# FURNITURE INVENTORY TRACKING SYSTEM
# FOR TEERACHAI SUPPLY COMPANY

by

## Ms. Kannika Rasmeepitoon

A Final Report of the Three - Credit Course
CS 6998 System Development Project

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for Teerachai Supply Company**

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CS 6998 System Development Project

Submitted in Partial Fulfillment
of the Requirements for the Degree of
Master of Science
in Computer Information Systems
Assumption University

November 2000

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| Project Title | Furniture Inventory Tracking System for Teerachai Supply Company |
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| Academic Year | November 2000 |

The Graduate School of Assumption University has approved this final report of the three-credit course, CS 6998 system Development Project, submitted in partial fulfillment of the requirements for the degree of Master of Science in Computer Information Systems.

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# ABSTRACT

This system is deliberately analyzed and designed for the purpose of solving the inventory problem of Teerachai Supply Co., Ltd. The objective of the project is to facilitate the user in monitoring and checking the movement of customers, suppliers and products in warehouse.

The study of this valuable project begins with planning, organizing, collecting the data and monitoring. Then we analyze the current system and situation. After doing step-by-step, we found that this old-fashioned system is the manual process and the structure is already presented by using the data flow diagram. From studying the existing system, the new system is designed and proposed to solve the current problem from the existing system. However, the computerized system is designed to ease the user in doing their work for developing the proposed system. The networking environment is applied to help the user in sharing the hardware and information among the users in the company. The anticipated benefit from this system is to facilitate the users to work faster without mistake, which can be achieved by using the computer. This system can support the inventory control and make the stock level available to sell. The cost analysis is also clarified in this report by showing the break-even and how the system can create the profit in the long run.

After the system is completely developed, it will be installed and tested for the correctness. However, before using this program, the training is definitely required to make the understanding among the users with this program. Training course will be started before the system is completely developed. Total time requirement for the project is about 3 months, which will start from planning, organizing, collecting the user

requirement, and monitoring. The next step is to analyze the existing system and the proposed system is developed.

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### 1.1.1 General Information

Teerachai Supply Co., Ltd. was established in 1990 on Pugow-Smingply Road. On believing that this area will be the most traffic and fast-growing residential and industrial area, the manager of the store found out the best location there. This seems to be true because the annual profit of the company increased every year.

At the first time, the products sold by Teerachai Supply Co., Ltd. were going very well till many competitors saw the opportunity and jumped into the market. They shared the cake; so this is the cause of decreasing of company's profit.

The products supplied by Teerachai Supply Co., Ltd. are focused on the Wood furniture products. The company started doing business with less than 50 categories of products in the warehouse and 5 workers. Now, there are more than 200 items of products and 30 workers in this company. Major customers are not only the other companies on Pujaow-Smingply Road area and adjacent area but also all areas in Bangkok.

The principle objective of setting up a business of every company is to make profit. Teerachai Supply Co., Ltd. also makes a lot of profit and is the Furniture wholesaler leader in this area.

Teerachai Supply Co., Ltd. exists for the purpose of serving customers on Pujaow-Smingply Road and all areas in Bangkok. The manager believes that customer will be more satisfied if they can find any product within one shop, so the word "One stop shopping" is the major objective of the company.

## 1.1.2 Organization Chart

This project is written for Inventory Control, therefore the major concern of this project is in the Marketing Department. Figure 1.1 shows the organization chart of Teerachai Supply Co., Ltd. and Figure 1.2 show the organization chart of the Marketing Department as a whole:
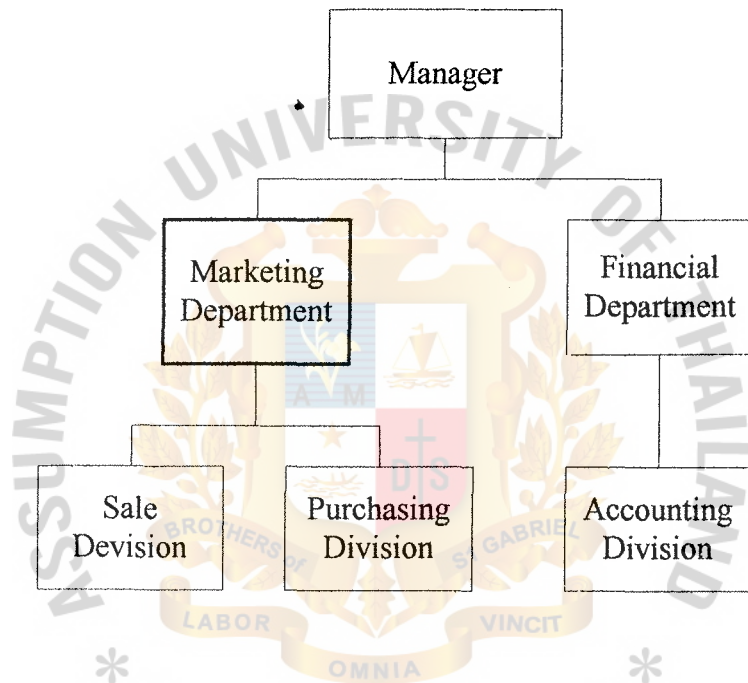


Figure 1.1.    Organization Chart of Teerachai Supply Co., Ltd.
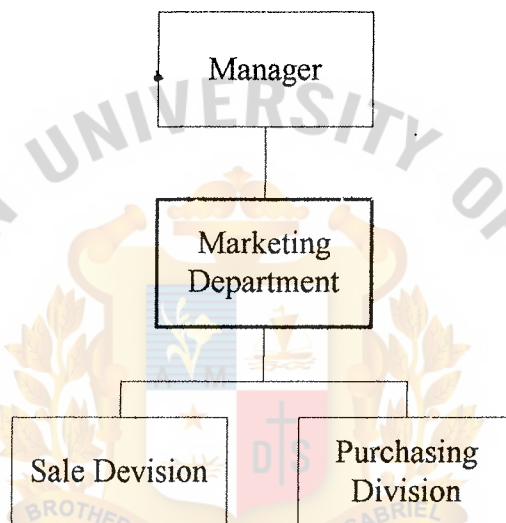
Figure 1.2.   Organization Chart of Marketing Department.

## 1.2 Scope of the Project

This project focuses only on Inventory management. It will not overcome the process of the Financial Department which is about accounting system. But in this project, the above process will be mentioned as there are interconnection to provide system accuracy and reduce work load of the system.

This project is started with an evaluation of the existing system. When the existing system is evaluated, the result is unacceptable, This is because the manual system is unrealiable to process the information management. The information of the current product in the warehouse cannot be monitored accurately. The only way for checking stock in warehouse of existing system is to be the manual checking process which will consume more time and be inefficient. The other weakness is that there are not any product code assigned, all products in the warehouse are mixed up in variety product.

The proposed system will take care of the monitoring function of the products in stock. The advantages and features of the system are as follows:

(1)    complete information of product, customer, user and supplier will be recorded and can be checked when needed.

(2)    each product will be assigned its own product code.

(3)    the product available in the warehouse can be easily checked out. This will help the clerk and manager to monitor the inventory status and reduce time and cost of work.

(4)    The system can ease the purchasing process as it can report the supplier's status.

(5)    ease the sale process.

(6)    help the user in keeping track of their customers' information.

(7)    help in making decision in choosing the most appropriate supplier when the products need to be ordered.

(8)    automatically check for minimum stock.

(9)    using the benefit of the networking system in sharing computer resources.

## 1.3    Objectives of the project

The main objective of the project is to develop a computerized system for the inventory tracking of Teerachai Supply Company. Because the number of products in the warehouse is high quantity the overall processes are done manually. There are a few staff to do this job so it takes very long time to keep track of the inventory.

Therefore the computerized system will be developed to support all staff to work easier and decrease human error during run process including solved problem as well as user requirements. This project will be finished when most of the problems have been solved completely and the system meets the user requirement. The following are the project's objectives:

(1)    to keep the information of the purchased product and able to report the status of the product requirement immediately.

(2)    to issue the inventory status report serve staff in decision making for purchasing process.

(3)    to keep information of the selling product and to report the total products to be sold at that time accurately .

(4)    to do the minimum stock warning.

(5)    to produce report showing the status of the products in stock when needed.

(6)    to reduce staff's overtime cost.

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(8)    to reduce the manual paper work.

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1.4.5  Conclusions and Recommendations

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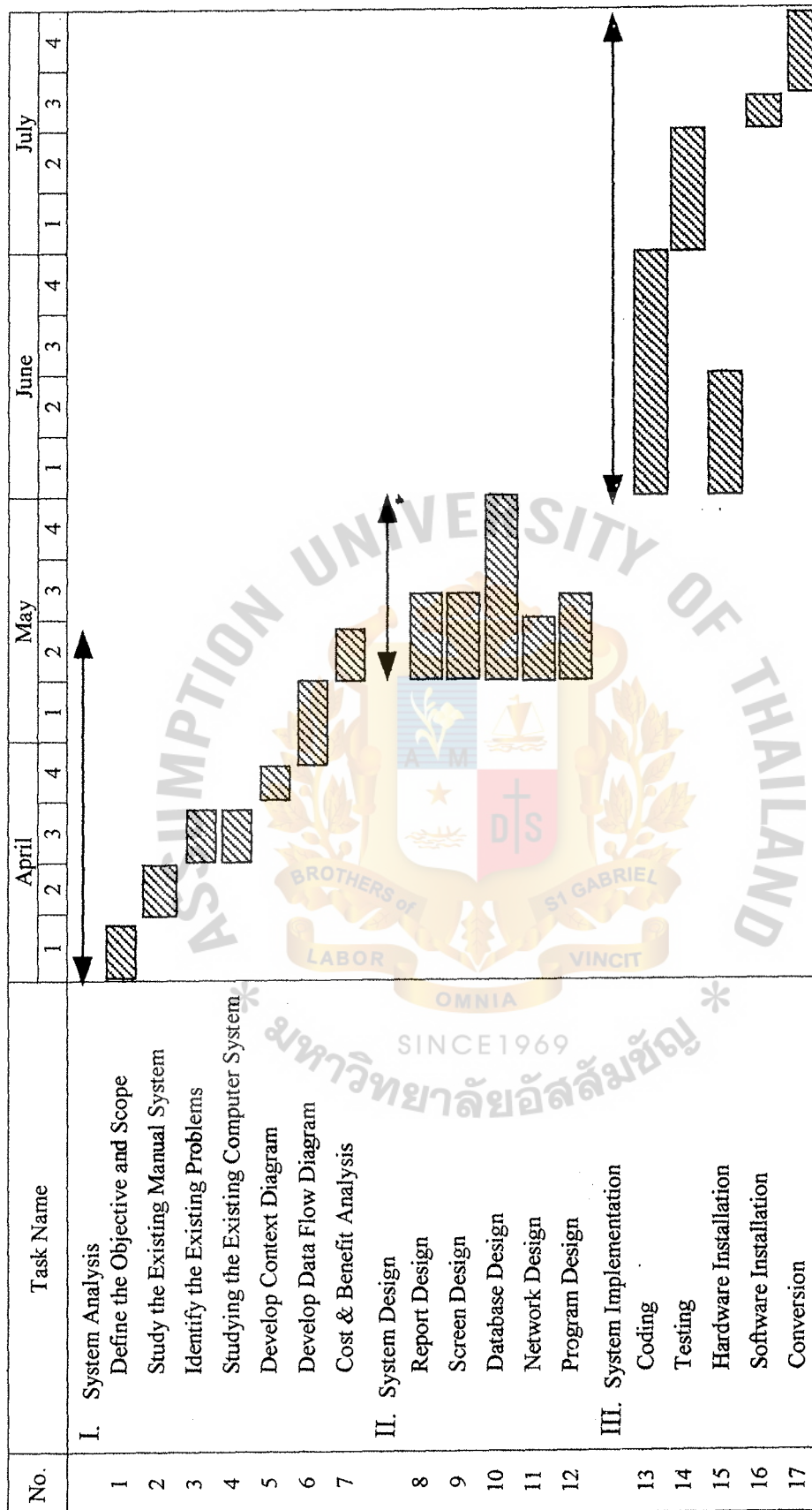
Figure 1.3. Project Plan of the Furniture Inventory Tracking System.

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## II. EXISTING SYSTEM

### 2.1 Background of the Organization

This existing system is completely manual. There are few people working in inventory control division. These division have function to keep tracking of all products available in the warehouse but because there are high quantity and varied variety of product to be difficult for stock management and staff must consume more time to complete their jobs. This is causing to be unable to service the customer requirement of purchasing order on time.

With the manual system, they did not have any code assigned for the product. This project will start with assigning a code to all products in the warehouse. After that the staff need to group the products by type together. This is not an easy process because all the products are mixed. Most of time this process has to be ignored. This causes problem because the products in the warehouse will be difficult to monitor or cannot be monitored at all.

A computerlized system has been evaluated once but it is not sucessfully implemented because Teerachai Supply was not specializing only in wood product at that time. The causing of failure may have come from the usage of unsuitable technology or incomplete design.

When the computerized system failed, the manual system was used again until now. As of the manual system, the same problems still existed for example, word overload, late product delivery to customers, insufficient products in stock and time consumed in checking the products in the warehouse. Then the manager of Teerachai Supply tries to develop a complete computerized system to override the problems.

## 2.2 The Existing Business Function

The process begins when the customer orders the product. After receiving the order from the customer, the clerk will check the product available in the warehouse. If the product in the warehouse is sufficient, that product will be shipped to the customer. An invoice will be put together with the product. If the product in the warehouse is insufficient, the clerk will check the product needed to supplier and order is made. From this point, we found that checking product available in warehouse is a time consuming process and if the product is not available, it needs to be ordered from the most appropriate supplier. Here we are still not sure that the supplier chosen is the most appropriate because all information about supplier and product is mixed and not updated.

To ship product to customer, sometime not in cash basis so the amount the customer ordered must be kept in customer files to make collecting process at the end of the month or predefined period. If the sale is in cash basis, money must be collected by accounting department. New product order from the supplier is also recorded and kept in supplier files for future references. These two process usually have problem because many times customer or supplier information are not kept in it files.

At the end of every month all customer and supplier bill must be clear. Report needs to be prepared for the manager. Sometime sale and purchase return is needed. To do the return process, much information is needed (data of purchase, invoice number, etc) all of these information is used as references. These processes also are time consuming and must be done carefully.
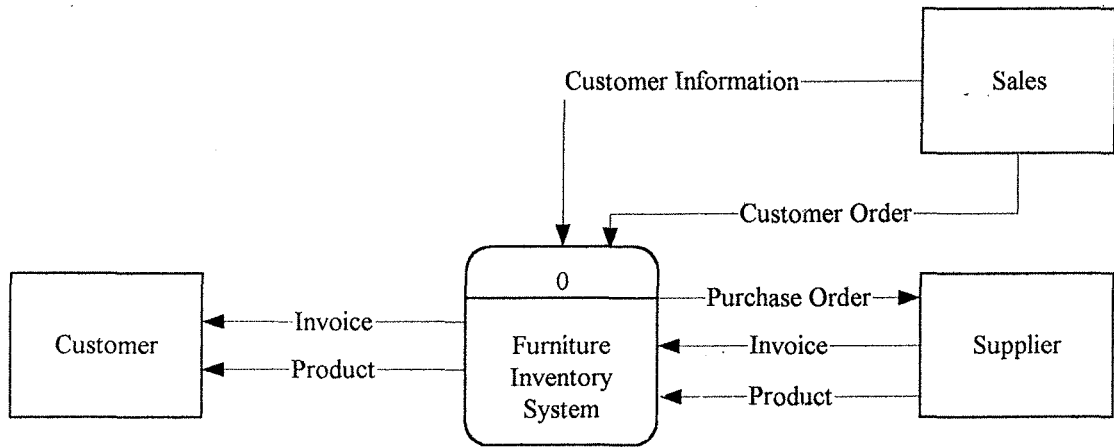
Figure 2.1. Current System Context Diagram.

