And Print Invoice
Data In:	<ul style="list-style-type: none"> (1) Customer Information (2) Product Quantity (3) Order Information (4) Order Detail (5) Product Information (6) Due Date
Data Out:	<ul style="list-style-type: none"> (1) Invoice (2) Customer ID , Name
Process:	Get necessary product data and prepare and print invoice.
Attachment:	<ul style="list-style-type: none"> (1) Data Store D1 (2) Data Store D2 (3) Data Store D3 (4) Data Store D4 (5) Process 1.0 (6) Process 4.0

Table 3-15 Process Specification for Process 3.2

Process Name:	Install Product Report
Data In:	(1) Invoice
Data Out:	(1) Invoice (2) Product (3) Update Product
Process:	Get invoice data and install product reports.
Attachment:	(1) Customer (2) Data Store D4 (3) Process 3.1

Table 3-16 Process Specification for Process 4.0

Process Name:	Check Customer Credit
Data In:	(1) Customer ID , Name (2) Updated Customer Order (3) Credit Type
Data Out:	(1) Due Date (2) Net Price (3) Customer ID , Name
Process:	Get necessary customer data and check customer credit.
Attachment:	(1) Data Store D1 (2) Data Store D2 (3) Process 3.0

Table 3-17 Process Specification for Process 4.1

Process Name:	Check Customer Credit
Data In:	(1) Customer ID, Name (2) Updated Customer Order (3) Credit Type
Data Out:	(1) Due Date (2) Net Price (3) Customer ID , Name
Process:	Get necessary customer data and check customer type
Attachment:	(1) Data Store D1 (2) Data Store D2 (3) Process 3.0

Table 3-18 Process Specification for Process 4.2

Process Name:	Prepare Due Date
Data In:	(1) Updated Customer Order (2) Credit Type
Data Out:	(1) Due Date (2) Updated Customer Order
Process:	Get credit type data and assign due date
Attachment:	(1) Data Store D2 (2) Process 3.0 (3) Process 4.1 (4) Process 4.3

Table 3-19 Process Specification for Process 4.3

Process Name:	Calculate Price
Data In:	Updated Customer Order
Data Out:	Net Price
Process:	Get necessary customer order data and calculate price
Attachment:	(1) Data Store D2 (2) Process 4.2

Table 3-20 Process Specification for Process 5.0

Process Name:	Print Report
Data In:	(1) Report Request (2) Product Information (3) Customer Information (4) Customer Order Information (5) Supplier Order Information (6) Supplier Information (7) Customer Order Detail (8) Supplier Order Detail
Data Out:	Requested Report
Process:	Get product, customer and supplier data and assign report
Attachment:	(3) Manager (4) Data Store D1 (5) Data Store D2 (6) Data Store D3 (7) Data Store D4 (8) Data Store D5 (9) Data Store D6 (10) Data Store D7

Table 3-21 Process Specification for Process 5.1

Process Name:	Verify Type Requested Report
Data In:	Report Request
Data Out:	Type of Report
Process:	Get report request and assign type of report
Attachment:	Process 5.2



Table 3-22 Process Specification for Process 5.2

Process Name:	Retrieve Requested Information
Data In:	<ul style="list-style-type: none"> (1) Type of Report (2) Product Information (3) Customer Information (4) Customer Order Information (5) Supplier Order Information (6) Supplier Information (7) Customer Order Detail (8) Supplier Order Detail
Data Out:	Retrieved Information
Process:	Get product, customer, supplier and type of report and assign retrieve-requested information.
Attachment:	<ul style="list-style-type: none"> (1) Data Store D1 (2) Data Store D2 (3) Data Store D3 (4) Data Store D4 (5) Data Store D5 (6) Data Store D6 (7) Data Store D7 (8) Process 5.1 (9) Process 5.3

Table 3-23 Process Specification for Process 5.3

Process Name:	Organize Retrieved Information
Data In:	Retrieved Information
Data Out:	Requested Report
Process:	Get retrieved information and organize retrieved information
Attachment:	(1) Process 5.2 (2) Process 5.4

Table 3-24 Process Specification for Process 5.4

Process Name:	Print Report
Data In:	Requested Report
Data Out:	Requested Report
Process:	Get requested report and print report
Attachment:	(1) Manager (2) Process 5.3

