Practical Development of Information System in Business Context: Inventory System for Suanmali Trading Co., Ltd.

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

July 2002

Project Name: Inventory System for Suanmali Trading Co., Ltd.

Intern: Mr. Patarapong Jeamthongsri

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Academic Year: July 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

Approval Committee:

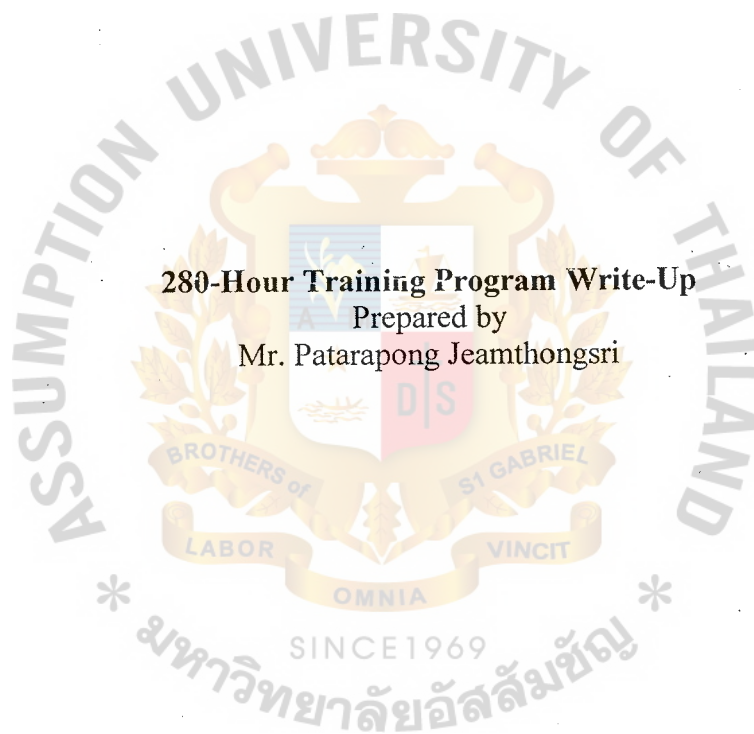|	
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July 2002

**Practical Development of Information System in Business Context:
Inventory System for Suanmali Trading Co., Ltd.**

Advisor: A. Kritsada Bumpenboon

280-Hour Training Program Write-Up
Prepared by
Mr. Patarapong Jeamthongsri

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I. INTRODUCTION

1.1 Background of the Organization

Suanmali Trading Co.,Ltd. was established in 1975 and settle down on 23-25 Ukon2 Rd. Watthepsirin Pomprabsatupai Bangkok as a retailer of spare parts for water structure including pipe, water meter, etc.

Since the company was established around 27 years ago, it has only few competitors in the same area. At present, the company's competitors are increasing in this industrial. This is the reason why the company business processes need to be more efficient in order to gain competitive advantages.

The company has about 13 workers and it is operating the whole process in the company manually.

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              ┌─────────────────────────────┐
              │  Suanmali Trading Co.,Ltd.  │
              └─────────────────────────────┘
        ┌───────────────┬────────────┴──────┬───────────────┐
┌───────────────┐ ┌──────────────────┐ ┌───────────┐ ┌───────────┐
│  Operation    │ │ Finance & Accounting│ │ Marketing │ │ Inventory │
│  Department   │ │   Department      │ │ Department│ │ Department│
└───────────────┘ └──────────────────┘ └───────────┘ └───────────┘
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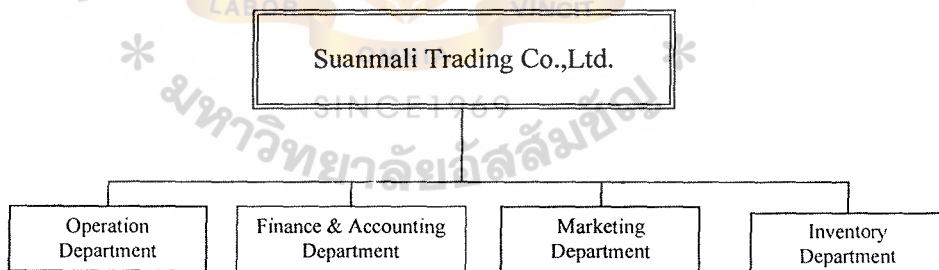
Figure 1.1.   Organization Chart

1
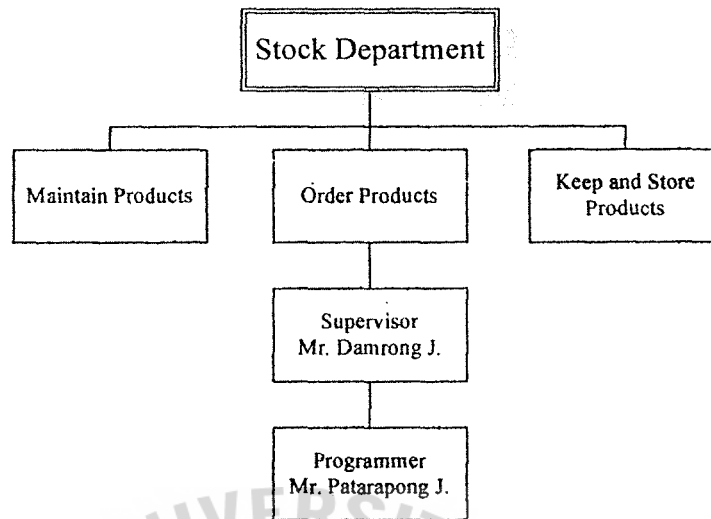
Figure 1.2.   Department Chart

1.2   Objectives of the System

The objectives of this project are as follows:

(1)   To improve the performance (such as speed of order, time to do the jobs, by reducing operational time and eliminating errors.

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

(3)   To define users requirement that will support and solve current problems.

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

(5)   To implement the system in the real working.

1.3   Scope of the System

The followings are the scopes of the proposed systems:

(1)   To update the inventory by using FIFO method

(2)   To check the inventory every month.

(3) To order the product directly to supplier.

(4) To satisfy the customer needs.

(5) To collect and maintain customer, supplier and product information.

