



Practical Development of Information System in Business Context:  
On-line Sales Transaction for Pornthavee Co., Ltd.

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

July 2002

Project Name: Practical Development of Information System in Business Context:  
On-line Sales Transaction for Pornthavee Co., Ltd.

Intern: Uthaivan Jaerakitivanich

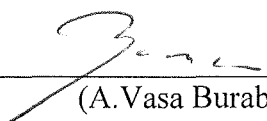
Advisor: A.Nalinee Lertchindaporn

Academic Year: July 2002

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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

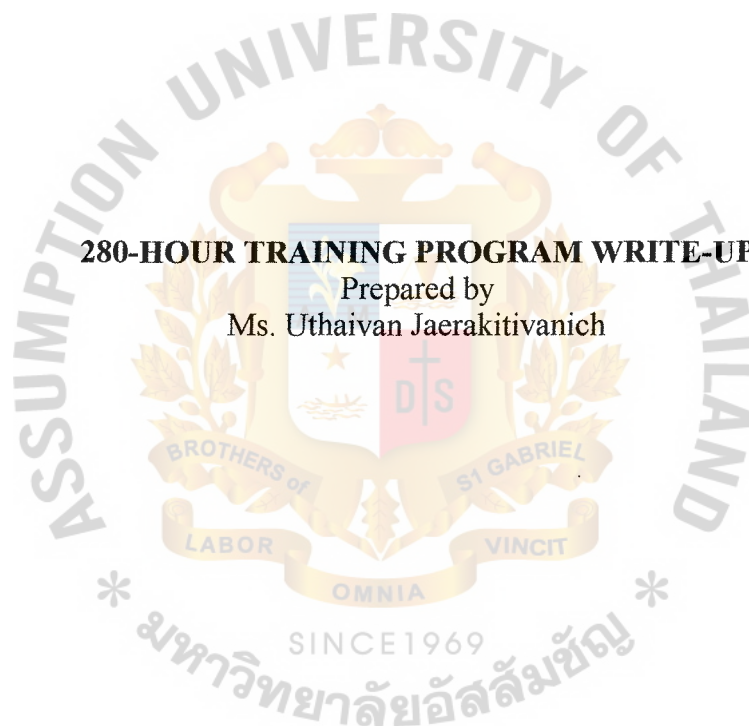
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## **I. INTRODUCTION**

### **1.1 Background of the Organization**

Pornthavee Co.,Ltd. was established in 1990 as a dealer of typewriter such as Olympia, etc. After five years of operation, the company changed from a dealer of typewriter to be a dealer of printer which included Canon, Hewlett-Packard, EPSON and Brother brands. The company also provides repair service, maintenance service and delivery service.

Since the company was established around 12 years ago, there are no competitors in the same area (Surawong and Silom Road). About 2-3 years ago, the company's competitors increases around 2-3 folds. This is the reason why the company tries to find out the way to improve their sales transaction system in order to gain competitive advantages. Therefore, the company would like to change their sales transaction from manual to computerized system by using the web site that support E-commerce to be an alternative way for selling product to the customers. The company's web site will help the customer to view on-line catalogue of company's product as well as order the product via web site.

The company has about 20 workers and it is operating the whole process in the company manually. The company is situated at 161/2 , Surawong Road, Bangkok, 10500

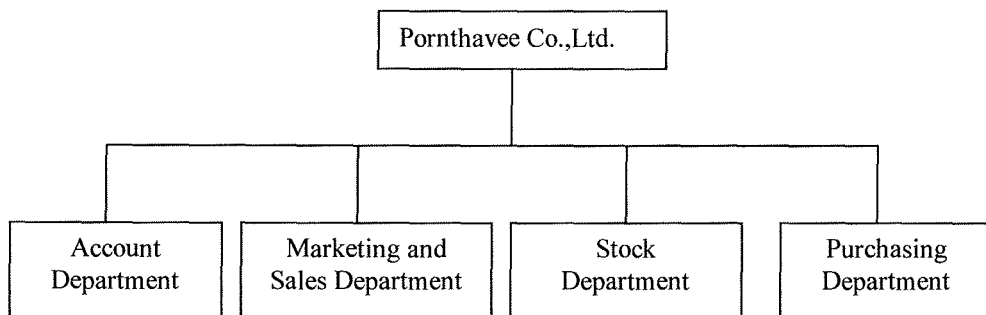


Figure 1.1. Organization Chart

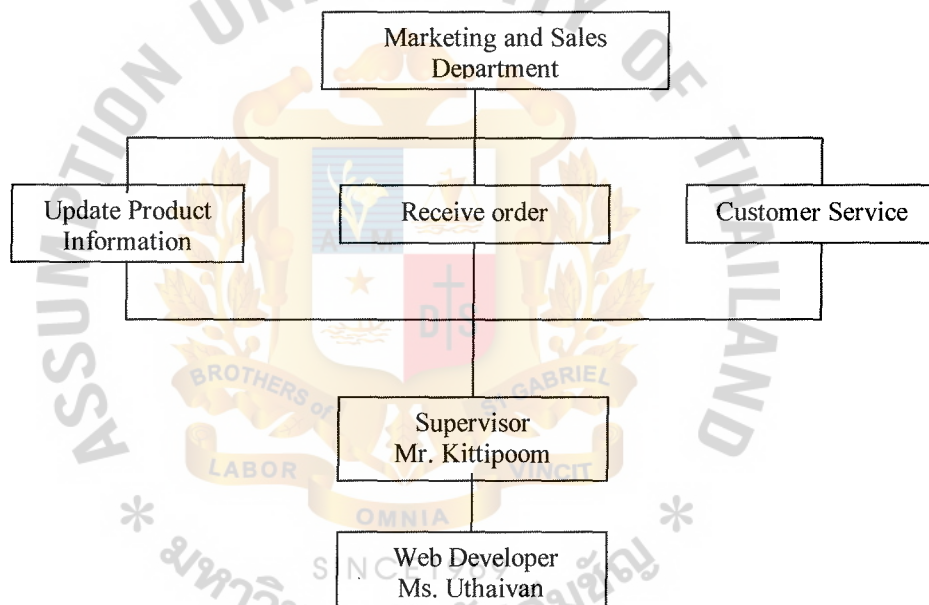


Figure 1.2. Department Chart

## 1.2 Objectives of the System

The objectives of the proposed system are as follows:

### (1) Decrease transaction error

The information that has been recorded in the paper will be recorded in the database instead. So, it can be decreased the transaction errors such as incorrect

information by some employees, loss of information in the paper, ordering of the wrong printer model, the delivery of printer to the wrong customer, etc.

## **(2) Reduce cost of the company**

When the manufacturers of printers launch new products or update some information, the new catalogue don't need to print instead of old catalogue because the staff can update the information via website. So, it can save the cost of the company.

## **(3) Save time for ordering**

The customer can order company's product via website by using the Internet as a medium. They can perceive the product's picture, model, features, specifications and price from the on-line catalogue before they order. Our company also provides the delivery service, so they do not need to come to our company to order the product by themselves.

### **1.3 Scope of the System**

The company website use ASP3.0 as well as Microsoft Visual Interdev 6.0 to create the on-line catalogue and transaction between Pornthavee Company Limited and customer. The followings are the scopes of the proposed systems:

#### **(1) Providing On-line catalogue**

The company provides on-line catalogue which included the product's picture, model, features, specifications, price for the customer to view before they order the products.

#### **(2) Ordering the products via web site**

After they logged in, the customer can order the product by adding that product into the shopping bag. And they can check their history purchase in order to check whether that which products they have been ordered.

### **(3) Confirming or Canceling order**

The customer has the opportunity to confirm or cancel their order. And they can change the quantity or take it out from the shopping bag also before confirm order information.

### **(4) Checking “User Authentication”**

The customer has to log in before ordering the product. After they ordered our products, the customer can change their receiver name and the destination address again in order to deliver product correctly.

### **(5) Registering page**

For the customers who have not registered yet, they have to go to the register page in order to fill their personal information before they can make an order.

### **(6) Collecting and Maintaining product information**

The staff can add, update the product catalogue via website.

### **(7) Controlling product delivery information**

The staff can check who order the product, when the order is made and where the product needs to be delivered also.

### **(8) The staff can generate report**

#### **- Sales' report**

The staff can generate report that included list of printer models that have been ordered.

#### **- Delivery information report**

This report will show the information of the customer and product that need to be delivered

#### **- Customers' history purchase report**

Both the customer and staff can check whether the customer has ordered which product.

#### 1.4 Project Plan

The tentative plan for this project: “On-line Sales Transaction for Pornthavee Co., Ltd.” is exhibited in Figure 1.3



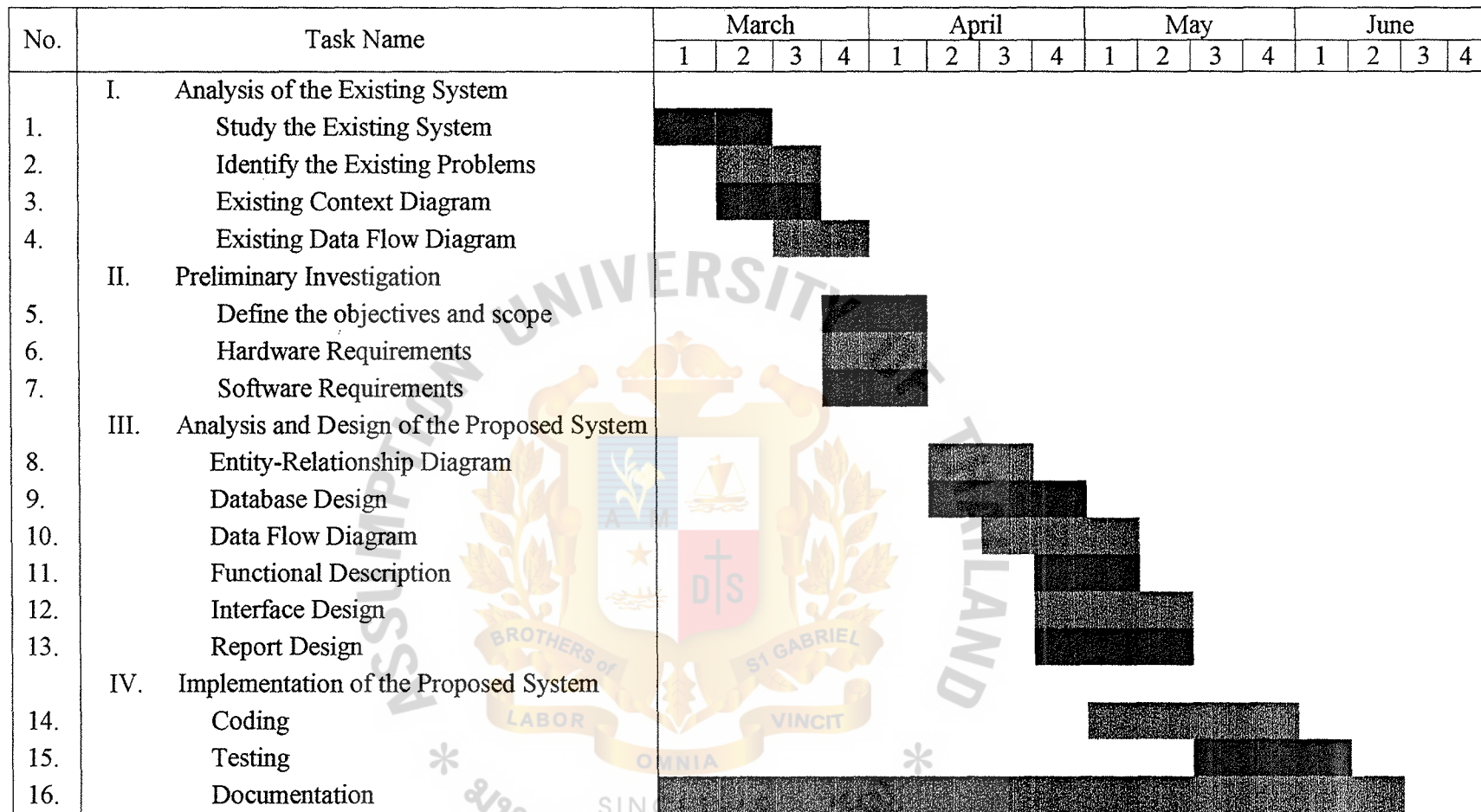


Figure 1.3. Project Plan for for On-line Sales Transaction for Pornthavee Company Limited

## II. THE EXISTING SYSTEM

### 2.1 Background of Existing System

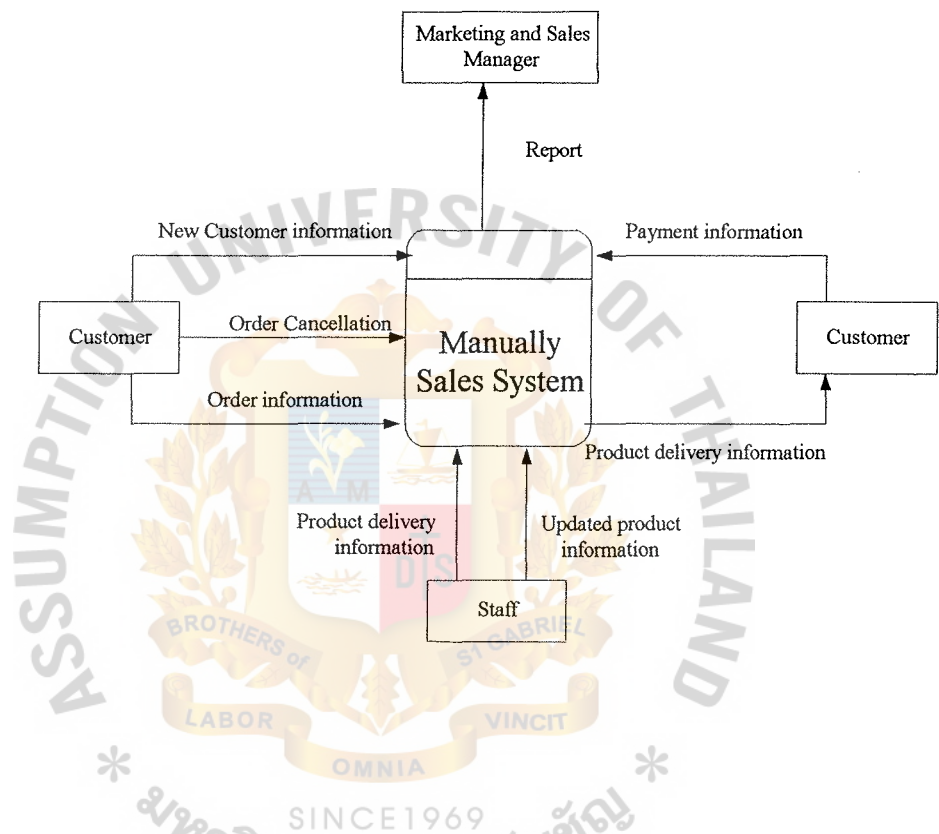


Figure 2.1. Context Diagram of Existing System

## **2.2 Problem Definition**

### **(1) Transaction error**

Pornthavee Co., Ltd. Operates the sales transaction using manual system that records the information in paper. So, it can cause many transaction errors because some employees do it incorrectly and the information in paper can be easily lost and damaged.