(1) Entity-Relation Diagram

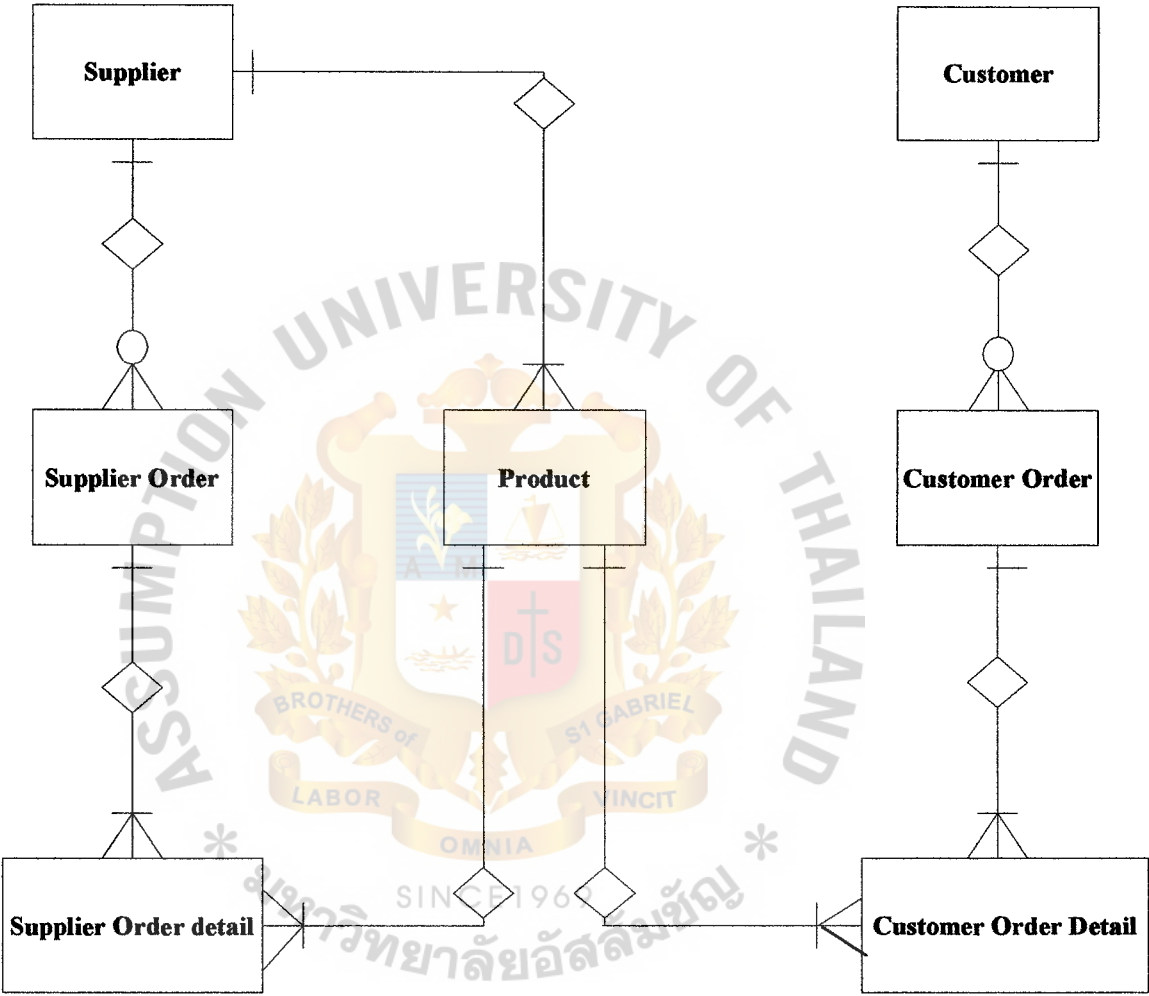


Figure 3-8 Entity-Relationship Diagram

(4) Database Design

Due to the store needs to keep many kinds of information such as customer information, product information, supplier information and transaction. The concept of Relational Database Management System (RDBMS) is suitable for the store

4.1 Brand_Data Table

This table is used for keeping information of car brand and used in process 1, 2, 3, and 5.

Field	Type	Size	Description
Id	Text	2	Identify the car brand
Brand	Text	50	Car brand's name

4.2 CashCollection Table

This table is used for keeping information of cash collection.

Field	Type	Size	Description
ReceiptID	Text	5	Identify the receipt
InvoiceID	Text	5	Identify the invoice

4.3 Color_Data Table

This table is used for keeping information of product color and used in process 1, 2, 3, and 5.

Field	Type	Size	Description
Id	Text	2	Identify the product color
Color	Text	50	Color of the product

4.4 Customer Table

This table is used for keeping information of customer and used in process 1, 3, and 4.

Field	Type	Size	Description
CustID	Text	4	Identify the customer
CustName	Text	50	Customer's name
ContactName	Text	50	Name of contact person
Addresss	Text	50	Address of customer
Tel	Text	50	Phone number of customer
Fax	Text	50	Fax number of customer
CreditDays	Number		Number of credit day
Nettotal	Number		Total amount of customer order

4.5 CustomerOrder Table

This table is used for keeping information of customer order and used in process 1, 3, and 4.

Field	Type	Size	Description
CustOrderID	Text	4	Identify customer order
CustID	Text	50	Identify the customer
OrderDate	Date/Time		The date and time of ordering
ReceiveDate	Date/Time		The date and time of receiving
DueDate	Date/Time		The date and time of due date
NetOrder	Number		Total number of order
Discount	Number		The discount rate of product
OrderFlag	Yes/No		The order either can or cannot
CashReceipt	Yes/No		Cash either receive or not receive

4.6 CustOrderDetail Table

This table is used for keeping information of customer order detail and used in process 1, 3, and 5.

Field	Type	Size	Description
CustOrder	Text	4	Identify customer order
ProdID	Text	13	Identify the product
UnitPrice	Number		Unit price of the product
Quantity	Number		The quantity of the product
Discount	Number		The discount rate of the product
VAT	Number		The amount of VAT
NetTotal	Number		The net total of all amount

4.7 Inventory Table

This table is used for keeping information of inventory and used in process 1, 2, 3, and 5.

Field	Type	Size	Description
LotID	Number		Identify the lot
ProdID	Text	13	Identify the product
SupplierI	Text	4	Identify the supplier
NumberIn	Number		The number of product in stock
NumberIn	Number		The number of order
Cost	Number		The cost of the product
SellPrice	Number		Selling price of the product
LotDate	Text	50	The date of receiving the product lot

4.8 Invoice Table

This table is used for keeping information of invoice and used in process 1, and 4.