## 2.3 Problem Identification

There are many problems that exist in the system. As of the interview result, the problems are listed as follows:

(1) The existing system is the manual system and it generated a great number of paper work. All information have to be recorded in the paper and it will not last long.

(2) To check product available in warehouse is time consuming. This is because product is not stored in group and the warehouse is very big.

(3) Some product cannot be tracked or are out of information. The staff cannot guarantee the exact cost of product when needed This is because most of product information is in paper format and sometime it is damaged. Most of the products that are stored in the warehouse for more than 2 years, data for those particular piece will not be available.

(4) All products in the warehouse didn't have code assigned. This is very important to identify the type of product.

(5) Product type is not clearly identified.

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(5)     Product type is not clearly identified.

(6)     No minimum stock is set, some products are not available when customer needs.

(7)     Some customer and supplier files are not checked for a long time so the bill is still not cleared.

(8)     To do sale and purchase return sometime is a very difficult process because nothing can be used for reference.

(9)     Customer, Supplier, Product and Stock Information sometime are very difficult to check or time consuming in checking.

(10)    To do the sale, purchase and produce report process is very difficult and time consuming.

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# III. PROPOSED SYSTEM

## 3.1 Design of the Proposed System

The proposed system is the computerized system that eases the process of:

(1) checking customer information such as name, address and product ordered including showing the purchasing order of each customer and term of payment.

(2) checking sales information who takes the purchasing order from customer.

(3) checking which supplier is the most satisfactory with ordering products such as which supplier gives the longest credit term or provides the cheapest product price.

(4) checking supplier information which includes type of product supplied, product price, address of supplier and term of payment in invoice statement.

(5) checking product information which includes the quantity of product available in stock and product cost.

(6) Printing customer, supplier, product and stock information report when needed.

(7) quickly checking product availability in stock.

The technology of 32-bits software is fully supported. As the requirement of the proposed system, the Pentium class CPU must be the most suitable in terms of price/performance. Windows 98 or higher is the base operating system. The application software itself is also fully developed using 32-bits software architecture. For the part of the database, this system is initially developed using Microsoft Access 97. This database engine is one of the most powerful database software available in the market and Designing interface by using Microsoft Visual Basic 6. In order to make this system

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much more flexible to the database. We use VB6 language to develope the program because supports almost all database engines in the market such as SQL server, Sybase, Informix, etc. Moreover, the desktop database such as the Microsoft Access, Personnel Oracle can also be used with this system via ODBC.

## 3.2   User Requirement

The requirement of the users collected in the interviewing phase are as follows:

(1)   Using the computer as the medium of data collection, data processing and retrieving information.

(2)   Assigning product code to identify product. Each product will have a product code to identify itself.

(3)   Automatic checking of minimum stock is required. Every time the system is booted up, the minimum stock checking process is run.

(4)   Keep information of each sales who take order from customer

(5)   Collect data of product type of each suppliers including product cost and detail of product etc.

(6)   Report of any information will be retrieved quickly when user needs.

(7)   Editing or updating some parts of the information required by specific user.

(8)   Every time that product is out of stock and minimum stock checking working, the lowest price provided by supplier is popped up.

### 3.3 System Design

The structured design tools are used to delvelop the proposed system. And the logical model are products of structured analysis which aids in defining system requirement.

The complete listing of analysis document is as follows:

(1) Context Diagram

(2) Data Flow Diagram

(3) Process Specification

(4) Data Dictionary

System design is the physical implementation of the above logical models by utilizing hierachical partitioning of modular structure.

The complete listing of the design document is as follows:

(1) Database Design

(2) Interface Design

(3) Output and Report Design

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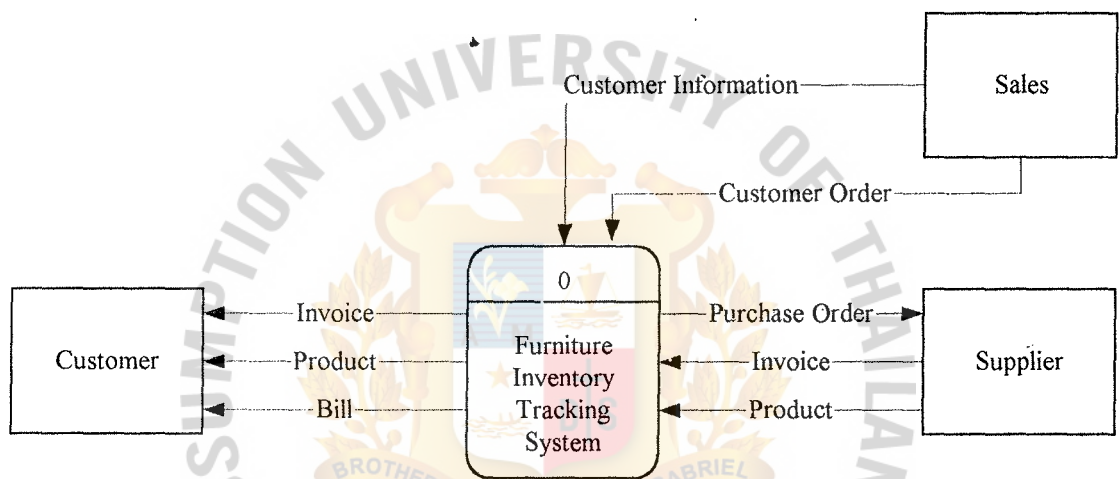
Figure 3.1. Context Level Data Flow Diagram.
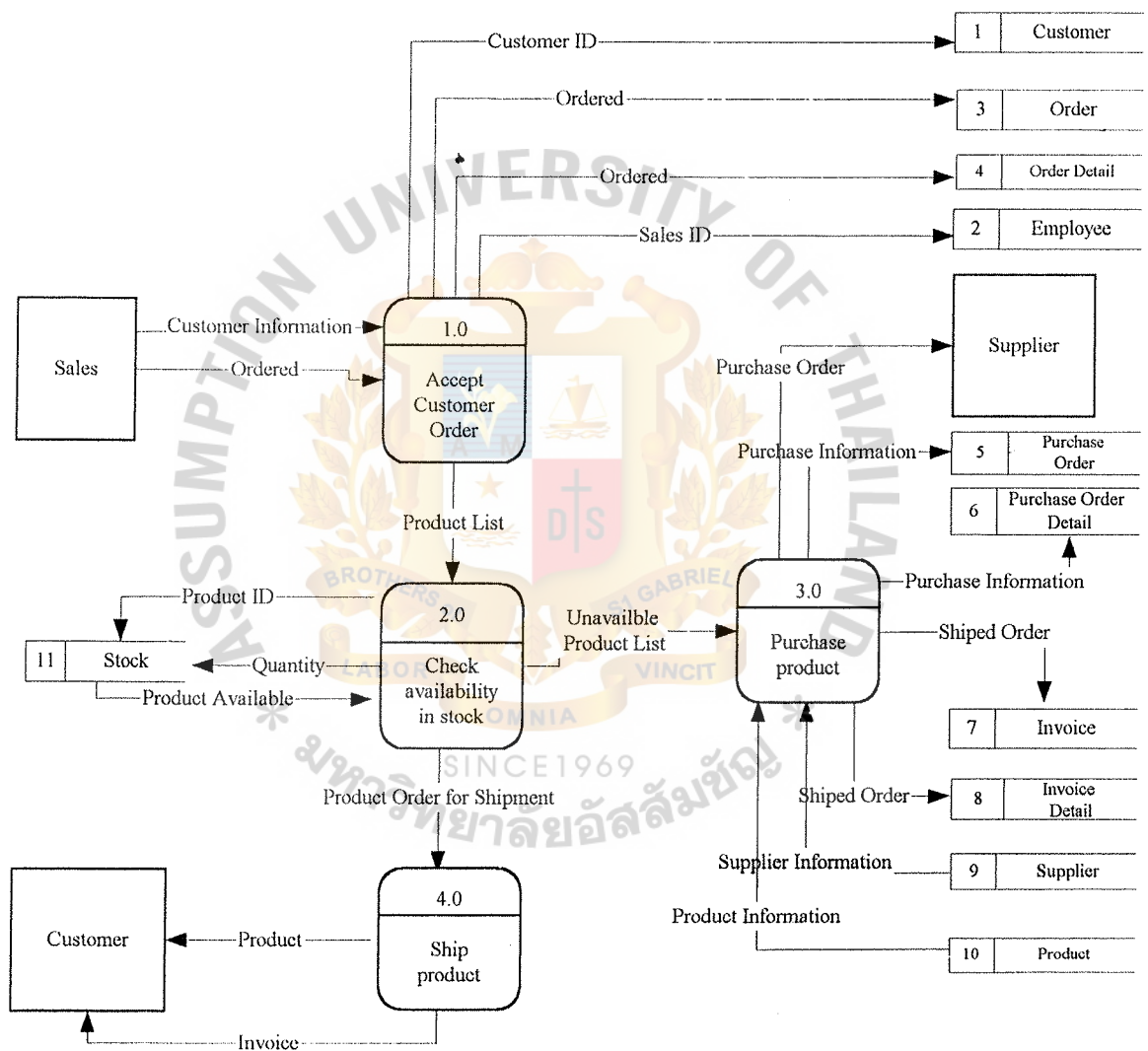
Figure 3.2. Proposed System Level 0 Diagram.

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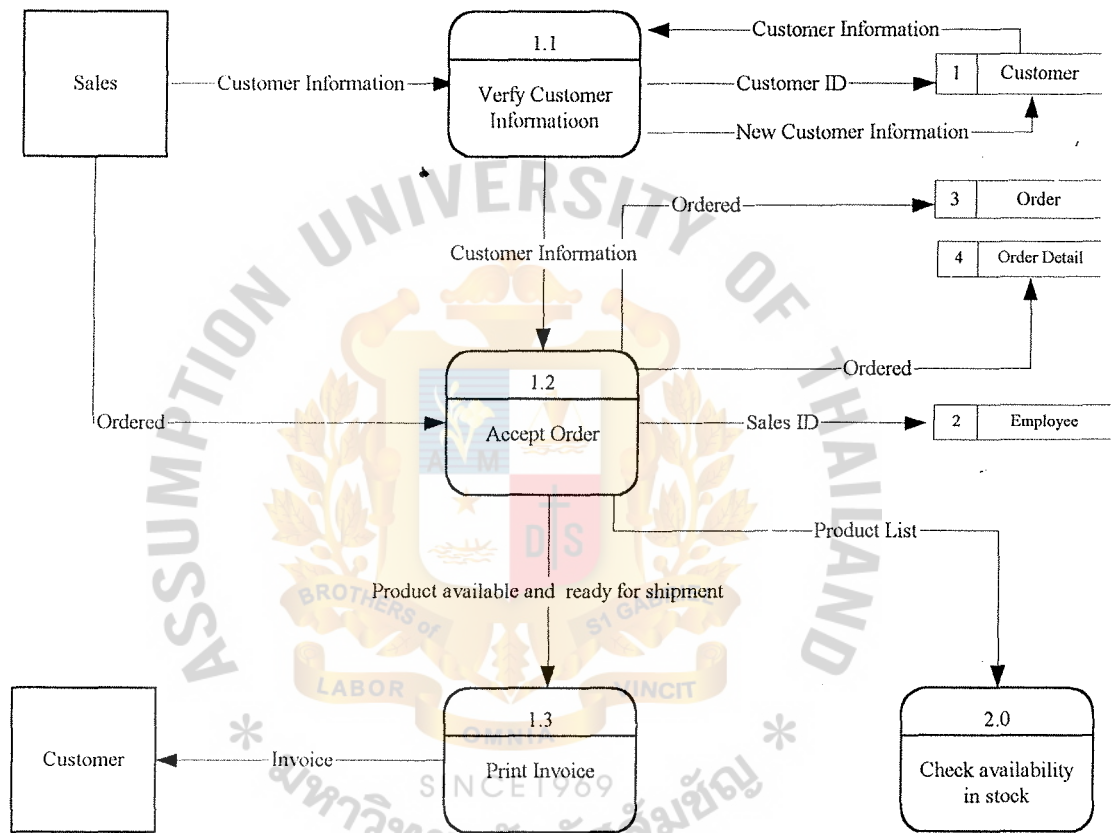
Figure 3.3.　Level 1 Data Flow Diagram of Accept Customer Order Process.
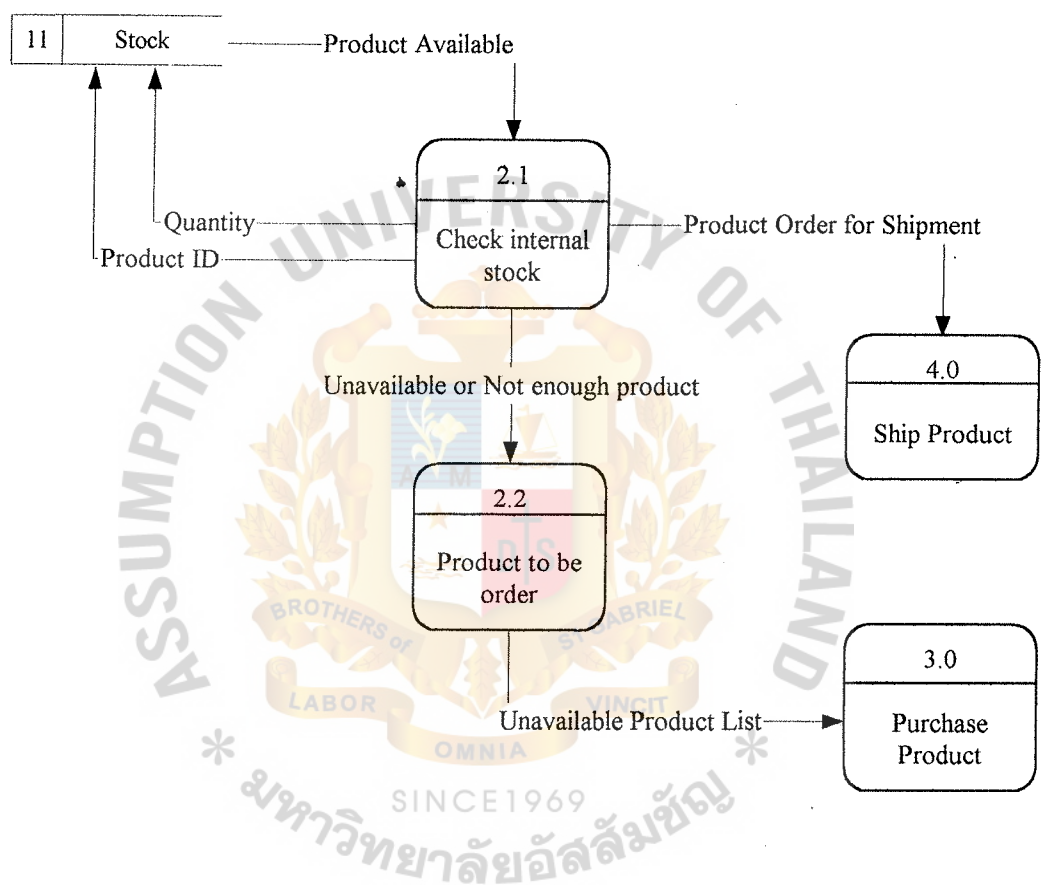
Figure 3.4. Level 1 Data Flow Diagram of Check Product Available in Stock Process.
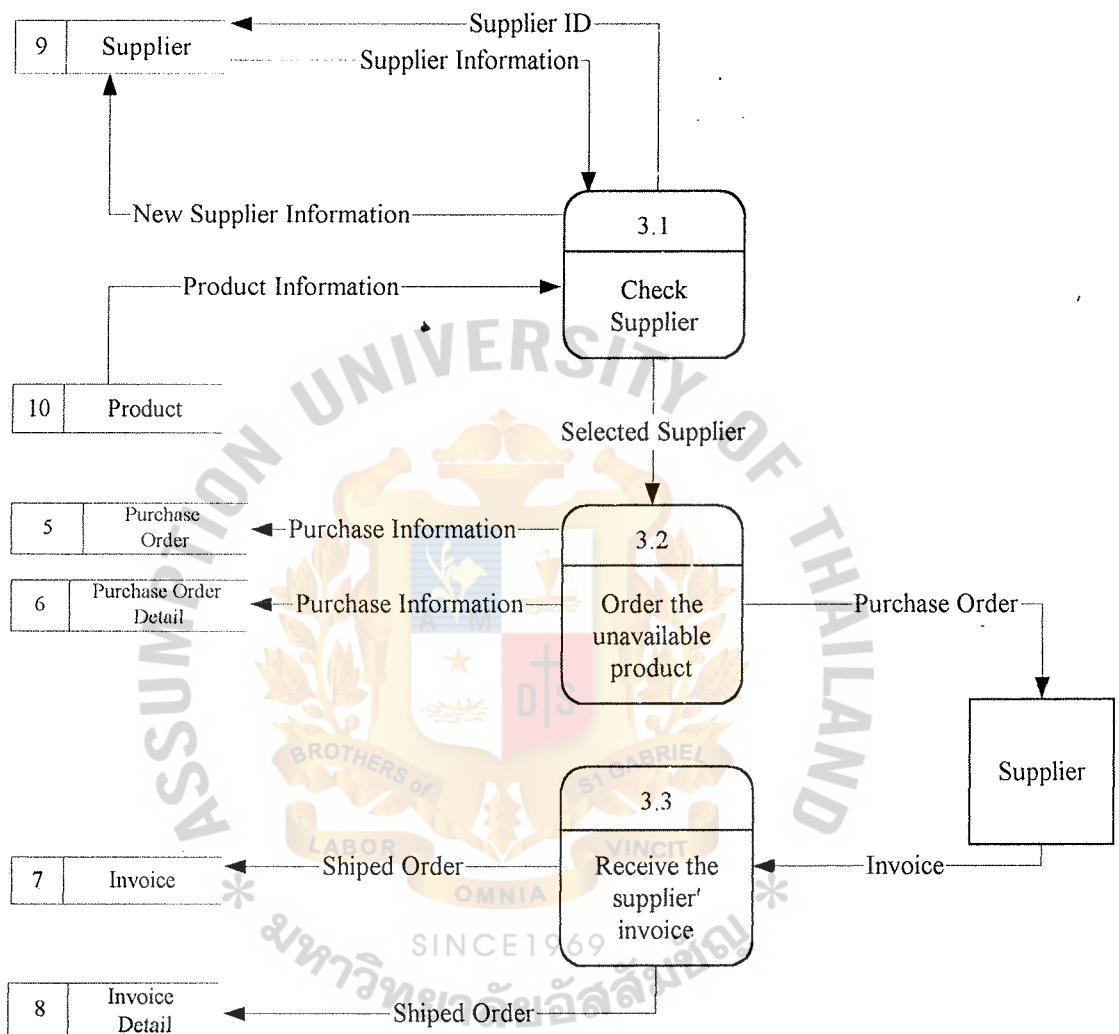
Figure 3.5.  Level 1 Data Flow Diagram of Purchase Product Process.