(6) To generate tailored and necessary transactions.

(7) To perform management reports.

1.4 Project Plan

The tentative plan for this project: "Inventory System for Suanmali Trading Co., Ltd." is exhibited in Figure 1.3.

No.	Task Name	March				April				May				June	
		1	2	3	4	1	2	3	4	1	2	3	4	1	2
	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 Suanmali Trading Inventory System.

II. THE EXISTING SYSTEM

2.1 Background of Existing System

Currently, the information system of the company is operated manually. Each department collects its own information. All information are paper-based and filed in cabinets.

The Inventory System of the company controls the number of products purchased and sold. When products are sold, the clerks manually deduct the quantity sold from the inventory document. When the inventory level is low, a reorder is then made. As such, the quantity purchased and received is manually added to the inventory document.
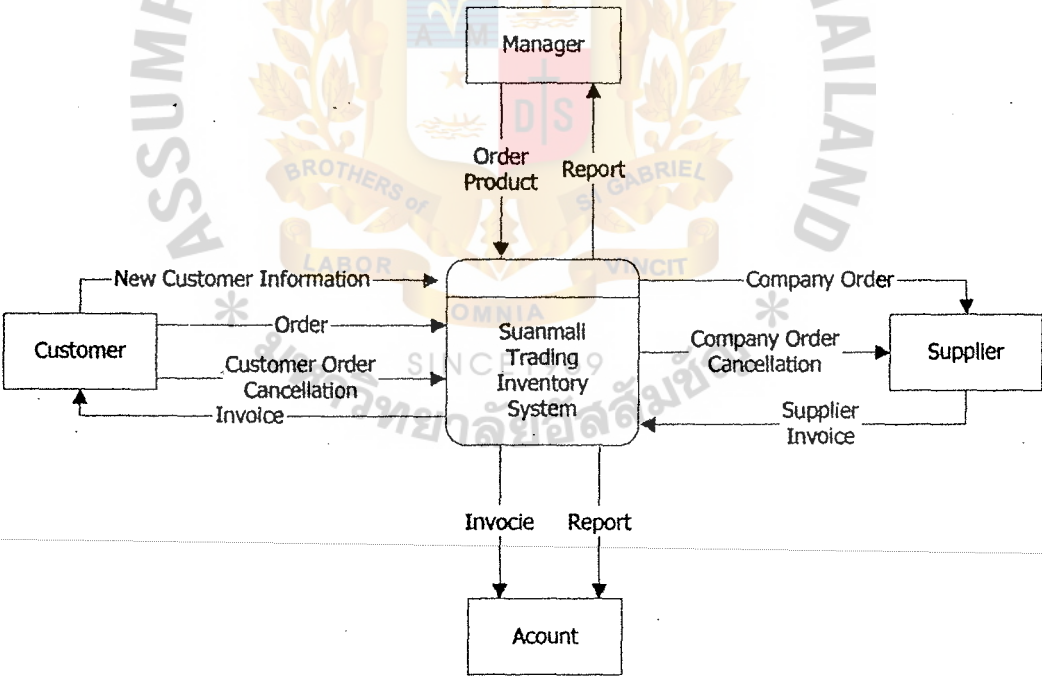

Figure 2.1. Context Diagram of Existing System

2.2 Problem Definition

(1) Ineffective Inventory Management Control

Managing the inventory is a time consuming task as it is done manually. The company has been encountered with the problem of actual inventory not matching the inventory record. This problem is caused by human errors in stock checking or in transactions recording.

There is no efficient tracking system for the quantity ordered, quantity in stock, price per item, which result in an inefficient use of financial resources. Either, company does not have a proper system to signal low inventory.

(2) Difficulties in Retrieving Information

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

III. THE PROPOSED SYSTEM

3.1 System Specification

(1) Hardware Requirements

HAREWARE	SPECIFICATION
CPU	Intel Pentium III 800 MHz
RAM	SD-Ram 128 MB
Hard disk	100 MB

Table 3.1.   Hardware Requirements

The reasons that I suggest Hardware Specification as the above are first, speed is the most important for system process. Second, storage requires a little bit high because it need to backup and collector data everyday.

(2)   Software Requirements

SOFTWARE	SPECIFICATION
Operating System	Microsoft Windows ME
Application	1. Microsoft Office 2000 2. Visual Basic 6.0 3. McAFee Anti Virus 4. Crystal Report

Table 3.2.   Software Requirements

As the above Software requirement, all of them suggested mainly due to the skill of the programmer. The company does not require specific program to run their job, they only want it to perform the specific function as they demand. Therefore, the programmer is the person who selects the proper program and creates the suitable software as user's requirement.