Field	Type	Size	Description
InvoiceI	Text	50	Identify the invoice
CustID	Text	50	Identify the customer
InvoiceD	Date/Time		The date of issuing invoice
DueDate	Date/Time		The date of due date
CashRec	Date/Time		The date of receiving cash
CustOrd	Text	50	Identify the customer order
CashRec	Number		The amount of cash receipt
Balance	Number		The balance of all amount

4.9 Product Table

This table is used for keeping information of product and used in process 1, 2, 3, and 5.

Field	Type	Size	Description
Id	Text	13	Identify the product
Type_ID	Text	2	Identify the type of product
Brand_ID	Text	2	Identify the car brand
Color_ID	Text	2	Identify the product color
Supplier_I	Text	4	Identify the supplier
Pro_ID	Text	4	Identify the product
Pro_IdLon	Text	13	The detail of the product
Model	Text	50	The model of the product
Year	Number		The year of the product
Sale_Price	Number		Selling price of the product
Detail	Memo		The details of the product
Limit_Poi	Number		The number of limit point
Sale	Yes/No		The product either sell or not sell

4.10 RunningNo Table

This table is used for keeping information of running number.

Field	Type	Size	Description
RunningT	Text	5	The type of running number
Number	Number		The number of running number

4.11 Sup Table

This table is used for keeping information of supplier and used in process 2.

Field	Type	Size	Description
Id	Text	5	Identify the supplier
Sup_Nam	Text	50	Supplier's name
Sup_Cont	Text	50	Contact name of supplier
Sup_Addr	Text	50	Address of supplier
Sup_Tel	Text	50	Telephone number of supplier
Sup_Fax	Text	50	Fax number of supplier
ProductDe	Text	50	Description of the product

4.12 Sup_Order Table

This table is used for keeping information of supplier order and used in process 2.

Field	Type	Size	Description
POID	Text	50	Identify the purchasing order
SupplierID	Text	50	Identify the supplier
OrderDate	Number		The date of the order date
ReceiveDate	Number		The date of receive date
DueDate	Number		The date of due date
NetTotal	Number		The number of net total
Discount	Number		The discount rate of the product
OrderFlag	Yes/No		The order either can cancel or not

4.13 SupplierOrderDetail Table

This table is used for keeping information of supplier order detail and used in process 2, and 5.

Field	Type	Size	Description
POID	Text	5	Identify the purchasing order
ProdID	Text	13	Identify the product
ProdTypeI	Text	2	Identify the product type
UnitPrice	Number		Unit price of the product
Quantity	Number		Quantity of the product
Discount	Number		Discount rate of the product
VAT	Number		The amount of VAT
NetTotal	Number		The amount of net total
LotID	Text	2	Identify the lot
IsReceive	Yes/No		The product either receives or not
IsPaid	Yes/No		Cash either pay or not

4.14 Type_Data Table

This table is used for keeping information of data type.

Field	Type	Size	Description
Id	Text	2	Identify the data type
Type	Text	50	The type of data

4.15 User_Data Table

This table is used for keeping information of user.

Field	Type	Size	Description
ID	Auto Number		Identify the user
User	Text	8	User name
Password	Text	8	Password of user

(5) Data Dictionary

Table 3-24 Data Dictionary of Order Processing System Database

Field Name	Meaning
Address	Address of the customer
Balance	Balance of all amount
Brand	Brand of the product
BrandId	Identify the brand
CashReceipt	The number of cash receipt
CashReceiptAmount	The amount of cash receipt
CashReceiptDate	The date of cash receipt
Color	The color of the product
ColorId	Identify the color
ContactName	Contact name of the customer
Cost	The cost of the product
CrditDays	The number of day on credit
CustID	Identify the customer
CustName	Customer's name
CustOrderId	Identify the customer order
Detail	The details of the product
Discount	The discount rate of the product
DueDate	The period of due date
Fax	The fax number of the customer
InvoiceDate	The date of issuing invoice
InvoiceId	Identify the invoice

IsReceived	The amount of received cash
LimitPoint	The number of limit point
LotDate	The date of the lot
LotId	Identify the lot
Model	Model of the product
NetOrder	The net amount of order
NetTotal	The net amount of total order
Number	Number of running
NumberInOrder	Number of order the product
NumberInStock	Number of the product in stock
OrderDate	The date of ordering the product
OrderFlag	The order either can cancel or not
Password	The password to log in
ProdId	Identify the product
PodIdLong	The detail of the product
ProductDescription	The description of the product
POId	Identify the purchasing order
Quantity	Quantity of the product
ReceiveDate	The date to receive the product
ReceiveId	Identify the receiving
RunningType	The type of running number
Sales	The product either sell or not
SellPrice	The selling price of the product
SupplierAddress	Address of the supplier
SupplierContactName	Contact name of the supplier

SupplierContactName	Contact name of the supplier
SupplierFax	The fax number of the supplier
SupplierId	Identify the supplier
SupplierName	Supplier's name
SupplierTel	Telephone number of the supplier
Telephone	Telephone number of the customer
Type	Type of data
TypeDataId	Identify the data type
TypeId	Identify the type
UnitPrice	Unit price of the product
User	The user name to log in
UserDataId	Identify the user data
Vat	Vat amount
Year	Year of the product

(6) Interface Design

To make all of interfaces more comfortable. All of them have been divided into 7 categories (More detail of each form can see in Appendix B)

6.1 Main Form – It is used for showing all menu in the system.(More detail of Main Form can see in Appendix B, Figure B-1)

6.2 Log in Form – It is used for checking the authorization in order to access the system.(More detail of Log in Form can see in Appendix B, Figure B-2)

6.3 Add New Customer Form – It is used for adding new customers to the company.(More detail of Add new customer Form can see in Appendix B, Figure B-3)