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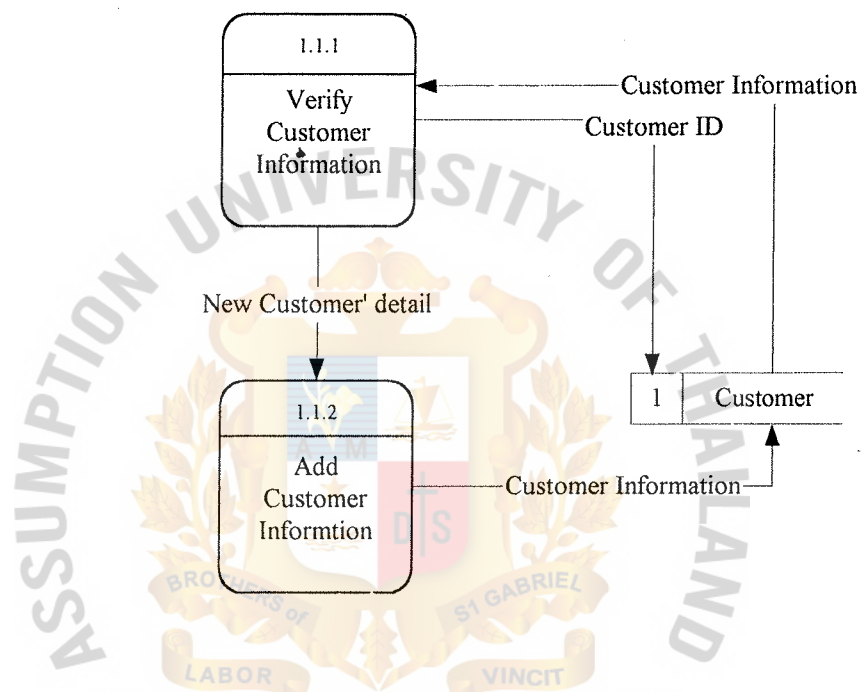
Figure 3.6. Level 2 Data Flow Diagram of Verify Customer Information Process.
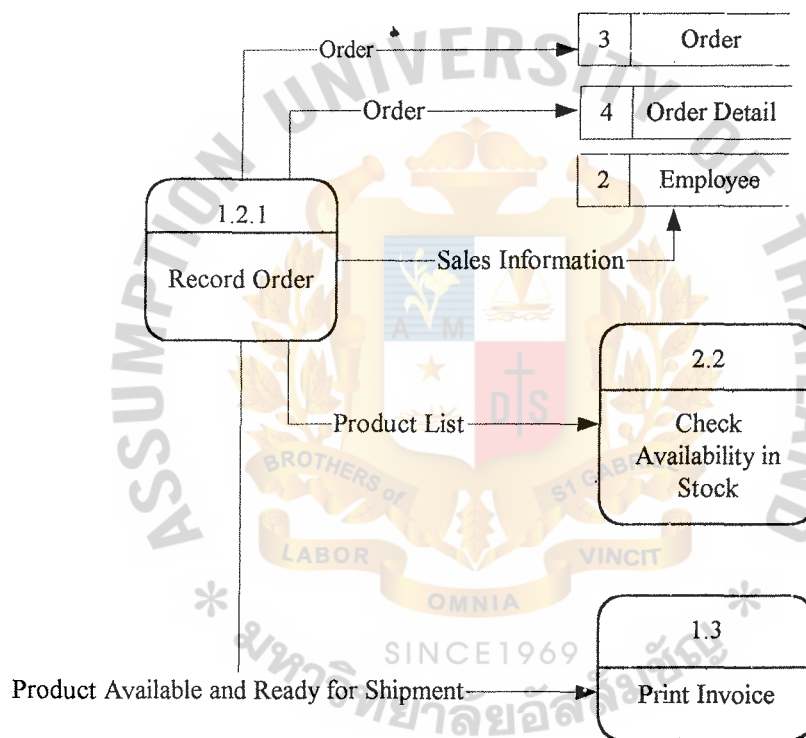
Figure 3.7.    Level 2 Data Flow Diagram of Accept Order from Customer Process.
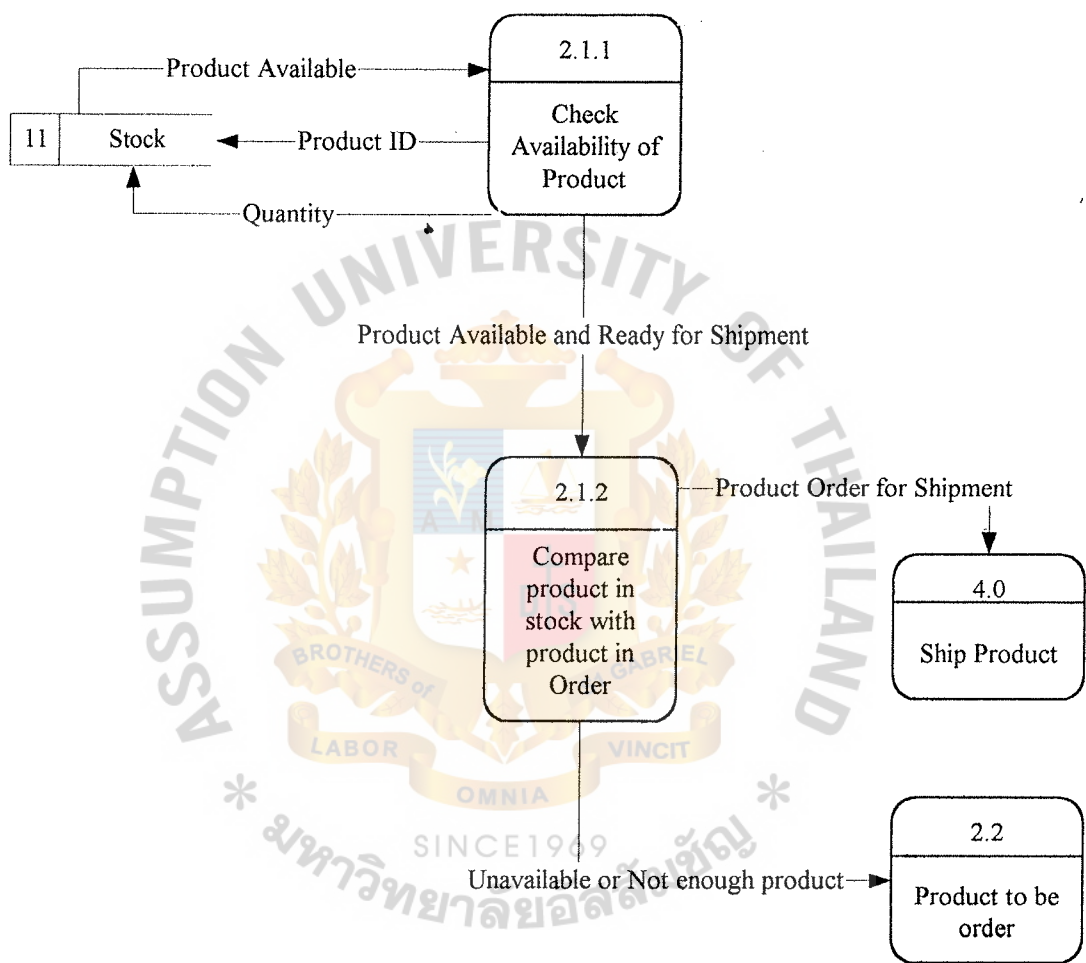
Figure 3.8.    Level 2 Data Flow Diagram of Check Internal Stock Process.
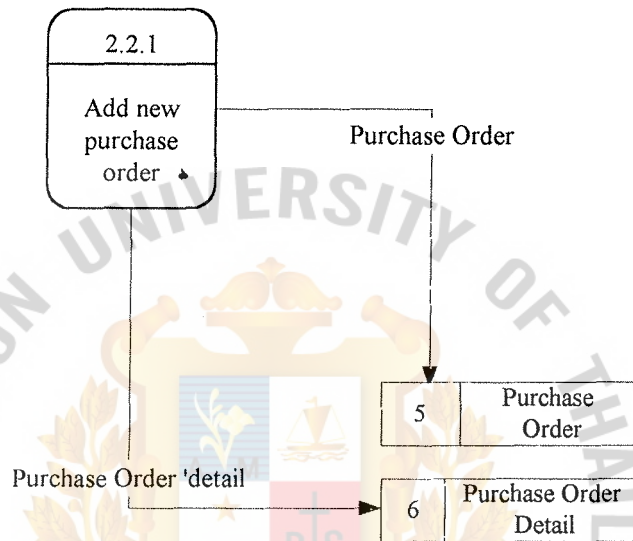
Figure 3.9.    Level 2 Data Flow Diagram of Product to Be Order Process.
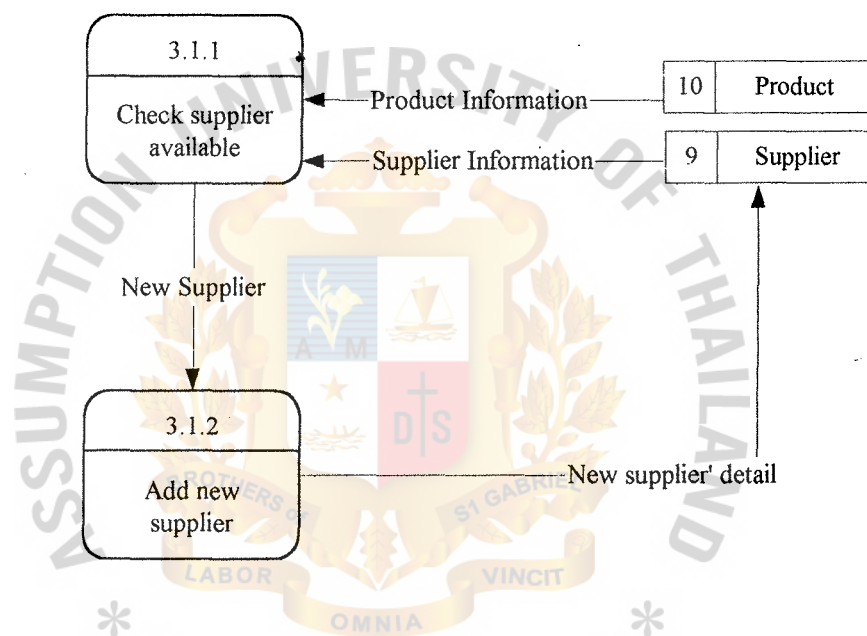
Figure 3.10. Level 2 Data Flow Diagram of Select Supplier to Be Order Process.
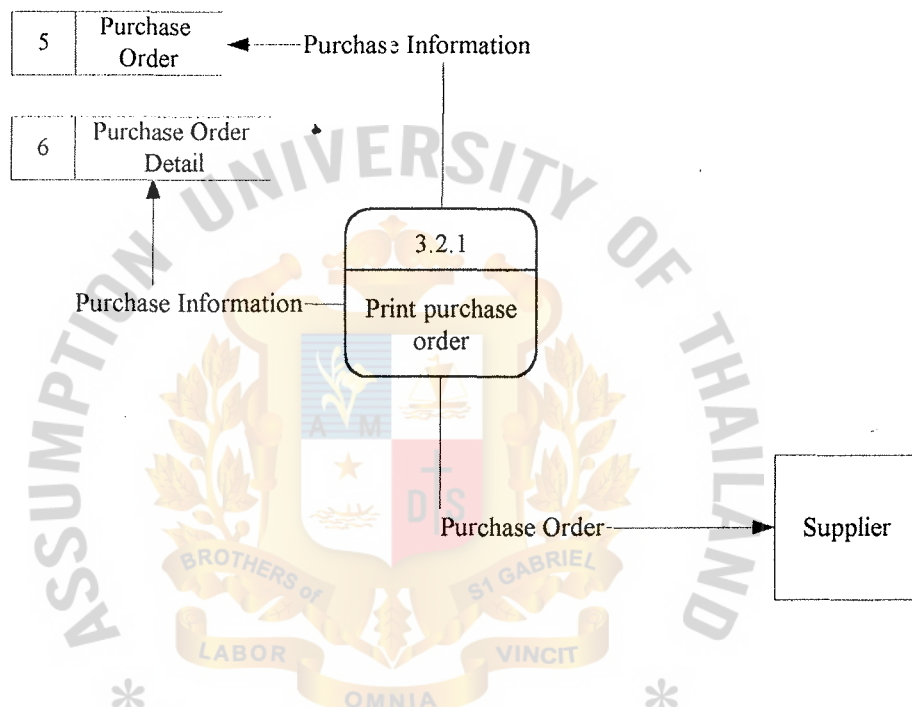
Figure 3.11. Level 2 Data Flow Diagram of Order the Unavailable Product Process.
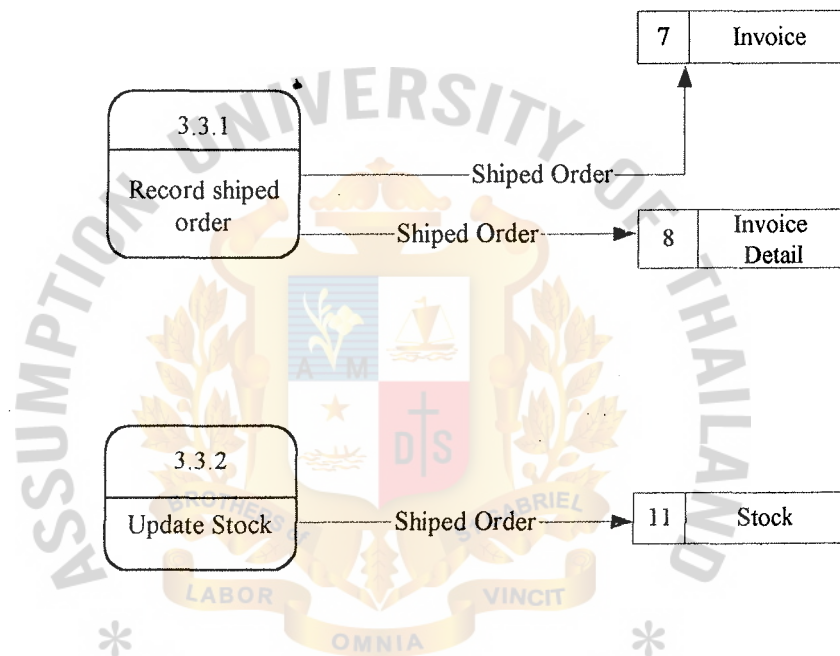
Figure 3.12.    Level 2 Data Flow Diagram of Receive Shipped Order Process.