### **(2) Difficulties in Retrieving Information**

Sometimes it takes a long time to search for the customers' requested product model. The company also provides delivery service, so the company has to check carefully who order the product, when the order is made and where the product needs to be delivered.

### **(3) Difficulties in updating product information on catalogue**

When the manufacturers of printers would like to update product's information or launch new product, the company has to print the new catalogue and discard the old catalogue. It wastes the paper and incurs cost to the company.

### III. THE PROPOSED SYSTEM

#### 3.1 System Specification

##### (1) Hardware Requirements

###### Server Computer specifications

HARDWARE	SPECIFICATION
CPU	Intel Pentium 4 2.0 GHz
RAM	256 MB DDR-RAM
Hard disk	40 GB

Table 3.1. Hardware Requirements for Server Computer

The company will locate this server at the Internet Service Provider (ISP) and the company will retrieve the information by using the computers in the company's office connect to the ISP.

###### Development computer specifications

HARDWARE	SPECIFICATION
CPU	Intel Celeron III 1000 MHz
RAM	SDRAM 128 MB Bus 133 MHz
Hard disk	20 GB

Table 3.2. Hardware Requirements for Development computer

The computer, which acts as a server, requires the very high speed of processor to handle the high volume of transactions and enough capacity to keep the high volume of transaction as well. Therefore, the suggested hardware requirements above is suitable to be the server computer

For the development computers, the computers use for development the application in the office. So, it should have enough capacity to keep the data from server and software for development the website. The suggested hard ware requirements are the standard use in office and its price is reasonable.

(2) Software Requirements

SOFTWARE	SPECIFICATION
<b>Operating System</b>	Microsoft Windows 2000 (For server computer) Microsoft Windows 98 ME (For development computer)
<b>Application</b>	1. Microsoft Office 2000 2. Microsoft Visual Interdev 6.0 3. Service Pack 5.0

Table 3.3. Software Requirements

The company uses Microsoft Window 2000 as operating system for server computer because it has enough security to protect information in server computer, and use Microsoft Window 98 ME for development computer because it is the standard operating system for the computer.

The company uses Microsoft Visual Interdev 6.0 to create the website and use Microsoft Access 2000 for recording the transaction from the customer. The service pack 5.0 should be installed in order to solve some debug of the program.

3.2 System Design

(1) Data Flow Diagram

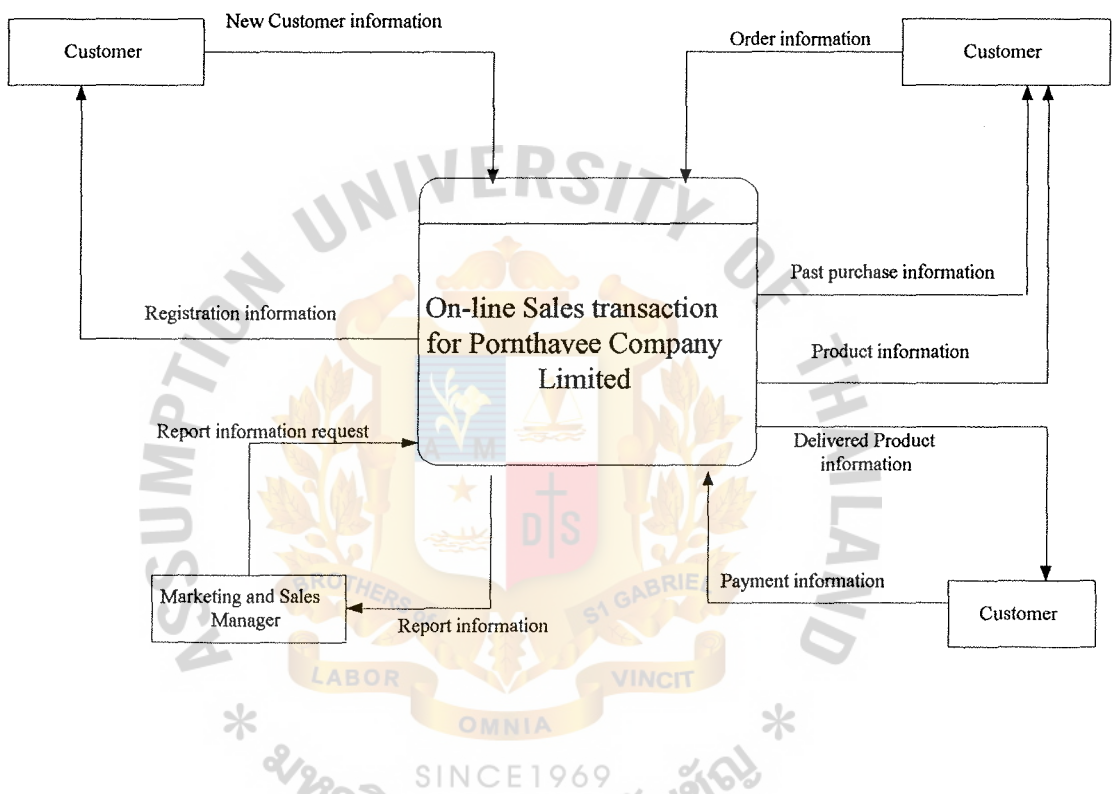
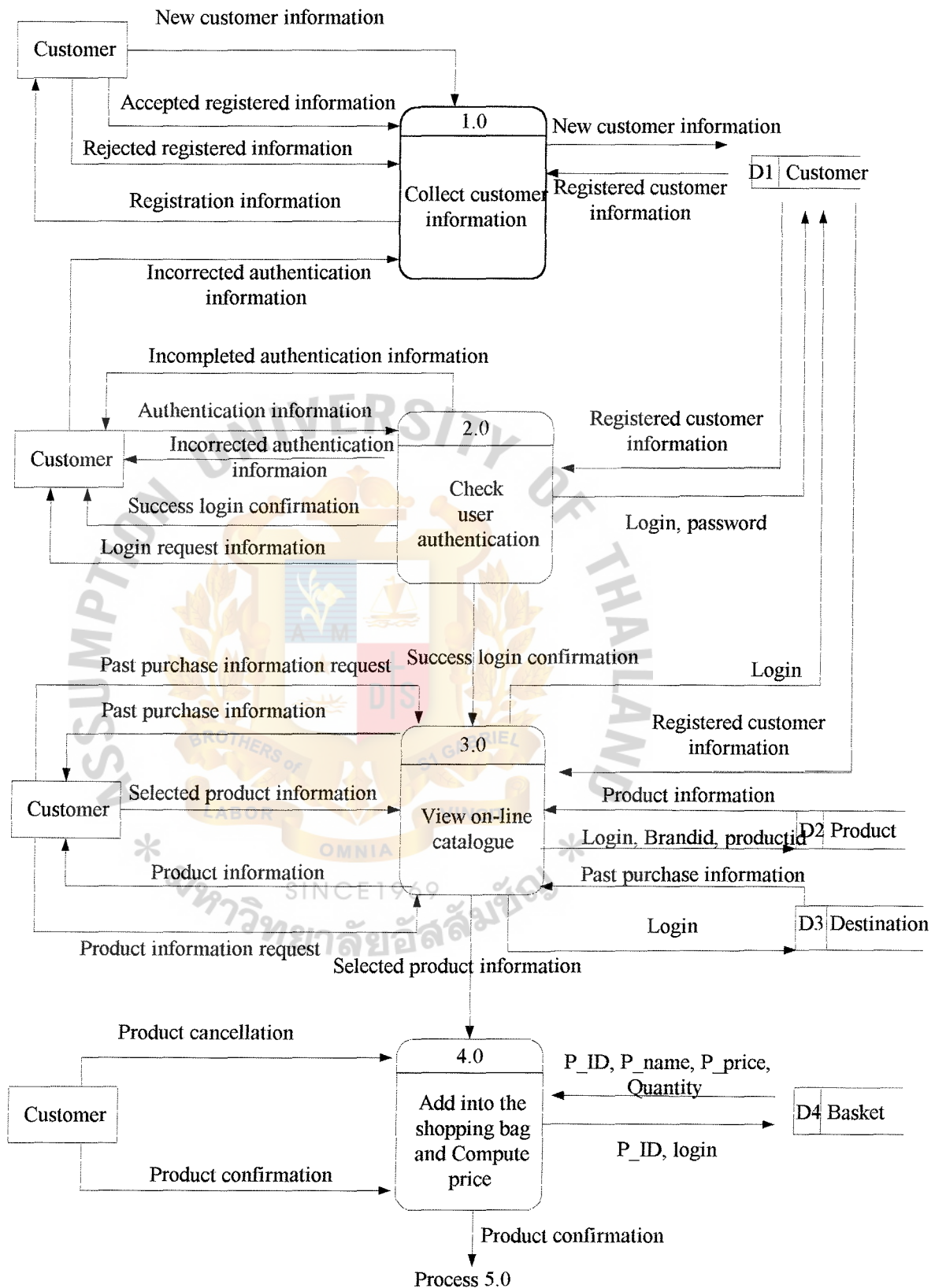