6.4 Customer Order Form – It is used for make sale order to customer. (More detail of Customer Order Form can see in Appendix B, Figure B-4)

6.5 Received Money Form – It is used for enter the payment that customer paid and show the balance. (More detail of Received Money Form can see in Appendix B, Figure B-5)

6.6 Edit Customer Form – It is used for edit information about customer. (More detail of Edit Customer Form can see in Appendix B, Figure B-6)

6.7 Add New Supplier Form – It is used for adding new supplier to the company.(More detail of Add new supplier Form can see in Appendix B, Figure B-7)

6.8 Supplier Order Form – It is used for make purchasing order to supplier. (More detail of Supplier Order Form can see in Appendix B, Figure B-8)

6.9 Edit Supplier Form – It is used for edit information about supplier.

(More detail of Edit supplier Form can see in Appendix B, Figure B-9)

6.10 Check Limit Point Form – It is used to check quantity of product that less than limit point. (More detail of Check Limit Point Form can see in Appendix B, Figure B-10)

6.11 Select Product at Limit Point Form – It is used select the product that less than limit point then enter the information to supplier order form. (More detail of Select Product at Limit Point Form can see in Appendix B, Figure B-11)

6.12 Check Balance Form – It is used check balance of customer that balance payment is not equal to zero baht and due date also expired. (More detail of Check Balance Form can see in Appendix B, Figure B-12)

6.13 Received Product Form – It is used to check product that our company received from supplier. (More detail of Received Product Form can see in Appendix B, Figure B-13)

6.14 Customer Received Product Form – It is used to check that customer received product already. (More detail of Customer Received Product Form can see in Appendix B, Figure B-14)

6.15 Manager Edit Form – It is used for manager only to add new Type, Color, Brand. And edit the information about Customer, Supplier, Purchasing, and invoice. (More detail of Manager Edit Form can see in Appendix B, Figure B-15)

6.16 Product Edit Form – It is used for manager to edit product. (More detail of Product Edit Form can see in Appendix B, Figure B-16)

6.17 Summary Form – It is used to check customer summary, Sum of product quantity, Supplier summary, and sum of product price in the specific time that user select. (More detail of Summary Form can see in Appendix B, Figure B-17)

6.18 Check Income Form – It is used to check the total income of the specific time. (More detail of Check Income Form can see in Appendix B, Figure B-18)



(7) Report Design

User can normally see the output of the system program on the screen (soft copy), therefore the program should print the output to the paper (hard copy) to make it easier in checking and analyzing the result as well. (More detail of each report can see in Appendix C.)

7.1 Debtor Report – It is used for listing the customer that have not paid money to us and balance payment is not equal to zero baht and due date also expired. (More detail of each Debtor Report can see in Appendix C, Figure C-1)

7.2 Inventory Report – It is to show the product information and also the number in stock. (More detail of Inventory Report can see in Appendix C, Figure C-2)

7.3 Cash Receipt Report – It used to show the receipt report when the customer paid cash. This report gives to the customer and manager. (More detail of Cash Receipt Report can see in Appendix C, Figure C-3)

7.4 Tax Invoice Report – It used to show the sale information that customer order. (More detail of Tax Invoice Report can see in Appendix C, Figure C-4)

7.5 Credit Receipt Report – It used to show receipt report that customer make payment type in credit. This report gives to the customer and manager. (More detail of Credit Receipt Report can see in Appendix C, Figure C-5)

IV SYSTEM IMPLEMENTATION

4.1 Overview of the System Implementation

Implementation is the process of assuring that the information system is operational and then allowing users to take over its operation for use and evaluation. The programmer uses four approaches implementation that should be considered as the changeover to the new system is being prepared. These include shifting more computer power to users through distributed processing; training users; converting from the old system; and evaluating the new one.

The first approach to system implementation concerns the movement of computer power to individual users by setting up and shifting computer power and responsibility to groups throughout the business with the help of distributed computing.

The second approach to inventory implementation is using different strategies for training users and personnel, including taking them on their own level, using a variety of training techniques, and making sure that each user understands any new role that he or she must take on because of the new information system.

The third approach to implementation is choosing a conversion strategy. The programmer needs to weight the situation and propose a conversion plan that is appropriate for the particular organization and information system.

The programmer decides to use Parallel Conversion because of this refers to running the old system and the new system at the same time, and it works best when a computerized system replaces a manual one. Both systems are run simultaneously for a

specified period of time, and the reliability of results is examined. When the same results can be gained over time, the new system is put into use, and the old one is stopped.

The advantages of running both systems in parallel include the possibility of checking new data against old data in order to catch any errors in processing in the new system. Parallel system also offers a feeling of security to users, who are not forced to make an abrupt change to the new system.

There are many disadvantages to parallel conversion. These include the cost of running two systems at the same time and the burden on employees of virtually doubling their workload during conversion. Another disadvantage is that unless the system being replaced is a manual one, it is difficult to make comparisons between outputs of the new system and the old one. Supposedly, the new system was created to improve on the old one. Therefore, outputs from the systems should differ. Finally, it is understandable that employees who are faced with a choice between two systems will continue to use the old one because of their familiarity with it.

The fourth approach to inventory system implementation involves evaluating the new or modified information system. The programmer needs to formulate performance measures on which to evaluate the system. Evaluations come from users, management, and analysts themselves.

4.2 Test Plan

The Testing Process

Testing is done throughout systems development, not just at the end. It is meant to turn up heretofore-unknown problems not to demonstrate the perfection of programs, manuals, or equipment. Although testing is tedious, it is an essential series of steps that helps assure the quality of the eventual system. It is far less disruptive to test beforehand than to have a poorly tested system fail after installation.