**3.4    Hardware and Software Requirement**

Hardware Requirement

The system will use personal computer to run. All computers will be connected to one another on a small LAN. One set of computers will be dedicated to be a file server, which will be used to store the data sharable to all workstations. File server is used because most of the transactions of the system deal with database and the server usage will help to reduce time and cost of separate storage.

The network will be Ethernet type connected to a concentrator (HUB) using UTP cable. The network adapter cards are installed in all computer sets. There will be 1 printer in the system, Laser Jet printer. Printers can be connected through the allocation of network.

The configurations of hardware are as follows:

(1)    The server (1 set)

    (a)    Intel Pentium III 733 MHz

    (b)    Mother board Asus CUV 4 XM VIA 694X

    (c)    Memory 128 MB (SDRAM 133 MHz)

    (d)    Harddisk 20 GB Ultra DMA 66

    (e)    Monitor 15"

    (f)    CDROM 50X speed

    (g)    Mouse

    (h)    Keyboard

    (i)    NIC 10 MB

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(2) Workstation (2 sets)

    (a)    Intel Pentium Celeron II 566 MHz

    (b)    Mother board Asus ME-99 SIS 620 Socket 370 ATX

    (c)    Memory 64 MB (SDRAM 100 MHz)

    (d)    Harddisk 10 GB Ultra DMA 66

    (e)    Monitor 15"

    (f)    Mouse

    (g)    Keyboard

    (h)    NIC 10 MB

(3) HUB

    (a)    10 MB 4 Ports HUB

    (b)    LaserJet printer

    (c)    Hewlett Packard LaserJet 6P
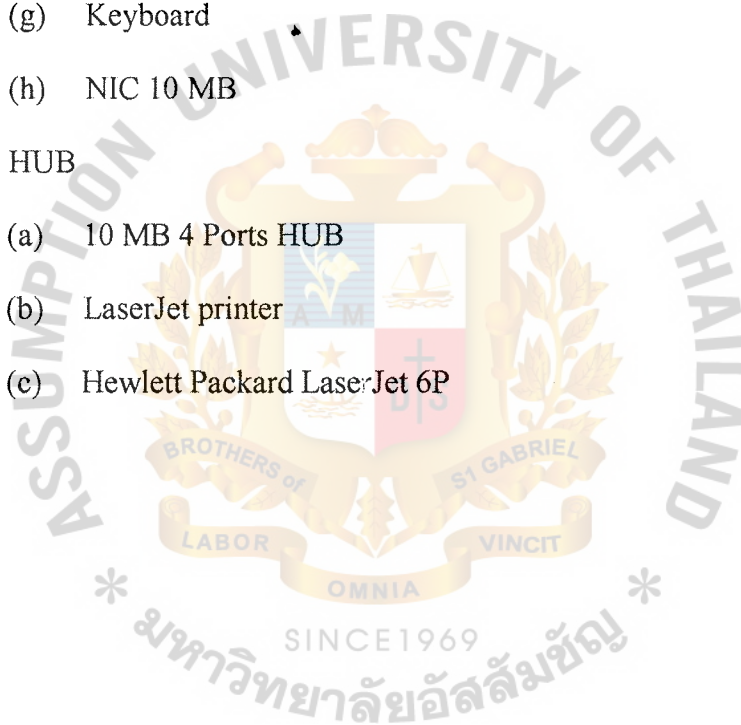
## 3.5 Network Configuration
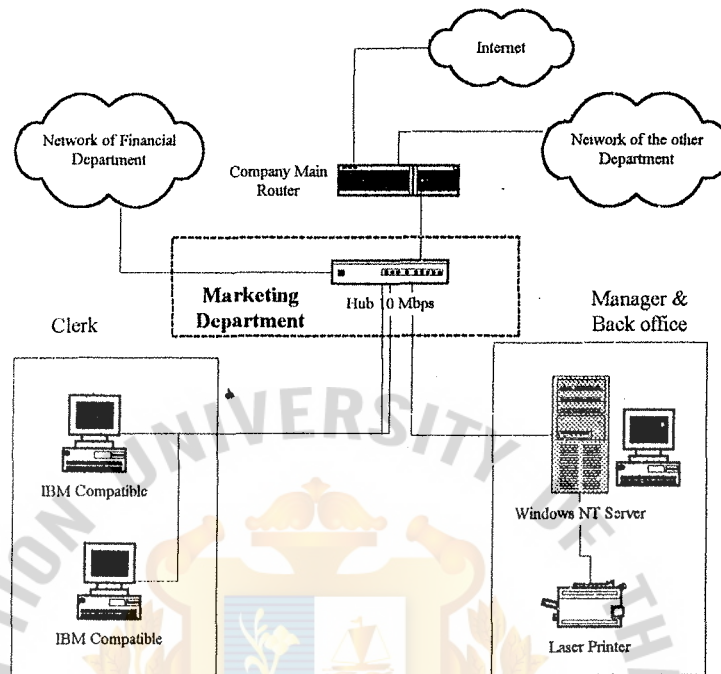


Figure 3.13. The Hardware Configuration of the Proposed System.

From Figure 3.13 only one printer is needed. From investigation and interview from user, it is found that the number of invoice per day are not more than 60 copies. Since this project is developed, using networking hardware such as printer can be shared.

Sharing the printer on the networking environment can be done by many methods but the most suitable method is to put it beside the Manager & backoffice' computer and to connect the printer to the parallel port to one computer then setup the Microsoft file and print sharing. By setting up file and print sharing, hardware such as printer or hard disk can be shared by many users in the network with full control of the resources shared.

Software Requirements

(1)　Microsoft Windows NT Server 4.0

(2)　Microsoft Windows NT Workstation 4.0

(3)　Microsoft Office 97

(4)　Microsoft Access 97

(5)　Microsoft Visual Basic 6

## 3.6　Security and Control

The security of this system starts from login to the system. User needs to type in his/her name and password before entering the system. The right of user will be set by the system administration in advance.

System Administration needs to assign the group for the user. The right of user is divided into many groups, each group can perform certain function. For example, the user that is in the administrative group has the right to create the new user and has the right to edit the data but the normal user may be able to print or see the information but cannot edit it.

The group is simply formed as follows:

Table 3.1.　Group of User.

| Group name | Group Number |
| --- | --- |
| Admin | 4 |
| Manager | 10 |
| Clerk | 20 |
| Print Manager | 25 |

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## 3.7 Cost Benefit Analysis

### (1) Cost of Manual System

Table 3.2. Manual System Cost Analysis, Baht.

| Cost items | | Years | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| **Fixed Cost** | | | | | |
| Typewriter | 2 units@9,000 | 18,000.00 | - | - | - |
| Calculator | 2 units@2,500 | 5,000.00 | - | - | - |
| Total Fixed Cost | | 23,000.00 | - | - | - |
| **Operating Cost** | | | | | |
| **Salary Cost:** | | | | | |
| Inventory Manager | 1 person@45,000 | 45,000.00 | 49,500.00 | 54,450.00 | 59,895.00 |
| **Staff Cost:** | | | | | |
| Stock Officer | 2 persons@15,000 | 30,000.00 | 33,000.00 | 36,300.00 | 39,930.00 |
| Clerk | 2 persons@7,500 | 15,000.00 | 16,500.00 | 19,800.00 | 23,760.00 |
| Total monthly salary cost | | 90,000.00 | 99,000.00 | 110,550.00 | 156,860.00 |
| Total annual salary cost | | 1,080,000.00 | 1,188,000.00 | 1,326,600.00 | 1,882,320.00 |
| **Office Supplies & Miscelleneous Cost:** | | | | | |
| Stationary | Per Annual | 2,500.00 | 2,750.00 | 3,025.00 | 3,327.50 |
| Paper | Per Annual | 5,000.00 | 5,500.00 | 6,050.00 | 6,655.00 |
| Miscelleneous | Per Annual | 1,000.00 | 1,100.00 | 1,210.00 | 1,331.00 |
| Utility | Per Annual | 60,000.00 | 66,000.00 | 72,600.00 | 79,860.00 |
| Total Annual Office Supplies & Miscelleneous Cost | | 68,500.00 | 75,350.00 | 82,885.00 | 91,173.50 |
| Total Annual Operating Cost | | 1,148,500.00 | 1,263,350.00 | 1,409,485.00 | 1,973,493.50 |
| Total Manual System Cost | | 1,171,500.00 | 1,263,350.00 | 1,409,485.00 | 1,973,493.50 |

Table 3.3.   Four Years Accumulated Manual System Cost, Baht.

| Years | Total Manual Cost | Accumulated Manual Cost |
|-------|-------------------|-------------------------|
| 1 | 1,171,500.00 | 1,171,500.00 |
| 2 | 1,263,350.00 | 2,434,850.00 |
| 3 | 1,409,485.00 | 3,844,335.00 |
| 4 | 1,973,493.50 | 5,817,828.50 |
| Total | 5,817,828.50 | — |

(2)    Cost of Computerized System

Table 3.4.   Computerized System Cost Analysis, Baht.

| Cost items | Years | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| Fixed Cost | | | | |
| Hardware Cost: | | | | |
| Computer Server Cost | 14,500.00 | 14,500.00 | 14,500.00 | 14,500.00 |
| Workstation Cost | 7,000.00 | 7,000.00 | 7,000.00 | 7,000.00 |
| Total Hardware Cost | 21,500.00 | 21,500.00 | 21,500.00 | 21,500.00 |
| Maintenance Cost: | | | | |
| Maintenance Cost | * | * | * | 12,000.00 |
| Total Maintenance Cost | 0.00 | 0.00 | 0.00 | 12,000.00 |
| Software Cost: | | | | |
| Computer Server Cost | 15,000.00 | 15,000.00 | 15,000.00 | 15,000.00 |
| Network Cost | 3,750.00 | 3,750.00 | 3,750.00 | 3,750.00 |
| Total Software Cost | 18,750.00 | 18,750.00 | 18,750.00 | 18,750.00 |
| Implementation Cost: | | | | |
| Advance Training Cost | 40,000.00 | - | - | - |
| Basic Training Cost | 40,000.00 | - | - | - |
| Set up Cost | 20,000.00 | - | - | - |
| Total Implementation Cost | 100,000.00 | - | - | - |
| Office Equipment Cost: | | | | |
| Calculator          Unit@25,000 | 25,000.00 | - | - | - |
| Total Office Equipment Cost | 25,000.00 | - | - | - |
| Total Fixed Cost | 165,250.00 | 40,250.00 | 40,250.00 | 52,250.00 |

Table 3.4. Computerized System Cost Analysis (Continued), Baht.

| Cost items | | Years | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| Operating Cost | | | | | |
| People-Ware Cost: | | | | | |
| Inventory Manager | 1person@45,000 | 45,000.00 | 49,500.00 | 54,450.00 | 59,895.00 |
| Staff Cost: | | | | | |
| Stock Officer | 1person@18,000 | 18,000.00 | 19,800.00 | 21,780.00 | 23,958.00 |
| Clerk | 1 person@7,000 | 7,000.00 | 7,700.00 | 8,470.00 | 9,317.00 |
| Total Monthly Salary Cost | | 70,000.00 | 77,000.00 | 84,700.00 | 93,170.00 |
| Total annual Salary Cost | | 840,000.00 | 924,000.00 | 1,016,400.00 | 1,118,040.00 |
| Office Supplies & Miscelleneous Cost: | | | | | |
| Stationary | 1,750 Per month | 21,000.00 | 23,100.00 | 25,410.00 | 27,951.00 |
| Paper | 3,500 Per month | 42,000.00 | 46,200.00 | 50,820.00 | 55,902.00 |
| Miscelleneous | 2,000 Per month | 24,000.00 | 26,400.00 | 29,040.00 | 31,944.00 |
| Utility | 8,000 Per month | 96,000.00 | 106,560.00 | 117,216.00 | 128,937.60 |
| Annual Office Supplies & Miscelleneous Cost | | 183,000.00 | 202,260.00 | 222,486.00 | 244,734.00 |
| Total Operating Cost | | 1,023,000.00 | 1,126,260.00 | 1,238,886.00 | 1,362,774.60 |
| Total Computerized System Cost | | 1,188,250.00 | 1,166,510.00 | 1,279,136.00 | 1,415,024.60 |

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Table 3.5. Four Years Accumulated Computerized Cost, Baht.