3.2   System Design

(1)   Data Flow Diagram

The systems analyst needs to make use of the conceptual freedom afforded by data flow diagrams(DFD), which graphically characterize data processes and flows in a business system. In their original state data flow diagrams depict the broadest possible overview of system inputs, processes, and output, which correspond to those the general systems model. (Kenneth E. Kendall & Julie E. Kendall 1999: 235)
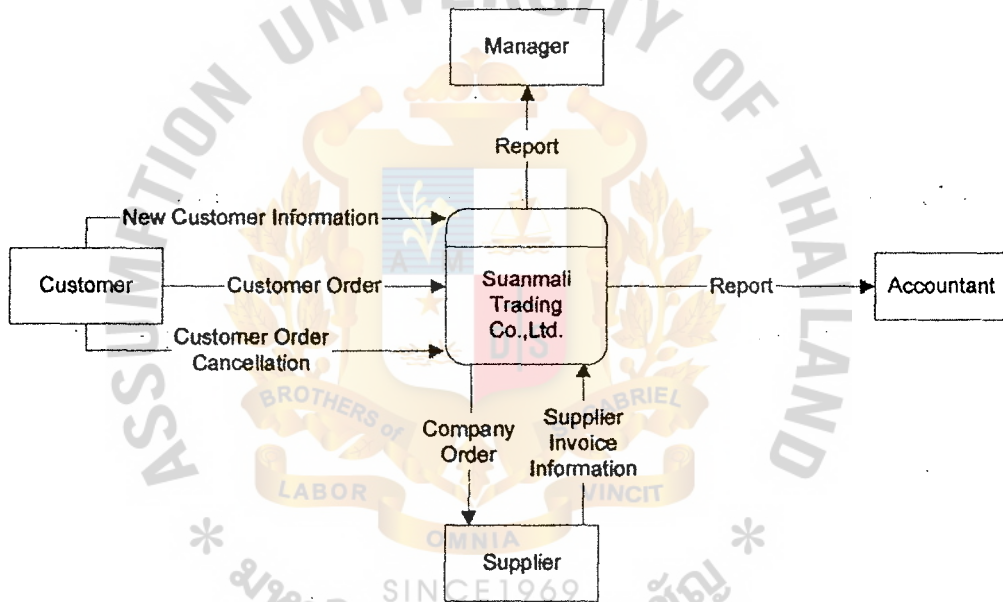
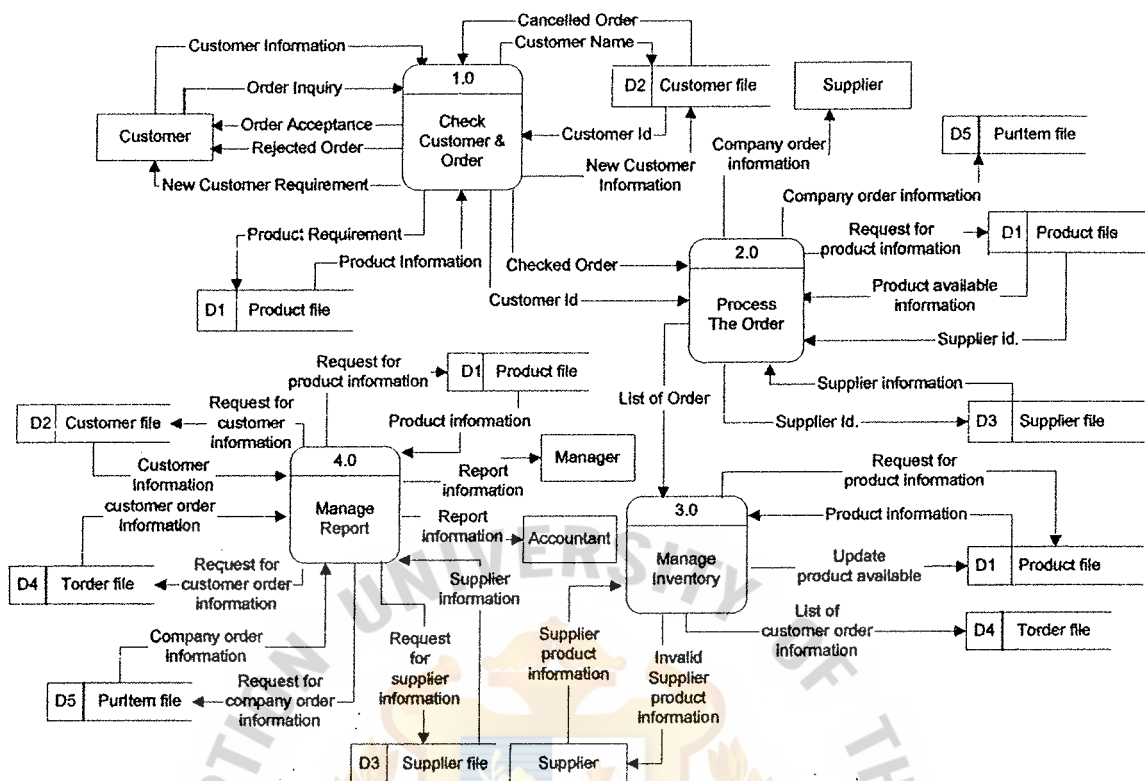Figure 3.1.   Data Flow Diagram – Context Diagram

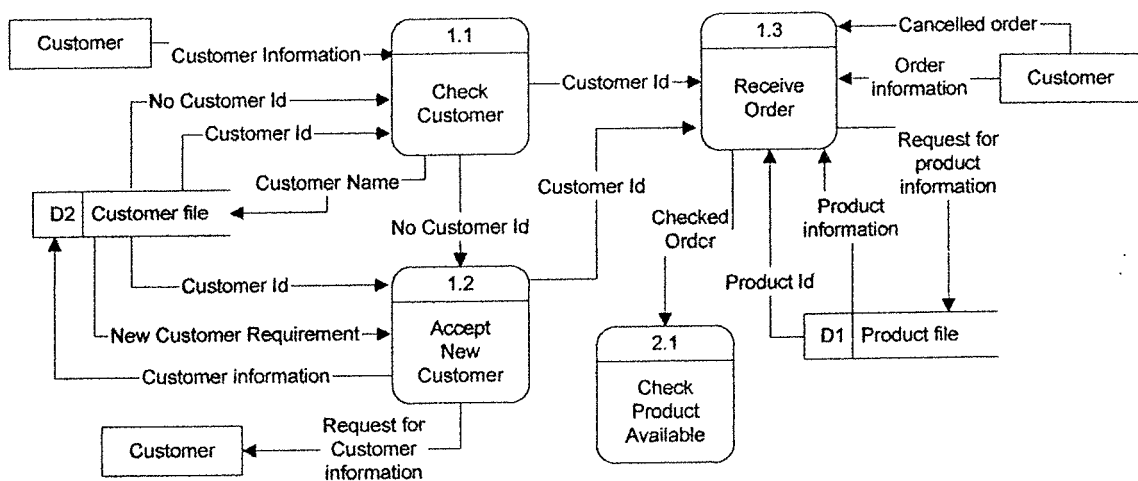Figure 3.2.   Data Flow Diagram – Level 0