Testing is accomplished on subsystems or programs modules as work progresses. Testing is done on many different levels at various intervals. Before the system is put into production, all programs must be desk-checked, checked with test data, and checked to see if the modules work together with one another as planned.

The system as a working whole must also be tested. This includes testing the interfaces between subsystems, the correctness of output, and the usefulness and understandability of system documentation and output. Programmers, and analyst, operators, and users all play different roles in the various aspects of testing. Testing of hardware is typically provided as a service by vendors of equipment who will run their own tests on equipment when it is delivered on-site.

Program Testing with Test Data

In this capacity, the analyst works to ensure that correct testing techniques are implemented by programmers but probably does not personally carry out this level of checking.

At this stage, programmers must first desk check their programs to verify the way the system will work. In desk checking, the programmer follows each step in the program on paper to check whether the routine works as it is written.

Next, programmers must create both valid and invalid test data. These data are then run to see if base routines work and also to catch errors. If output from main modules is satisfactory, then you can add more test data in order to check other modules. Created test data should test possible minimum and maximum values, as well as all possibly variations in format and codes. File output from test data must be carefully verified. It should never be assumed that data contained in a file are correct just because a file was created and accessed.

Throughout this process, the systems analyst checks output for errors, advising the programmer of any needed corrections. The analyst will usually not recommend or create test data for program testing but might point out to the programmer omissions of data types to be added in later tests.

Link Testing with Test Data

When programs pass desk checking and checking with test data, they must go through link testing, which is also referred to as string testing. Link testing checks to see if programs that are interdependent actually work together as planned.

A small amount of test data, usually designed by the systems analyst to test system specifications as well as programs, is used for link testing. It may take several passes through the system to test all combinations, because it is immensely difficult to unravel problems if you try to test everything all at once.

The analyst creates special test data that cover a variety of processing situations for link testing. First, typical test data are processed to see if the system can handle normal transactions—those that would make up the bulk of its load. If the system works with normal transactions, then variations are added, including invalid data used to ensure that the system can properly detect errors.

Full Systems Testing with Test Data

When link tests are satisfactory concluded, the system as a complete entity must be tested. At this stage, operators and end users become actively involved in testing. Test data, created by the systems analysis team for the express purpose of testing system objectives, are used.

As can be expected, there are a number of factors to consider when systems testing with test data:

1. Examining whether operators have adequate documentation in procedure manuals (hard copy or on-line) to afford correct and efficient operation.
2. Checking whether procedure manuals are clear enough in communicating how data should be prepared for input.
3. Ascertaining if work-flows necessitated by the new or modified system actually “flow.”
4. Determining if output is correct and whether users understand that this is, in all likelihood, how output will look in its final form.

Remember to schedule adequate time for system testing. Unfortunately, this is a step that often gets dropped if system installation is lagging behind the target date.

Systems testing include reaffirming the quality standards for system performance that were set up when initial system specifications were made. Everyone involved should once again agree on how to determine whether the system is doing what it is supposed to do. This will include measures of error, timeliness, ease of use, proper ordering of transactions, acceptable down time, understandable procedure manuals, and so on.



5.2 Recommendations

The users satisfy testing result of the proposed system. It helps the users to eliminate some problem and provide the routine work with higher efficiency and effective process.

However, there are some factors should be concerned:

- (1) The users or system controller should be well instructed to be able to confront with some problems from changing the existing system to the new one.
- (2) The company should select a suitable person to handle, operate and control the new system for the users.
- (3) The new system has higher cost than the old system. But if we consider in term of effective, speed, security, accuracy, facility of the program, it is worthwhile for the business such as sell transaction and stock transaction.

This program is not perfect. Sometimes it may occur some errors. Doing follow in the right steps or instructions is the best way to reduce errors or any problem. In the future, this program may be further developed in order to respond to users' requirements or for any up-to-date technologies.



No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	Id	Text (2)	Y	Y		Product		Primary Key
2	Brand	Text (50)	Y					Attribute

Table A-1 Brand_Data Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	ReceiptID	Text (5)	Y	Y				Primary Key
2	InvoiceID	Text (5)	Y					Attribute

Table A-2 CashCollection Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	Id	Text (2)	Y	Y		Product		Primary Key
2	Color	Text (50)	Y					Attribute

Table A-3 Color_Data Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	CustID	Text (4)	Y	Y		CustomerOrd		Primary Key
2	CustName	Text (50)	Y		Y			Attribute
3	ContactName	Text (50)	Y					Attribute
4	Addresss	Text (50)			Y			Attribute
5	Tel	Text (50)					<area code, 7 digits>	Attribute
6	Fax	Text (50)			Y		<area code, 7 digits>	Attribute
7	CreditDays	Number						Attribute
8	Nettotal	Number						Attribute

Table A-4 Customer Table

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No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	CustOrderID	Text (4)	Y	Y				Primary Key
2	CustID	Text (50)	Y	Y				Attribute
3	OrderDate	Date/Time						Attribute
4	ReceiveDate	Date/Time						Attribute
5	DueDate	Date/Time						Attribute
6	NetOrder	Number						Attribute
7	Discount	Number						Attribute
8	OrderFlag	Yes/No						Attribute
9	CashReceipt	Yes/No						Attribute

Table A-5 CustomerOrder Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	CustOrderID	Text (4)	Y	Y				Primary Key
2	ProdID	Text (13)	Y	Y				Attribute
3	UnitPrice	Number						Attribute
4	Quantity	Number						Attribute
5	Discount	Number						Attribute
6	VAT	Number						Attribute
7	NetTotal	Number						Attribute