| Year | Total Computerized Cost | Accumulated Computerized Cost |
|---|---|---|
| 1 | 1,188,250.00 | 1,188,250.00 |
| 2 | 1,166,510.00 | 2,354,760.00 |
| 3 | 1,279,136.00 | 3,633,896.00 |
| 4 | 1,415,024.00 | 5,047,920.60 |
| Total | 5,047,920.60 | |

(3) The Comparison of the System Costs between Computerized System and Manual System

Table 3.6. The Comparison of the System Costs, Baht.

| Year | Accumulated Manual Cost | Accumulated Computerized Cost |
|---|---|---|
| 1 | 1,171,500.00 | 1,188,250.00 |
| 2 | 2,434,850.00 | 2,354,760.00 |
| 3 | 3,844,335.00 | 3,633,896.00 |
| 4 | 5,817,828.50 | 5,047,920.60 |
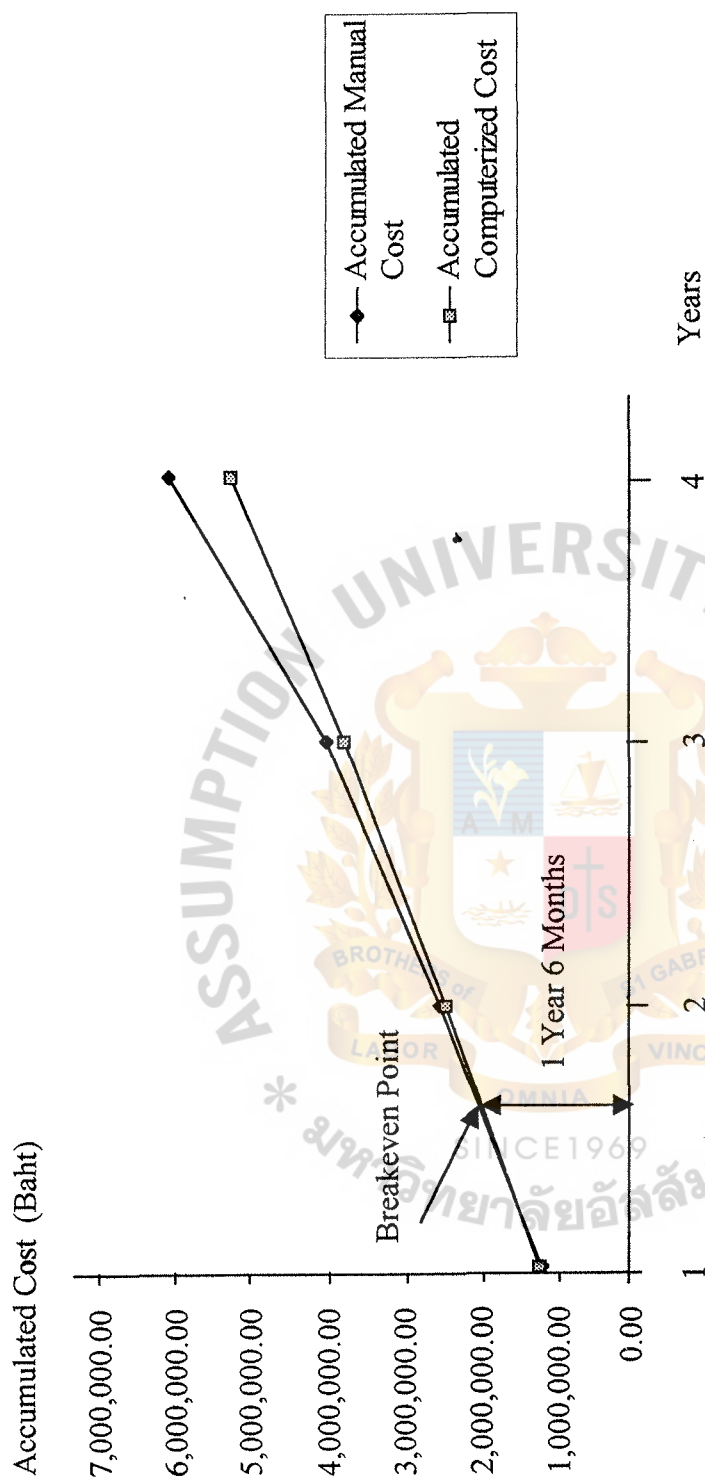
Figure 3.14. Cost Comparison between Manual & Proposed System.

# IV. PROJECT IMPLEMENTATION

## 4.1 Source Code

The proposed Furniture Inventory System composed of many sections, for example menu, windows, error message, popup windows and report. All sections in this project are coded by using Microsoft Visual Basic 6. This software is the front end software that is used to create interface to communicate with database server via ODBC. The advantage of using this software are as follows:

(1) The program fully supports the OOP programming technique.

(2) This software is used to create the interface that is used to communicate with database server via native connection and ODBC. That means this software can communicate with any kind of database server.

(3) The code is compiled to machined language level which gives better performance.

(4) The program code used in this program can be shared between modules, shorter code is written.

## 4.2 Test Plan

Program testing is very important to assure quality of the software. Any error occuring must be found and corrected during program testing. To test this program, Test cases are set to test all possible sets of input and output. Since this program is composed of many modules, each module is tested and all modules are tested as the interchange of data between modules to assure the correctness of software. Output is also tested, each report is printed out to make sure that the desire outcome is created without any error. If errors are found, they will immediately be corrected and tested again until the desired outcome is received.

Since the current system is not computerized, the implementation the new system as computer based system must be done in parallel to ensure that if errors are found during operation, the old system still works and nothing or minimum mistakes occur.

Finally, the whole system has to be tested again by the test data for a period of time as the final verification. Then the verified system will be sent to the user to be tested again with the real data. The state can be set usually into state as the alpha testing of the application and before the complete version is released, the number of beta test can be released. The unpleasant test result requires the system modification and on the other hand, the software installation can be started.

## 4.3 Installation

The primary tasks of system installation are site preparation, hardware installation, and software installation. The first 2 steps can be done during the system development period and finished before starting software installation.

In this project, only little space is required in the hard disk to install the application, but the OS of the computer should be Windows NT Workstation. The server should be installed to setup the Windows NT Domain so the client machine can be connected to the server. During this period, configuring Windows NT Workstation is able to see the Server.

Installation of database server is also important. Database server must be installed and tested before the real system is installed. In this project, Microsoft Access 97 was chosen. Before installing the program, database table and user of the database will be preset to enable immediate action when needed.

Network equipment and cabling are done during installation of server and workstation. Network cable must be checked to make sure that every line is ready to be

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completely, the normal network connection can be tested. Any mistake will immediately be corrected and every machine will be able to communicate before the software installation period. The printer at client and server is also tested to make sure that it works properly.

## 4.4 Training

Although this system is not a huge system, the conversion is from the manual system to the computerized system training is required. Therefore, the training will start from installing Windows NT. The user who works as the system administrator must know the structure of the file in the Server. The system administrator needs to know some basic commands such as how to create new user, delete user from the server and give the right to the user to access the network.

For the normal user, they need to know how to use their program and how to solve the basic problem in using the program.

The system administrators need to learn more about system maintenance, user management, database handling, system backup, system documents, and so on. In this training, the simulation of problem and situation is generated to show the solution to the problem.

## 4.5 Post Implementation and Evaluation

The evaluation period is set for every 2 months after the system is fully functioning. The evaluation result must be collected to ensure that:

(1) The system goal and objective have been achieved.

(2) Paper work in office is reduced.

(3) Time used in searching particular piece of product is reduced.

(4) All user requirements are fulfilled.

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# V. CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Conclusions

This system is developed to help user to work more easily with little knowledge about the computer. Only some training is required in using this program. Many parts of this program will run as automatic checking process to help the user to work more easily.

This project is developed using computer networking system in which provide the better performance' working than manual system. Including the computer networking system was set as LAN can produce better performance than the standalone computer because computer resources can be shared and so reduce the costs of hardware and storage area. Data duplication is also reduced because the same data can be shared among group of users on networking environment.

The proposed system is designed and developed in the networking environment to ensure the outstanding performance on the network. Moreover, this system is initially designed as the client/server application, therefore this system can work well in client/server platform.

Since the application written in this project will be running as the front-end application while the database server can be installed elsewhere, the application will be connected to database server via ODBC (Open Database Connectivity). By using this method, database engine can be any type such as ORACLE, Informix.

The level of accomplishment in testing to run company's operation by using the proposed system application makes the user satisfaction. Because of this application can be used according to the user requirement. The proposed system can keep the detail of product, customers, suppliers, sales and the stock supplies could be recorded and check

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the available product. Besides the time performance on each process of the proposed system less than each process of the existing system which has to operate many work step in manual system that shows in Table 5.1. So, it can be concluded that the proposed system is more efficient and effective than the existing system.

Table 5.1.    The Degree of Achievement of the Proposed System.

| Process | Existing System | Proposed System |
|---|---|---|
| Application Process | 1.5 hrs. | 1 hr. |
| Checking stock Process | 25 mins. | 5 mins. |
| Inquiry Process | 15 mins. | 5 mins. |
| Modification Process | 25 mins. | 10 mins. |
| Printing Process | 5 mins. | 5 mins. |
| Total | 2 hrs. 40 mins. | 1 hr. 25 mins. |

In the application process was applied the proposed system application can reduce 30 minutes for operation because the application was design the user friendly interface and the working interfaces have the efficient sequence of actual working step to run operation without human error. The data can be continued transfer through each interface smooth until printing report.

In the checking stock process of this proposed system use less time than the manual checking system because this process is automatic checking minimum stock, which will pop up warning message when product available in stock is less than the amount of minimum stock predefined by the user.

In the inquiry process of the proposed system was high performance query because this database was designed as a relational database and each table was be

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assigned code to the important entity for easily query data such as product ID, customer ID, supplier ID and Order ID etc. The interface was designed by using the datagrid component from VB for viewing the data' query record.

In the modification process of the propose system application was performed rapidly because each interface was designed to have a button to control process' editing such as insert button, updated button, delete button and clear button. So, When you modify which processes to also adjust automatically the other process which have the table related.

## 5.2    Recommendations

Since this project is to completely change the manual system to the computer system, user needs authentic training to be able to work with the new system.

To make sure that this system will work as expected and will not produce any undesirable outcome, the parallel use of this system and the current manual system may be required. Until the proposed system is fully functioning and does not produce undesirable outcome or any mistake is removed, the current system can be stopped and only the computerized system is run.

For future expansion, if the company wants to expand its branch to other locations, this program can be used by other branches. Some parts of the database can be shared and checking product between each branches can be implemented using WWW. As the feature of Windows NT Server 4.0. Internet information server can be installed as an option. Since this project is using Microsoft Access 97, one feature of this database engine is that it can communicate with any application using ODBC. Developing web based information retrieving is also a good solution for checking information between branches.

