



Practical Development of Information System in Business Context:
Pen Nueng Hotel Service System for Pen Nueng Hotel

PROJECT WRITE-UP

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Submitted in Partial Fulfillment
of the Course BIS 4995 Information System Development
Bachelor's Degree of Business Administration
in Business Information Systems Program
Assumption University

September, 2004

Project Name: Pen Nueng Hotel Service System, Pen Nueng Hotel

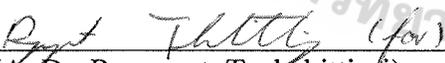
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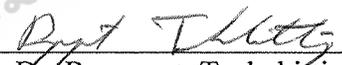
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Academic Year: 2004

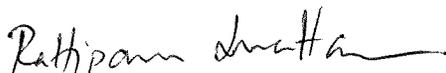
The Department of Business Information Systems, ABAC School of Management has approved the aforementioned project, which includes complete Project Write-up and System submitted in fulfillment of the 3-credit course BIS 4995 Information System Development towards the requirements for the Bachelor's Degree of Business Administration in Business Information Systems

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I. INTRODUCTION

1.1 Organization's Profile

Pen Nueng Hotel was established in 1980 as a hotel. There are two buildings and each building having five floors and 150 totally elegantly furnished guest rooms. Each room has an individually controlled air-condition system, private bathroom (with hot and cold water), colored television (including cable and satellite TV), mini-bar and telephone service (direct dial).

Whether they choose to wrap up their business contracts in the cozy environment of the lobby lounge or enjoy refreshing drink at the lobby bar, our friendly and attentive staffs are ready to serve them.

The hotel offers more service for the customer such as. The Health and Fitness Center, swimming pool, steam room, and sauna room and the company vision is to continue expanding the building and features a modern about the technology for service.

1.2 Organization's Location

105 Chainarong Rd, Naimuang, Amphur Muang, Khonkhean, 40000.
TEL. 01-873-2032.

1.3 Organization's Structure

The tasks of organization can be dividend to six main parts. The first part is directorial part which controlling all inner works and making all final decisions. The second is secretarial part. The secretary has a duty to assist her manager and deal with all documentation. This part is also supposed to prepare report and record all details occurring in company. The third part is service

department which dealing with checking in their customers as well as providing general information to them. They are also taking care customer until completing their transaction. The forth department is marketing which functions as marketing strategy producer. They are taking responsibility to estimate the price, place, product, and promotional plan by comparing to their competitors. The fifth is Accounting department, they check out the cost and clearing the bill when customers departure. The last part is maintenance department which in charge to repair and maintain of the facilities.