Table A-6 CustOrderDetail Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	LotID	Number	Y	Y		CustOrderDe		Primary Key
2	ProdID	Text (13)	Y	Y				Attribute
3	SupplierID	Text (4)	Y	Y				Attribute
4	NumberInStock	Number						Attribute
5	NumberInOrder	Number						Attribute
6	Cost	Number						Attribute
7	SellPrice	Number						Attribute
8	LotDate	Text (50)						Attribute

Table A-7 Inventory Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	InvoiceID	Text (50)	Y	Y		Customer		Primary Key
2	CustID	Text (50)	Y	Y				Attribute
3	InvoiceDate	Date/Time						Attribute
4	DueDate	Date/Time						Attribute
	CashReceiptDate	Date/Time						Attribute
6	CustOrderID	Text (50)						Attribute
7	CashReceiptAmount	Number						Attribute
8	Balance	Number						Attribute

Table A-8 Invoice Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	Id	Text (13)	Y	Y		CustOrderDe		Primary Key
2	Type_ID	Text (2)		Y				Attribute
3	Brand_ID	Text (2)		Y				Attribute
4	Color_ID	Text (2)		Y				Attribute
5	Supplier_ID	Text (4)		Y				Attribute
6	Pro_ID	Text (4)	Y	Y				Attribute
7	Pro_IdLong	Text (13)	Y	Y				Attribute
8	Modelll	Text (50)						Attribute
9	Yearr	Number						Attribute
10	Sale_Price	Number						Attribute
11	Detail	Memo			Y			Attribute
12	Limit_Point	Number						Attribute
13	Sale	Yes/No						Attribute

Table A-9 Product Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	RunningType	Text (5)	Y	Y				Primary Key
2	Number	Number	Y					Attribute

Table A-10 RunningNo Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	RunningType	Text (5)	Y	Y				Primary Key
2	Number	Number	Y					Attribute

Table A-10 RunningNo Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	Id	Text (5)	Y	Y		Sup_Order		Primary Key
2	Sup_Name	Text (50)	Y		Y			Attribute
3	Sup_Contact_Name	Text (50)	Y					Attribute
4	Sup_Address	Text (50)						Attribute
5	Sup_Tel	Text (50)	Y					Attribute
6	Sup_Fax	Text (50)	Y		Y			Attribute
7	ProductDescription	Text (50)			Y			Attribute

Table A-11 Sup Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	POID	Text (50)	Y	Y				Primary Key
2	SupplierID	Text (50)	Y	Y				Attribute
3	OrderDate	Date/Time						Attribute
4	ReceiveDate	Date/Time						Attribute
5	DueDate	Date/Time						Attribute
6	NetTotal	Number						Attribute
7	Discount	Number						Attribute
8	OrderFlag	Yes/No						Attribute

Table A-12 Sup_Order Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	POID	Text (5)	Y	Y				Primary Key
2	ProdID	Text (13)	Y	Y				Attribute
3	ProdTypeID	Text (2)	Y	Y				Attribute
4	UnitPrice	Number						Attribute
5	Quantity	Number						Attribute
6	Discount	Number						Attribute
7	VAT	Number						Attribute
8	NetTotal	Number						Attribute
9	LotID	Text (2)						Attribute
10	IsReceived	Yes/No						Attribute
11	IsPaid	Yes/No						Attribute

Table A-13 SupplierOrderDetail Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	Id	Text (2)	Y	Y		Product		Primary Key
2	Type	Text (50)	Y					Attribute

Table A-14 Type_Data Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	ID	AutoNumber	Y	Y				Primary Key
2	User	Text (50)	Y	Y				Attribute
3	Password	Text (50)	Y	Y				Attribute