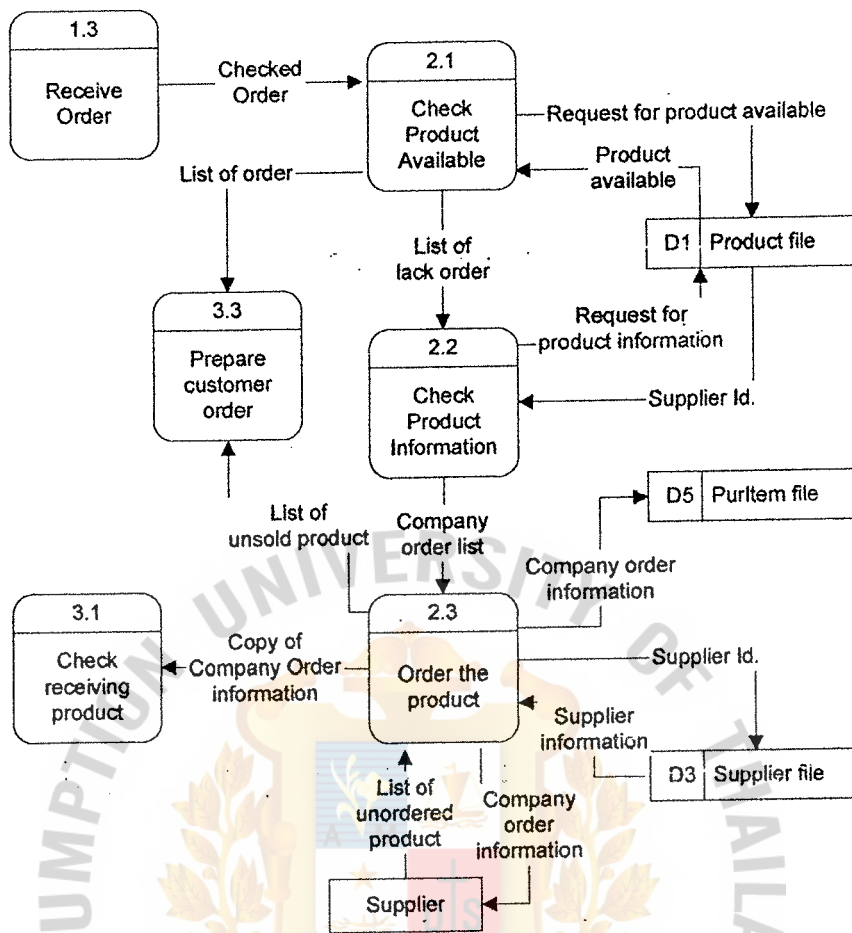Figure 3.3.   Data Flow Diagram – Level 1 Process 1

Figure 3.4. Data Flow Diagram – Level 1 Process 2
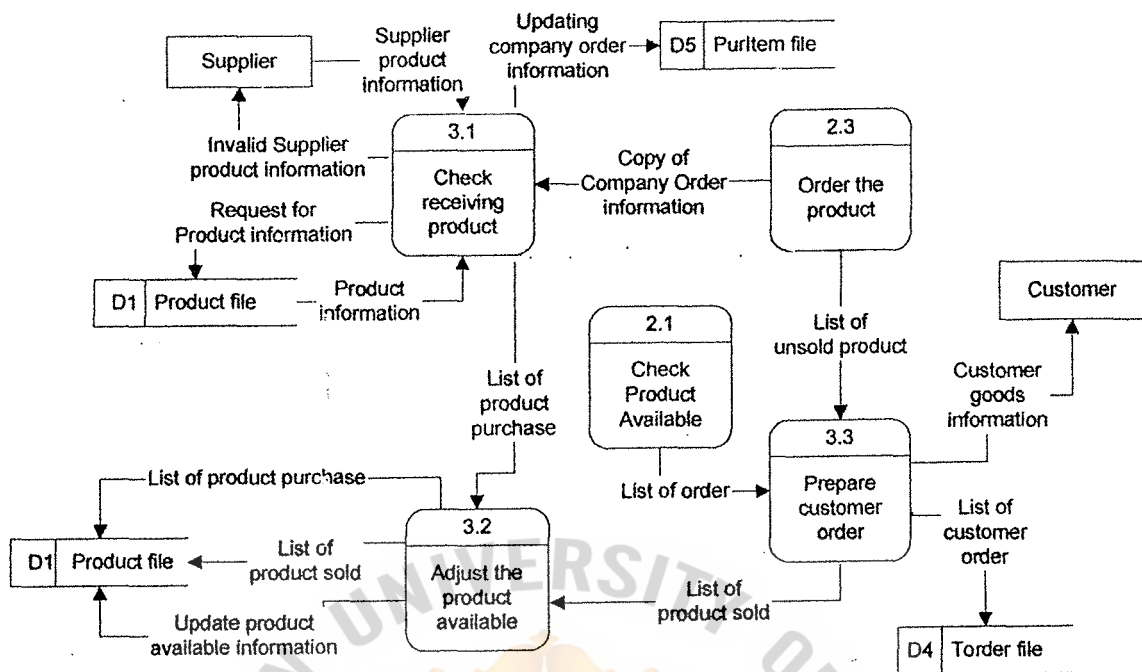
Figure 3.5.   Data Flow Diagram – Level 1 Process 3
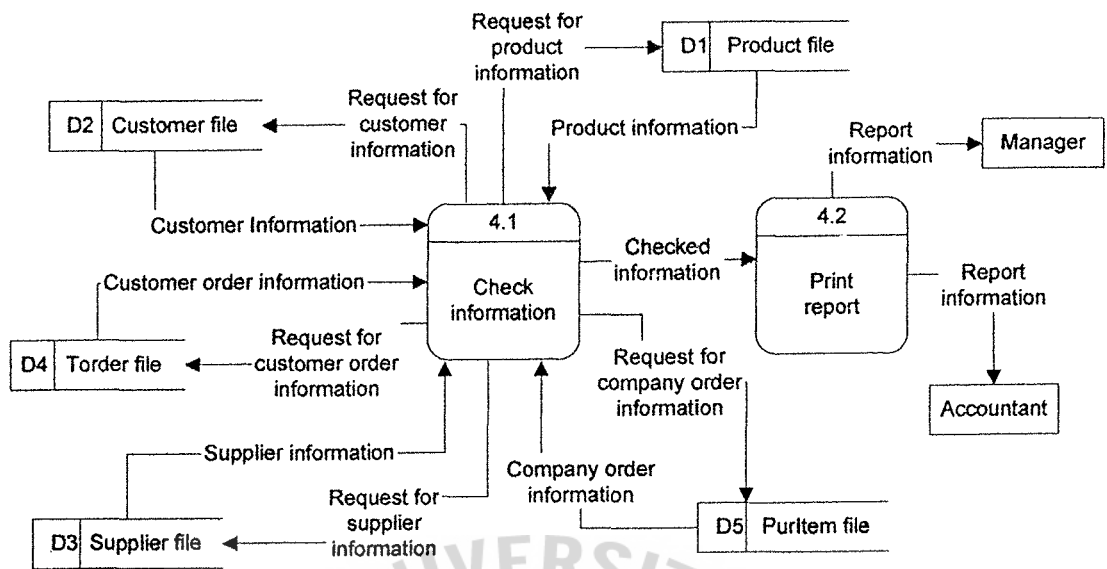
Figure 3.6.   Data Flow Diagram – Level 1 Process 4