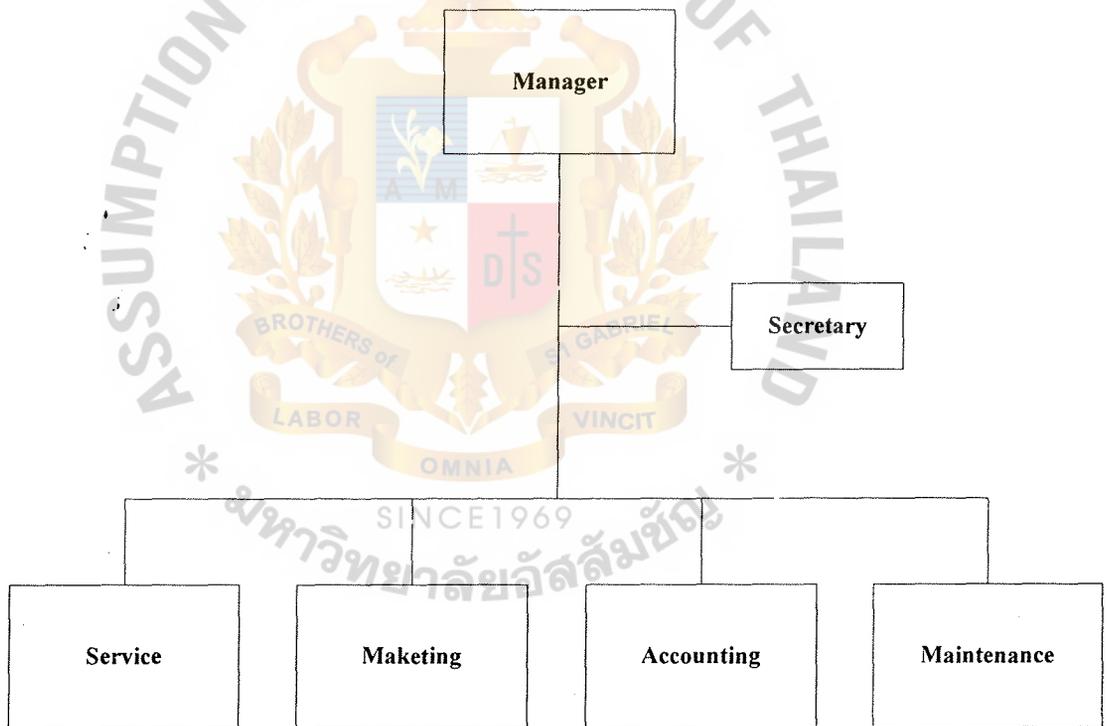


Figure 1-1 Organization Chart of Pen Nueng Hotel

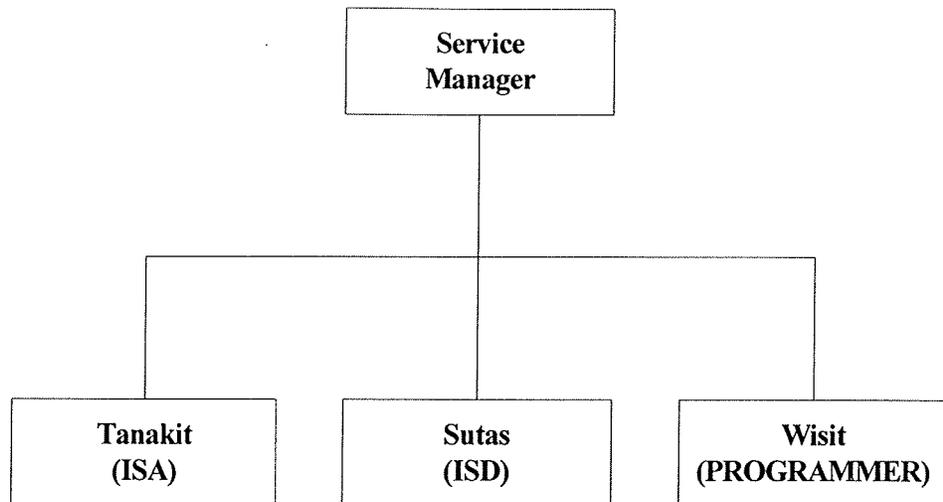
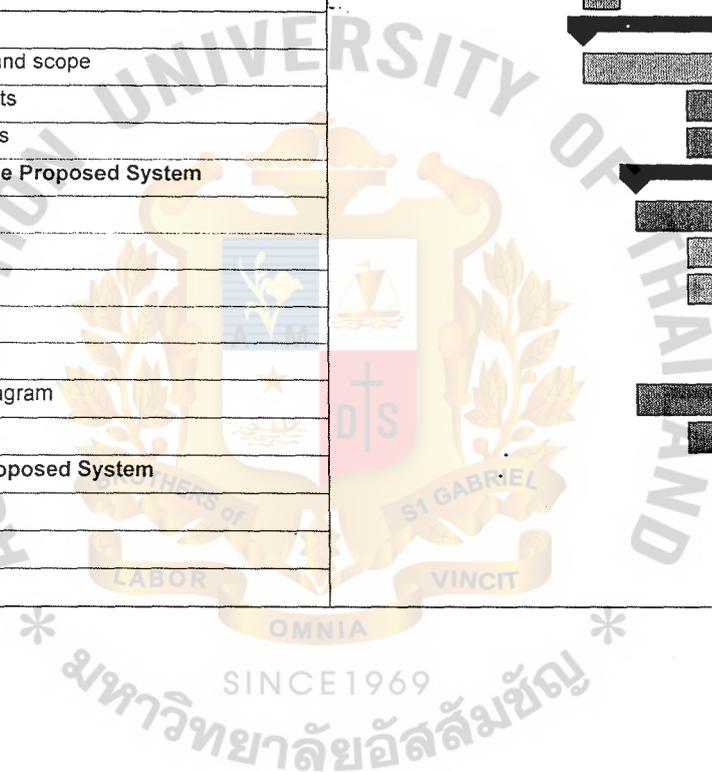
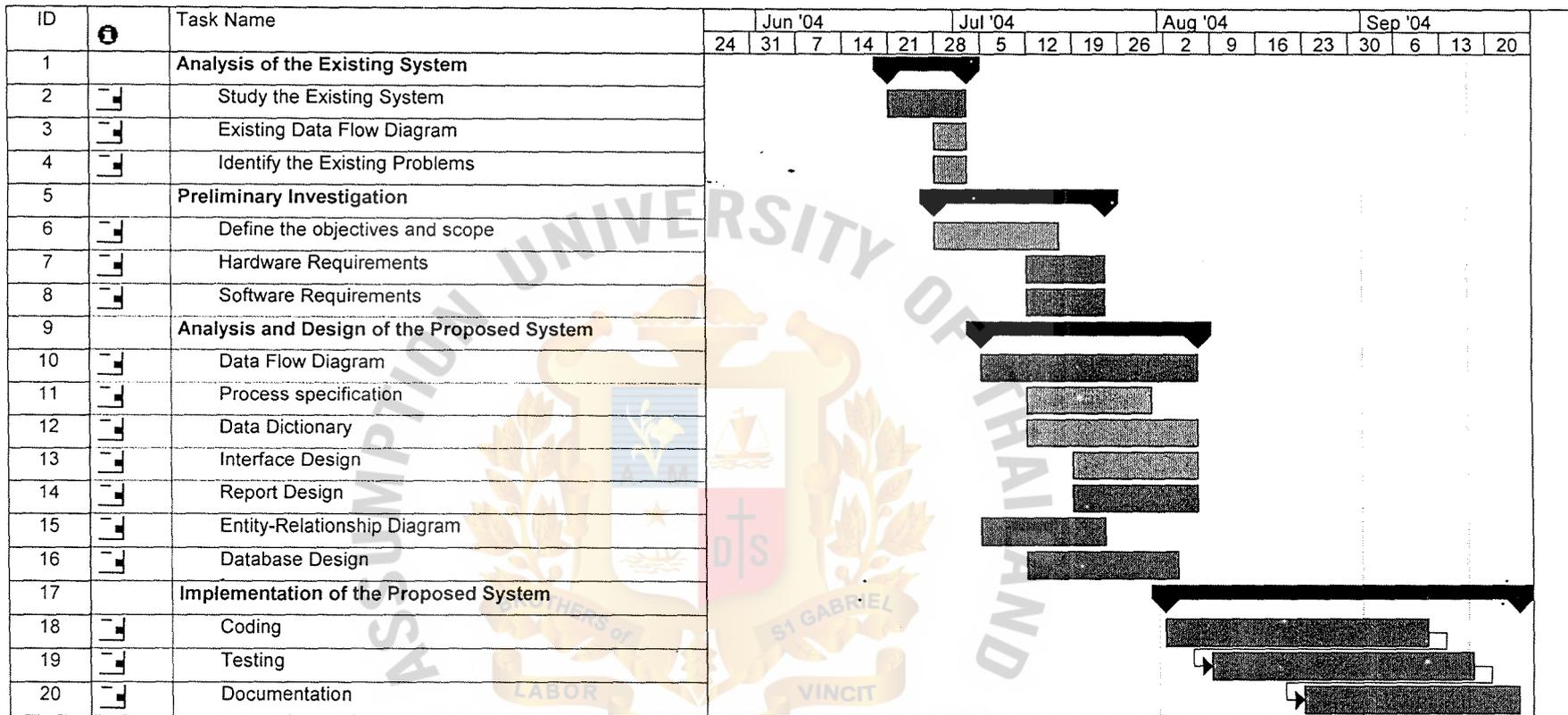


Figure 1-2 Department Chart

1.4 Project Plan

Project of Pen Nueng Service system will be developed during June 15, 2004 and will be finished on September 18, 2004. Refer to figure 1.3. And this project which use to develop the service system to be more efficiency and accuracy. We separate the task into 4 main points there are analysis of the existing system, preliminary investigation, analysis and design of the proposed system and implementation of the proposed system. In June we did about study the existing system, identify the existing problem, draw the existing data flow diagram, analyze and draw the data flow diagram of proposed system, analyze and draw ER diagram and make the process specification. In July we did about define the objective and scope, specific the hardware and software requirement for the proposed system, analyze and draw the ER diagram, design database, make the process specification, create data dictionary, design interface and design report. And we started coding in August until September. In August we started to test our program along with coding.



Project: training Date: Fri 17/9/04	Task		Milestone		External Tasks	
	Split		Summary		External Milestone	
	Progress		Project Summary		Deadline	

4

II. THE EXISTING SYSTEM

2.1 Background of Existing System

During customer's arrival, the receptionist will ask them to register by filling their general information according to their ID card for example their name and address. After information the room rate to the customer, the receptionist will check room status to search for vacant room. The last process, sending the guest to room, the doorman will take customer's luggage to the room.

When customer's departure, the receptionist will calculate service charge and issue the invoice to the guest. After customer's payment, the receptionists will record updated data.

When the manager needs to check the revenue, he can check from the record and calculate the expense.

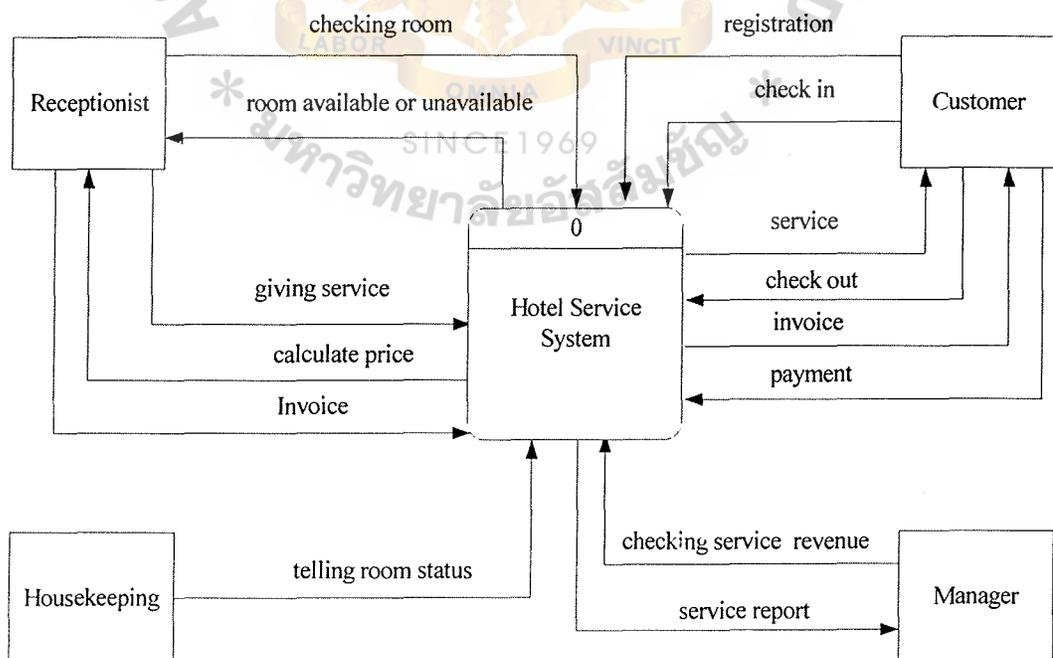


Figure 2-1 Context Diagram of Existing System

2.2 Problem Definition

- (1) Difficulty of searching available room.

Receptionist always collects all data for their report and file by the same group. This system can make the trouble for receptionists to find out information and data. They cannot search from the unorganized document file and get information immediately if the rooms are out of order or not.