Figure 3.1. Context Diagram



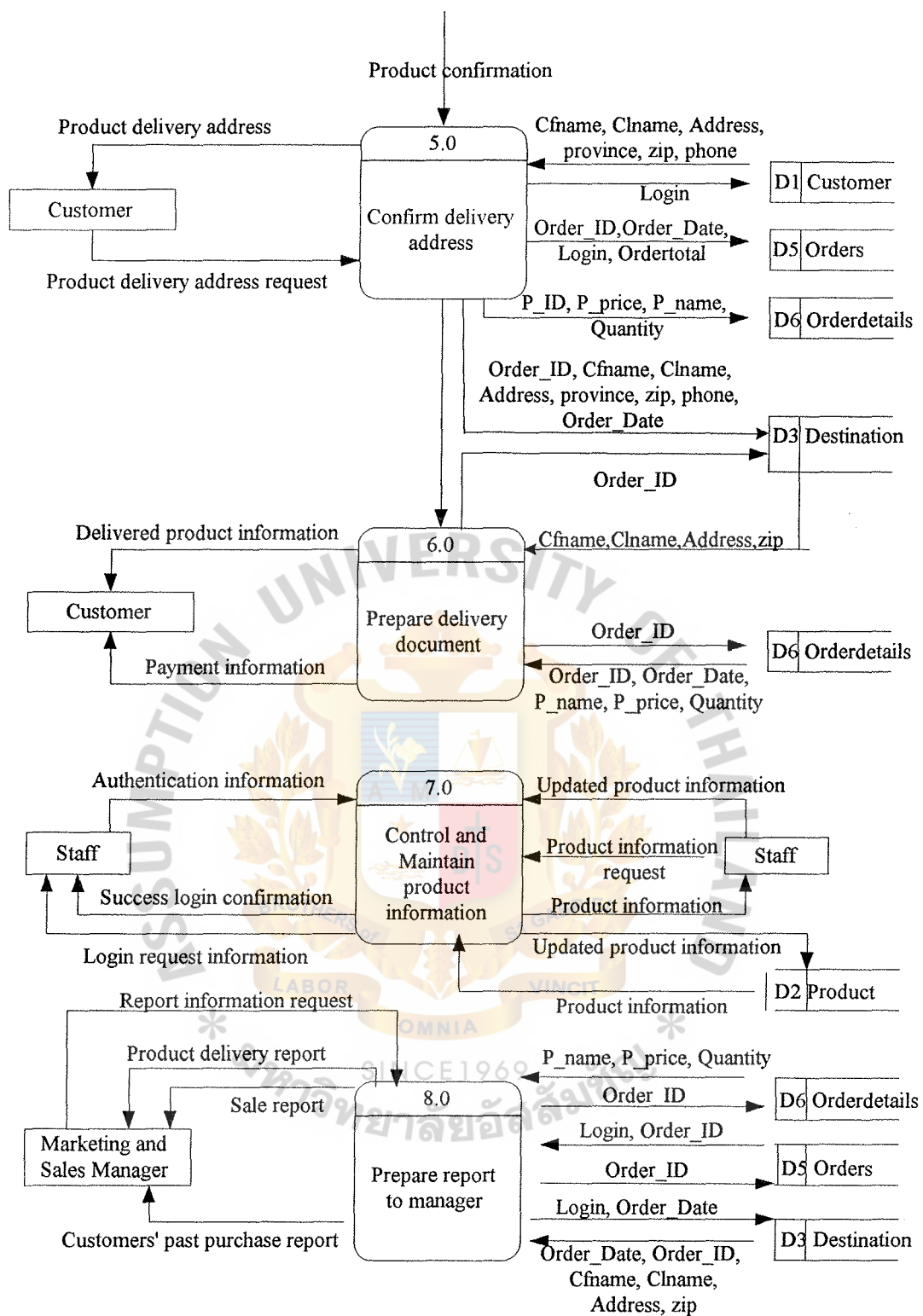


Figure 3.2. Data Flow Diagram – Level 0

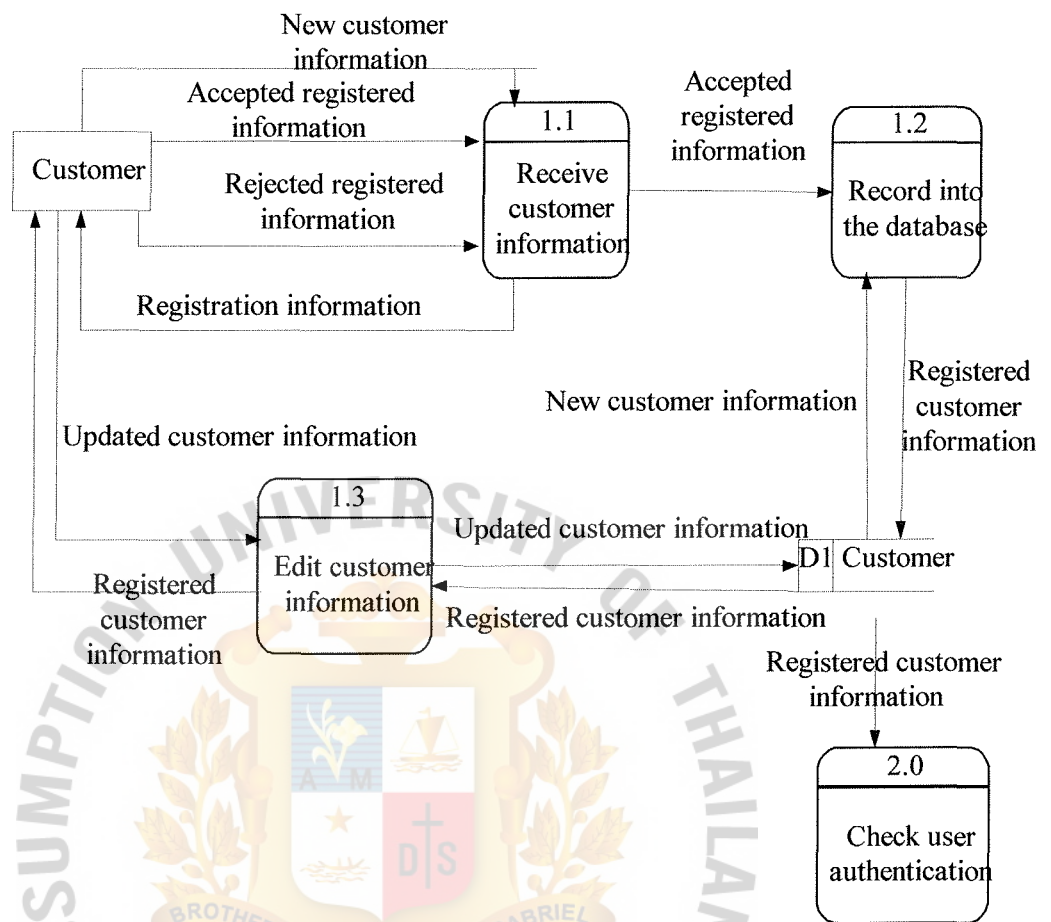


Figure 3.3. Data Flow Diagram –Process 1 Level 1

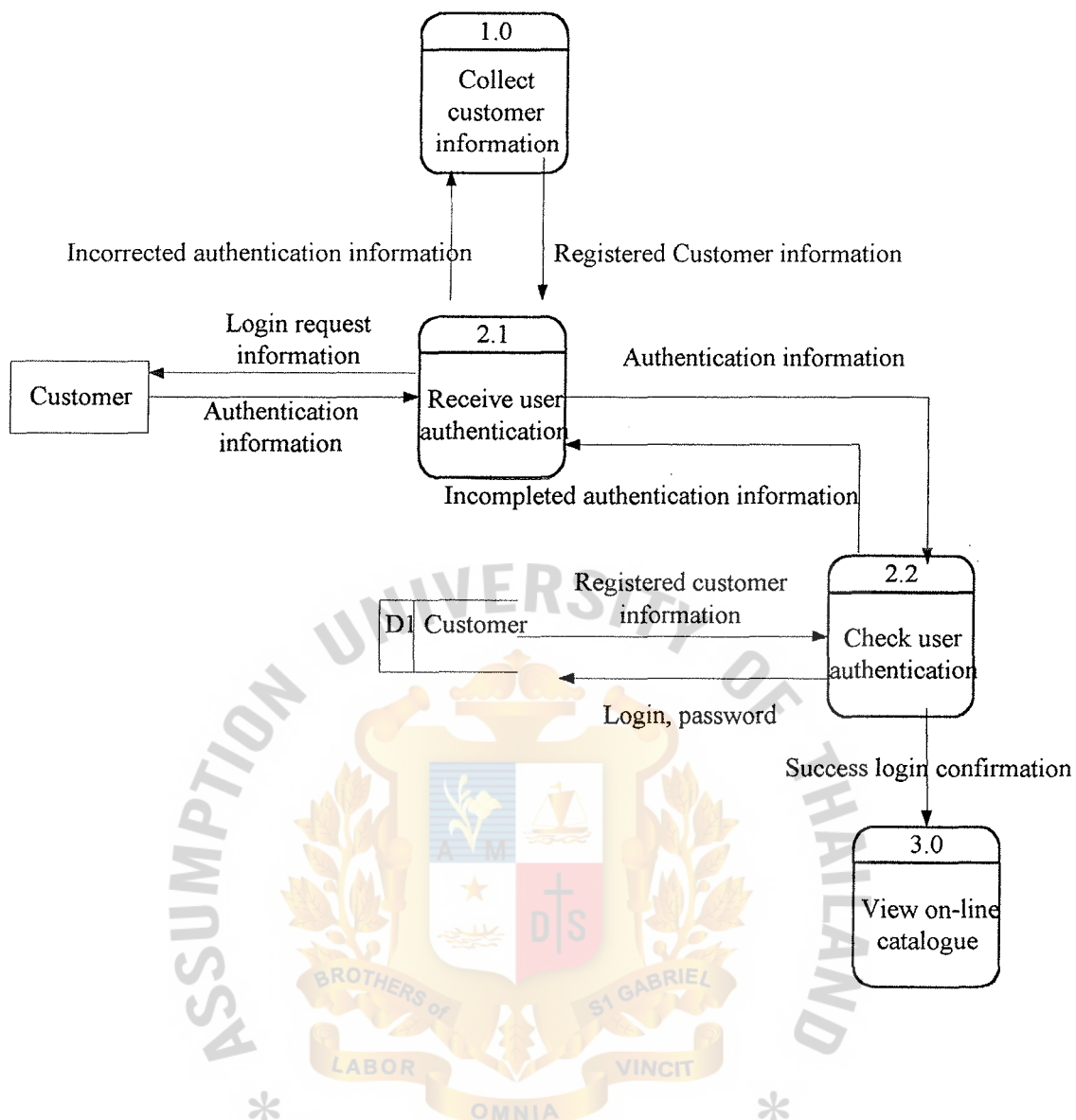


Figure 3.4. Data Flow Diagram –Process 2 Level 1

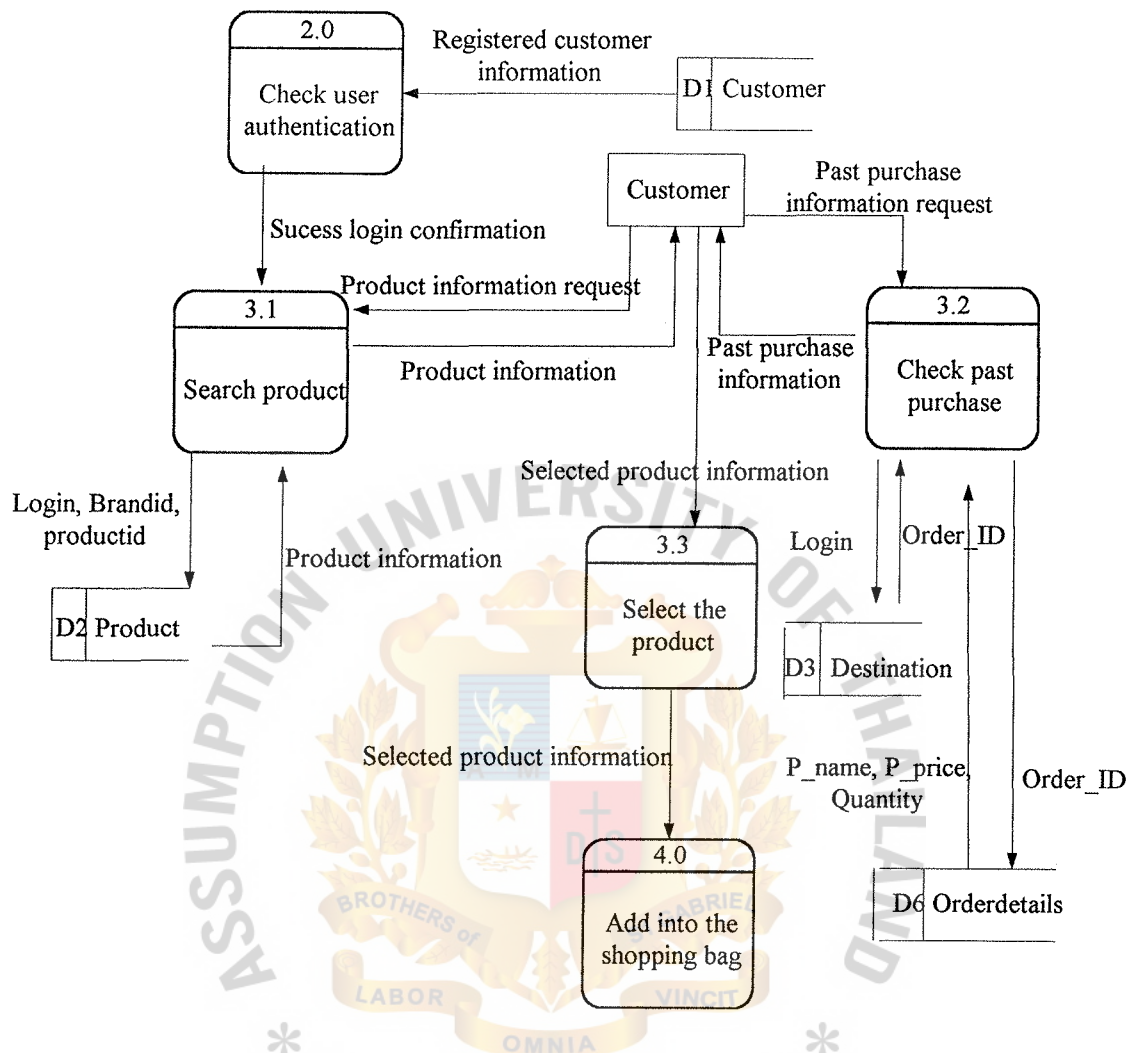


Figure 3.5. Data Flow Diagram –Process 3 Level 1

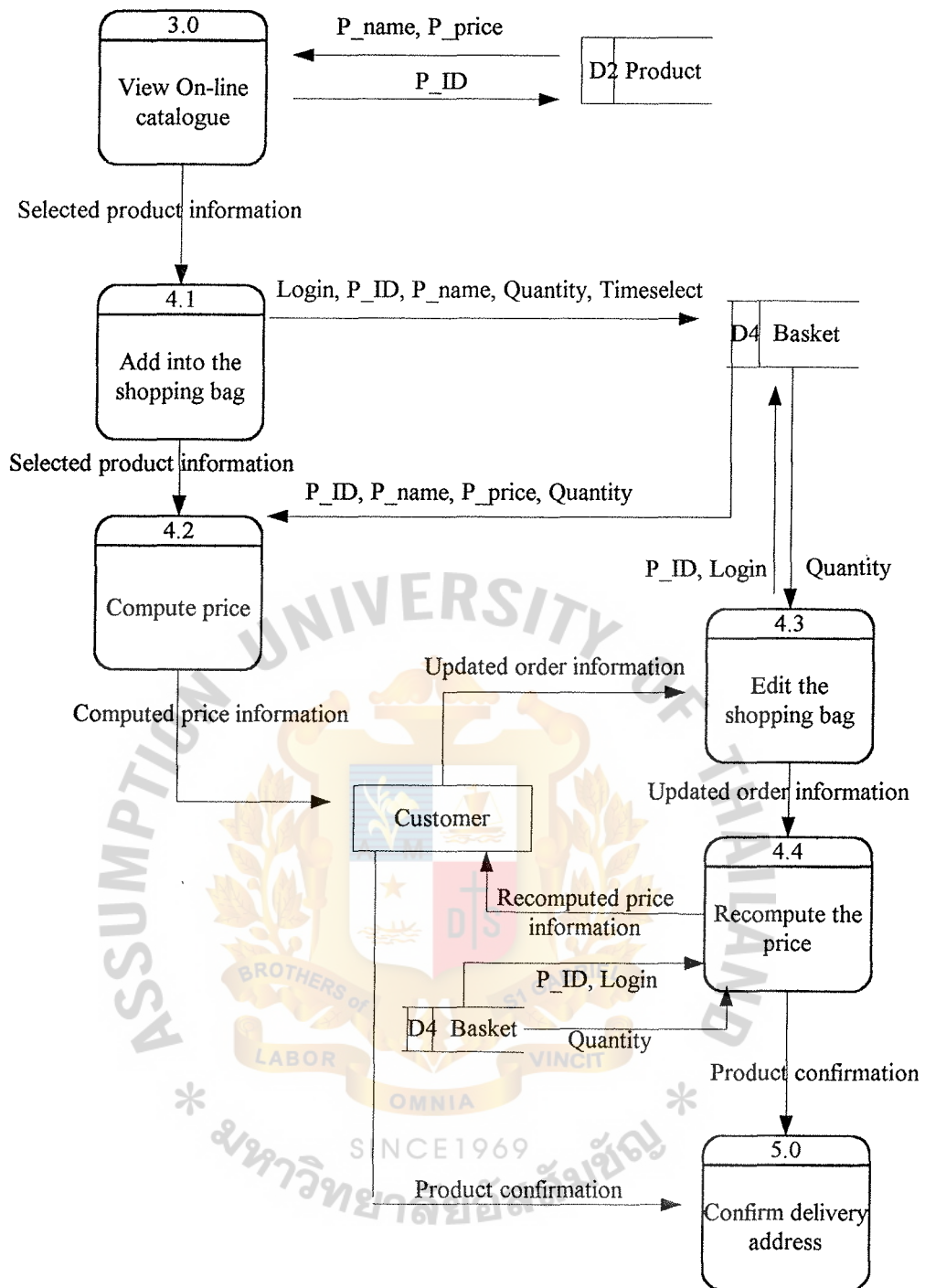


Figure 3.6. Data Flow Diagram –Process 4 Level 1

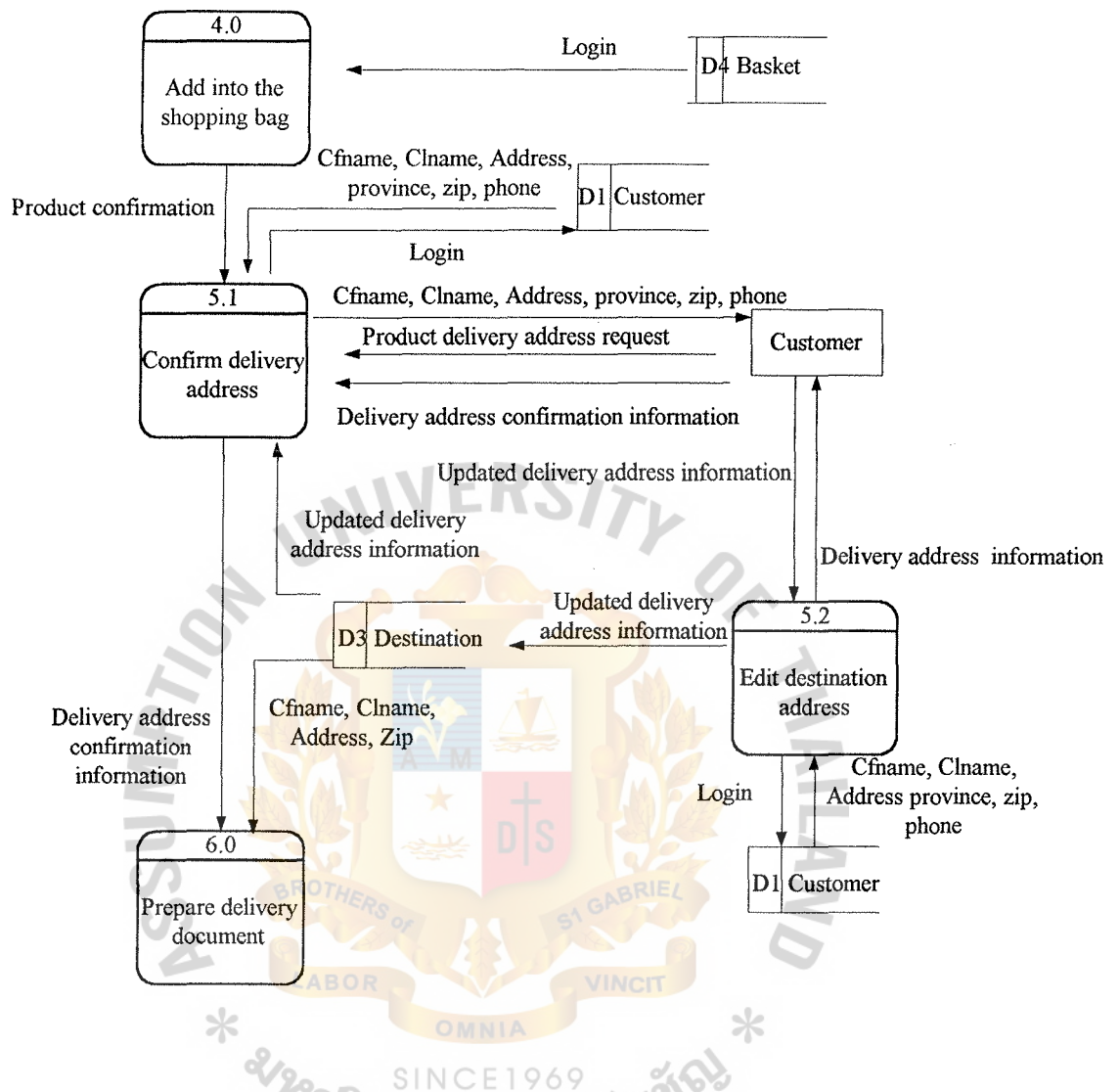


Figure 3.7. Data Flow Diagram –Process 5 Level 1

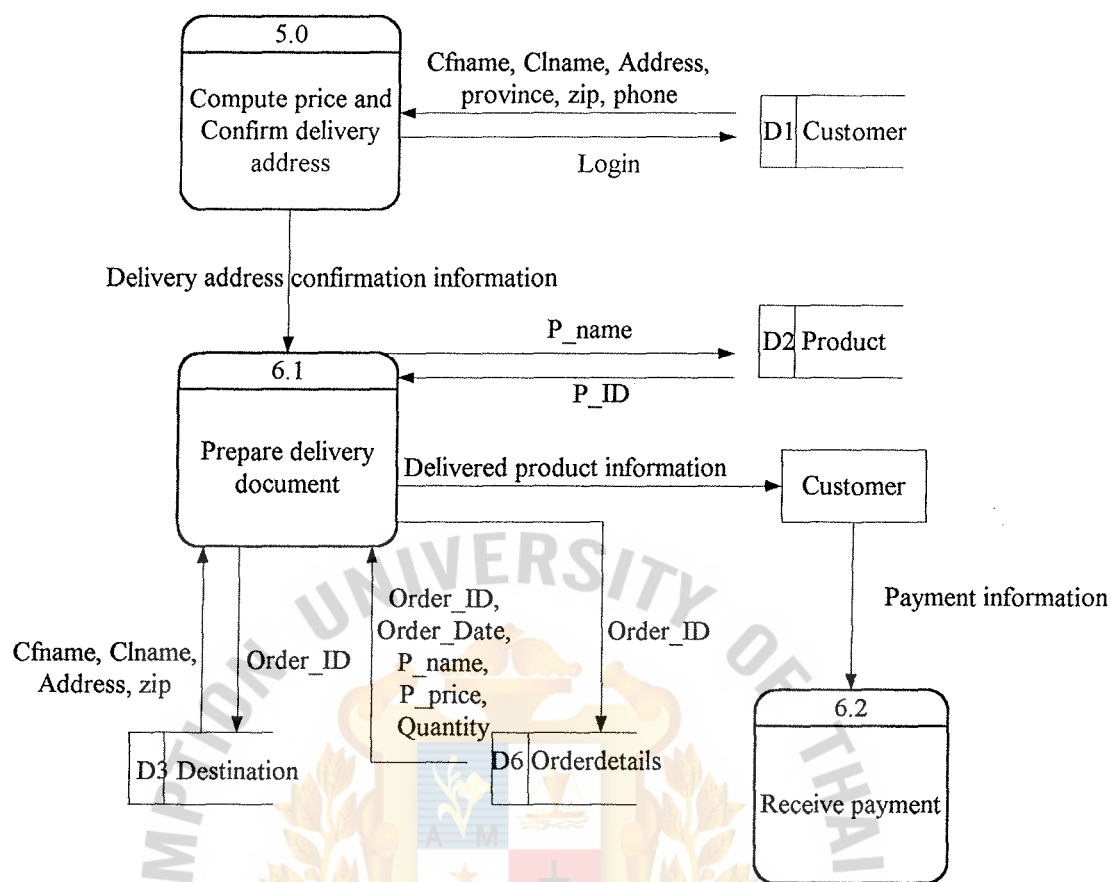


Figure 3.8. Data Flow Diagram –Process 6 Level 1

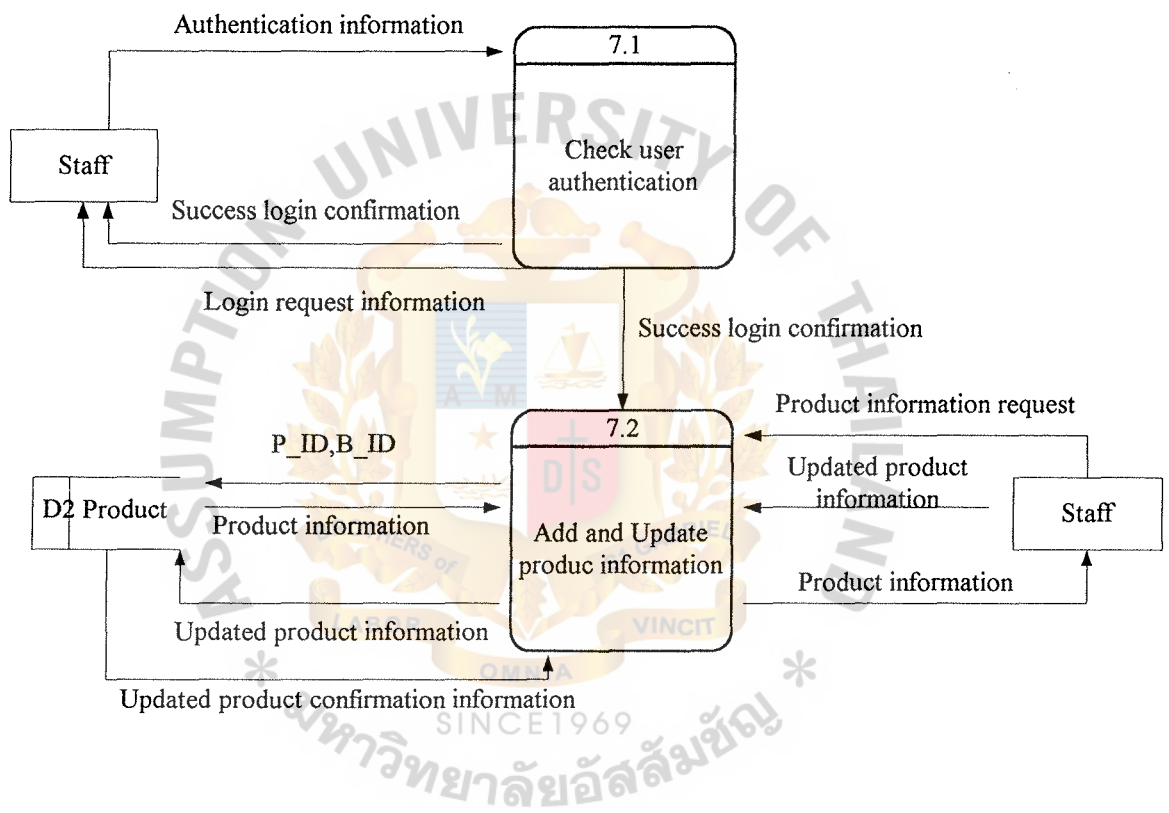


Figure 3.9. Data Flow Diagram –Process 7 Level 1

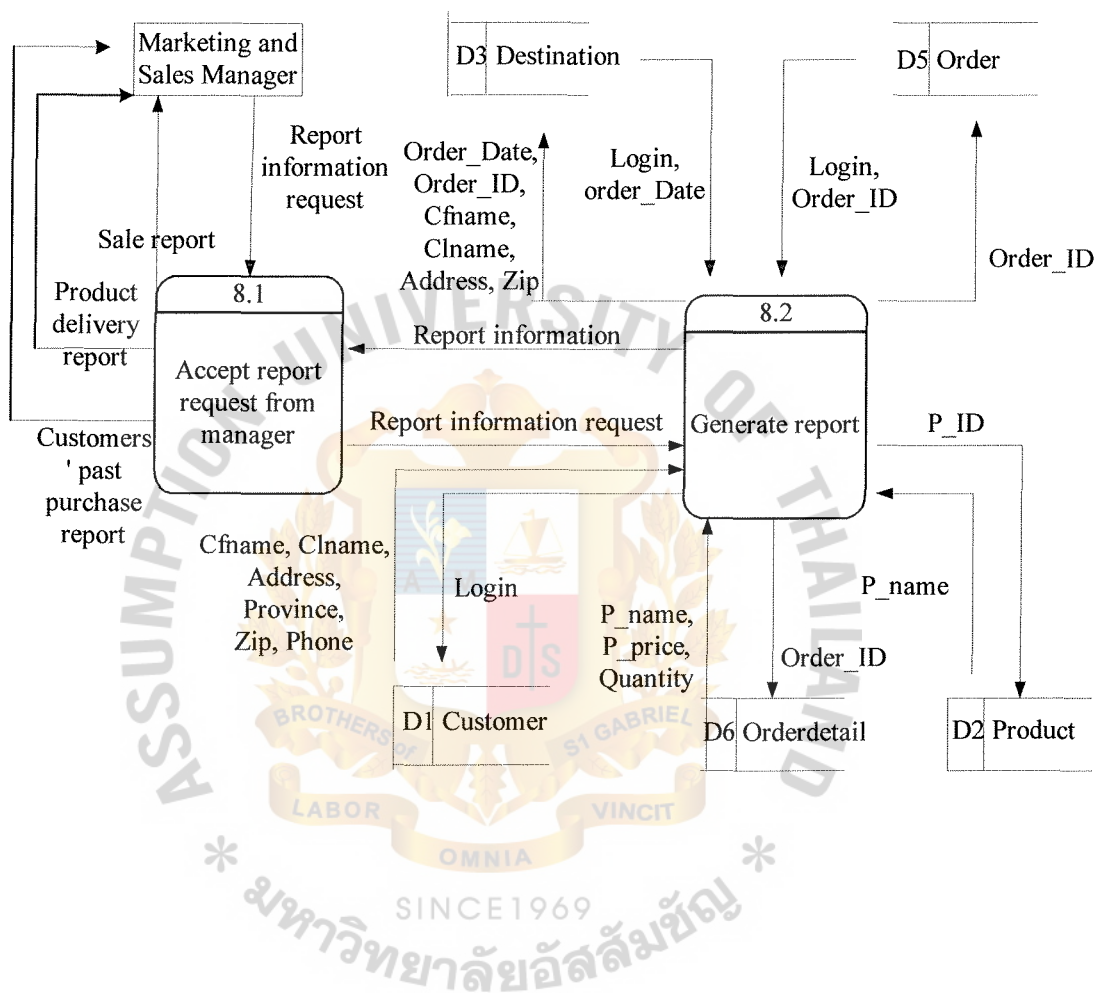


Figure 3.10. Data Flow Diagram – Process8 Level 1

(2) Process Specification

Process Name:	Collect customer information
Data In:	(1) New customer information (2) Accepted registered information (3) Rejected registered information (4) Registered customer information (5) Incorrected authentication information
Data Out:	(1) Registration information (2) New customer information
Process:	(1) Provide registration page for the new customer (2) New customer fill their personal information required (3) If they fill incomplete personal information, they will be moved back to the registration page again in order to fill their personal information completely
Attachment:	(1) Customer (2) Data Store D1 Customer (3) Process 2.0

Table 3.4. Process Specification for Process 1.0

Process Name:	Receive customer information
Data In:	(1) New customer information (2) Accepted registered information (3) Rejected registered information
Data Out:	(1) Registration information (2) Accepted registered information
Process:	(1) Provide registered page for the new customer (2) New customer fill their personal information required (3) If they fill incomplete personal information, they will be moved back to the registration page again in order to fill their personal information completely
Attachment:	(1) Customer (2) Process 1.2

Table 3.5. Process Specification for Process 1.1

Process Name:	Record into the database
Data In:	(1) Accepted registered information (2) Registered customer information
Data Out:	(1) New customer information
Process:	(1) Record the new customer information into the database
Attachment:	(1) Process 1.1 (2) Customer (3) Data Store D1 Customer (4) Process 2.0

Table 3.6. Process Specification for Process 1.2

Process Name:	Edit customer information
Data In:	(1) Registered customer information (2) Updated customer information
Data Out:	(1) Updated customer information (2) Registered customer information
Process:	(1) Provide the customer information that they have already registered (2) After they changed their personal information, the system will record the updated information into the database