(2)   Process Specification

Process Specifications are created for primitive processes on a data-flow diagram as well as for some higher-level processes that explode to a child diagram. Each derived element must have process logic to show how it is produced from the base elements or other previously created derived elements that are input to the primitive process. (Kenneth E.Kendall & Julie E. Kendall 1999: 341-342)

Process Name:	Check Customer & Order
Data In:	(1) Customer Information (2) Order Inquiry (3) Cancelled Order (4) Customer Id. (5) Product Information
Data Out:	(1) Order Acceptance (2) Rejected Order (3) Product Requirement (4) New Customer Requirement (5) New Customer Information (6) Checked Order (7) Customer Id.
Process:	(1) Get customer data and assign new customer id (2) Get customer data and check whether customer already exist in the database (3) Check whether there is existing product (4) Respone the customer order that acceptance or unacceptance
Attachment:	(1) Customer (2) Data Store D1 (3) Data Store D2 (4) Process 2.0

Table 3.3. Process Specfication for Process 1.0

Process Name:	Check Customer
Data In:	(1) Customer Information (2) No Customer Id (3) Customer Id.
Data Out:	(1) Customer Name (2) Customer Id (3) No Customer Id
Process:	(1) Check customer for new or existing customer (2) Assign for not existing customer
Attachment:	(1) Customer (2) Data Store D2 (3) Process 1.2

Table 3.4.   Process Specfication for Process 1.1

Process Name:	Accept New Customer
Data In:	(1) No Customer Id (2) Customer Id. (3) New Customer Requirement (4) Customer Information
Data Out:	(1) Customer Information (2) Customer Id
Process:	(1) Receive customer information (2) Assign new customer id
Attachment:	(1) Customer (2) Data Store D2 (3) Process 1.3

Table 3.5.   Process Specification for Process 1.2

Process Name:	Receive Order
Data In:	(1) Customer Id. (2) Product Id. (3) Order Information (4) Cancelled Order (5) Product Information
Data Out:	(1) Request for product available (2) Checked order
Process:	(1) Receive order and customer information (2) Check product information (3) Cancel customer order
Attachment:	(1) Customer (2) Data Store D1 (3) Process 2.1

Table 3.6. Process Specification for Process 1.3

Process Name:	Process The Order
Data In:	(1) Customer Id. (2) Checked Order (3) Product Available Information (4) Supplier Information (5) Supplier Id.
Data Out:	(1) Company Order Information (2) Request for Product information (3) Request for Supplier Information (4) Supplier Id. (5) Litst Of Order
Process:	(1) Check whether there is enough stock on hand (2) Check supplier information before make order (3) Order the product from Supplier (4) Send the order that have enough stock on hand to next process
Attachment:	(1) Supplier (2) Data Store D1 (3) Data Store D3 (4) Data Store D5 (5) Process 3.0

Table 3.7. Process Specification for Process 2.0

Process Name:	Check Product Available
Data In:	(1) Checked Order (2) Product Available
Data Out:	(1) Request for product available (2) List of order (3) List of lack order
Process:	Check for product available
Attachment:	(1) Data Store D1 (2) Process 2.2 (3) Process 3.3

Table 3.8.   Process Specification for Process 2.1

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Process Name:	Check Product Information
Data In:	(1) List of lack order (2) Supplier Id.
Data Out:	(1) Request for Product information (2) Company order list
Process:	Check for Supplier of each product and send to next process
Attachment:	(1) Data Store D1 (2) Process 2.1 (3) Process 3.3

Table 3.9.   Process Specification for Process 2.2

Process Name:	Order the product
Data In:	(1) Company order list (2) List of unordered product
Data Out:	(1) Company order information (2) Copy of Company order information (3) List of unsold product
Process:	(1) Order lacked product from supplier (2) Check Supplier information before make order
Attachment:	(1) Supplier (2) Data Store D3 (3) Data Store D5 (4) Process 3.1 (5) Process 3.3

Table 3.10.   Process Specification for Process 2.3

Process Name:	Inventory Management
Data In:	(1) Product information (2) Supplier product information (3) List of order
Data Out:	(1) Request for Product information (2) Update product available (3) Update company order information (4) Invalid supplier product information (5) List of customer order information
Process:	(1) Process the order from Process 2.0 (2) Check whether there is valid product according to the company order (3) Update product available information after receiveing product
Attachment:	(1) Supplier (2) Data Store D1 (3) Data Store D4 (4) Data Store D5

Table 3.11. Process Specification for Process 3.0

Process Name:	Check receiving product
Data In:	(1) Copy of Company order information (2) Supplier product information (3) Product information
Data Out:	(1) Invalid supplier product information (2) Request for product information (3) List of product purchase (4) Update company order information
Process:	(1) Check product from Supplier (2) Record order information
Attachment:	(1) Supplier (2) Data Store D1 (3) Data Store D5 (4) Process 3.2

Table 3.12.   Process Specification for Process 3.1

Process Name:	Adjust the product available
Data In:	(1) List of product purchase (2) List of product sold
Data Out:	(1) Update product available information (2) List of product purchase (3) List of product sold
Process:	Adjust product available after sold or purchased
Attachment:	(1) Supplier (2) Data Store D1 (3) Process 3.3