- (2) Difficulty of calculating room rate.

When the manager would to change room rate or expand room's size by combining room together but the old system cannot update automatically which make the process become difficult to be adjusted.

- (3) Inefficient searching customer's profile.

There is no customer's profile or historical record. In case of room's damage, it's hard to find out the person to take the responsibility.

- (4) Lack of summarized information.

No summarize of revenue and cannot tell the manager about the availability of the room and the total number of out of order's room, vacancy room, occupation room.

III. THE PROPOSED SYSTEM

3.1 Feasibility Study

(1) Objective of the System

- To reduce human error from wrong recording.
- To show accurate information.
- To help employees avoid taking long time to find out information from documents.
- To provides security for database.

(2) Scope of System

(a) Check-in system

- Add, update and delete of room information and room rate.
- Create graphical layout of the room so user can automatically select.
- Create report that summarizes the number of out of order and vacancy room.

(b) Customer management

- Add, update and delete of customer information.
- Create searching function on customer's profile.
- Classify for each customer about check-in date, check-out date show the building, floor, room number and room rate

(c) Check-out system

- Update and record latest transactions when customers checkout from hotel.
- Calculate total expense for each room.
- Create invoice for customer.

- (d) Room service and accessory sub system
- Calculate room service and accessories of each room.
 - To be able to check the position of housekeeper by clicking on graphical layout.
- (e) Room management system
- To be able to edit room status by clicking on graphical layout of room type. For example, enhance room and changing room rate.
 - To be able to add and delete building by clicking on graphical layout.
- (f) Management reports
- To create summary recapitulation room sales report about revenue for each day. It shows the amount of available and unavailable room from total room by separating from each building and each floor. And conclusion about total sales for each transaction.
 - To create summary seasonal recapitulation, total room and total sale report. It shows the total amount of available and unavailable rooms by graph.
 - To show report of total rooms that have to cleaning for helping manager make decision to use number of housekeepers.

(g) Database management

- Create login and logout and set password for each priority of users and also block unsuitable pages that depend on priority of user for using program.

(3) Hardware and Software Requirements

Table 3-1 Hardware Requirements for Server Computer

HARDWARE	SPECIFICATION
CPU	PENTIUM IV ATX
MEMORY	DDR 128 MB
HARD DISK	MAXTOR 40 GB RPM7200
CD-ROM DRIVE	52X SAMSUNG
FLOPPY DRIVE	1.44 MB
DISPLAY ADAPTER	TRIDENT 2D/3D ON BOARD
DISPLAY	15" LG
UPS	APOLLO UPS 1060E, 600VA
PRINTER	EPSON MULTIFUNCTION STY

Table 3-2 Software Requirements for Server Computer

SOFTWARE	SPECIFICATION
Operating System	Window XP Professional edition
Application	MS-Office XP v 2002, Dream Weaver MX, Java scrip,CsDrawgraphic and ASP

Table 3-3 Hardware Requirements for Client Computer

HARDWARE	SPECIFICATION
CPU	CELERON 2.0 GHz
MEMORY	DDR 128 MB
HARD DISK	MAXTOR 40 GB RPM7200
CD-ROM DRIVE	52X SAMSUNG
FLOPPY DRIVE	1.44 MB
DISPLAY ADAPTER	TRIDENT 2D/3D ON BOARD
DISPLAY	15" LG
UPS	APOLLO UPS 1060E, 600VA
PRINTER	EPSON MULTIFUNCTION STY

Table 3-4 Software Requirements for Client Computer

SOFTWARE	SPECIFICATION
Operating System	Window XP Professional edition
Application	MS-Office XP, Dream Weaver MX, Java scrip, CsDrawgraphic and ASP

(4) Cost Analysis

Cost analysis focuses on the cost of the system derived from non-operating and operating costs.

(a) System Costs of Existing System

Table 3-5 Cost of Existing System, Baht

Cost	Year				
	1	2	3	4	5
<u>Fixed Costs:</u>					
Hardware					
Workstation					
Pentium II 500 MHz	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
Monitor Sony 15"	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
Printer Canon Bjc 210	1,100.00	1,100.00	1,100.00	1,100.00	1,100.00
Software					
Window 98	640.00	640.00	640.00	640.00	640.00
MS-Word 97	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
MS-Excel 97	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
Implementation Cost					
Training Cost (8 Hrs. @ 200)	1,600.00			3,000.00	2,000.00
Maintenance Cost				3,000.00	2,000.00
Total Fixed Costs	13,840.00	12,240.00	12,240.00	15,240.00	14,240.00
<u>Operating Costs:</u>					
Staff					
Secretary @ 10,000/month	120,000.00	120,000.00	120,000.00	120,000.00	120,000.00
2Receptions @ 7,000/month	168,000.00	168,000.00	168,000.00	168,000.00	168,000.00
Paper	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
Utility	7,000.00	7,700.00	8,470.00	9,317.00	10,248.00
Opportunities Cost	50,000.00	55,000.00	60,500.00	66,550.00	73,200.00
Other expense	4,000.00	4,400.00	4,840.00	5,324.00	5,856.00
Total Operating Costs	354,000.00	360,100.00	366,810.00	374,191.00	382,304.00
Total Cost of Existing System	367,840.00	372,340.00	379,050.00	389,431.00	396,544.00

(b) System Costs of Proposed System

Table 3-6 Cost of Proposed System, Baht

Cost	Year				
	1	2	3	4	5
Fixed Costs:					
Hardware					
1. Server Computer					
Pentium 4 ATX	22,450.00	22,450.00	22,450.00	22,450.00	22,450.00
Monitor LG 15"	3,800.00	3,800.00	3,800.00	3,800.00	3,800.00
2. Client Computers					
Duron 1.3 GHz @ 2	21,450.00	21,450.00	21,450.00	21,450.00	21,450.00
Monitor LG 15" @ 2	7,600.00	7,600.00	7,600.00	7,600.00	7,600.00
Lan	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
Printer Epson Multifunction STY	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
Software					
Window XP Professional upgrade	7,380.00	7,380.00	7,380.00	7,380.00	7,380.00
MS-Office 2003	5,125.00	5,125.00	5,125.00	5,125.00	5,125.00
CsDrawgraphic	20,459.00	20,459.00	20,459.00	20,459.00	20,459.00
Macromedia Dream weaver MX	15,580.00	15,580.00	15,580.00	15,580.00	15,580.00
Implementation Cost					
Development Cost (400 Hrs@500)	200,000.00				
Training Cost ('10 Hrs.x 2000)	20,000.00				
Maintenance Cost					
		7,000.00	6,000.00	5,000.00	4,000.00
Total Fixed Costs	430,844.00	117,844.00	116,844.00	115,844.00	114,844.00
Operating Costs:					
Staff					
Reception @ 7,000/month	84,000.00	84,000.00	84,000.00	84,000.00	84,000.00
Paper	1,100.00	1,210.00	1,331.00	1,465.00	1,610.00
Utility	11,000.00	12,100.00	13,310.00	14,650.00	16,100.00
Opportunities Cost	20,000.00	22,000.00	24,200.00	26,620.00	29,282.00
Other expense	4,200.00	4,620.00	5,082.00	5,590.00	6,150.00
Total Operating Costs	120,300.00	123,930.00	127,923.00	132,325.00	137,142.00
Total Cost of Proposed System	551,144.00	241,774.00	244,767.00	248,169.00	251,986.00

(c) The Comparison of Accumulated System Costs between Existing System and Proposed System

Table 3-7 Accumulated System Costs of Existing System for 5 Years, Baht.

Year	Total Annual Cost	Accumulated Cost
1	367,840.00	367,840.00
2	372,340.00	740,180.00
3	379,050.00	1,119,230.00
4	389,431.00	1,508,661.00
5	396,544.00	1,905,205.00

Table 3-8 Accumulated System Costs of Proposed System for 5 Years, Baht.