Attachment:	(1) Customer (2) Data Store D1 Customer

Table 3.7. Process Specification for Process 1.3

Process Name:	Check user authentication
Data In:	(1) Authentication information (2) Registered customer information
Data Out:	(1) login request information (2) Incompleted authentication information (3) Incorreceted authentication information (4) Success login confirmation (5) Login (6) Password
Process:	(1) Provide Log-in page for the customer to fill their username and password (2) If their username and password are invalid, they will be moved back to the Log-in page again (3) If the customer have not registered, they have to go the registration page in order to register first (4) If the customer fill their username and password correctly, they will be allowed to order our product
Attachment:	(1) Customer (2) Data Store D1 Customer (3) Process 3.0

Table 3.8. Process Specification for Process 2.0

Process Name:	Receive user authentication
Data In:	(1) Registered customer information (2) Authentication information (3) Incomplete authentication information
Data Out:	(1) Login request information (2) Incorrect authentication information (3) Authentication information
Process:	(1) Provide Log-in page for the customer
Attachment:	(1) Process 1.0 (2) Customer (3) Process 2.2

Table 3.9. Process Specification for Process 2.1

Process Name:	Check user authentication
Data In:	(1) Authentication information (2) Registered customer information
Data Out:	(1) Login (2) Password (3) Incomplete authentication information (4) Success login confirmation
Process:	(1) If the customers fill incorrect username and password, the system will be moved back to Log-in page again (2) If they have not registered yet, they have to go to the registration page in order to fill their personal information before log-in again
Attachment:	(1) Process 2.1 (2) Data Store D1 Customer (3) Process 3.0

Table 3.10. Process Specification for Process 2.2

Process Name:	View on-line catalogue
Data In:	(1) Success login confirmation (2) Registered customer information purchase information request (3) Product information request (4) Selected product information (5) Product information (6) Past purchase information
Data Out:	(1) Past purchase information (2) Product information (3) Login (4) B_ID
Process:	(1) Provide on-line catalogue (2) The customer can check their past purchase record (3) The customer can order our product only if they have already log in
Attachment:	(1) Customer (2) Data Store D2 Product (3) Data Store D3 Destination (4) Process 4.0

Table 3.11. Process Specification for Process 3.0

Process Name:	Search product
Data In:	(1) Success login confirmation (2) Product information request (3) Product information
Data Out:	(1) Login (2) B_ID (3) P_ID (4) Product information
Process:	(1) The customer can search the product by brand name before they order
Attachment:	(1) Process 2.0 (2) Customer (3) Data Store D2 Product