Table 3.13.   Process Specification for Process 3.2

Process Name:	Prepare Customer Order
Data In:	(1) List of unsold product (2) List of order
Data Out:	(1) Customer goods information (2) Customer information (3) List of product sold (4) List of customer order
Process:	(1) Prepare order to send to customer (2) Record customer order information
Attachment:	(1) Customer (2) Data Store D4

Table 3.14.   Process Specification for Process 3.3

Process Name:	Manage Report
Data In:	(1) Product information (2) Customer information (3) Supplier information (4) Company order information (5) Customer order information
Data Out:	(1) Request for Customer information (2) Request for Product information (3) Request for Customer order information (4) Request for Company order information (5) Request for Supplier information (6) Report information
Process:	Prepare report to Manager and Accountant
Attachment:	(1) Manager (2) Accountant (3) Data Store D1 (4) Data Store D2 (5) Data Store D3 (6) Data Store D4 (7) Data Store D5

Table 3.15.   Process Specification for Process 4.0

Process Name:	Check Information
Data In:	(1) Product information (2) Customer information (3) Supplier information (4) Company order information (5) Customer order information
Data Out:	(1) Request for Customer information (2) Request for Product information (3) Request for Supplier information (4) Request for Company order information (5) Request for Customer order information (6) Checked information
Process:	Prepare report
Attachment:	(1) Data Store D1 (2) Data Store D2 (3) Data Store D3 (4) Data Store D4 (5) Data Store D5 (6) Process 4.2

Table 3.16.   Process Specification for Process 4.1

Process Name:	Print report
Data In:	Checked information
Data Out:	Report information
Process:	(1) Send report to Manager (2) Send report to Accountant
Attachment:	(1) Manager (2) Accountant

Table 3.17.   Process Specification for Process 4.2
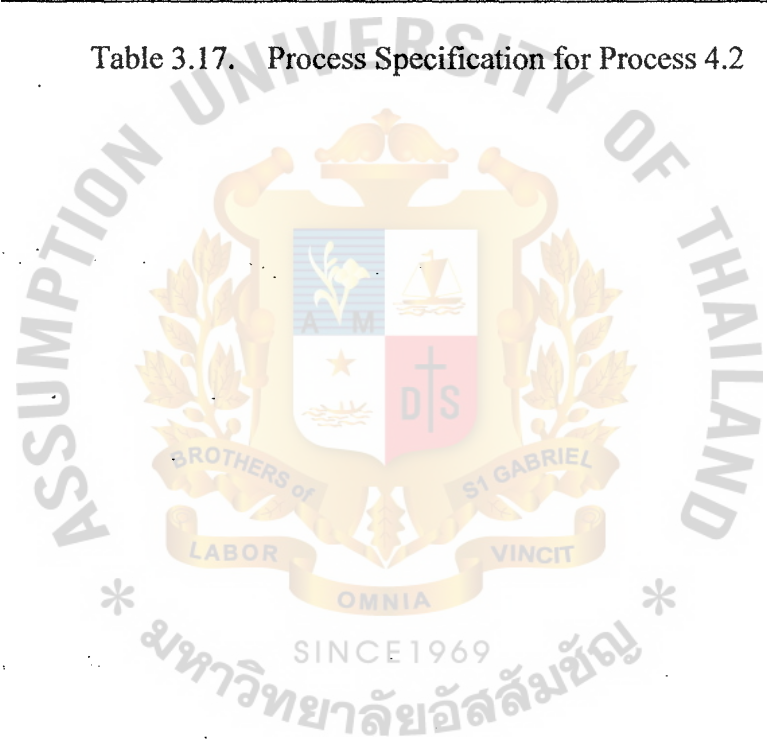
(3)   Entity-Relation Diagram

The Entity-Relationship (E-R) model is used to construct a conceptual data model. It is a logical representation of the structure of a database that is independent of the software used to implement the database. An E-R model is expressed as an E-R diagram, which is a graphical representation of the model. (McFadden, et al. 1999)
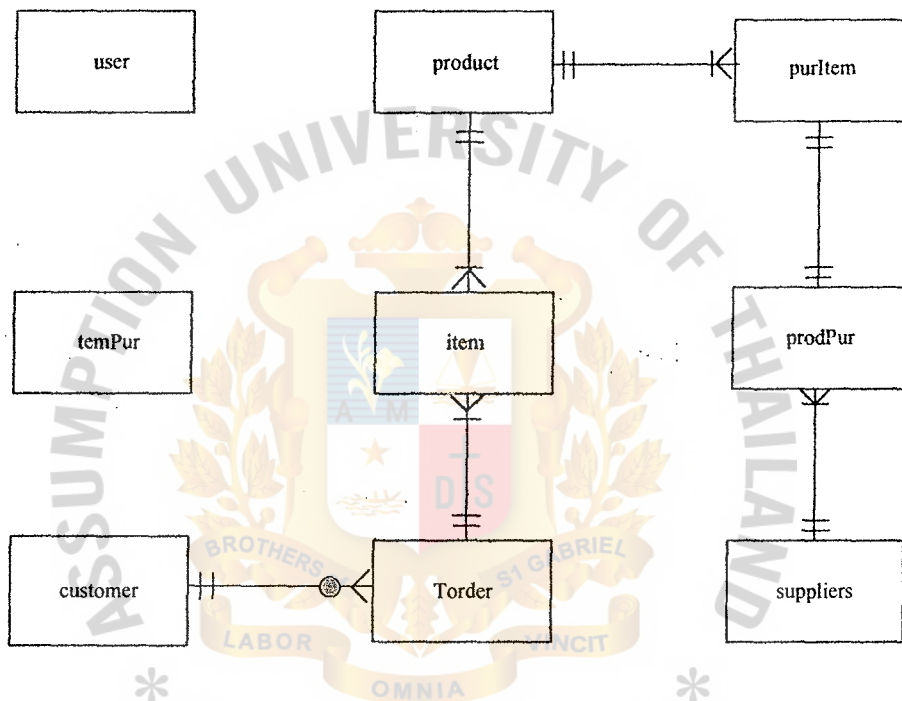
Figure 3.4.   Entity-Relationship Diagram

(4)   Database Design

Databases are not merely a collection of files. It is a central source of data meant to be shared by many users for a variety of applicants. The objectives of designing database are to provide data when user wants to use it and provide efficient storage of data as well as efficient updating and retrieval. (Kenneth E.Kendall & Julie E. Kendall 1999: 603, 606)