Year	Total Annual Cost	Accumulated Cost
1	551,144.00	551,144.00
2	241,744.00	792,888.00
3	244,767.00	1,037,655.00
4	248,169.00	1,285,824.00
5	251,986.00	1,537,810.00

Table 3-9 The Comparison of Accumulated System Costs, Baht.

Year	Accumulated Existing System Cost	Accumulated Proposed System Cost
1	367,840.00	551,144.00
2	740,180.00	792,888.00
3	1,119,230.00	1,037,655.00
4	1,508,661.00	1,285,824.00
5	1,905,205.00	1,537,810.00

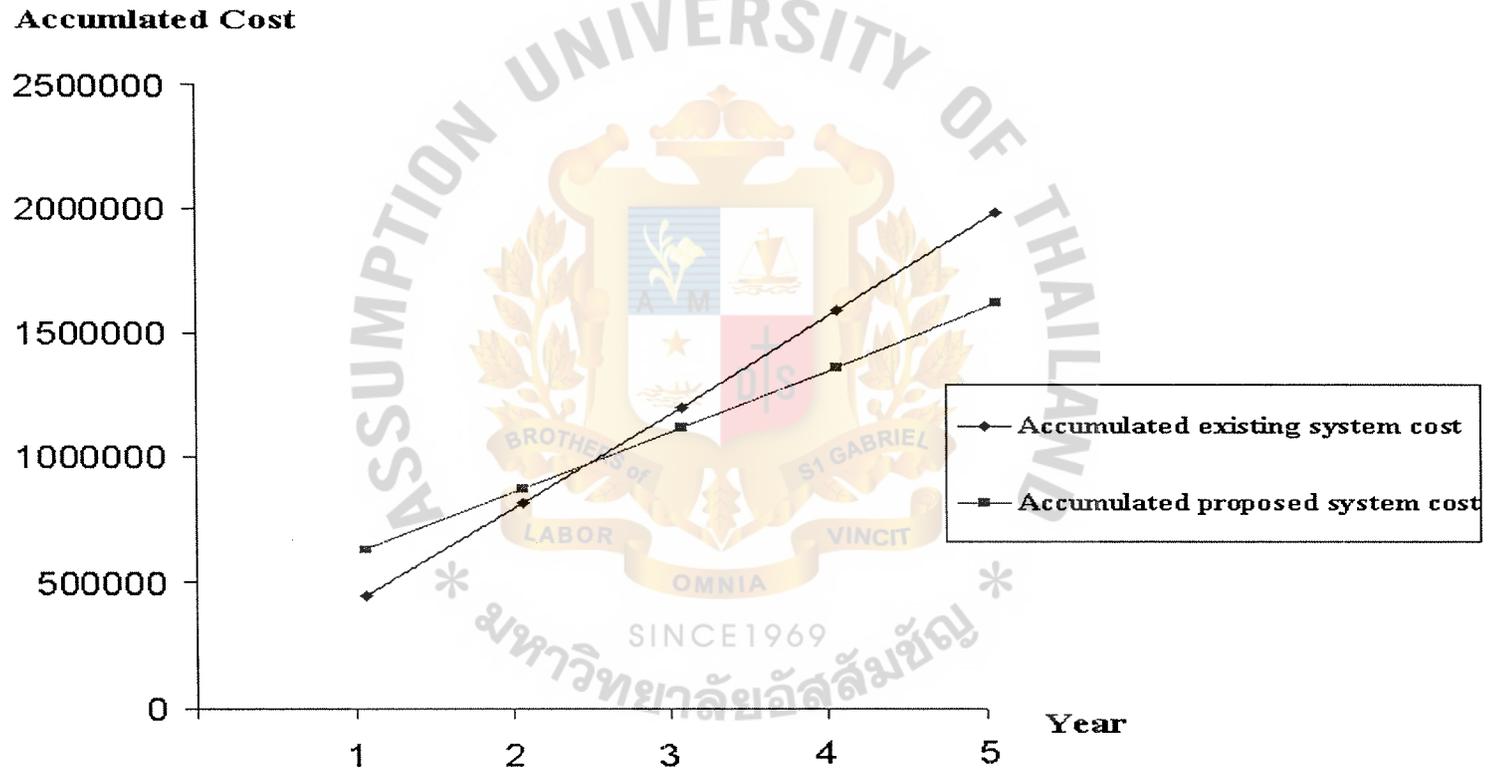


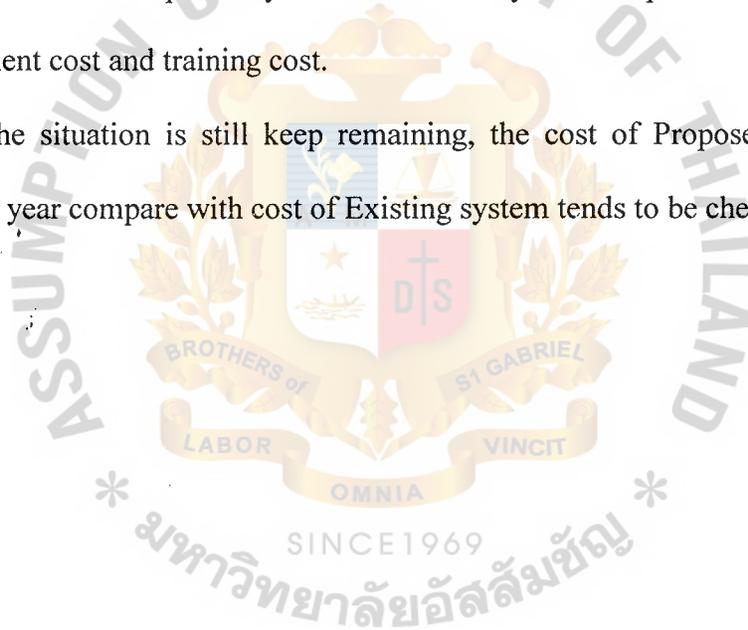
Figure 3-1 Break-even Analysis

According to this table, we can say that the cost of proposed system in the first year is more expensive than the cost of Existing system. However, since the second year until the fifth year the cost of proposed system is increasingly cheaper than existing system. Most of costs of proposed system are based on hardware and software, but most costs of existing system are based on salary.

The main factor, which makes proposed system cheaper than existing system, is the implementation of software which is not necessary to hire more schedule officer and document officer and the cost of paper is also reduced.

The cost of Proposed system in the first year is expensive because of high development cost and training cost.

If the situation is still keep remaining, the cost of Proposed system in the following year compare with cost of Existing system tends to be cheaper.