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**APPENDIX A**

INTERFACE DESIGN

Figure A.1.    System Login Form.
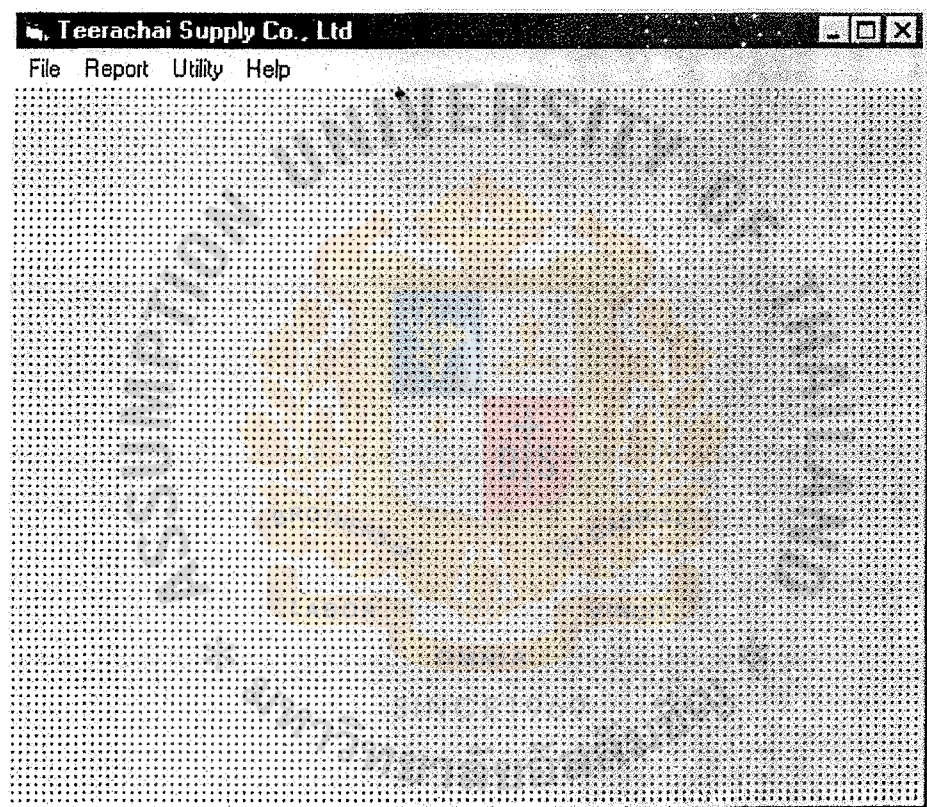
Figure A.2. Main Menu Form.
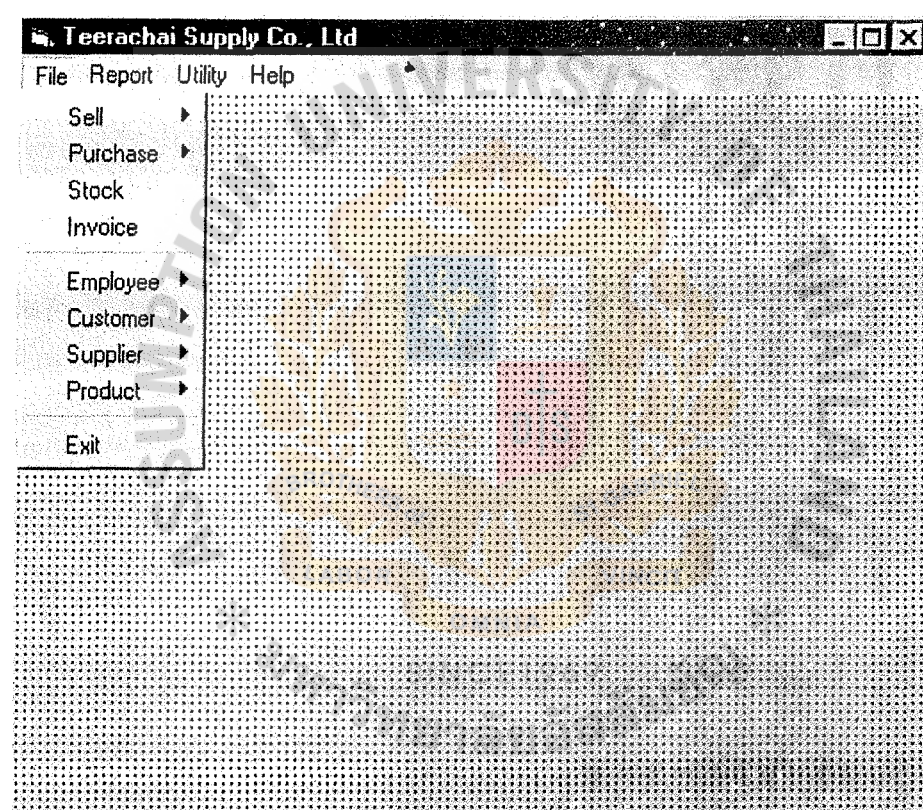
Figure A.3.  File Menu Form.
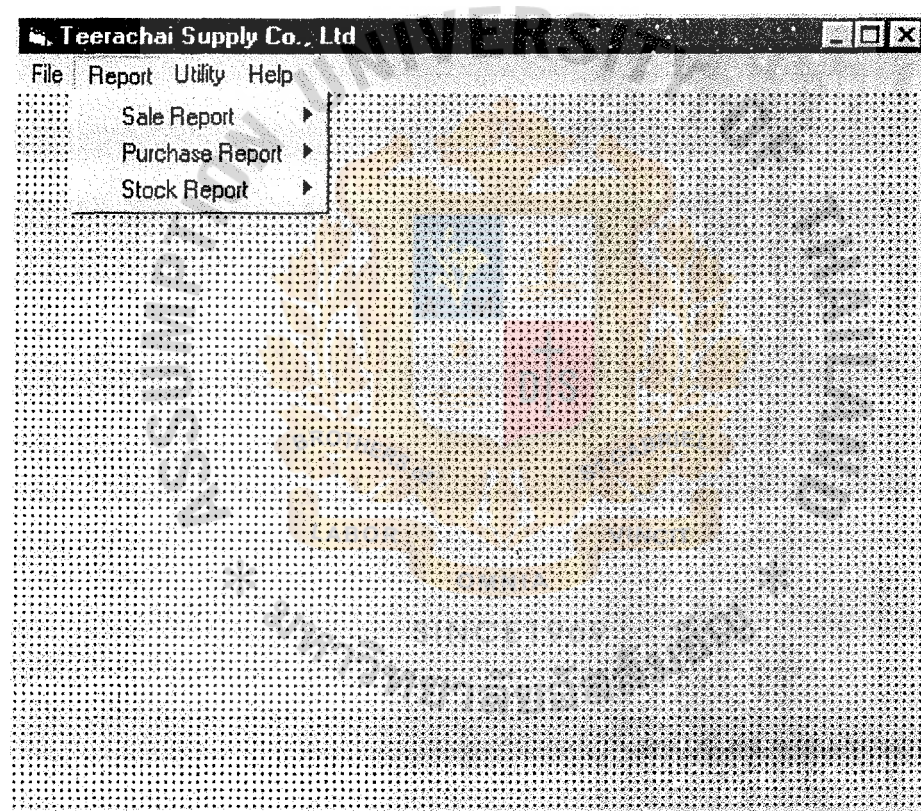
Figure A.4.   Report Menu Form.
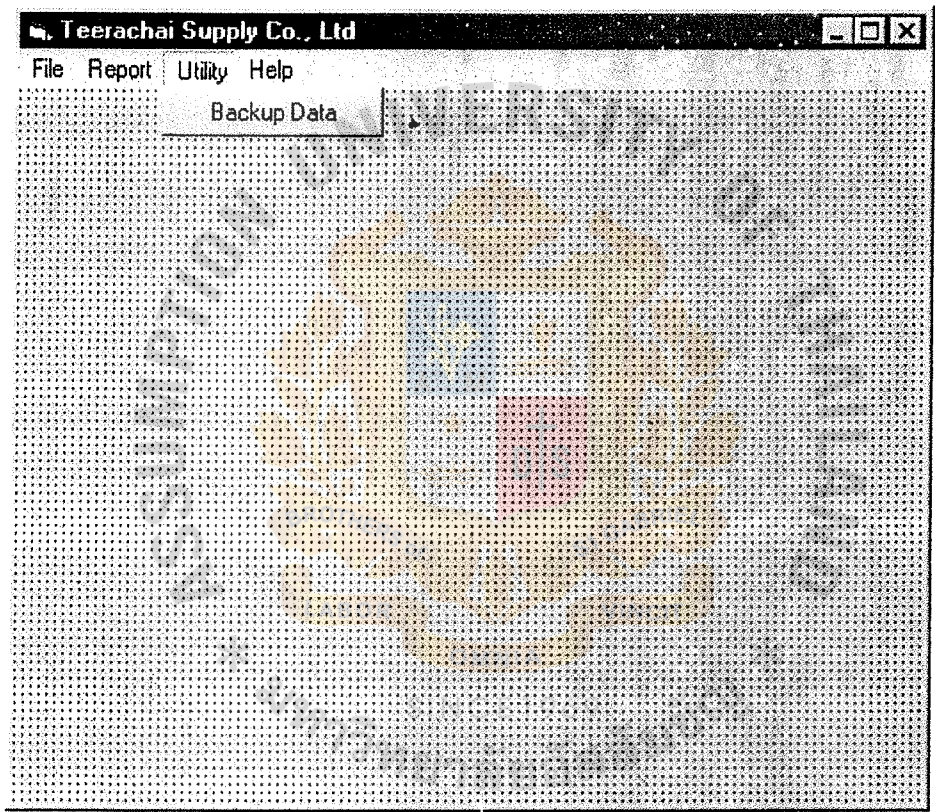
Figure A.5.   Utility Menu Form.
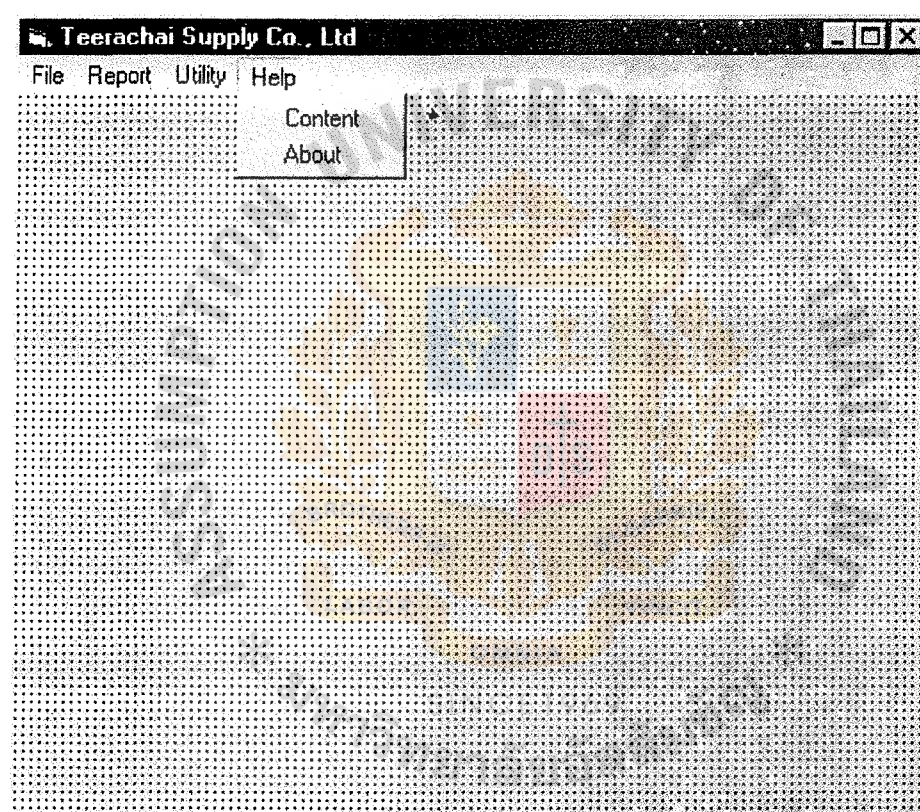
Figure A.6. Help Menu Form.
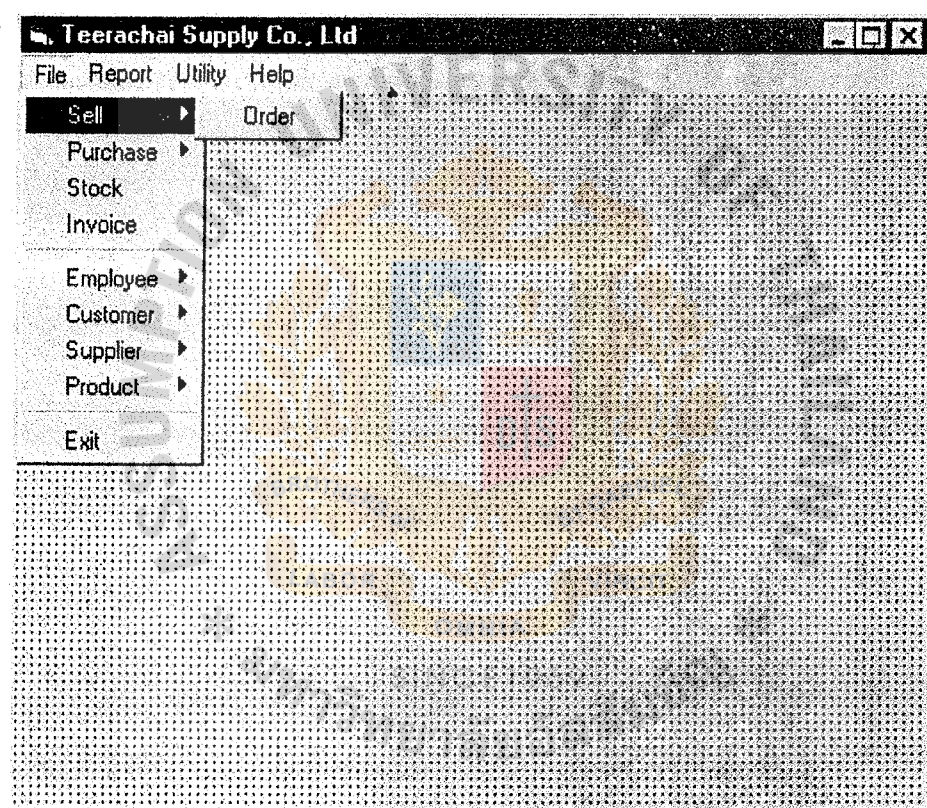
Figure A.7.    Sale Menu Form.
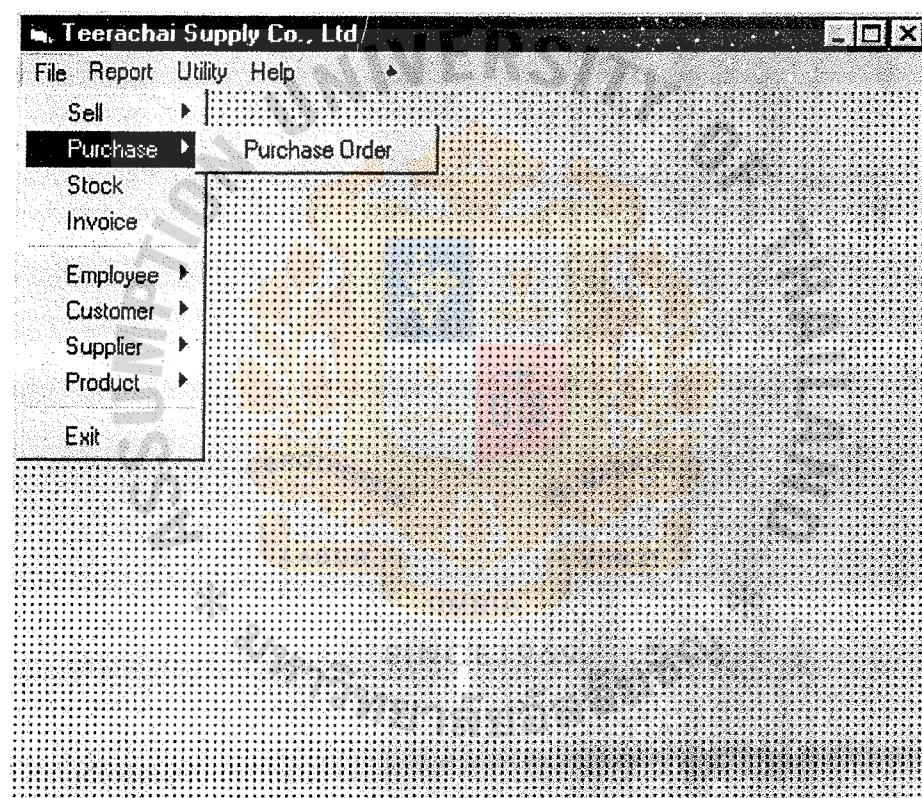
Figure A.8.    Purchase Menu Form.
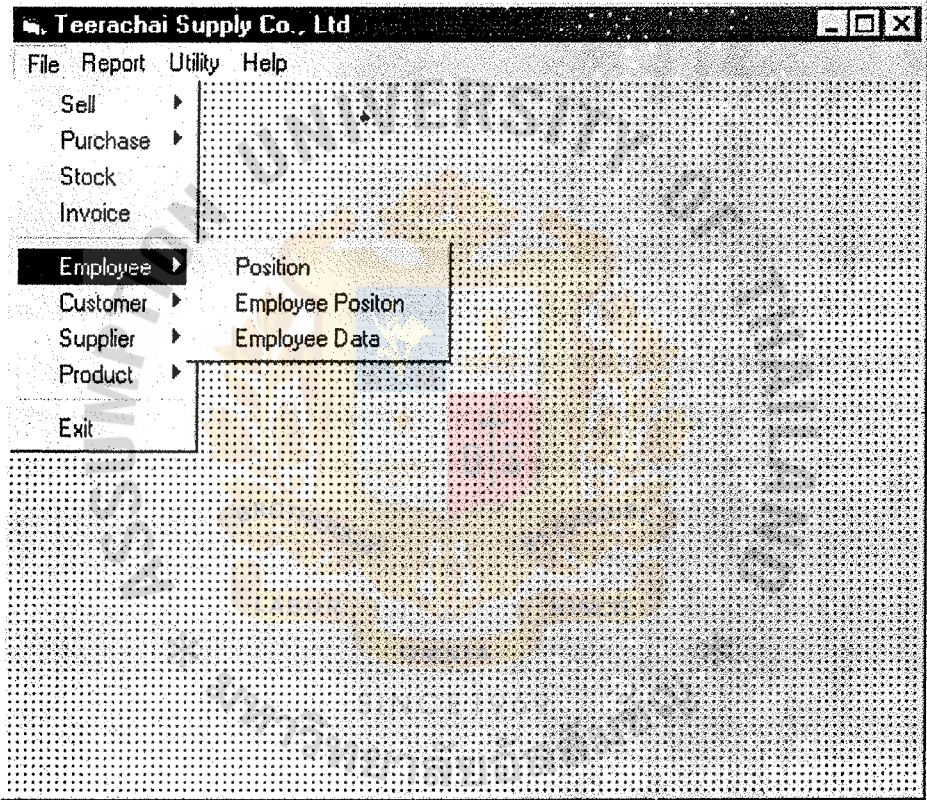
Figure A.9.    Employee Menu Form.
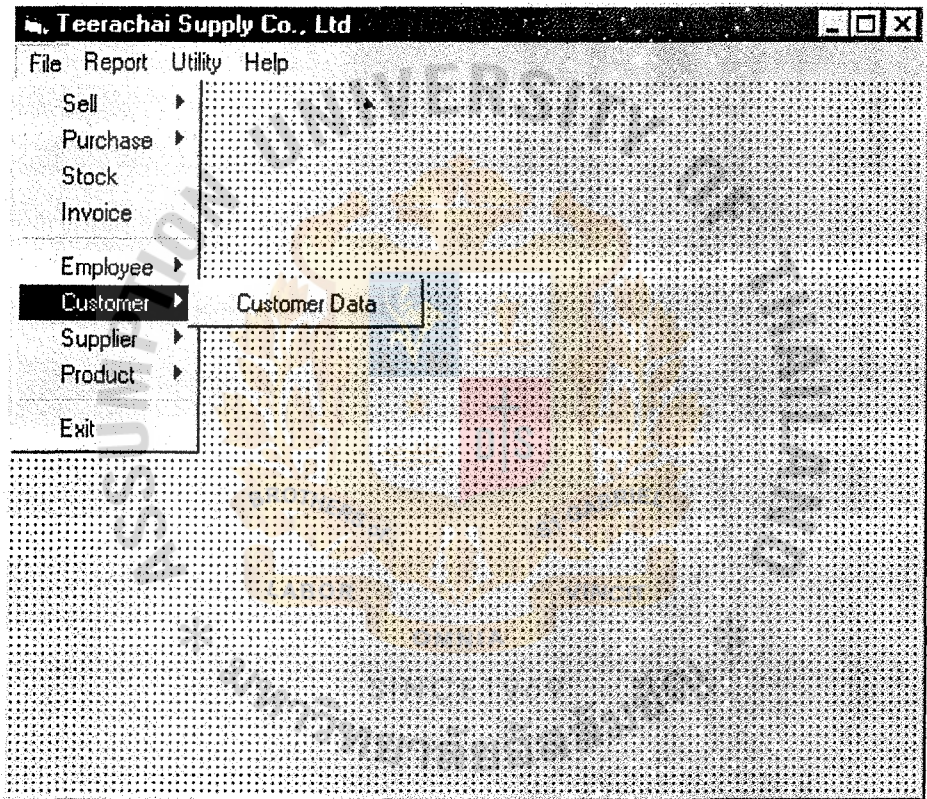
Figure A.10.    Customer Menu Form.
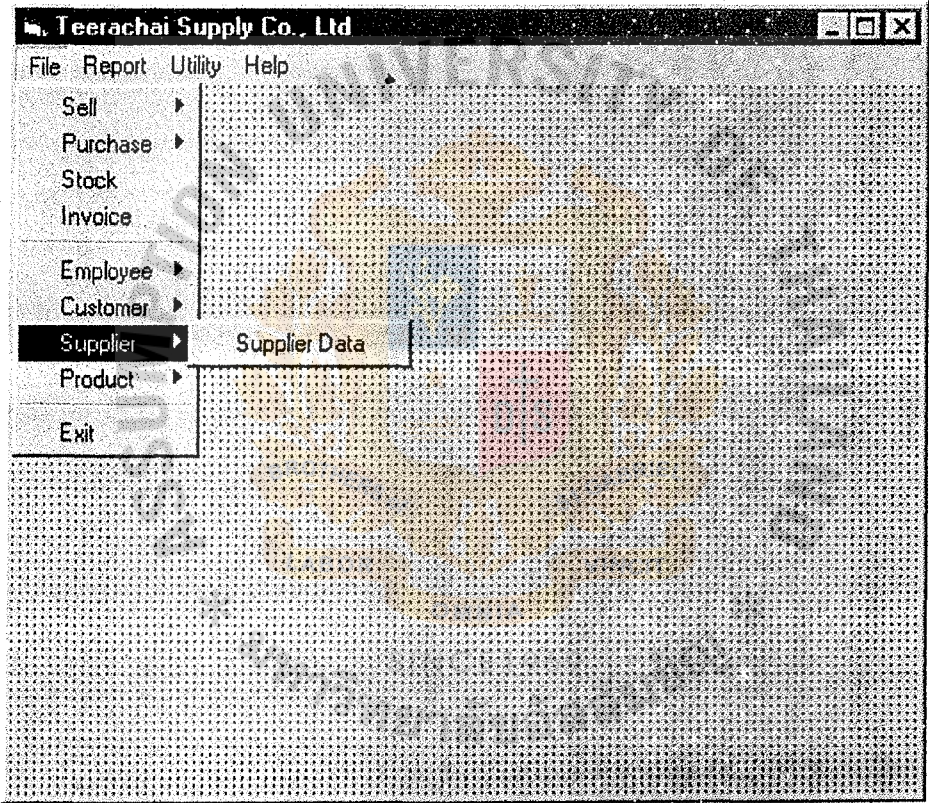
Figure A.11.    Supplier Menu Form.
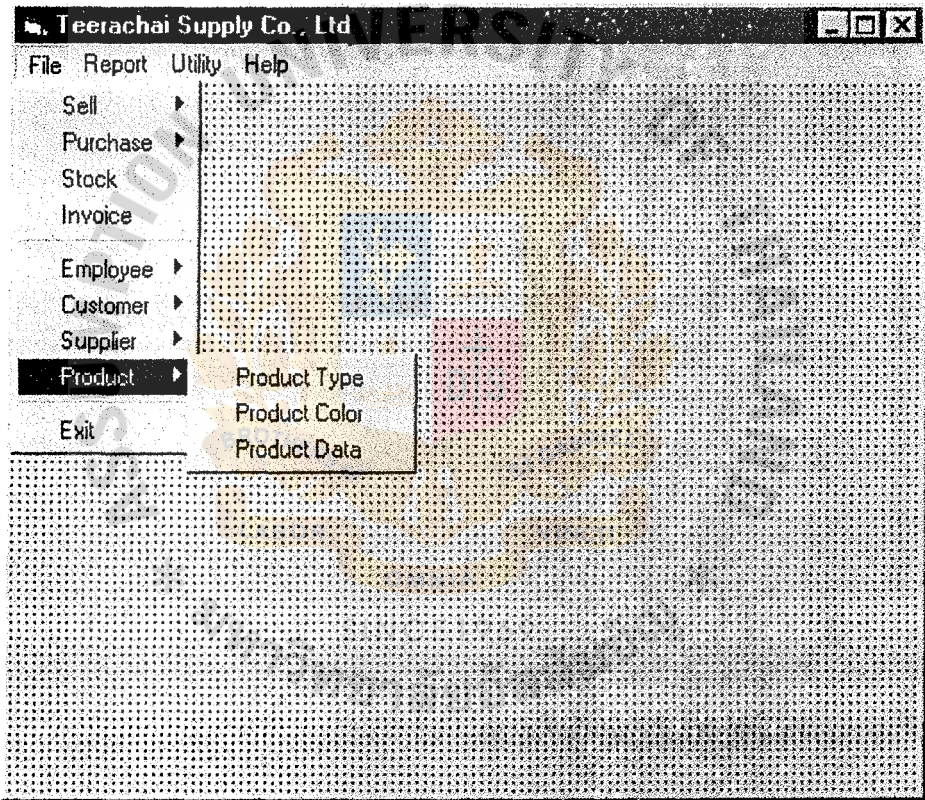
Figure A.12.    Product Menu Form.