Table Name	Purpose
customer:	Keep record of customer information
product:	Keep information of product purchased from supplier and also product available
Torder:	Keep information of customer order information
item:	Keep information of product sold and quantity sold
prodPur:	Keep information of product and supplier
purItem:	Keep information of product in order to look up price and quantity buy from supplier
supplier:	Keep information of supplier
user:	Keep information of user name, password and authorization

Database Design is exhibited in APPENDIX A

(5) Interface Design

The purposes of Interface design are first to allow users to access the system in a way that is congruent with their individual needs. Second, to increase the speed of data entry and reduce errors. Third, to provide appropriate feedback to users from the systems. Last, to ergonomical sound principal of design for user interfaces and workspaces. (Kenneth E.Kendall & Julie E. Kendall 1999: 663)

Interface Name	Purpose
Auser	In order to add new username.
CompInv	In order to add transaction of company
Cpass	In order to change password.
Credit	In order to show credit of program.
Cuser	In order to change username.
Customer	In order to show customer detail.
CustOrder	In order to add, view, edit and delete Customer's transaction.
Login	In order to allow the user access to the program.
Product	In order to show product detail.
Report	In order to view report.
Stock	In order to show product on hand.
Supplier	In order to show supplier detail.
MdiMain	In order to show menu of the program.

Interface Design is exhibited in APPENDIX B

(6)   Report Design

Report design is the form of providing information to managers using a pre-specified format designed to provide managers with information on a regular basic. Information is available when a manager demands it. (O'Brien 1999: 458-459)

Name of report	Purpose
Customer Report	Show customer information.
Inventory Report	Show product available information.
Order Report	Show order daily detail.
Order Report (select date)	Show order detail by selected date.
Product Report	Show product information.
Supplier Report	Show supplier information.

Report Design is exhibited in APPENDIX C

IV. SYSTEM IMPLEMENTATION

4.1 Overview of the System Implementation

The way to implement the software is Direct Cutover method. For Direct Cutover method, it helps the company save cost because the company can run the new system only one system. That's why it fit with small company. Next, there will no effect when the company implements this approach because the old system is operated as manually, the new system operated by computing system. So, there is no relation between these two systems. Moreover, the output of the old and new one can not compare to each other due to the output from new system generated by computer, which is different from the old one. Last, the reason for choosing this approach is the old system is not support the new one, so they can apply this system easily. (Kenneth E. Kendall & Julie E. Kendall 1999)

4.2 Test Plan

There are several methods for testing the software and one of the several is Top-down testing. This is the popular method that software designer use for testing. They start test the high levels of a system before testing its detailed components. Then the software designer test sub-system until completely tested. If this method is used, unnoticed design errors may be detected at an early stage in the testing process. Early detection means that they can be corrected without undue costs. The steps of Top-down testing are first, the user will test from the big function or the main process which is the process that the users require. So, if there is anything wrong with the main process, software designer can immediately correct it for the users. The testing system that the high levels before testing its detailed components. By using actual operating data, I

tested the software after finished sourcing all code in program and I tested with real information. I started testing from Inventory system because it is the main function that involve with main program and it is the essential function that user required. Then I tested the other sub-systems in order to verify all system. I checked all transaction of the program whether it done its function correctly. And I also tested input data whether wrong data can be inputted. After tested, there was no critical error occur and also no minor error. Because this method is help the software designer detect an unnoticed design error at an early stage in the testing process. From the result, every error can be discovered by using Top-down testing. (Lan Sommerville 1998:452-454)

V. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

From my point of view, I think that the new system will be benefited for the company. First, the company can operate their job faster. They need not to write anything on the paper and need not to keep their paper work in the file anymore. Next, they can operate job effectively. The staff can finish many jobs in the short time. They just input the data into the screen and the rest of jobs the computer will operate for them. That's help the staffs save time for complete their jobs. In additional, The new system reduces the error from the user. As the user need not to use handwriting, the error can be reduced. The new system will be automatically appearing the message box for them when the errors occur. Last, the company can satisfy their customer. The staff can respond to a customer quickly and not keep them wait so long time.

5.2 Recommendations

For my recommendation, I suggest that the company should extend more functions on the system. In order to utilize the system resource, they ought to add the other sub-systems for the user. They should add Accounting system to help they manage their money or to know the profit and lost of the company. Next, if the company wants to expand their branch in the future, they can use LAN to connect the main shop to the other shops. So, that may help they work faster and smoothly for their communication.

APPENDIX A

DATABASE DESIGN

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	custID	text (6)	Y	Y				Primary Key
2	cName	text (50)	Y					Attribute
3	cAddress	text (200)			Y			Attribute
4	cTel	text (50)						Attribute
5	cFax	text (50)						Attribute

Table A.1.   Customer Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	orderID	text (6)		Y				Primary Key
2	prodID	text (6)		Y				Primary Key
3	quantity	number (6)						Attribute
4	sellingprice	number (15)						Attribute

Table A.2.   Item Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	purID	text (6)		Y				Primary Key
2	supID	text (6)		Y				Primary Key

Table A.3.   ProdPur Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	prodID	text (6)	Y	Y				Primary Key
2	supID	text (6)	Y			Supplier		Foreign Key
3	pName	text (50)						Attribute
4	pType	text (50)						Attribute
5	buyingprice	Number (20)						Attribute
6	sellingprice	Number (20)						Attribute
7	available	Number (20)						Attribute
8	minS	Number (20)						Attribute

Table A.4.   Product Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	purID	text (6)	Y	Y				Primary Key
2	prodID	text (6)	Y			Product		Foreign Key
3	quantity	Number (6)						Attribute
4	buyingprice	Number (20)						Attribute

Table A.5. PurItem Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	purID	text (6)	Y	Y				Primary Key
2	prodID	text (6)	Y			Product		Foreign Key
3	quantity	Number (6)						Attribute
4	buyingprice	Number (20)						Attribute

Table A.6.   TemPur Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	supID	text (6)	Y	Y				Primary Key
2	sName	text (50)						Attribute
3	sAddress	text (100)						Attribute
4	sTel	text (50)						Attribute
5	sFax	text (50)			Y			Attribute