3.2 System Design

(1) Data Flow Diagram

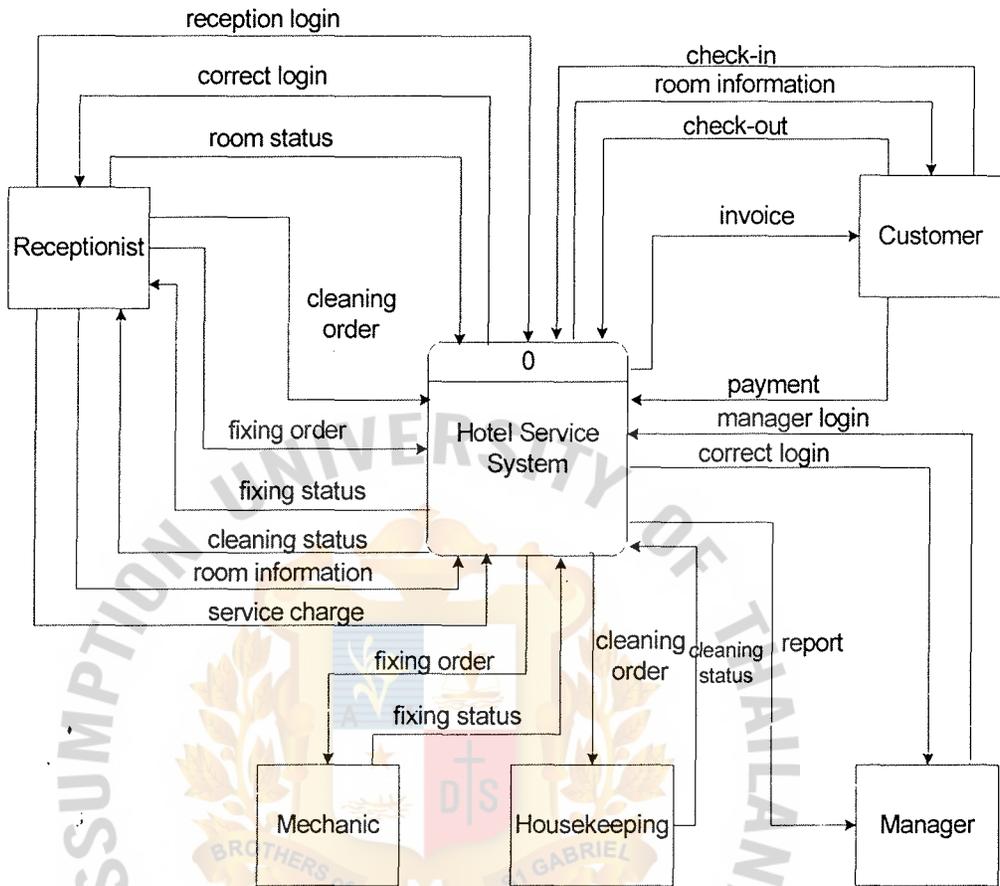


Figure 3-2 Data Flow Diagram – Context Diagram

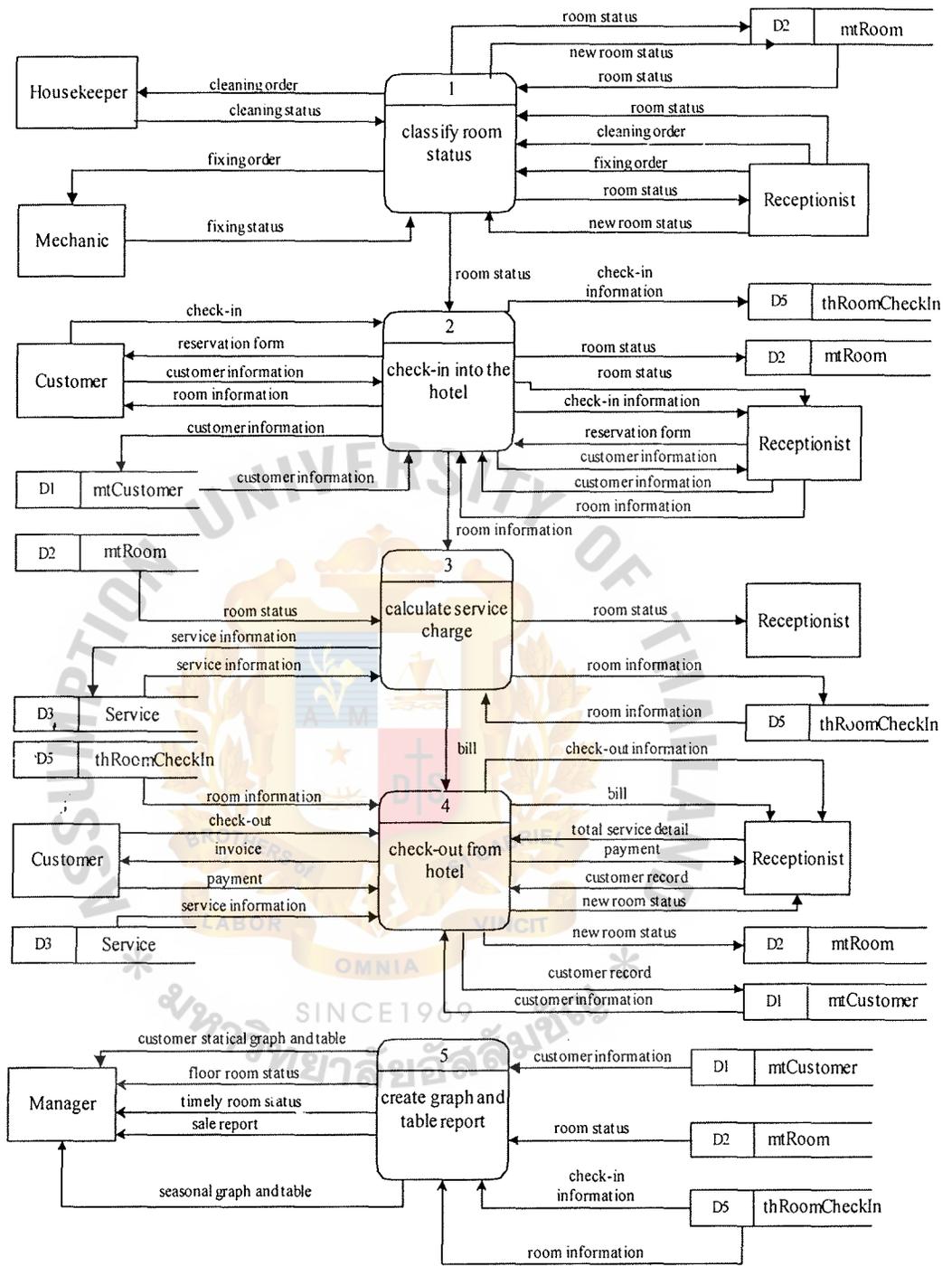


Figure 3-3 Data Flow Diagram – Level 0

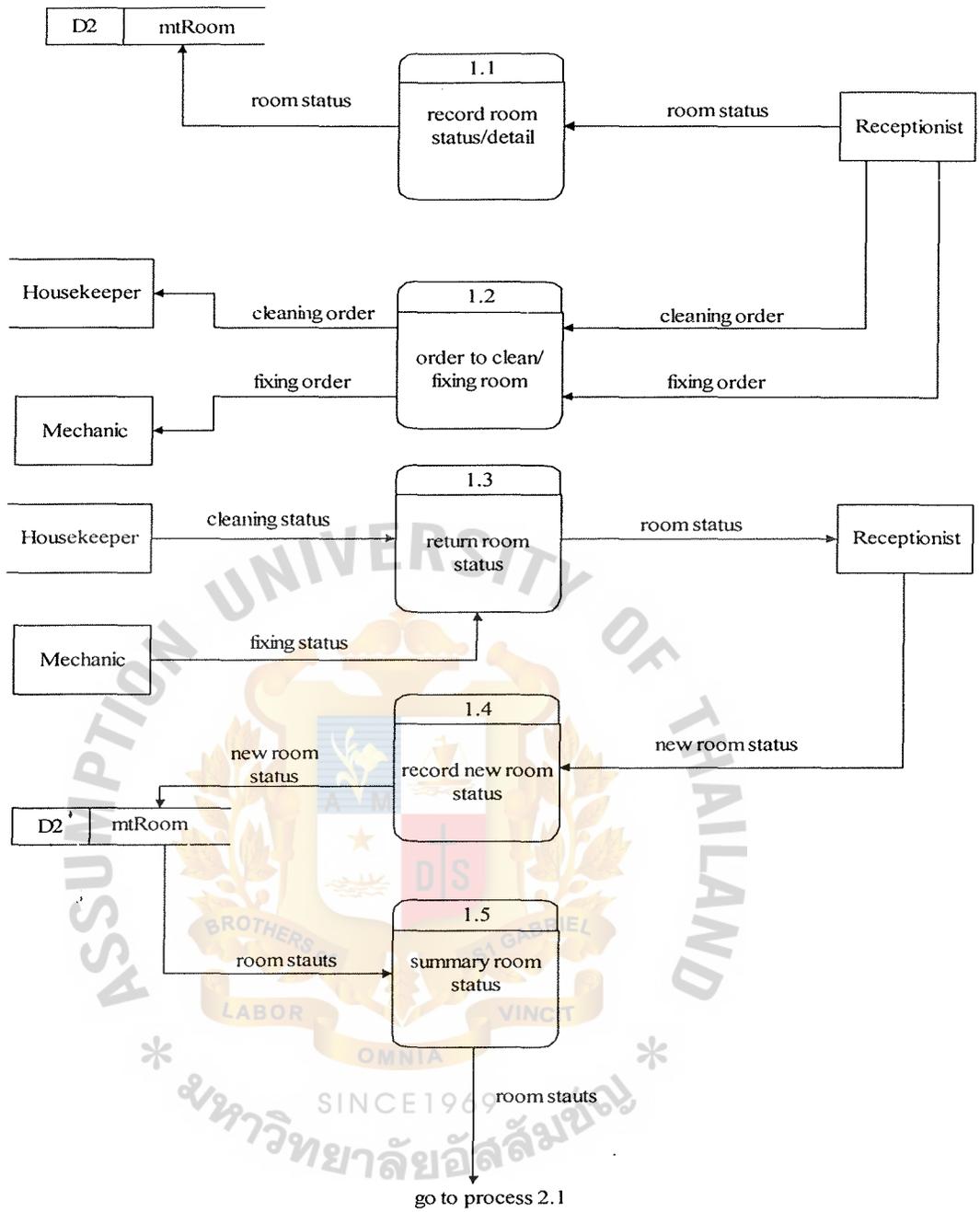


Figure 3-4 Data Flow Diagram – Level 1 for Process 1

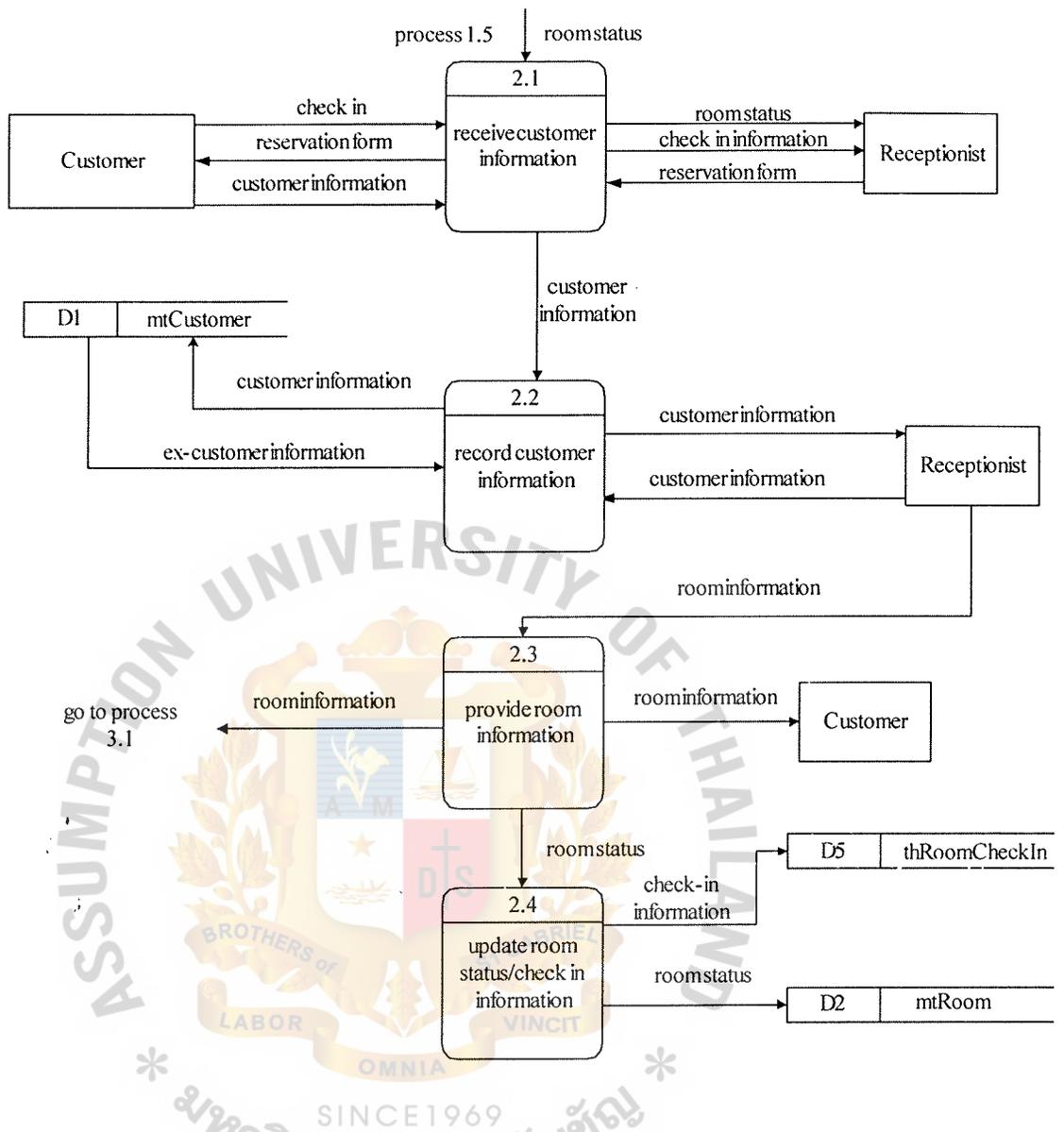


Figure 3-5 Data Flow Diagram – Level 1 for Process 2

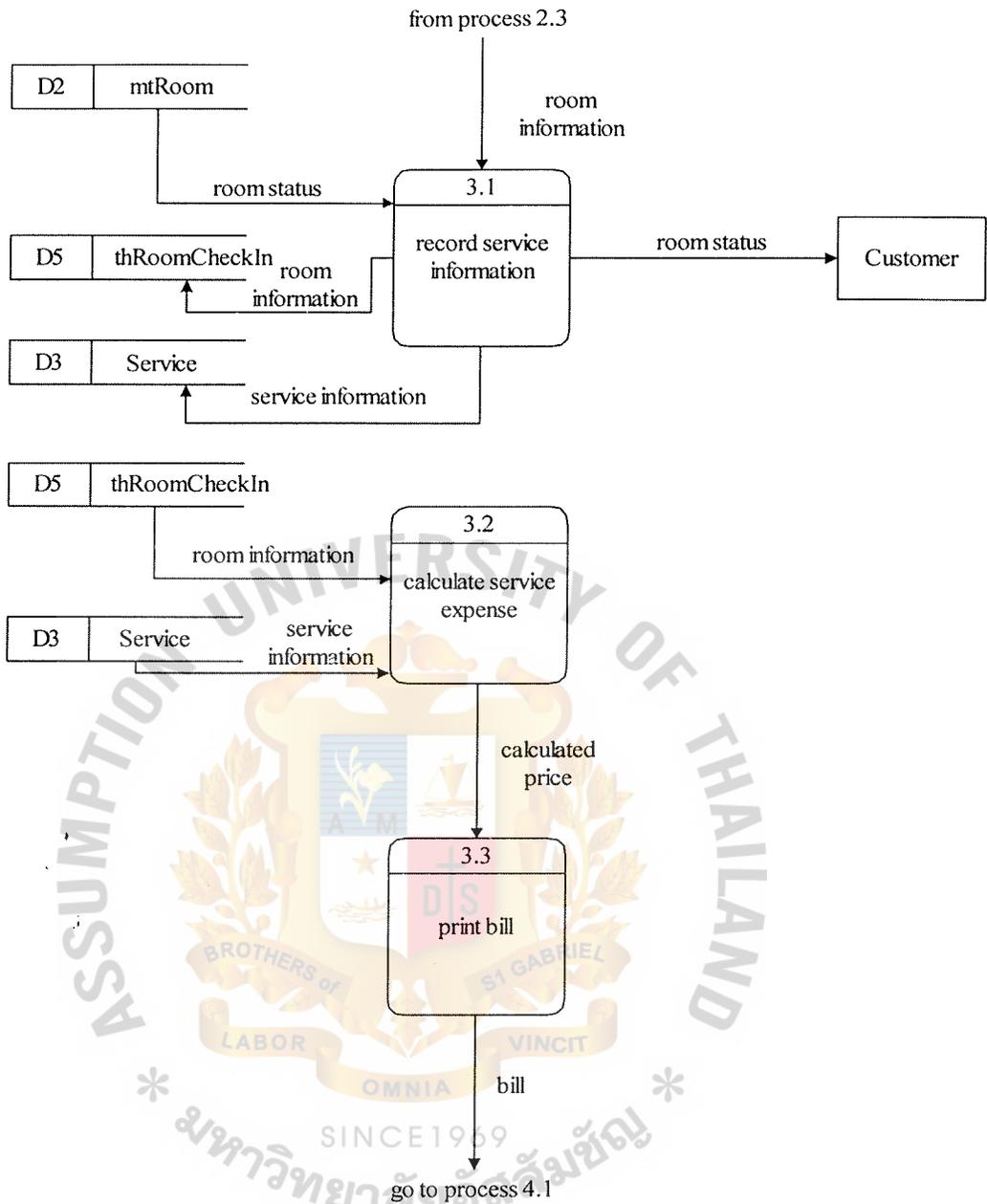


Figure 3-6 Data Flow Diagram – Level 1 for Process 3

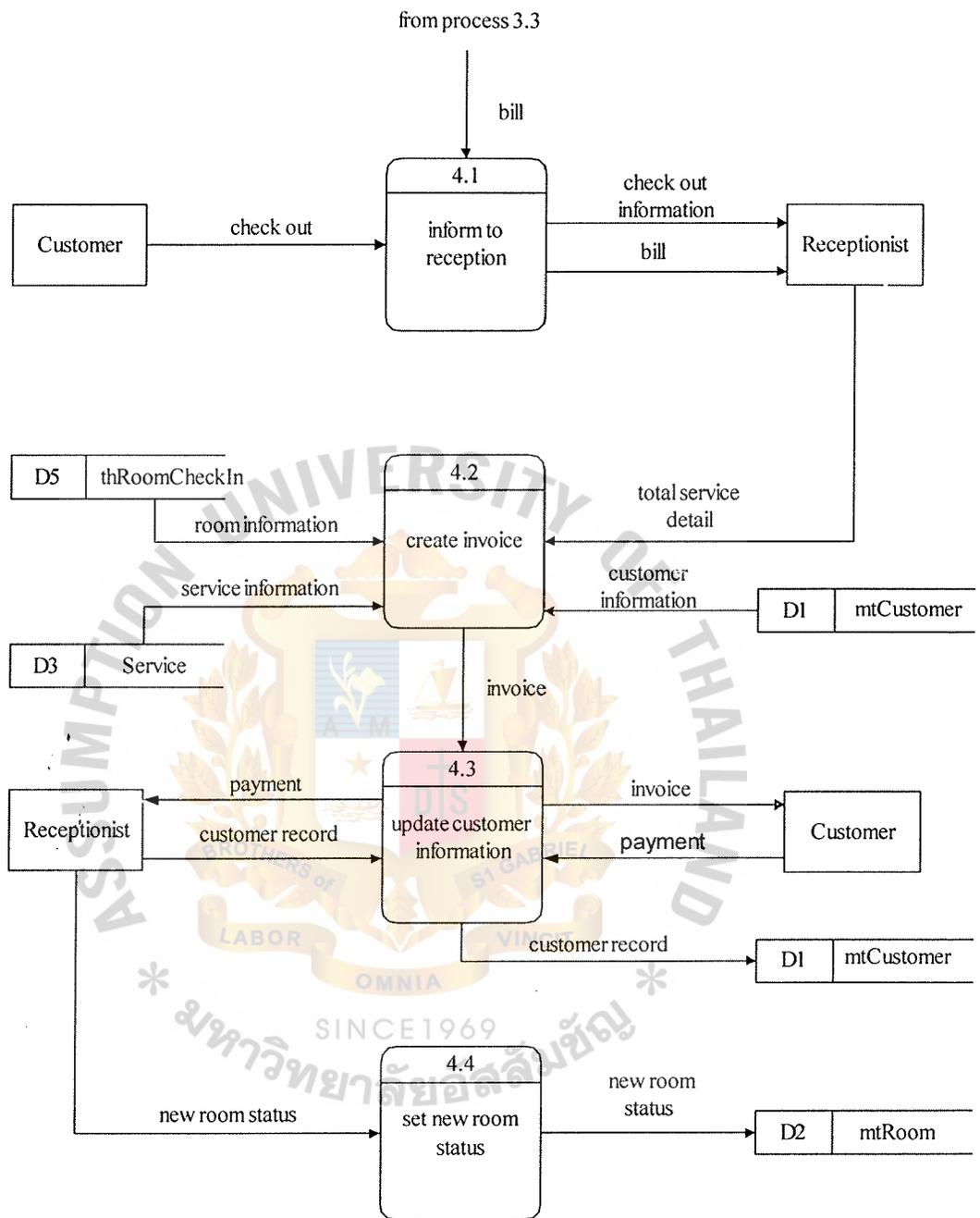


Figure 3-7 Data Flow Diagram – Level 1 for Process 4

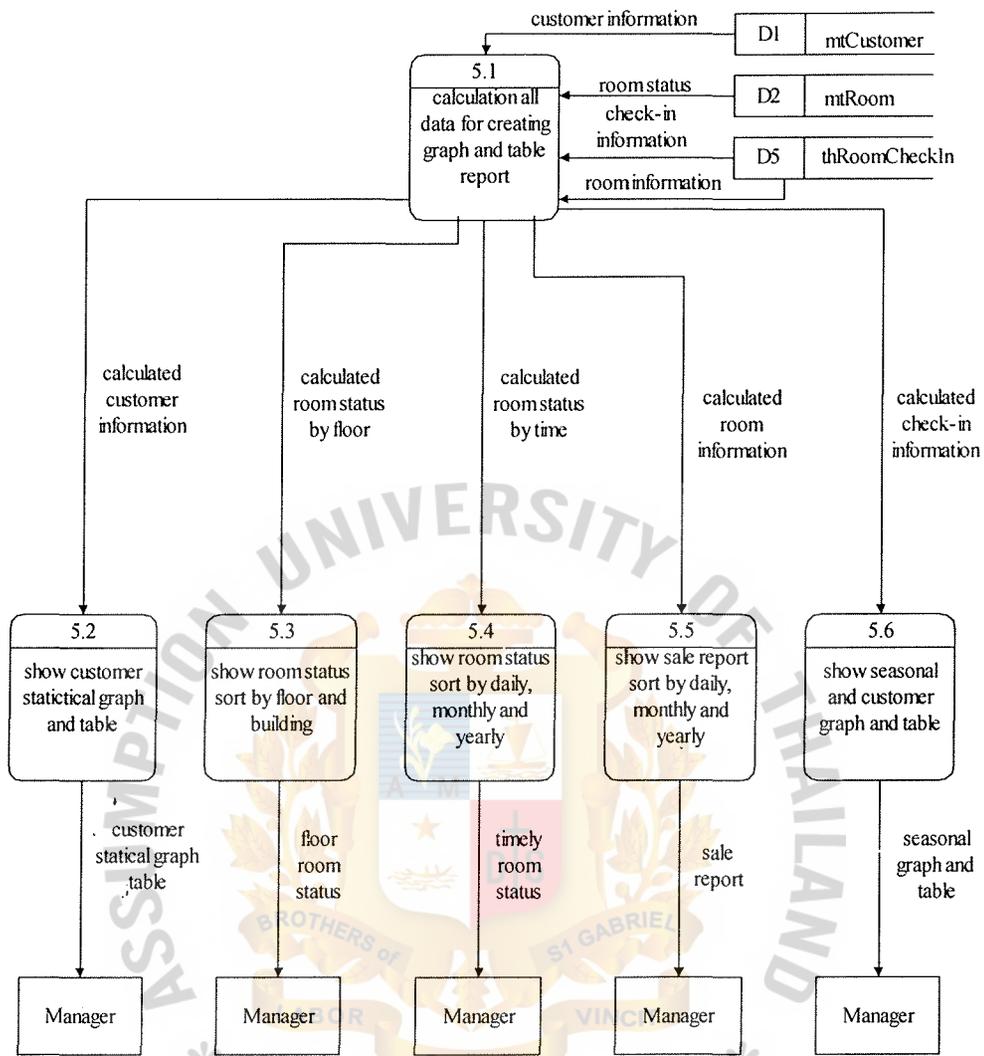


Figure 3-8 Data Flow Diagram – Level 1 for Process 5

(2) Entity-Relationship Diagram

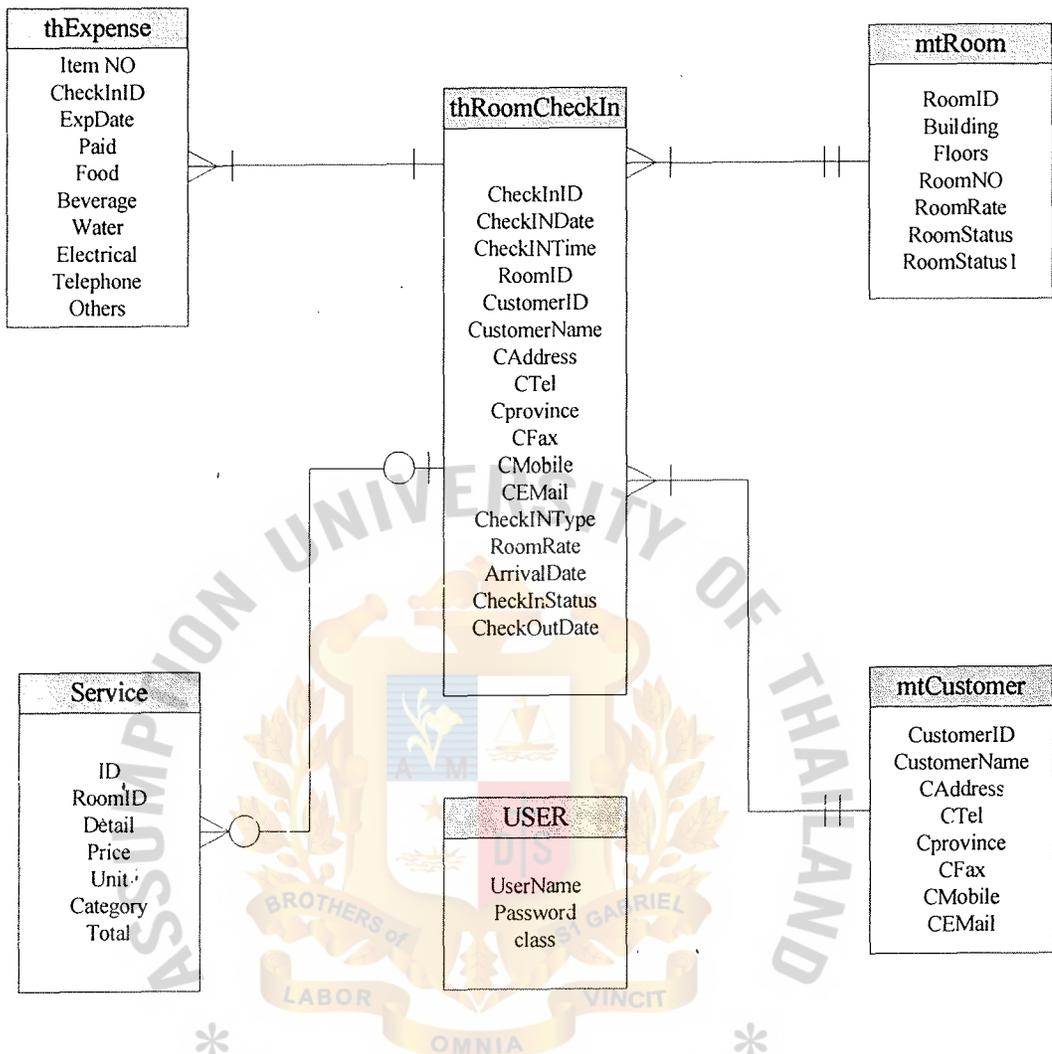


Figure 3-9 Entity-Relationship Diagram

(3) Database Design

- mtCustomer table

In this table are contain about Customer ID, Customer Name ,Customer Address, Customer Telephone number, Customer Province, Customer Fax , Customer Fax, Customer Mobile number, Customer E-mail address. All of the fields are collect information about customer record for collect historical accuracy and actual record.