Table A-15 User_Data Table

APPENDIX B
INTERFACE DESIGN



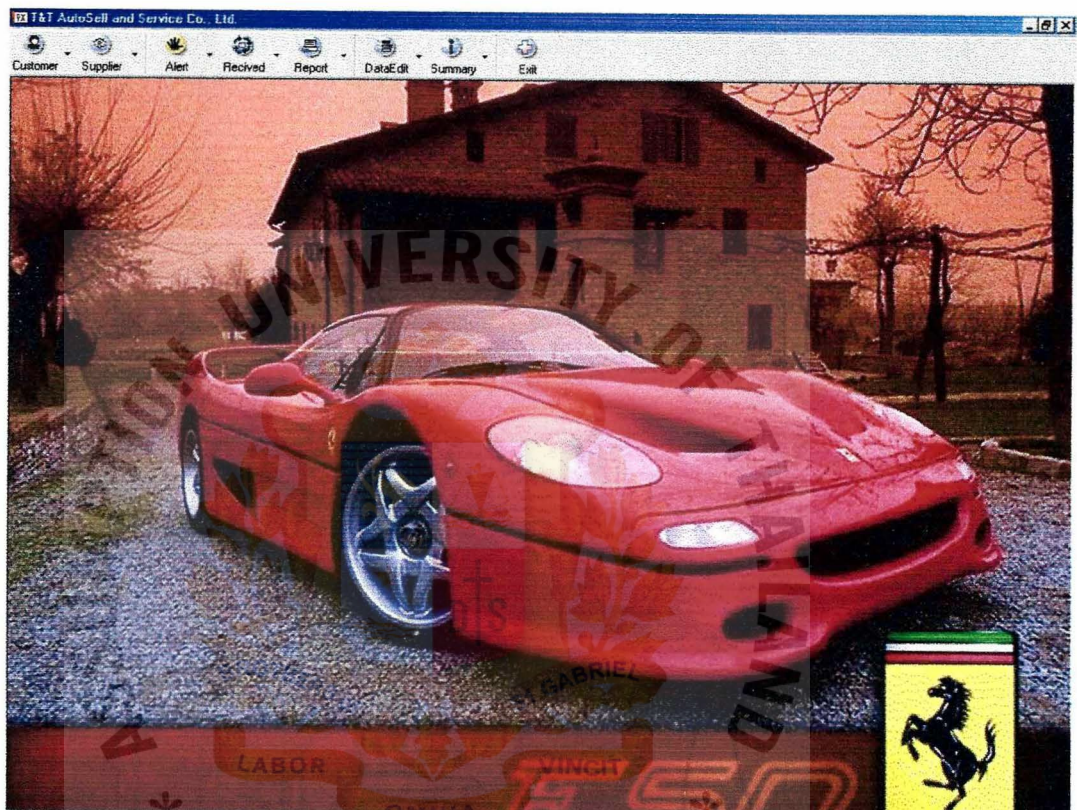


Figure B-1. Main Form

A screenshot of a login window titled "Password". The window has a standard title bar with a maximize button, a close button, and a small icon. Inside the window, there are two text input fields. The first field is labeled "User Name" and the second field is labeled "Password". To the right of these fields is a small square checkbox. The background of the window is light gray. There is a large, faint watermark in the background of the entire page that reads "ASSUMPTION UNIVERSITY OF THAILAND" and includes a crest with the text "BROTHERS of S1 GABRIEL", "LABOR OMNIA", and "SINCE 1969" along with Thai text "มหาวิทยาลัยอัสสัมชัญ".

Figure B-2 Log In Form

Add New Customer

Customer ID Date

Customer Name

Contact Name

Address

Telephone

Fax

Credit Line Day(s)

Figure B-3 Add New Customer Form

Received Money

Customer Information

Search By:

Customer ID: 0001
 Customer Name: Thanwa
 Contact Name: Thanwa Chinsai
 Address: 6/49 Soi 68 Moo 11 Minburee Bangkok
 Telephone: 02-571-0986
 Fax No.: 02-277-7709

Search Result

CustID	CustName	ContactName	Address	Tel
0001	Thanwa	Thanwa Chinsai	6/49 Soi 68 Moo 11 Minburee Bangkok	02-571-0986
0002	Thiwalak	Thiwalak Kan	65 Ladprao E 02-	
0003	Thanapong	Thanapong S	34 Soi Somvit 01-	

Invoice Not Balance

InvoiceID	CustID	InvoiceDate	
00006	0001	01/12/2002	0
00008	0001	15/12/2002	
00009	0001	01/12/2002	1
nnnn3	nnnn1	01/12/2002	1

Order Detail


CustOrderID	ProdID	UnitPrice	Qty
0011	01020300010	1500	10

Nettotal: 13001.4 Baht
 ReceiptAmount: 0 Baht
 Receive: Baht
 Balance: 13001.4 Baht

OK

Figure B-5 Received Money Form

Edit Customer Information

Customer ID  Date

Customer Name

Contact Name

Address

Telephone

Fax

Credit Line Day(s)

Figure B-6 Edit Customer Form

Add New Supplier

Supplier ID

Name

Contact Name

Address

Telephone

Fax

Description

Figure B-7 Add New Supplier Form

Product

Select Product

Product ID

0102010001002

Supplier

Car Inter Brite Co., Ltd.

Type

New Type

Car Brand

New Brand

Car Model

Model

Year

Year

Color

New Color

Detail

Limit Point

Sales Price

Baht

PO ID

Product ID

Unit Cost

Quantity

Discount(%)

VAT(%)

7

NET Total

Lot Number

Supplier Order Detail							
	POID	ProdID	CancelFlag	UnitPrice	Quantity	Discount	VAT
	00027	01020100010	0	100	10	0	7

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Figure B-8 Supplier Order Form

FX Edit Supplier Information [X]

Supplier ID

Name

Contact Name

Address

Telephone

Fax

Description

Figure B-9 Edit Supplier Form

Check Balance

Check ID

InvoiceID	CustID	DueDate	Balance
00008	0001	16/12/2002	13001.4
00009	0001	16/12/2002	964
00010	0003	16/12/2002	14639.5
00012	0003	16/12/2002	13953.87
00014	0003	16/12/2002	1170.05
00013	0001	16/12/2002	9514.44
00021	0002	17/12/2002	9172.9125

Figure B-12 Check Balance Form

Received Product

PO Number [Redacted]

PO ID	ProdID	Type	Color	Brand	Model	Year	OrderDate
[Redacted]							

[Redacted]

Figure B-13 Received Product Form

Customer Received

Search

Order ID

Customer Order Detail							
CustID	CustOrderID	OrderDate	ReceiveDate	DueDate	NetOrder	ProdID	UnitPrice
0001	0056	07/12/2002		07/12/2002	42756.85	01020100010	950
0001	0056	07/12/2002		07/12/2002	42756.85	03040400010	1050
0001	0056	07/12/2002		07/12/2002	42756.85	01020100010	950

Figure B-14 Customer Received Product Form

Product Edit						
	Id	Color	Brand	Type	Pro ID	Year
		Black	Toyota	Carpet	0101010001	1980
	006	Black	Toyota	Carpet	0101010001	1980
	007	Black	Mitsubishi	Console	0203010001	1980
	008	Black	Nissan	Carpet	0102010001	1980
	010	Black	Nissan	Insulator	0302010001	1980
	003	Green	Toyota	Carpet	0101020001	2000
	005	Green	Toyota	Carpet	0101020001	1980
	001	Red	Toyota	Carpet	0101030001	1980
	004	Red	Nissan	Carpet	0102030001	1980