Figure A.13.    Position Form.

Figure A.14.    Employee Position Form.

Figure A.15.    Employee Data Form.

Figure A.16.    Customer Data Form.

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Figure A.17.    Supplier Data Form.
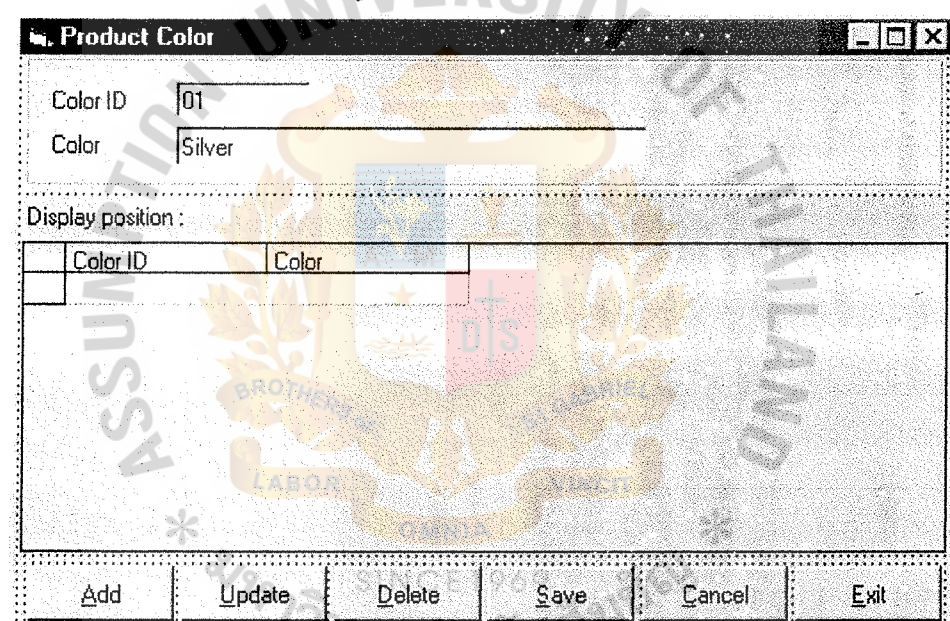
Figure A.18.    Product Type Form.

Figure A.19.    Product Color Form.

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Figure A.20.    Order Form.

Figure A.21. Invoice Form.

Figure A.22.    Purchase Order Form.

Figure A.23.    Product Form.

Figure A.24.    Stock Form.

**APPENDIX   B**

REPORT DESIGN

**Teerachai Supply Co., Ltd.**
**Sale Report**

Date  00/00/00

Order ID...........
Customer Name...............
Address................

| Product ID | Product Name | Type | Size | Color | Quantity | Price | Subtotal | Discount | Total |
|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | Net Total |  |

Sales Name

Figure B.1.   Report of Sale (Customer Order Report).

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**Teerachai Supply Co ., Ltd.**
**Purchase Report**

Date   00/00/00

Purchase ID.................
Supplier Name.................
Address.................

| Product ID | Product Name | Type | Size | Color | Quantity | Price | Subtotal | Discount | Total |
|------------|--------------|------|------|-------|----------|-------|----------|----------|-------|
|            |              |      |      |       |          |       |          |          |       |
|            |              |      |      |       |          |       |          | Net Total |       |

.................
Officer Name

Figure B.2.   Report of Purchase (Purchasing Request).

**Teerachai Supply Co ., Ltd.**
**Stock Report**
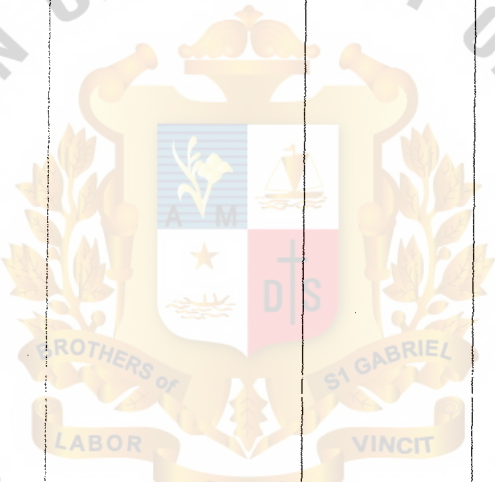
Date    00/00/00

| Product ID | Product Name | Type | Size | Color | Quantity |
|------------|--------------|------|------|-------|----------|
|            |              |      |      |       |          |
|            |              |      |      |       |          |
|            |              |      |      |       |          |
|            |              |      |      |       |          |

Approved……………………………

Figure B.3.    Report of Stock.

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**Teerachai Supply Co ., Ltd.**
**Summary Sale Report**

Date    00/00/00

| Order ID | Customer Name | Amount | Remark |
|----------|---------------|--------|--------|
|          |               |        |        |
|          |      Total    |        |        |

Approved.................................

Figure B.4.    Report of Summary Sale.

**Teerachai Supply Co ., Ltd.**
**Summary Purchase Report**

Date   00/00/00

| Purchase ID | Supplier Name | Amount | Remark |
|---|---|---|---|
| | | | |
| | Total | | |

Approved. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

Figure B.5.   Report of Summary Purchase.

**Teerachai Supply Co ., Ltd.**
**Monthly/Yearly Purchase Report**

Start Date    00/00/00                                    End Date    00/00/00

| Date/Month | Supplier ID | Supplier Name | Amount |
|---|---|---|---|
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  | Total |  |

Approved......................................

Figure B.6.    Report of Monthly/Yearly Purchase.

**Teerachai Supply Co ., Ltd.**
**Monthly/Yearly Sale Report**

Start Date    00/00/00                                      .End Date    00/00/00

| Date/Month | Customer ID | Customer Name | Amount |
|------------|-------------|---------------|--------|
|            |             |               |        |
|            |             |               |        |
|            |             | Total         |        |

Approved.................................

Figure B.7.    Report of Monthly/Yearly Sale.

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**Teerachai Supply Co ., Ltd.**
**Sales Performance Report**

Date    00/00/00

| Date/Month | Sales ID | Sales Name | Amount |
|------------|----------|------------|--------|
|            |          |            |        |
|            |          |            |        |
|            |          |            |        |
|            |          |            |        |
|            |          | Total      |        |

Approved.................................

Figure B.8.    Report of Sales Performance.

**Teerachai Supply Co ., Ltd.**
**Monthly Stock Report**

Start Date   00/00/00                                    End Date   00/00/00
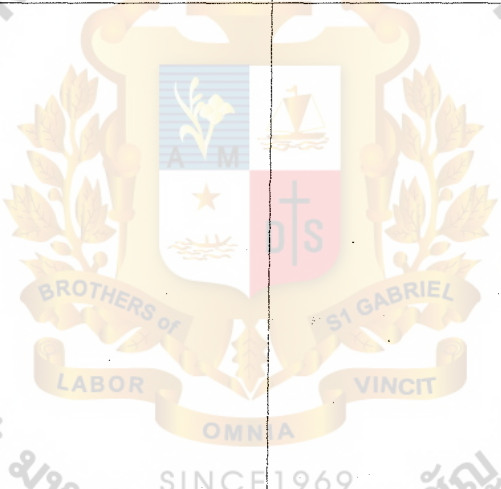
| Date/Month | Product ID | Product Name | Available |
|------------|------------|--------------|-----------|
|            |            |              |           |
|            |            |              |           |
|            |            |              |           |
|            |            |        Total |           |

Approved.....................................

Figure B.9.   Report of Monthly Stock.