- mtRoom table

In this table are contain about Room ID , Building ID , Floors , Room Number ,Room Rate , Room Status , Room Status2 . All of the fields are collect information about Room Service record for collect the room information and status which for each room number should have addressing number.

- Service Table

* In this table are contain about ServiceID, CheckInID, Detail, Price, Unit, Category, Total. All of the fields are collect information about Service information by room that customer order at each service.

- thExpense Table

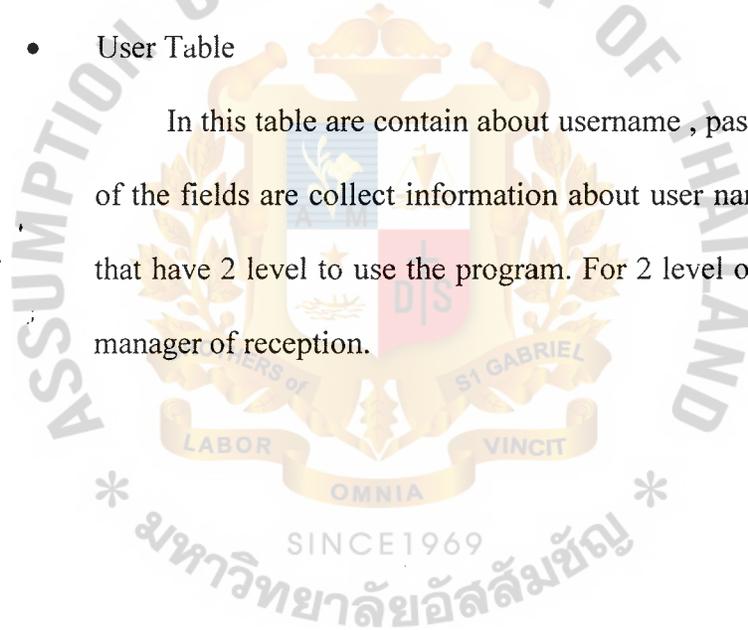
In this table are contain about ItemNo, CheckInID, ExpDate, Paid, Food,Beverage, Water. Electrical, Telephone , All of the fields are collect information about Total Expense of each customer that user the service system.

- thRoomCheckIn Table