Figure B-16 Product Edit Form

Summary

Select Date Interval

From 07/12/2002 To 07/12/2002

Customer Summary

Sum of Product Quantity

Supplier Summary

Sum of Product Price

Summary Table		
Pro IdLong	Type	Color
0102010001008	Carpet	Black
0302010001010	Insulator	Black
0205040001011	Console	Gray
0304040001009	Insulator	Gray

Figure B-17 Summary Form

Check Income

Period Income

From: 02/12/2002 To: 02/12/2002

Statement						
CustOrderID	CustName	Address	Tel	OrderDate	NetOrder	
0004	Thanwa	6/49 Soi 68 M	02-571-0986	01/12/2002	10166	
0005	Thanwa	6/49 Soi 68 M	02-571-0986	01/12/2002	22471	
0007	Thanwa	6/49 Soi 68 M	02-571-0986	01/12/2002	11325.86	
0009	Thanwa	6/49 Soi 68 M	02-571-0986	01/12/2002	9821.2	

Grand Total: Baht

View Customer Order Detail ☐

View Supplier Order Detail ☐

Figure B-18 Check Income Form





<div>  <div> T & T AUTOSELL AND SERVICE CO., LTD. 33/2 SOI LARDPRAO 122, LADPAO ROAD, WANGTONGLANGE, BKK 10310 TEL (02)-934-0341-7 FAX:(02)934-0316 WWW.CARINTERBRITE.COM </div> </div>					
<div> <div> DebtorReport </div> <div> DATE 07/12/2002 </div> </div>					
CustID	CustName	ContactName	Tel	Sum Of CashReceiptAmount	Sum Of Balance
0001	Thanwa	Thanwa Chinsai	02-571-0986	7265.85	342224.415
0002	Thiwalak	Thiwalak Kanjannayoon	02-432-9642	0	81407.24
0003	Thanapong	Thanapong Sakulpipat	01-329-6097	0	234879.3225
0004	Manawatt	Manawatt Towanastur	01-668-8989	0	16591.53
0007	Car 2 Buy	Korkiat Yoosakul	02-249-5885-70	6002	20000
TOTAL				13287.85	695102.5075

Figure C-1 Debtor Report

	T & T AUTOSELL AND SERVICE CO., LTD. 33/2 SOI LARDPRAO 122, LADPAO ROAD, WANGTONGGLANGE, BKK 10310 TEL (02)-934-0341-7 FAX:(02)934-0316	
	WWW.CARINTERBRITE.COM	
	<u>Inventory Report</u>	DATE 07/12/2002

ProdID: 0101020001003
Type: Carpet
Color: Green
Brand: Toyota
Model: Altis
Year: 2000
Sup_Name: Car Inter Brite Co., Ltd.
NumberInStock: 370
Limit_Point: 10

ProdID: 0304040001009
Type: Insulator
Color: Gray
Brand: Isuzu
Model: Cameo
Year: 1970
Sup_Name: Car Inter Brite Co., Ltd.
NumberInStock: 80
Limit_Point: 10

* มหาวิทยาลัยอัสสัมชัญ *
 S Figure C-2 Inventory Report


		T & T AUTOSELL AND SERVICE CO., LTD. 33/2 SOI LARDPRAO 122, LADPAO ROAD, WANGTONGLANGE, BKK 10310 TEL (02)-934-0341-7 FAX:(02)934-0316 WWW.CARNITERBRITE.COM				Payment Receipt Date: 07/12/2002			
		Tax Payer's Identification No 3 01123070 1							
Customer Name: Thanwa Address: 6/49 Soi 68 Moo 11 Minburee Buakhao		Payment receipt							
Order No. 0058 Customer ID 0001 ReceiveDate: 07/12/02									
Product ID	Product				Quantity	UnitPrice	Discount	VAT	Amount
0203010001007	Console	Mitsubishi	Galance	1980	1	1350	10	7	1300.05
0102010001008	Black Carpet	Nissan	NV	1980	10	950	10	7	9148.5
Total									19448.55
Discount									5
Grand Total Incould vat:									9926.1225
Cash Receiver					Customer Signature				

Figure C-3 Cash Receipt Report


		T & T AUTOSELL AND SERVICE CO., LTD.				Tax invoice	
		33/2 SOI LARDPRAO 122, LADPAO ROAD, WANGTONGLANGE, BKK 10310 TEL (02)-934-0341-7 FAX:(02)934-0316 DATE: 07/12/2002 WWW.CARINTERBRITE.COM					
Tax Payer's Identification No 3 01123070 1							
Customer Name:		Thanwa					
Address:		649 Soi 68 Moo 11 Minburee Buakhao					
Invoice Number		Order No.		Customer ID		Due Date	
00054		0056		0001		22/12/2002	
Product ID	Product			Quantity	UnitPrice	Discount	VAT
0102010001008	Carpet Nissan NV 1980 Black			30	950	10	7
0102010001008	Carpet Nissan NV 1980 Black			9	950	10	7
0304040001009	Insulator Isuzu Cameo 1970 Gray			7	1050	10	7
Grand Total Incould vat:						42756.85	
Discount						0	
Total						42756.85	
Cash Receiver				Customer Signature			

Figure C-4 Tax Invoice Report

User Name and Password

User Name: manager

Password: 111

User Name: staff

Password: 222