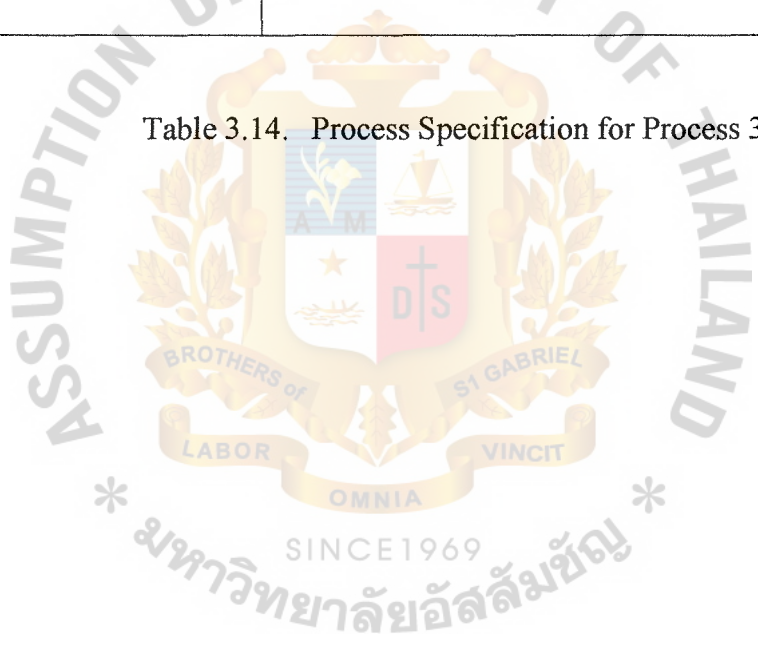
Table 3.12. Process Specification for Process 3.1

Process Name:	Check past purchase
Data In:	(1) Past purchase information request  (1) Order_ID  (2) P_name  (3) P_price  (2) Quantity
Data Out:	(1) Login  (2) Order_ID
Process:	(1) After the customer put their correct username and password, the customers can check their past purchase
Attachment:	(1) Customer  (2) Data Store D3 Destination  (3) Data Store D6 Orderdetails

\* Table 3.13. Process Specification for Process 3.2

Process Name:	Select the product
Data In:	(1) Selected product information
Data Out:	(1) Selected product information
Process:	(1) After they enter their correct username and password, the customer can select the product that they want to buy
Attachment:	(1) Process 3.1 (2) Customer (3) Process 4.0

Table 3.14. Process Specification for Process 3.3



Process Name:	Add into the shopping bag
Data In:	<ul style="list-style-type: none"> <li>(1) Selected product information</li> <li>(2) Product cancellation</li> <li>(3) Product confirmation</li> <li>(4) P_ID</li> <li>(5) P_name</li> <li>(6) P_price</li> <li>(7) Quantity</li> </ul>
Data Out:	<ul style="list-style-type: none"> <li>(1) P_ID</li> <li>(2) Login</li> <li>(3) Product confirmation</li> </ul>
Process:	<ul style="list-style-type: none"> <li>(1) After the customers have logged in, they can add the product that they want to buy in their shopping bag</li> <li>(2) The customers have chance to confirm or cancel the product they selected before confirm their delivery address</li> </ul>
Attachment:	<ul style="list-style-type: none"> <li>(1) Customer</li> <li>(2) Data Store D4 Basket</li> <li>(3) Process 5.0</li> </ul>

Table 3.15. Process Specification for Process 4.0

Process Name:	Add into the shopping bag
Data In:	(1) Selected product information  (2) P_name  (3) P_price
Data Out:	(1) Selected product information  (2) P_ID  (3) Login  (4) P_name (5) Quantity  (6) Timeselect
Process:	(1) The customer can place the selected product into the shopping bag
Attachment:	(1) Process 3.0 (2) Data Store D4 Basket (3) Process 4.2

Table 3.16. Process Specification for Process 4.1

Process Name:	Compute price
Data In:	(1) Selected product information (2) P_ID (3) P_name (4) P_price (5) Quantity
Data Out:	(1) Computed price information
Process:	(1) After the selected products are placed into the shopping bag, the system will show the selected product and total price
Attachment:	(1) Process 4.1 (2) Customer (3) Data Store D4 Basket

Table 3.17. Process Specification for Process 4.2

Process Name:	Edit the shopping bag
Data In:	(1) Updated order information (2) Quantity
Data Out:	(1) Updated order information (2) P_ID (3) Login
Process:	(1) The customer can view their shopping bag (2) The customer can change the quantity of product (3) The customer also can remove the selected product from the shopping bag
Attachment:	(1) Customer (2) Data Store D4 Basket (3) Process 4.4

Table 3.18. Process Specification for Process 4.3

Process Name:	Recompute the price
Data In:	(1) Updated order information (2) Quantity
Data Out:	(1) Recomputed price information (2) Product confirmation (3) P_ID (4) Login
Process:	(1) After the customer change the quantity of product or remove the product, the system will recompute the price
Attachment:	(1) Process 4.3 (2) Customer (3) Data Store D4 Basket (4) Process 5.0

\* Table 3.19. Process Specification for Process 4.4

Process Name:	Confirm delivery address
Data In:	(1) Product confirmation (2) Product delivery address request (3) Cfname (4) Clname (5) Address (6) Province (7) Zip (8) phone
Data Out:	(1) Login (2) Product delivery address (3) Delivery address confirmation information (4) Order_ID (5) Order_Date (6) Ordertotal (7) P_ID (8) P_name (9) P_price (10) Quantity (11) Cfname (12) Clname (13) Address (14) Province (15) Zip (16) Phone

Process:	<p>(1) Retrieve and show customer profile</p> <p>(2) The customer can confirm that the address they want our company to deliver the product is the same as what they had provided before, otherwise they can change the receiver name and destination address</p> <p>(3) Only after the order and delivery have been confirmed, the order will be completed</p>
Attachment:	<p>(1) Customer</p> <p>(2) Data Store D1 Customer</p> <p>(3) Data Store D3 Destination</p> <p>(4) Data Store D5 Orders</p> <p>(5) Data Store D6 Orderdetails</p> <p>(6) Process 6.0</p>

\* Table 3.20. Process Specification for Process 5.0

Process Name:	Confirm delivery address
Data In:	(1) Product confirmation (2) Product delivery address request (3) Cfname (4) Clname (5) Address (6) Province (7) Zip (8) phone
Data Out:	(1) Login (2) Product delivery address (3) Delivery address confirmation information (4) Order_ID (5) Order_Date (6) Ordertotal (7) P_ID (8) P_name (9) P_price (10) Quantity (11) Cfname (12) Clname (13) Address (14) Province (15) Zip (16) Phone

Process Name:	Confirm delivery address
Data In:	<ul style="list-style-type: none"> <li>(1) Product confirmation</li> <li>(2) Login</li> <li>(3) Cfname</li> <li>(4) Clname</li> <li>(5) Address</li> <li>(6) Province</li> <li>(7) Zip</li> <li>(8) Phone</li> <li>(9) Product delivery address request</li> <li>(10) Delivery address confirmation information</li> <li>(11) Updated delivery address information</li> </ul>
Data Out:	<ul style="list-style-type: none"> <li>(1) Login</li> <li>(2) Cfname</li> <li>(3) Clname</li> <li>(4) Address</li> <li>(5) Zip</li> <li>(6) Phone</li> <li>(7) Delivery address confirmation information</li> </ul>
Process:	<ul style="list-style-type: none"> <li>(1) After the customer confirm their order, the system will show the destination address that the customer register</li> <li>(2) The customer has to confirm that the customer want our company to send the product elsewhere</li> </ul>

Attachment:	(1) Process 4.0 (2) Customer (3) Data Store D1 Customer (4) Data Store D3 Destination (5) Data Store D4 Basket (6) Process 6.0
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Table 3.21. Process Specification for Process 5.1



Process Name:	Edit destination address
Data In:	(1) Updated delivery address information (2) Cfname (3) Clname (4) Address (5) Province (6) Zip (7) Phone
Data Out:	(1) Login (2) Delivery address information (3) Updated delivery address information
Process:	(1) If the customer want our company to send the product elsewhere, they have to fill the new address
Attachment:	(1) Process 5.1 (2) Customer (3) Data Store D1 Customer (4) Data Store D3 Destination

Table 3.22. Process Specification for Process 5.2

Process Name:	Prepare delivery document
Data In:	(1) Delivery address confirmation information (2) Cfname (3) Clname (4) Address (5) Zip (6) P_name (7) P_price (8) Quantity
Data Out:	(1) Order_ID (2) Order_Date (3) Login (4) Ordertotal (5) P_ID (6) P_name (7) Quantity
Attachment:	(1) Process 5.0 (2) Customer (3) Data Store D3 Destination (4) Data Store D6 Orderdetails

Table 3.23. Process Specification for Process 6.0

Process Name:	Prepare delivery document
Data In:	(1) Delivery address confirmation information (2) P_ID (3) Cfname (4) Clname (5) Address (6) Zip (7) Order_ID (8) Order_Date (9) P_name (10) P_price (11) Quantity
Data Out:	(1) P_name (2) Delivered product information (3) Order_ID
Process:	(1) The staff has to prepare the delivery document
Attachment:	(1) Process 5.0 (2) Customer (3) Data Store D2 Product (4) Data Store D3Destination (5) Data Store D6 Orderdetails

Table 3.24. Process Specification for Process 6.1

Process Name:	Receive payment
Data In:	(1) Payment information
Data Out:	(1) Delivered product information
Process:	(1) Our company use cash as the method of payment.  Therefore the customer has to pay in cash when product arrived
Attachment:	(1) Process 6.1  (2) Customer

Table 3.25. Process Specification for Process 6.2



Process Name:	Control and Maintain product information
Data In:	<ul style="list-style-type: none"> <li>(1) Authentication information</li> <li>(2) Product information request</li> <li>(3) Updated product information</li> <li>(4) Product information</li> </ul>
Data Out:	<ul style="list-style-type: none"> <li>(1) Success login confirmation</li> <li>(2) Login request information</li> <li>(3) Product information</li> <li>(4) Updated product information</li> </ul>
Process:	<ul style="list-style-type: none"> <li>(1) Provide Log-in page for staff who are responsible for updating the product information</li> <li>(2) The system will check the username and password</li> <li>(3) If the staff enters the username and password correctly, they will have the right to add new product and update product information</li> </ul>
Attachment:	<ul style="list-style-type: none"> <li>(1) Staff</li> <li>(2) Data Store D2 Product</li> </ul>

Table 3.26. Process Specification for Process 7.0

Process Name:	Check user authentication
Data In:	(1) Authentication information
Data Out:	(1) Success login confirmation (2) Login request information
Process:	(1) Provide Log-in page for staff
Attachment:	(1) Staff (2) Process 7.2

Table 3.27. Process Specification for Process 7.1



Process Name:	Add and Update Product information
Data In:	(1) Success login confirmation (2) Product information (3) Product information request (4) Updated product information (5) Updated product confirmation information
Data Out:	(1) P_ID (2) B_ID (3) Updated product information (4) Product information
Process:	(1) If the staff enter the username and password correctly, the system will allow the staff to add new product, update product information and view product
Attachment:	(1) Process 7.1 (2) Staff (3) Data Store D2 Product

Table 3.28. Process Specification for Process 7.2

Process Name:	Prepare report to manager
Data In:	(1) Report information request (2) P_name (3) P_price (4) Quantity (5) Login (6) Order_ID (7) Order_Date (8) Cfname (9) Clname (10) Address (11) Zip
Data Out:	(1) Product delivery report (2) Customers' past purchase report (3) Sale report (4) Order_ID (5) Login (6) Order_Date
Attachment:	(1) Marketing and Sales Manager (2) Data Store D3 Destination (3) Data Store D5 Orders

Table 3.29. Process Specification for Process 8.0

Process Name:	Accept report request from manager
Data In:	(1) Report information request (2) Report information
Data Out:	(1) Sale report (2) Product delivery report (3) Customers' past purchase report (4) Report information request
Process:	(1) The Marketing and Sales Manager will request the report from staff
Attachment:	(1) Marketing and Sales Manager (2) Process 8.2

Table 3.30. Process Specification for Process 8.1

Process Name:	Generate report
Data In:	(1) Login (2) Order_Date (3) Order_ID (4) P_name (5) P_price (6) Quantity (7) Cfname (8) Clname (9) Address (10) Province (11) Zip (12) Phone
Data Out:	(1) Order_Date (2) Order_ID (3) Cfname (4) Clname (5) Address (6) Zip (7) P_ID (8) Login (9) Report information
Process:	(1) The staff has to make three reports that included Sale report, Product delivery report, Customers'

	past purchase report
Attachment:	(1) Process 8.1 (2) Data Store D1 Customer (3) Data store D2 Product (4) Data Store D5 Orders (5) Data Store D3 Destination (6) Data Store D6 Orderdetails

Table 3.31. Process Specification for Process 8.2



(3) Entity-Relation Diagram

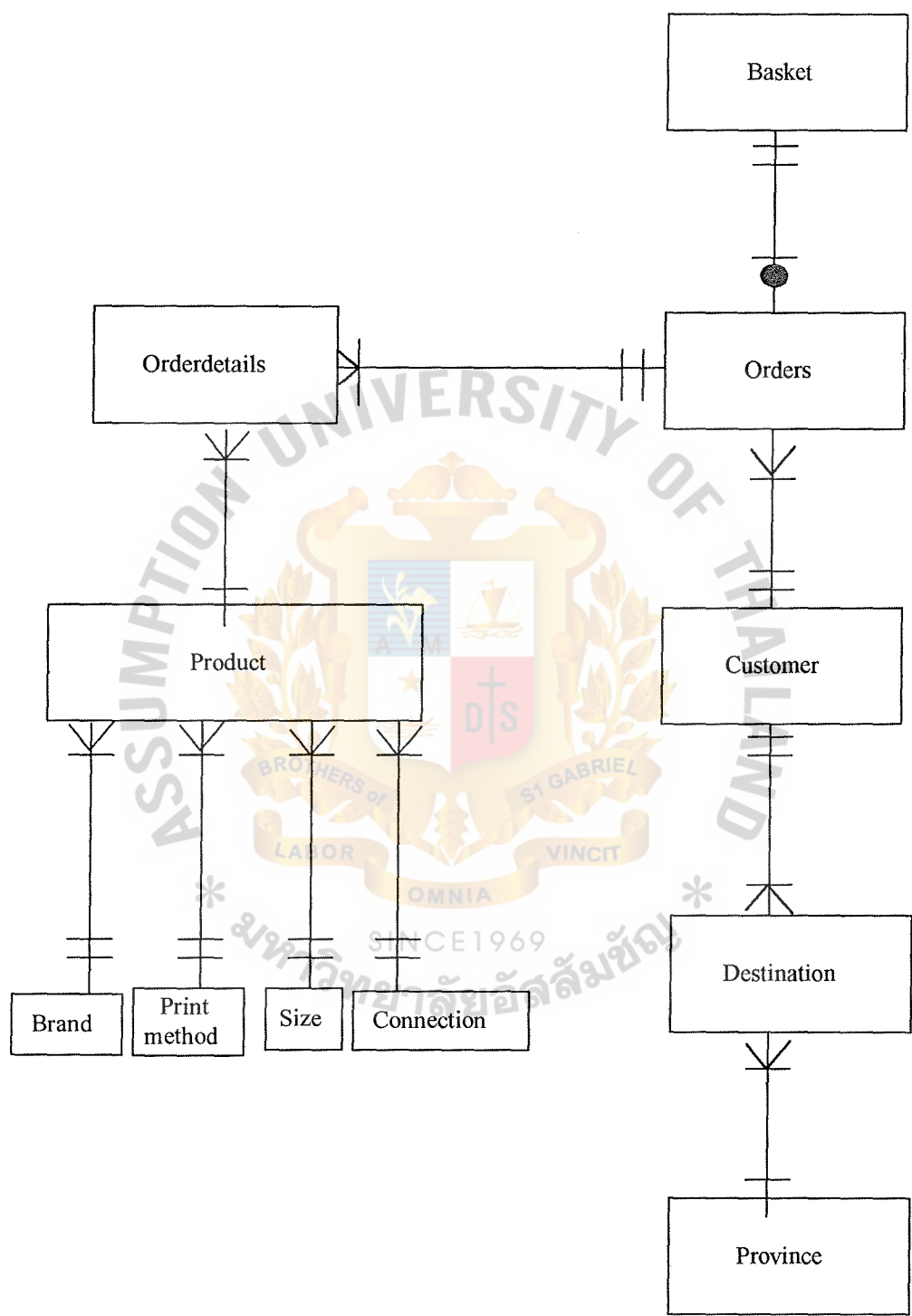


Figure 3.11. Entity-Relationship Diagram

#### (4) Database Design

The company uses the relational database model to represent the relationship among the entities for 5 reasons:

- Entries in columns are atomic: data in 1 cell can have only 1 data.
- Entries in columns are from the same domain, area or condition.
- Each row is unique.
- The sequence of columns (Left to right) is insignificant.
- The sequence of rows (Top to bottom) is insignificant.