Table A.7.   Supplier Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	orderID	text (6)	Y	Y				Primary Key
2	custID	text (6)	Y			Customer		Foreign Key
3	orderDate	text (50)						Attribute
4	totalPrice	Currency (20)						Attribute
5	DiscPercent	Number (3)			Y			Attribute
6	Discount	Currency (20)			Y			Attribute
7	Payment	Currency (20)			Y			Attribute
8	Vat	Currency (10)			Y			Attribute
9	TotalPayment	Currency (20)			Y			Attribute
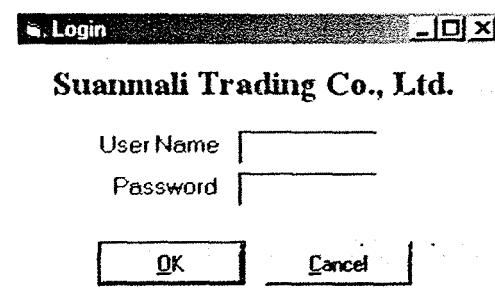
Table A.8.   Torder Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	userN	text (10)	Y	Y				Primary Key
2	userP	text (10)						Attribute
3	prio	number (6)						Attribute

Table A.9.   User Table

APPENDIX B

INTERFACE DESIGN

Figure B.1.   Login Form

Figure B.2.   Main Menu Form

Figure B.3. Customer Form

Figure B.4. Supplier Form

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Figure B.5. Product Form

Figure B.6. Add Customer Order Form

Figure B.7.　View Customer Order Form

Figure B.8.　Edit Customer Order Form

Figure B.9.   Stock Form

Figure B.10.   Report Form

Figure B.11.   Add New User Form

Figure B.12.   Change Username Form

Figure B.13. Change Password Form

Figure B.14. Credit Form

APPENDIX C
REPORT DESIGN

Suanmali Trading Co.,Ltd.

Customer Report

Printing Time: 10:53:33

Printing Date: 3/7/2002

Customer ID.	Name	Address	Telephone No.	Fax No.
0001	Nutchatorn Subboonmee	40 Ukon 2 Rd., Pomprab, Bangkook 10100	5832217	5832218
0002	Peerapong Sutthavassuntorn	99 Ramkumheang Rd., Huamark, Bangkapi, Bangkok 10240	2177865	2177866
0003	Viroon Jirapojaporn	3311/8 Ramkhamhaeng 83/1, Bangkapi, Bangkok 10240	3778488	8995621
0004	Suwitcha Panapongpaisarn	55/69 Rama II Rd., Bangmod, Bangkok 10150	4126701	4126701

Table C.1.   Customer Report

Suanmali Trading Co.,Ltd.

23-25 Ukon2 Road, Wattepsirin

Pomprabsatrupai, Bangkok

Tel: 02-621-6677

Fax: 02-223-6811

Inventory Report

Printing Time: 10:57:35

Printing Date: 3/7/2002

Product Id.	Name	Type	Available
0001	PVC Pipe (8.5)	1/2 inch.	100
0002	PVC Pipe (8.5)	3/4 inch.	100
0003	PVC Pipe (8.5)	1 inch.	100
0004	PVC Pipe (13.5)	1/2 inch.	100
0005	PVC Pipe (13.5)	3/4 inch.	100
0006	PVC Pipe (13.5)	1 inch.	100
0007	Iron Pipe	1/2 inch.	80
0008	Iron Pipe	3/4 inch.	70
0009	Iron Pipe	1 inch.	60

Table C.2.   Inventory Report

Suanmali Trading Co.,Ltd.

Product Report

Printing Time: 10:58:47

Printing Date: 3/7/2002

Product Id.	Supplier Id.	Name	Type	Buying Price	Selling Price
0001	0001	PVC Pipe (8.5)	1/2 inch.	40.00	50.00
0002	0001	PVC Pipe (8.5)	3/4 inch.	50.00	60.00
0003	0001	PVC Pipe (8.5)	1 inch.	60.00	70.00
0004	0001	PVC Pipe (13.5)	1/2 inch.	65.00	75.00
0005	0001	PVC Pipe (13.5)	3/4 inch.	75.00	85.00
0006	0001	PVC Pipe (13.5)	1 inch.	85.00	100.00
0007	0002	Iron Pipe	1/2 inch.	300.00	350.00
0008	0002	Iron Pipe	3/4 inch.	350.00	400.00
0009	0002	Iron Pipe	1 inch.	420.00	500.00

Table C.3.   Product Report

Suanmali Trading Co.,Ltd.

23-25 Ukon2 Road,
Wattepsirin
Pomprabsatrupai, Bangkok

Tel: 02-621-6677
Fax: 02-223-6811

Order Report

Printing Time: 14:30:45

Printing Date: 3/7/2002

Order Id.	Customer Id.	Order Date	TotalPayment
0001	0002	3/7/2545	481.50
0002	0002	3/7/2545	829.25
0003	0001	3/7/2545	16,638.50
0004	0001	3/7/2545	5,885.00

Table C.4.   Order Report (Daily)

Suanmali Trading Co.,Ltd.

Page No. :1

Printing Time: 14:14:34

Order Report

Printing Date: 9/7/2002

Order Id.	Customer Id.	Order Date	TotalPayment
0008	0003	7/7/2545	$1,369.60
0009	0002	8/7/2545	$5,564.00

Table C.5.   Order Report (Select by Date)

23-25 Ukon2 Road, Wattepsirin
Pomprabsatrupai, Bangkok
Tel: 02-621-6677
Fax: 02-223-6811

Supplier Report

Printing Time: 10:58:12
Printing Date: 3/7/2002

Supplier Id.	Name	Address	Telephone	Fax
0001	Nawaplastic Industries	1 Siam Cement Road, Bangsue, Bangkok 10870	5863333	5872199
0002	Thai-Asia Pipe Co.,Ltd.	2 Ukon 1 Road, Pomprab, Bangkok 10100	2248399	2216799

Table C.6.   Supplier Report

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5. Sommerville, Ian. **Software Engineering**. USA: Addison-Wesley., 1998.

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