**APPENDIX   C**

DATABASE DESIGN

Furniture Inventory Database

Database D1

Table C.1.  Structure of Position Table.

| No. | Field Name | Field Type | Index | Unique | Nullable | Foreign Key to table | Check | Key Type |
|-----|-----------|-----------|-------|--------|----------|---------------------|-------|----------|
| 1 | POID | Text ( 2 ) | Y | Y | | | | Primary Key |
| 2 | PONAME | Text ( 40 ) | | | | | | Attribute |

Table C.2.  Structure of Employee Table.

| No. | Field Name | Field Type | Index | Unique | Nullable | Foreign Key to table | Check | Key Type |
|-----|-----------|-----------|-------|--------|----------|---------------------|-------|----------|
| 1 | EMID | Text ( 5 ) | Y | Y | | | | Primary Key |
| 2 | EMTITLE | Text ( 20 ) | | | | | | Attribute |
| 3 | EMNAME | Text ( 30 ) | | | | | | Attribute |
| 4 | EMSURNAME | Text ( 40 ) | | | | | | Attribute |
| 5 | EMADDRESS | Text ( 40 ) | * | | | | | Attribute |
| 6 | EMDISTRICT | Text ( 40 ) | | | | | | Attribute |
| 7 | EMAMPHER | Text ( 40 ) | | | | | | Attribute |
| 8 | EMPROVINCE | Text ( 40 ) | | | | | | Attribute |
| 9 | EMPOSTCODE | Text ( 5 ) | | | | | | Attribute |
| 10 | EMPHONE | Text ( 40 ) | | | Y | | | Attribute |

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Table C.3. Structure of EmployeePosition Table.

| No. | Field Name | Field Type | Index | Unique | Nullable | Foreign Key to table | Check | Key Type |
|-----|-----------|-----------|-------|--------|----------|---------------------|-------|----------|
| 1 | POID | Text ( 2 ) | Y | Y | | Y | | Primary Key |
| 2 | EMID | Text ( 5 ) | Y | Y | | Y | | Primary Key |

Table C.4. Structure of Customer Table.

| No. | Field Name | Field Type | Index | Unique | Nullable | Foreign Key to table | Check | Key Type |
|-----|-----------|-----------|-------|--------|----------|---------------------|-------|----------|
| 1 | CUSID | Text ( 5 ) | Y | Y | | | | Primary Key |
| 2 | CUSTITLE | Text ( 20 ) | | | | | | Attribute |
| 3 | CUSNAME | Text ( 40 ) | | | | | | Attribute |
| 4 | CUSSURNAME | Text ( 40 ) | | | | | | Attribute |
| 5 | CUSADDRESS | Text ( 255 ) | | | | | | Attribute |
| 6 | CUSPHONE | Text ( 40 ) | | | Y | | | Attribute |
| 7 | CUSIDATE | Date/Time | | | | | | Attribute |

Table C.5.    Structure of Supplier Table.

| No. | Field Name | Field Type | Index | Unique | Nullable | Foreign Key to table | Check | Key Type |
|-----|-----------|-----------|-------|--------|----------|----------------------|-------|----------|
| 1 | SUPID | Text ( 5 ) | Y | Y | | | | Primary Key |
| 2 | SUPNAME | Text ( 60 ) | | | | | | Attribute |
| 3 | SUPADDRESS | Text ( 255 ) | | | | | | Attribute |
| 4 | SUPPHONE | Text ( 40 ) | | | | | | Attribute |
| 5 | SUPFAX | Text ( 40 ) | | | Y | | | Attribute |

Table C.6.    Structure of ProductType Table.

| No. | Field Name | Field Type | Index | Unique | Nullable | Foreign Key to table | Check | Key Type |
|-----|-----------|-----------|-------|--------|----------|----------------------|-------|----------|
| 1 | TYPEID | Text ( 2 ) | Y | Y | | | | Primary Key |
| 2 | TYPENAME | Text ( 60 ) | | | | | | Attribute |

Table C.7.    Structure of ProductColor Table.

| No. | Field Name | Field Type | Index | Unique | Nullable | Foreign Key to table | Check | Key Type |
|-----|-----------|-----------|-------|--------|----------|----------------------|-------|----------|
| 1 | COLORID | Text ( 2 ) | Y | Y | | | | Primary Key |
| 2 | COLORNAME | Text ( 40 ) | | | | | | Attribute |

Table C.8.  Structure of Order Table.

| No. | Field Name | Field Type | Index | Unique | Nullable | Foreign Key to table | Check | Key Type |
|-----|------------|------------|-------|--------|----------|----------------------|-------|----------|
| 1 | ORDERID | Text ( 5 ) | Y | Y | | | | Primary Key |
| 2 | ORDERDATE | Date/Time | | | | | | Attribute |
| 3 | | Text ( 5 ) | Y | | | EMID | | Attribute |
| 4 | | Text ( 5 ) | Y | | | CUSID | | Attribute |

Table C.9.  Structure of OrderDetail Table.

| No. | Field Name | Field Type | Index | Unique | Nullable | Foreign Key to table | Check | Key Type |
|-----|------------|------------|-------|--------|----------|----------------------|-------|----------|
| 1 | ORDERID | Text ( 5 ) | Y | Y | | Y | | Primary Key |
| 2 | PROID | Text ( 5 ) | Y | Y | | Y | | Primary Key |
| 3 | PROQTY | Number | | | | | | Attribute |
| 4 | SELLDISCOUNT | Currency | | | Y | | | Attribute |
| 5 | PROPRICE | Currency | | | | | | Attribute |

Table C.10. Structure of Stock Table.

| No. | Field Name | Field Type | Index | Unique | Nullable | Foreign Key to table | Check | Key Type |
|---|---|---|---|---|---|---|---|---|
| 1 | PROID | Text ( 5 ) | Y | Y | | Y | | Primary Key |
| 2 | | Text ( 2 ) | Y | Y | | TYPEID | | Attribute |
| 3 | | Text ( 2 ) | Y | | | COLORID | | Attribute |
| 4 | STOSIZE | Text ( 40 ) | | | Y | | | Attribute |
| 5 | STOQTY | Number | | | | | | Attribute |
| 6 | STONAME | Text ( 60 ) | | | | | | Attribute |

Table C.11. Structure of Product Table.

| No. | Field Name | Field Type | Index | Unique | Nullable | Foreign Key to table | Check | Key Type |
|---|---|---|---|---|---|---|---|---|
| 1 | PROID | Text ( 5 ) | Y | Y | | Y | | Primary Key |
| 2 | SUPID | Text ( 5 ) | Y | Y | | Y | | Primary Key |
| 3 | | Text ( 2 ) | Y | | | TYPEID | | Attribute |
| 4 | | Text ( 2 ) | Y | | | COLORID | | Attribute |
| 5 | PRONAME | Text ( 60 ) | | | | | | Attribute |
| 6 | PROFRICE | Text ( 60 ) | | | | | | Attribute |
| 7 | PROSIZE | Text ( 40 ) | | | Y | | | Attribute |

Table C.12.    Structure of UpdateStock Table.

| No. | Field Name | Field Type | Index | Unique | Nullable | Foreign Key to table | Check | Key Type |
|-----|-----------|-----------|-------|--------|----------|---------------------|-------|----------|
| 1 | PROID | Text ( 5 ) | Y | Y | | Y | | Primary Key |
| 2 | | Text ( 5 ) | Y | | | PURID | | Attribute |

Table C.13    Structure of Invoice Table.

| No. | Field Name | Field Type | Index | Unique | Nullable | Foreign Key to table | Check | Key Type |
|-----|-----------|-----------|-------|--------|----------|---------------------|-------|----------|
| 1 | INVID | Text ( 5 ) | Y | Y | | Y | | Primary Key |
| 2 | | Text ( 5 ) | Y | | | EMID | | Attribute |
| 3 | INVDATE | Date/Time | | | | | | Attribute |

Table C.14.    Structure of Invoice_Detail Table.

| No. | Field Name | Field Type | Index | Unique | Nullable | Foreign Key to table | Check | Key Type |
|-----|-----------|-----------|-------|--------|----------|---------------------|-------|----------|
| 1 | PROID | Text ( 5 ) | Y | Y | | Y | | Primary Key |
| 2 | PURID | Text ( 5 ) | Y | Y | | Y | | Primary Key |
| 3 | | Text ( 5 ) | Y | | | INVID | | Attribute |
| 4 | INVDETAILQTY | Number | | | | | | Attribute |
| 5 | PRICE | Currency | | | | | | Attribute |
| 6 | PURDISCOUNT | Currency | | | Y | | | Attribute |

Table C.15. Structure of PurchaseOrder Table.

| No. | Field Name | Field Type | Index | Unique | Nullable | Foreign Key to table | Check | Key Type |
|-----|-----------|------------|-------|--------|----------|---------------------|-------|----------|
| 1 | PURID | Text ( 5 ) | Y | Y | | Y | | Primary Key |
| 2 | | Text ( 5 ) | Y | | | EMID | | Attribute |
| 3 | PURDATE | Date/Time | | | | | | Attribute |

Table C.16. Structure of PurchaseOrder_Detail Table.

| No. | Field Name | Field Type | Index | Unique | Nullable | Foreign Key to table | Check | Key Type |
|-----|-----------|------------|-------|--------|----------|---------------------|-------|----------|
| 1 | PURID | Text ( 5 ) | Y | Y | | Y | | Primary Key |
| 2 | PROID | Text ( 5 ) | Y | | | Y | | Primary Key |
| 3 | | Text ( 5 ) | Y | | | SUPID | | Attribute |
| 4 | PURDETAILQTY | Number | | | | | | Attribute |

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# APPENDIX D

## PROCESS SPECIFICATION

**APPENDIX E**

DATA DICTIONARY

Table D.1.    Process Specification of Process 1.1.1.

| Process Name: | Verify Customer Information |
|---|---|
| Data In: | Customer name, customer detail. |
| Data Out: | Available /Unavailable message |
| Process: | The customer information received will be checked whether it is available in Customer file or not. In case of availability, it will be further updated in other detail. On the other hand, it will go for adding of new customer information in furher process. |
| Attachment: | (1) Customer |

Table D.2.    Process Specification of Process 1.1.2.

| Process Name: | Add New Customer |
|---|---|
| Data In: | Unavailable message, customer detail |
| Data Out: | New customer |
| Process: | After the unavailabe customer message is received, the new customer detail will be added in Customer file for futher use and update in other detail. |
| Attachment: | (1) Customer |

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Table D.3.  Process Specification of Process 1.2.1.

| Process Name: | Record Order. |
|---|---|
| Data In: | Order Data such as Date, Product Name, size, color, quantity, price etc. |
| Data Out: | New Order |
| Process: | (1) Receive the requirement from the customer.<br>(2) Retrive customer data from Customer file.<br>(3) Select employee name from employee file.<br>(4) Select product name from Product file.<br>(5) Input the Order detail in Sale (Order) Form.<br>(6) Record the Order detail into Order File and Order Detail File. |
| Attachment: | (1) Order<br>(2) Order Detail<br>(3) Customer<br>(4) Employee<br>(5) Product. |

Table D.4.  Process Specification of Process 1.3.1.

| Process Name: | Print Customer Order . |
|---|---|
| Data In: | Order Detail |
| Data Out: | Customer Order |
| Process: | The order information will be printed out as a document to process in other function. |
| Attachment: | (1) Order |

Table D.5.   Process Specification of Process 2.1.1.

| Process Name: | Check availability of product. |
|---|---|
| Data In: | Product ID |
| Data Out: | Available /Unavailable message |
| Process: | The ordered product will be checked whether it is available in Stock file or not. |
| Attachment: | (1) Stock |

Table D.6.   Process Specification of Process 2.1.2.

| Process Name: | Compare product in Stock with product in Order |
|---|---|
| Data In: | Product ID, quantity |
| Data Out: | Enough / Not enough message |
| Process: | The quantity of ordered product will be checked whether it is enough in Stock file or not. |
| Attachment: | (1) Stock |

Table D.7.   Process Specification of Process 2.2.1.

| Process Name: | Add new purchase order. |
|---|---|
| Data In: | Purchase order data such as supplier name, product ID , employee ID, quantity etc. |
| Data Out: | New purchase order. |
| Process: | (1) Input the purchase order detail in Purchase Order Form.<br>(2) Record the purchase order detail into purchase order File and purchase order detail File. |
| Attachment: | (1) Purchase Order<br>(2) Purchase Order Detail<br>(3) Employee<br>(4) Product<br>(5) Supplier. |

Table D.8.    Process Specification of Process 3.1.1.

| Process Name: | Check supplier available. |
|---|---|
| Data In: | Supplier name, Supplier detail. |
| Data Out: | Available /Unavailable message. |
| Process: | The supplier information received will be checked whether it is available in supplier file or not. In case of availability, it will be further updating in other detail. On the other hand, it will go for adding of new supplier information in furher process. |
| Attachment: | (1) Supplier |

Table D.9.    Process Specification of Process 3.1.2.

| Process Name: | Add New Supplier. |
|---|---|
| Data In: | Unavailable message, supplier detail |
| Data Out: | New supplier |
| Process: | After the unavailabe supplier message is received, the new supplier detail will be added in Supplier file for futher use and update in other detail. |
| Attachment: | (1) Supplier |

Table D.10.    Process Specification of Process 3.2.1.

| Process Name: | Print Purchase Order. |
|---|---|
| Data In: | Purchase order data. |
| Data Out: | Purchase Order |
| Process: | The purchase order information will be printed out as a document and give it to the supplier |
| Attachment: | (1) Purchase Order |

Table D.11.   Process Specification of Process 3.3.1.

| Process Name: | Add Shipped Order. |
|---|---|
| Data In: | Invoice data such as purchase ID, product ID, quantity, price etc. |
| Data Out: | New invoice |
| Process: | (1) The invoice received from supplier will be input the invoice detail into Invoice Form.<br>(2) Record the invoice detail into Invoice File and Invoice detail File. |
| Attachment: | (1) Invoice<br>(2) Invoice Detail<br>(3) Employee |

Table D.12.   Process Specification of Process 3.3.2.

| Process Name: | Update Stock. |
|---|---|
| Data In: | Product ID, Purchase ID |
| Data Out: | New product |
| Process: | Add ProductID and PurchaseID in Update Stock file |
| Attachment: | (1) Stock |

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Table E.1.  Data Dictionary of Furniture Inventory Database.

| Field Name | Meaning |
| --- | --- |
| POID | Position Identification |
| PONAME | The name of employee's position |
| | |
| EMID | Employee Identification |
| EMTITLE | The title of employee |
| EMNAME | The name of employee |
| EMSURNAME | The surname of employee |
| EMADDRESS | The address of employee |
| EMDISTRICT | The district of employee's address |
| EMAMPHUR | The amphur of employee's address |
| EMPROVINCE | The province of employee's address |
| EMPOSTCODE | The zip code of employee's address |
| EMPHONE | The Telephone number of employee |
| | |
| CUSID | Customer Identification |
| CUSTITLE | The title of customer |
| CUSNAME | The name of customer |
| CUSSURNAME | The surname of customer |
| CUSADDRESS | The address of customer |
| CUSPHONR | The Telephone number of customer |
| CUSDATE | The date when the customer order the product |
| | |
| ORDERID | Order Identification |
| ORDERDATE | The date of placing the purchase order when the customer order the product |
| | |
| PROQTY | The quantity of the product in the purchase order |
| SELLDISCOUNT | The discount of each product in the purchase order |
| PROPRICE | The price of each product in the purchase order |
| | |
| SUPID | Supplier Identification |
| SUPNAME | The name of Supplier |
| SUPADDRESS | The address of Supplier |
| SUPPHONE | The Telephone number of Supplier |
| SUPFAX | The Fax number of Supplier |
| | |
| TYPEID | Product Type Identification |
| TYPENAME | The name of product's type |
| | |
| COLORID | Product Color Identification |
| COLORNAME | The name of product's color |
| | |
| STOSIZE | The size of product in stock |

Table E.1.  Data Dictionary of Furniture Inventory Database (Continued).

| Field Name | Meaning |
|---|---|
| STOQTY | The quantity of product in stock |
| STONAME | The name of product in stock |
| | |
| PROID | Product Identification |
| PRONAME | The name of product |
| PROPRICE | The price of product |
| PROSIZE | The size of product |
| | |
| PURID | Purchase order Identification |
| PURDATE | The date of placing the purchase order when the company order the product to supplier |
| PURDETAILQTY | The quantity of product in purchase order |
| | |
| INVID | Invoice Identification |
| INVDATE | The date of placing the invoice |
| INVDETAILQTY | The quantity of product which placing the invoice |
| | |
| PRICE | The price of product which placing the invoice |
| PURDISCOUNT | The discount of product which placing the invoice |

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