There are 11 entities in the database design as the followings:

##### Customer Table

This table keeps the information of customer which included login, password, first name, last name, Address, Province, zip, phone, question, answer and e-mail. (Refer to Appendix A TableA-1)

##### Province Table

This table keeps 76 province's name of Thailand. (Refer to Appendix A TableA-2)

##### Connection Table

This table keeps 2 types of connection of printer which included Parallel port and USB port. (Refer to Appendix A TableA-3)

##### Brand Table

This table keeps 4 brands of printer which includes EPSON, Canon, Brother, Hewlette-Packard. (Refer to Appendix A TableA-4)

##### Printmethod Table

This table keeps 4 types of printing method which includes Inkjet, Laser, Bubble Jet, Dot matrix. (Refer to Appendix A TableA-5)

### Size Table

This table keeps 2 standard sizes of paper the printer use which includes A3 and A4. (Refer to Appendix A TableA-6)

### Orders Table

This table keeps the order information that the customer have ordered after they confirm their order. (Refer to Appendix A TableA-7)

### Product Table

This table keeps product's information which included ID, name, Brand, Printing method, DPI, Printing speed (both black ink and color ink), Paper size, Type of connection, Picture path, Price and Description. (Refer to Appendix A TableA-8)

### Destination table

This table keeps the address information of receiver in order to ensure that the order will be delivered to the right person. (Refer to Appendix A TableA-9)

### Basket Table

This table keeps the order information that the customer ordered before they confirm their orders. After they confirm their order, the order information in this table will be cleared automatically because the order information will be moved to Orders table. (Refer to Appendix A TableA-10)

### Orderdetails Table

This table keeps the product information which includes Product ID, Product name, Price and Quantity that ordered in each order number. (Refer to Appendix A TableA-11)

## (5) Interface Design

### Main Page

This screen is the first screen when the web site loads. (Refer to Appendix B Figure B-1)

### Registration Page

This screen provides the fields for the customers to enter their personal information required. (Refer to Appendix B Figure B-2)

### Show Registered information Page

After the customers confirm their personal information, this screen will show the customers' registered information. If the username has already been used, the system will inform and return to the registration page. (Refer to Appendix B Figure B-3)

### Log-in Page

This screen provides the fields for the customers to enter the username and password. (Refer to Appendix B Figure B-4)

### Log-in Error Page

If the customers enter wrong username or password, the system will inform and show this log-in screen again. (Refer to Appendix B Figure B-5)

### Forgot Password Page

This screen provides fields for the customers to enter their e-mail address, question and answer in order to get their username and password. (Refer to Appendix B Figure B-6)

### Forgot Password Result Page

This screen will show the username and password when the customers enter the right e-mail address, question and answer. (Refer to Appendix B Figure B-7)

#### View Catalogue Page

This screen shows the information of the printers categorized by brand name. (Refer to Appendix B Figure B-8)

#### View Catalogue Page (After logged in)

After the customer logged in, this screen will show the information of printer and allow the customers to add the products into the shopping bag. Besides, the customer can view their shopping bag before they add the new one. (Refer to Appendix B Figure B-9)

#### View Shopping Bag Page

This screen shows the product model, product name, quantity and total price of the products the customers ordered. The customer can change the quantity or delete the product they ordered. (Refer to Appendix B Figure B-10)

#### Confirm Destination Address Page

After the customers finished ordering the products, this screen will show the customers in order to confirm their destination address or enter the new receiver name and address to ensure that the order will be delivered to the right person and right place. (Refer to Appendix B Figure B-11)

#### View Order Page

After the customers confirm their order and delivery address, this screen will show all of the information. After that, the company will call to the

customers to confirm their receiver name, receiver address and order before deliver the product. (Refer to Appendix B Figure B-12)

#### Main Menu Page (For customer)

This screen will provide four main menus which include change password, edit profile, check history purchase and log-out after the customer logged in. (Refer to Appendix B Figure B-13)

#### Change Password Page

This screen will provide blank to the customer enter the old password and the new password the customer want to change. (Refer to Appendix B Figure B-14)

#### Edit Profile Page

This screen will allow the customers to edit their profile and confirm their edited personal information. (Refer to Appendix B Figure B-15)

#### Show Edited Profile Page

After the customers edited the personal information, this screen will show the edited personal information. (Refer to Appendix B Figure B-16)

#### Show History Purchase Page

This screen shows the customer's historical purchase after they logged in and request to view. For the staff, the screen will show the customer's historical purchase by entering the username of each customer. (Refer to Appendix B Figure B-17)

#### Log-out Page

This screen will show when the customers logged out. (Refer to Appendix B Figure B-18)

#### Main Menu Page (For staff)

This screen will show the 7 main menus which includes add new product, update product information, view product, view history purchase, view order, view sale report, view income report. (Refer to Appendix B Figure B-19)

#### Add Product information Page

This screen provides the fields for staff to add the information of printer.

(Refer to Appendix B Figure B-20)

#### Edit Product information Page

This screen will show the product information following by brand and product name the staff chose. The staff can edit and confirm the product information. (Refer to Appendix B Figure B-21)

#### Show Updated Product Information Page

After the staff updated the product information, this screen will show the updated product information. (Refer to Appendix B Figure B-22)

#### Check History Purchase Page (For staff)

This screen provides the fields for the staff to enter the username to check the history purchase of each customer. (Refer to Appendix B Figure B-23)

#### Check Delivery Information Page

This screen provides the blank for the staff to enter the order date in order to prepare the delivered product for the next following day. (Refer to Appendix B Figure B-24)

#### Show Delivery Information Page

This screen will show the receiver name, receiver address and order information of the date that the staff entered. (Refer to Appendix B Figure B-25)

### View Sale Report Page

This screen provides the fields to enter the date or the period of time that the staff wants for the report. The staff has to check at least one brand of printers to view the sale information. (Refer to Appendix B Figure B-26)

### Show Sale Report Page

This screen will show the sale information following by date or period that the staff entered and brand of printer as well. (Refer to Appendix B Figure B-27)

### View Income Report Page

This screen provides the fields to enter the date or the period that the staff wants to view the income report. (Refer to Appendix B Figure B-28)

### Show Income Report Page

This screen will show the total income information following by date or period that the staff entered. (Refer to Appendix B Figure B-29)

### Contact Us Page

This screen provides the fields for the customers to enter their e-mail address and message that want to inform the company. (Refer to Appendix B Figure B-30)

### Recommended Product Page

This screen provides the new and recommended product of each month to the customer. (Refer to Appendix B Figure B-31)

### Tip Page

This screen provides some tips that related to the printer such as how to buy the printer, etc. (Refer to Appendix B Figure B-32)

## (6) Report Design

There are 4 reports that the staff has to prepare the report to the Marketing and Sales Manager as the followings:

### Sales report

The staff can request to view the sale report only one day or one period for each brand of printer. The report will show the information of product that are sold on that day or that period. (Refer to Appendix C TableC-1)

### Income report

The staff can request to view the income report only one day or one period. The report will show the total income on that day or that period. (Refer to Appendix C Table C-2)

### Product delivery report

The staff can request to view the product that the customer ordered each day in order to prepare to deliver the products in the following day. (Refer to Appendix C Table C-3)

### Customers' past purchase report

The staff can ask to view the past purchase of each customer by entering the username in the database. (Refer to Appendix C Table C-4)

## IV. SYSTEM IMPLEMENTATION

### 4.1 Overview of the System Implementation

The In-house training will be held before the new system will be implemented in order to help everyone in the company understand the way to deal with the new system. So, they can suggest and answer the problems from the customers. Our company chooses “the developing separate training program for distinct employee groups” as our training method. The employees are divided into 2 groups as the followings: Staff and User.

#### Training scope for staff:

- The way to connect to the database and query information from database.
- The way to generate and print 4 reports required.
- The way to manage the product information: Add new product, Update product information, Add recommended product and Add tips.
- The way to check the suggestions or complaints from the customers via e-mail.

#### Training scope of user:

- The way to use the main menu of the customers: Forgot password, Change password, Update profile and Check history purchase.
- How to place an order

For the conversion process, our company uses “Parallel Operations” as a system changeover method because this method allows using the existing system along with the new system. That is why it is resulted in the little affection on the existing system while the changeover is processing (Hawryszkiewicz 1998:331). In the early stage of implementation, even though our company already used the on-line sales transaction in ordering but we still receive order by telephone or walk-in customers. After the system has been implemented, the company will set

up the “Post-implementation evaluation” and make the final executive report whether which part of the system should be improved or not. Our company plans that the manually system will be totally changeover to the new system within 1 year.

#### 4.2 Test Plan

Our company uses “Thread testing or Transaction-flow testing” (Sommerville 1996: 456) as our testing methodology because this testing strategy is devised for testing real-time systems. Thread testing is a testing strategy that may be used after processes or objects have been individually tested and integrated into sub-systems. The live test data and artificial test data is used in the testing process (Hawryszkiewicz 1998: 426). For the live test data, the programmer or the analyst will use the data from real source in testing program such as the adding, updating the product information. For the artificial test data, the programmer probably assume the data such as login name, personal information, buying process in order to test the program. After the program has been tested, any defects that discovered must be removed which called debugging.

## **V. CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Conclusions**

Pornthavee Co., Ltd. tries to find out the way to improve their sales transaction from a manual system to computerized system by using the web site that support E-commerce in order to gain competitive advantage over other company.

The new system proposed by designing the functional descriptions which included the data flow diagram both level-0 and level-1, E-R Diagram, Database Design. After that, the program is coded by using HTML, SQL language, Visual Interdev6.0 and ASP3.0. The system implementation and evaluation will be followed in order to test the program whether that which parts of program should be debugged.

After the new system implemented, the problems that occurred in manually system will be resolved such as reducing the numbers of paper which can be caused the loss of data, reducing the wasting time of customer because the customer can order the products via website, reducing the incur costs of company in printing new catalogue when the new products launch because the staff can manage the product information via website.

### **5.2 Recommendations**

If the website has more customers come to order the products in the future, the website should add more graphic user interface and provide more information about products or add more tips to help the customer's buying decision. In installing the web server, the company should use the Co-location in locating the computer that acts as web server. The ISP that the company chooses should support Windows NT or 2000 and using IIS as web sever also.



No.	Field	Field Type	Index	Unique	Nullable	Foreign Key to Table	Check	Key Type
1	Login	Varchar(10)	Y	Y	N	Destination,Orders	Can not be nullable	Primary Key
2	Password	Varchar(10)			N		3 or more characters	Attribute
3	Cfname	Varchar(30)			N		Can not be nullable	Attribute
4	Clname	Varchar(30)			N		Can not be nullable	Attribute
5	Address	Varchar(70)			N		Can not be nullable	Attribute
6	Province	Int(2)	Y		N		Select one province	Foreign Key
7	Zip	Int(5)			N		<area code, 5 digits>	Attribute
8	Phone	Varchar(20)			N		Enter number only	Attribute
9	Question	Int(2)			N		Select one question	Attribute
10	Answer	Varchar(20)			N		Answer the question	Attribute
11	Email	Varchar(30)			N		Email format	Attribute

Table A-1. Customer Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key to Table	Check	Key Type
1	Province	Int(2)	Y	Y	N	Customer, Destination	Select one province	Primary Key
2	Province_name	Varchar(20)			N			Attribute

Table A-2. Province Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key to Table	Check	Key Type
1	Conn_ID	Int(2)	Y	Y	N	Product	Select one type	Primary Key
2	Conn_name	varchar (10)			N			Attribute

Table A-3. Connection Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key to Table	Check	Key Type
1	B_ID	Int(2)	Y	Y	N	Product	Select one brand	Primary Key
2	B_name	varchar (50)	Y	Y	N			Attribute

Table A-4. Brand Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key to Table	Check	Key Type
1	P_method	Int(2)	Y	Y	N	Product	Select one method	Primary Key
2	P_method_name	varchar (10)			N			Attribute

Table A-5. Printmethod Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key to Table	Check	Key Type
1	Size_ID	Int(2)	Y	Y	N	Product	Select one paper	Primary Key
2	Size_name	varchar (50)			N			Attribute

Table A-6. Size Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key to Table	Check	Key Type
1	Order_ID	Int(5)	Y	Y	N	Basket, Orderdetails	Autonumber	Primary Key
2	Order_Date	Date/Time	Y		N		MM/DD/YY format	Attribute
3	Login	Varchar(10)	Y		N			Foreign Key
4	Ordertotal	Currency			N		Currency format	Attribute

Table A-7. Orders Table



No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key to Table	Check	Key Type
1	P_ID	Int(5)	Y	Y	N	Basket, Orderdetails	Unique number	Primary Key
2	P_name	Varchar(20)			N			Attribute
3	B_ID	Int(2)	Y		N		Select one brand	Foreign Key
4	P_method	Int(2)	Y		N		Select one method	Foreign Key
5	P_dpi	Int(15)			N		( number * number) format	Attribute
6	P_speed_B	Int(5)			N		Speed = xx PPM	Foreign Key
7	P_speed_C	Int(5)			N		If =0, black ink only, otherwise Speed= xx PPM	Attribute
8	Size_ID	Int(2)	Y		N		Select one paper size	Foreign Key
9	Conn_ID	Int(2)	Y		N		Select one type	Foreign Key
10	P_pic	Varchar(30)			N		Picture path	Attribute
11	P_price	Currency			N		Currency format	Attribute
12	P_detail	Memo			N			Attribute

Table A-8. Product Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key to Table	Check	Key Type
1	Order_ID	Int(5)	Y	Y	N		Autonumber	Foreign Key
2	Login	Varchar(10)	Y		N			Primary Key
3	Cfname	Varchar(30)			N			Attribute
4	Clname	Varchar(30)			N			Attribute
5	Address	Varchar(70)			N			Attribute
6	Province	Int(2)	Y		N		Select one province	Foreign Key
7	Zip	Int(5)			N		<area code, 5 digits>	Attribute
8	Phone	Varchar(20)			N			Attribute
9	Order_Date	Date/Time	Y		N		MM/DD/YY	Attribute

Table A-9. Destination Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key to Table	Check	Key Type
1	Login	Varchar(10)	Y	Y	N		Unique name	Primary Key
2	P_ID	Int(5)	Y	Y	N			Primary Key
3	P_price	Currency			N			Attribute
4	P_name	Varchar(20)			N			Attribute
5	Timeselect	Date/Time			N			Attribute
6	Quantity	Int(3)			N			Attribute

Table A-10. Basket Table

No.	Field Name	Field Type	Index	Unique	Nullable	Foreign Key	Check	Key Type
1	Order_ID	Int(5)	Y	Y	N		Autonumber	Primary Key
2	P_ID	Int(5)	Y	Y	N			Primary Key
3	P_price	Currency			N		Currency format	Attribute
4	P_name	Varchar(20)			N			Attribute
5	Quantity	Int(3)			N			Attribute

Table A-11. Orderdetails Table



APPENDIX B  
INTERFACE DESIGN

<a href="#">HOME</a>
<a href="#">Brand available</a>
<a href="#">Canon</a>
<a href="#">Hewlette-Packard</a>
<a href="#">Brother</a>
<a href="#">EPSON</a>
<a href="#">Tips</a>
<a href="#">Recommended product</a>
<a href="#">Sign Up</a>
<a href="#">Log in</a>
<a href="#">Contact Us</a>

Welcome to

Porntavee Company Limited

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Contact Number: (02)-2354817, (09)-9211514



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SINCE 1969

มหาวิทยาลัยอัสสัมชัญ

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Figure B-1. Main Page

Please enter your personal information required

Registration form fields:

- Username :
- Password :
- Re-password :
- Firstname :
- Lastname :
- Address :
- Province :
- Postal Code :
- Phone no. :
- Question :
- Answer :
- Email :

Buttons:

[EXIT](#)

Figure B-2. Registration Page

**Congratulations!!**

You are our new member

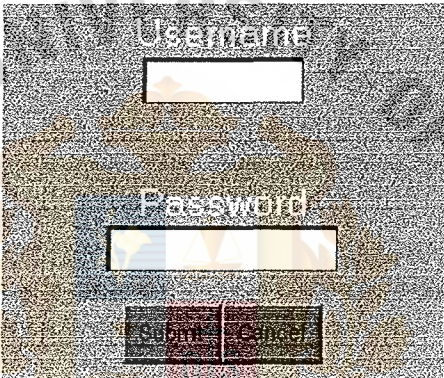
User login :	Shakira
Password :	shakira
Firstname :	Shakira
Lastname :	Viva
Address :	43/987 South Sathom Road, Yannnawa
Province :	Bangkok
Postal no. :	10120
Phone no. :	016742019
Question :	What is your favorite place?
Answer :	HOME
Email :	uvj11@loxinfo.com

[Go to Log-in Page](#)

Figure B-3. Show Registered information Page

If you have not registered yet, Please click [Sign Up](#)

Please enter your Username and Password

A screenshot of a login form. It features two input fields: the top one is labeled 'Username' and the bottom one is labeled 'Password'. Below the password field are two buttons, 'Submit' and 'Cancel'. The form is set against a background with a faint watermark of a circular emblem containing the text 'ASSUMPTION UNIVERSITY THAILAND' and 'BROTHERS of LABOR OMNIA VINCIT SINCE 1969'.

[FORGOT PASSWORD](#)

Remarks:

- 1. Our company use CASH as method of payment, therefore you have to pay in cash when the product arrived
- 2. Our company offers free delivery service every province when you order our product

Figure B-4. Log-in Page

If you have not registered yet, Please click [Sign Up](#)

Please enter your Username and Password



[FORGOT PASSWORD](#)

Remarks:

1. Our company use CASH as method of payment, therefore you have to pay in cash when the product arrived
2. Our company offers free delivery service every province when you order our product

Figure B-5. Log-in Error Page

**Forgot Password!!**

ASSUMPTION UNIVERSITY  
THAILAND  
SINCE 1969  
มหาวิทยาลัยอัสสัมชัญ

Email:	<input type="text"/>
	<input type="text"/>
Question :	<input type="text" value="What is your favorite movie?"/>
Answer :	<input type="text"/>
<input type="button" value="SUBMIT"/> <input type="button" value="RESET"/>	

[LOG-IN](#)

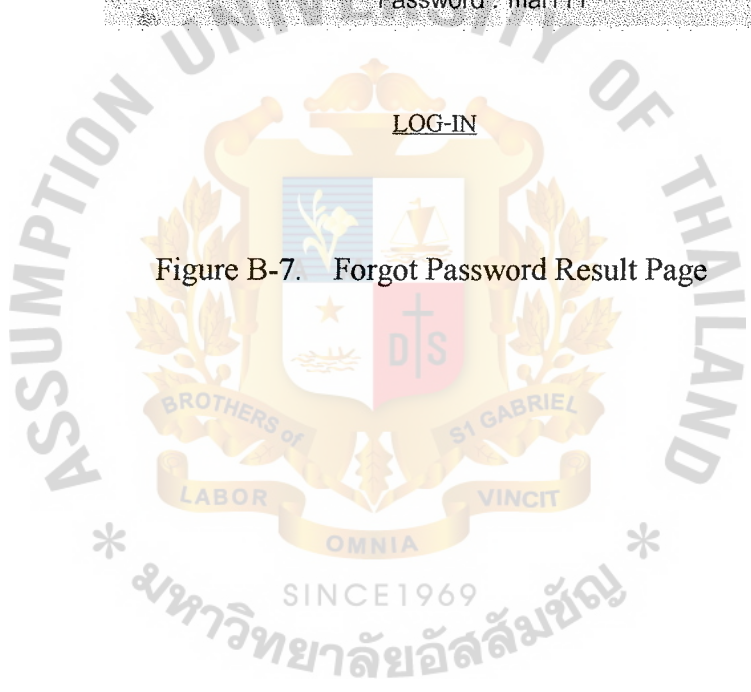
Figure B-6. Forgot Password Page

**This is your Username and Password**

Username :	zazimy
Password :	mai111

[LOG-IN](#)

Figure B-7. Forgot Password Result Page



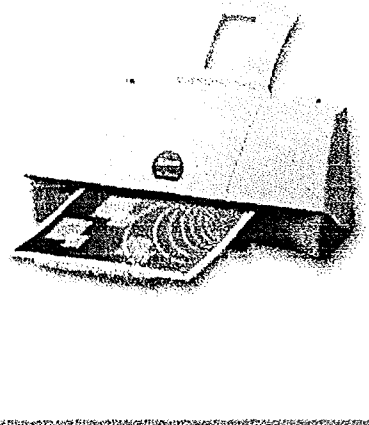
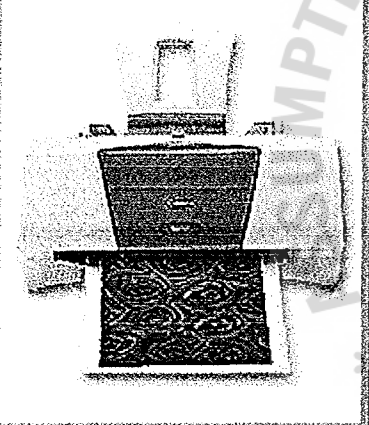
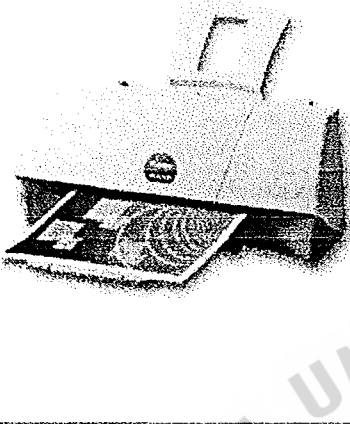



Canon		
	Product model	i1112
	Brand	Canon
	Printing method	Ink Jet
	DPI	720*360
	Memory	54KB
	Printing speed(Black Ink)	5 ppm
	Printing speed(Color Ink)	2 ppm
	Paper Size	A4
	Connection	Parallel & USB
	Price	4019 Baht
	Description	มีขนาดเล็กกระทัดรัด
	Product model	i1112
	Brand	Canon
	Printing method	Ink Jet
	DPI	720*360
	Memory	10KB
	Printing speed(Black Ink)	3 ppm
	Printing speed(Color Ink)	1 ppm
	Paper Size	A3 & A4
	Connection	Parallel
	Price	301755 Baht
	Description	มีขนาดเล็ก

Figure B-8. View Catalogue Page

Welcome K. zazimy

Canon		
	Product model	1
	Brand	Canon
	Printing method	Ink Jet
	DPI	720*360
	Memory	54KB
	Printing speed(Black Ink)	5 ppm
	Printing speed(Color Ink)	2 ppm
	Paper Size	A4
	Connection	Parallel & USB
	Price	4019 Baht
	Description	มีขนาดเล็กกะทัดรัด
	Quantity	1 
	Product model	1112
	Brand	Canon
	Printing method	Ink Jet
	DPI	720*360
	Memory	10KB
	Printing speed(Black Ink)	3 ppm
	Printing speed(Color Ink)	1 ppm
	Paper Size	A3 & A4
	Connection	Parallel
	Price	301755 Baht
	Description	มีขนาดเล็ก
	Quantity	1 

[Log-out](#)

Figure B-9. View Catalogue Page (After logged in)

You currently have no items in your Shopping Bag

[Continue shopping](#)

or

This is your shopping bag

[View catalogue](#)

	Product ID	Product model	Quantity	Price	Total
	1		<input type="text" value="1"/>		
Total price = \$4,019.00				\$4,019.00	\$4,019.00

The buying process has not completed yet.

Please click on "Confirm delivery address" in order to confirm your delivery address!!!

[Confirm delivery address](#)

Remarks:

- 1. If you want to change the quantity of that product, please put the new quantity that you want and click on "Recompute price" button!!

Figure B-10. View Shopping Bag Page

## Destination Address

First Name : Uthaivan

Last Name : Jaerakitivanic

Address : 344/33 Sathupradit36Rd.  
Yannawa

Province : Bangkok

Postal Code : 10120

Phone no. : 018429289

[Confirm the delivery address](#)

**Remarks:** If you want to change the delivery address, please update your delivery address information and click "Confirm delivery address".

Figure B-11. Confirm Destination Address Page

This is your order information

Order No. 7

Date : 6/4/2002 1:53:28 PM

Customer Name : Uthaivan Jaerakitivanich

Destination Address : 344/33 Sathupradit36Rd. Yannawa 10120

Product Model	Price	Quantity	Amount
1	\$4,019.00	1	\$4,019.00
Total =			\$4,019.00

[Back to main menu](#)

Thanks for your order.  
Our company will call to you in order to confirm your order again  
before deliver the product!!

Figure B-12. View Order Page

Welcome K. zazimy

Firstname :	Uthaivan
Lastname :	Jaerakitivanich
Address :	344/33 Sathupradit36Rd. Yannawa
Province :	Bangkok
Postal Code :	10120
Phone no. :	018429289
Email :	zazimy@yahoo.com

[Change  
Password](#)

[Edit Profile](#)

[History Purchase](#)

[Log-out](#)

Please choose product that you want to buy by brand on your left  
hand side!!!

Figure B-13. Main Menu Page (For customer)

User Login : zazimy

Old password :

New password :

Confirm password :

[Back to main menu](#)

Changed password successfully

[Back to main menu](#)

Figure B-14. Change Password Page

Please Enter Your Update Information

firstname :	<input type="text" value="Uthaivan"/>
Lastname :	<input type="text" value="Jaeraktivanic"/>
Address :	<input type="text" value="344/33 Sathupradit36Rd. Yannaw a"/>
Province :	<input type="text" value="Bangkok"/>
Postal Code :	<input type="text" value="10120"/>
Phone no. :	<input type="text" value="018429289"/>
Email :	<input type="text" value="zazim@yahoo"/>
	<input type="button" value="Update"/> <input type="button" value="Clear"/>

[Back to main menu](#)

Figure B-15. Edit Profile Page

Successfully!!

Firstname :	Uthaivan
Lastname :	Jaerakitivanich
Address :	47/97 Charomkrung Road, Bangrak
Province :	Bangkok
Postal no. :	10500
Phone no. :	018429289
Email :	zazimy@yahoo.com

[Back to main menu](#)

Figure B-16. Show Edited Profile Page

Your history purchase doesn't exist

[Back to main menu](#)

or

This is History Purchase of K. zazimy

Order Date	Product	Price	Quantity
6/4/2002	HL1440	\$13,790.00	1
6/4/2002	Deskjet 656C	\$2,990.00	1

[Back to main menu](#)

Figure B-17. Show History Purchase Page



Figure B-18. Log-out Page



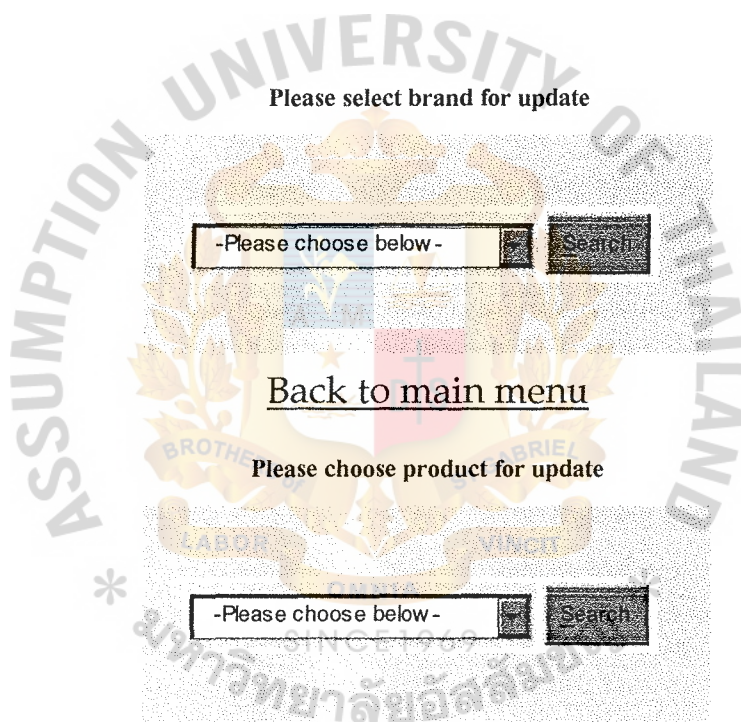
Figure B-19. Main Menu Page (For staff)

Product ID :	<input type="text" value="17"/>
Printer Model :	<input type="text"/>
Printing method :	<input type="text" value="-Please choose below -"/>
DPI :	<input type="text"/> (example: 1024*660)
Memory :	<input type="text"/>
Printing speed (Black ink) :	<input type="text"/> ppm
Printing speed (Color ink) :	<input type="text"/> ppm (If=0; Black Ink only, If>0=speed)
Paper Size :	<input type="text" value="-Please choose below -"/>
Type of Connection :	<input type="text" value="-Please choose below -"/>
Price :	<input type="text"/>
Description :	<input type="text"/>
Brand :	<input type="text" value="-Please choose below -"/>
<input type="button" value="ADD"/> <input type="button" value="CLEAR"/>	

[View product](#)

[Back to main menu](#)

Figure B-20. Add Product Information Page



**This is product information**

Product ID:	2
Model :	1112
Brand :	Canon
Printing method :	Ink Jet
DPI :	720*360
Memory :	10KB
Printing speed(Black ink) :	3ppm
Printing speed(Color ink):	1ppm
Paper size :	A3 & A4
Connection:	Parallel
Price :	301755 Baht
Description :	มีขนาดเล็ก

[EDIT](#)

[Back to choose new printer for update](#)

Figure B-21. Edit Product information Page

Updated product information

Product Model:	14
Brand :	Hewlette-Packard
Print method :	Ink Jet
DPI :	600*600
Printing speed(Black ink) :	6
Printing speed(Color ink):	3
Paper size :	A4
Connection:	USB
Price :	2990
Description :	เป็นเครื่องพิมพ์ที่ติดตั้งสวยงาม

[Back to main menu](#)

Figure B-22 Show Updated Product Information Page

Please enter user login

A screenshot of a user login form. It features a label "User Login :" followed by a text input field. Below the input field are two buttons: "Submit" and "Clear". The form is set against a background with a large, faint watermark of the Assumption University of Thailand crest and the text "ASSUMPTION UNIVERSITY OF THAILAND" and "SINCE 1969".

[Back to main menu](#)

Figure B-23. Check History Purchase Page (For staff)

Please enter order date

Date :

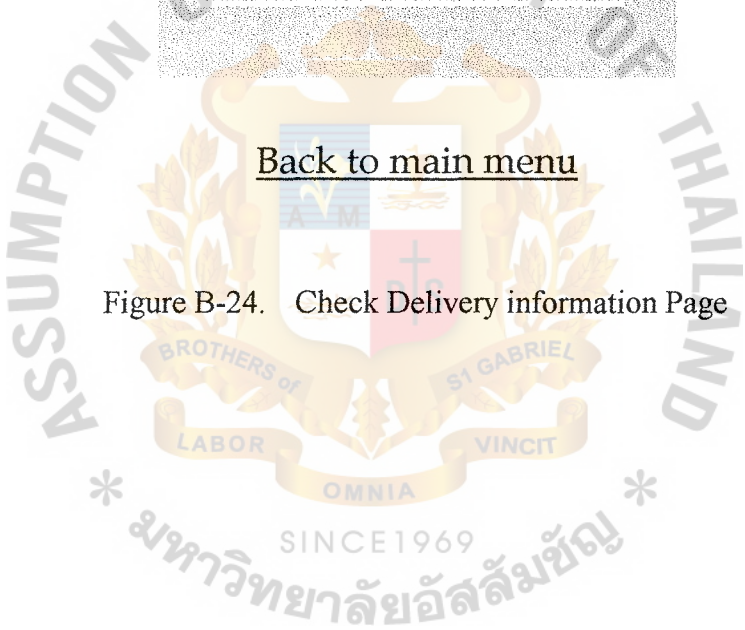
MM/DD/2XXX

Submit

Clear

[Back to main menu](#)

Figure B-24. Check Delivery information Page



6/23/2002 18:23:56PM

Order for 5/25/2002

5/25/2002

Customer Name : kathy jindawat

Destination Address : 28/3 pattanakarn 65 10310

Product	Price	Quantity
Deskjet 845C	\$6,200.00	1

5/25/2002

Customer Name : kathy jindawat

Destination Address : 28/3 pattanakarn 65 10310

Product	Price	Quantity
sssss	\$1,234.00	7

[Back to enter order date](#)

Figure B-25. Show Delivery information Page

View Sale Report

Please enter Date format (MM/DD/YYYY)

☐ Date:  (Month/Date/Year)

☐ From:  (Month/Date/Year) To:  (Month/Date/Year)

☐ Canon ☐ Hewlette-Packards ☐ Brother ☐ Epson

View Sale

[Back to main menu](#)

Figure B-26. View Sale Report Page

6/23/2002 18:23:56PM

**Pornthavee Company Limited**

Sale report  
on 5/23/2002

Order Date	Product name	Brand name	Quantity
5/23/2002	Deskjet 845C	Hewlette-Packard	1
5/23/2002	BJC 2100 SP	Canon	1

**Pornthavee Company Limited**

Sale report  
between 5/23/2002 and 6/11/2002

Order Date	Product name	Brand name	Quantity
5/23/2002	Deskjet 845C	Hewlette-Packard	1
5/23/2002	BJC 2100 SP	Canon	1
6/11/2002	HL1670N	Brother	2
6/11/2002	Stylus Color C20SX	EPSON	3
6/11/2002	14	Hewlette-Packard	1

Figure B-27. Show Sale Report Page

View Income report

Please enter Date format (MM/DD/YYYY)

☐ Date:  (Month/Date/Year)

☐ From:  (Month/Date/Year) To:  (Month/Date/Year)

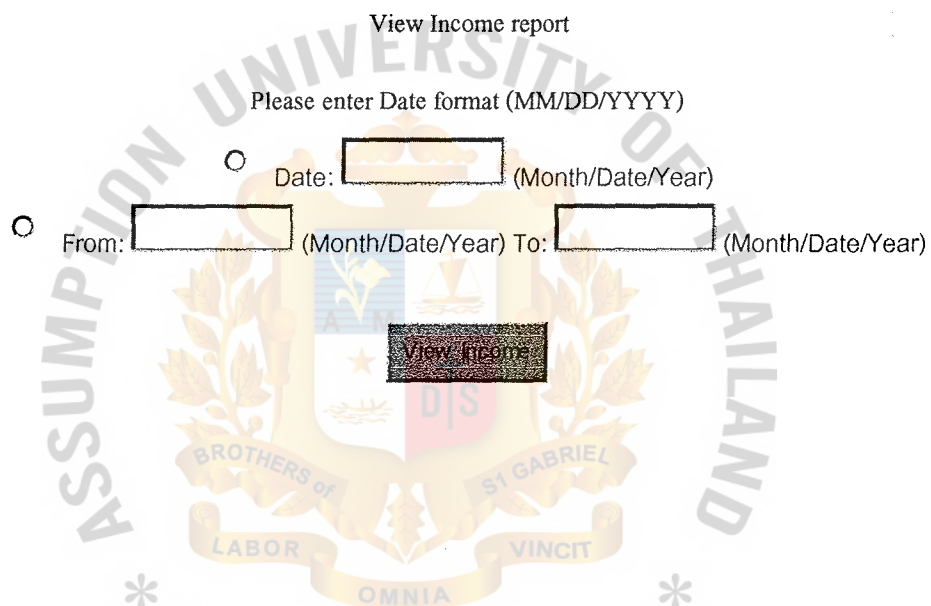


Figure B-28. View Income Report Page

6/23/2002 18:23:56PM

**Pornthavee Company Limited**

Total income  
on 5/23/2002

Order Date	Order Total
5/23/2002	\$6,200.00
5/23/2002	\$4,019.00

Total income =\$10,219.00

**Pornthavee Company Limited**

Total income  
between 5/23/2002 and 6/11/2002

Order Date	Order Total
5/23/2002	\$6,200.00
5/23/2002	\$4,019.00
6/11/2002	\$76,120.00

Total income =\$86,339.00

Figure B-29. Show Income Report Page

**Contact Us**

Name :

Email :

Message :

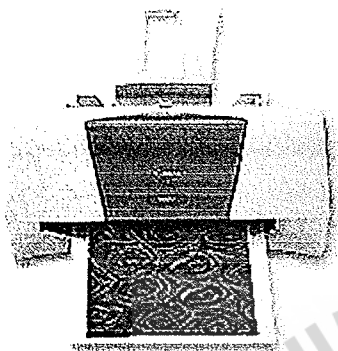
**ASSUMPTION UNIVERSITY OF THAILAND**

**BROTHERS of LABOR OMNIA VINCIT**

**SINCE 1969**

**\* มหาวิทยาลัยอัสสัมชัญ \***

Figure B-30. Contact Us Page



Canon BJC 1000 SP

ในตระกูลของ Canon ก็จะเป็นที่ทราบกันว่าเป็นบริษัทที่มีการผลิตเครื่องพิมพ์ ออกมาอย่างมากมาย โดยที่มีการเน้นที่ความประหยัด และพยายามทำให้ราคาของเครื่องพิมพ์ ของตนนั้น มีราคาต่ำกว่า เครื่องพิมพ์ยี่ห้ออื่นๆ โดยรุ่นเล็ก BJC 1000SP นี้ก็เป็น เครื่องพิมพ์ราคาถูกมากที่สุดตัวหนึ่งของตลาด โดยที่รุ่นนี้จะมีรายละเอียดการทำงานต่างๆ ดังนี้

ความละเอียดสูงในการพิมพ์ 720\*360 dpi มีหน่วยความจำติดมากับเครื่องขนาด 10KB ความเร็วในการพิมพ์ระบบขาว/ดำ จะมีความเร็วสูงสุดที่ - โกล หน้าต่อนาที และการพิมพ์สี จะมีความเร็วอยู่ที่ 0.52 หน้าต่อนาที การเชื่อมต่อก็จะใช้การเชื่อมต่อแบบ Parallel Port ในรุ่นนี้จะไม่สามารถที่จะต่อผ่าน USB Port ได้

ตัวของตลับหมึก ก็จะเป็นแบบแยกตลับสีและคำออกจากกัน แต่ตลับสีจะไม่ได้แยกออกจากกัน ในการพิมพ์แต่ละครั้ง ถ้าต้องการจะพิมพ์ text แบบขาวคำก็ต้องเปลี่ยนเอาตลับสีคำเข้าไป แต่เมื่อต้องการที่จะเปลี่ยนเป็นการพิมพ์แบบสีก็ต้องทำการเปลี่ยนตลับอีกครั้ง เพื่อนำตลับสี เข้าไปใส่ ถึงจะพิมพ์งานสีออกมาได้ ก่อนข้างจะยุ่งยากสักนิด

ขนาดของตัวเครื่องพิมพ์ Inkjet จากทาง Canon จะมีรูปทรงที่เล็ก ขนาดเหมาะสมมากกับสำนักงาน หรือผู้ที่ต้องการประหยัดพื้นที่ ซึ่งขนาดของเครื่องพิมพ์ Canon BJC 1000SP จะมีขนาด อยู่ที่ ความกว้าง 360mm \* ความสูง 160mm \* ความหนา 174mm ถือได้ว่าเป็นเครื่องพิมพ์ที่ เล็กอยู่พอสมควร และเสียงในการพิมพ์ที่ทาง Canon แจ้งไว้ จะมีเพียง 45db เียบยจริงๆ กับ Canon รุ่นนี้

Figure B-31. Recommended Product Page

การเลือกซื้อ Printer Inkjet เราจะต้องดูที่องค์ประกอบหลายๆอย่าง เพื่อเป็นการง่ายแก่การตัดสินใจมากขึ้น ทั้งยังได้รู้ที่ตรงความต้องการของตัวเอง โดยสามารถจำแนกวิธีการสังเกตได้หลายข้อดังนี้

1. **กำลังเงิน** เราต้องดูเงินในกระเป๋าก่อนว่าเมื่อซื้อไปแล้วจะไม่ทำให้คุณลำบาก ในการใช้จ่าย ประจำวัน เมื่อคุณเห็นว่า มีเหลือพอที่จะซื้อได้ ลำดับต่อไปก็ต้องสืบราคาแต่ละรุ่นว่าคุณ พอดีจะซื้อรุ่นไหนได้ แต่ต้องตรงความต้องการของคุณด้วย ซึ่งในเรื่องนี้จะไปสัมพันธ์กับหัวข้อถัดไป

2. **การนำไปใช้งาน** ถ้าคุณต้องการนำไปใช้งานในสำนักงานหรือต้องการพิมพ์ เอกสารคำเป็นส่วนใหญ่ คุณน่าจะเลือกเครื่องพิมพ์แบบอื่นจะดีกว่า เพราะสามารถพิมพ์ได้ เร็วและถูกลักษณะงานมากกว่า อีกอย่างคือหมึกของ Inkjet นั้นมีราคาที่แพงกว่าหมึกของเครื่องพิมพ์ ประเภทอื่น แต่ถ้าคุณยังคงต้องการที่จะซื้อให้ได้ คุณก็ต้องเลือกรุ่นที่มีรายละเอียดใน การพิมพ์ไม่มากนัก และเน้นที่พิมพ์ได้เร็วไวก่อน ซึ่งจะมีราคาไม่ค่อยแพงนัก หากคุณต้องการใช้สำหรับงานพิมพ์ภาพถ่ายหรือทำสติ๊กเกอร์ และแบบโครงสร้างต่างๆ คุณต้อง เลือกุ่นที่มีความละเอียดสูงสุด ถ้าพิมพ์ได้เร็วด้วยยิ่งดี นี่ก็เป็นกลุ่มผู้ใช้ส่วนใหญ่ ที่นิยมใช้เครื่องพิมพ์ Inkjet ส่วนบุคคลทั่วไปที่ต้องการใช้งานเครื่องพิมพ์ประเภทนี้ คุณก็ต้องพิจารณาให้เหมาะสม ว่าส่วนใดส่วนใดเป็นเช่นไร

Figure B-32. Tip Page



6/23/2002 18:23:56PM

**Pornthavee Company Limited**

Sale report  
on 5/23/2002

Order Date	Product name	Brand name	Quantity
5/23/2002	Deskjet 845C	Hewlette-Packard	1
5/23/2002	BJC 2100 SP	Canon	1

**Pornthavee Company Limited**

Sale report  
between 5/23/2002 and 6/11/2002

Order Date	Product name	Brand name	Quantity
5/23/2002	Deskjet 845C	Hewlette-Packard	1
5/23/2002	BJC 2100 SP	Canon	1
6/11/2002	HL1670N	Brother	2
6/11/2002	Stylus Color C20SX	EPSON	3
6/11/2002	14	Hewlette-Packard	1

Table C-1. Sales' Report

6/23/2002 18:23:56PM  
Order for 5/25/2002

5/25/2002

Customer Name : kathy jindawat

Destination Address : 28/3 pattanakam 65 10310

Product	Price	Quantity
Deskjet 845C	\$6,200.00	1

5/25/2002

Customer Name : kathy jindawat

Destination Address : 28/3 pattanakam 65 10310

Product	Price	Quantity
sssss	\$1,234.00	7

Back to enter order date

Table C-3. Product delivery Report

6/23/2002 18:23:56PM

This is History Purchase of K. zazimy

Order Date	Product	Price	Quantity
6/4/2002	HL1440	\$13,790.00	1
6/4/2002	Deskjet 656C	\$2,990.00	1

[Back to main menu](#)

Table C-4. Customers' Past Purchase Report



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