In this table are contain about CheckInID, CheckInDate, CheckInTime, RoomID, Customer ID, Customer Name ,Customer Address, Customer Telephone number, Customer Province, Customer Fax , Customer Fax, Customer Mobile number, Customer E-mail address, CheckInType, ArrivalDate, RoomRate, CheckInStatus, CheckOutDate. All of the fields are collect information about Check in information and contain check out date and status that customer already check out.

- User Table

In this table are contain about username , password, class. All of the fields are collect information about user name and password that have 2 level to use the program. For 2 level of each priority as manager of reception.



(4) Interface Design

- Login to the System

The page login to the system was security of the Pen Nueng Hotel. The manager can login the system by see all the menu of the web application but the receptionist look up some of the menu.

- Registration (Check in)

The page will show the number of the each building when the user clicks the number building. It was showing the number the room and clicks the room to the check in for reserve the room.

- Registration (Service detail)

This page was service detail from the customer that take the order of the catalog. For example: Food, Beverage, water, telephone, accessory and other. The service detail can add the menu when the customer wanted. It was calculate by automatic.

- Registration (Check out)

* The user can click number of the building and then click the room for the check out. After that, the page will show the expense of the customer and the calculated by automatic.

- Customer member (Registration history)

The page will show all customer members by alphabets. It had been registration history. When the user was clicking the name of the customer, it will show the information history's customer.

- Room (Room Configuration)

The room configurations were set the room to vacancy room, occupy room or other. It was set the combination room, deleted room for the customer and set new price to each room.

- Room status

The page will show all the room at the Pen Nueng Hotel. And show each room that available or cleaning and damage.

- Room (Housekeeper Cleaning)

This page will show the list of the cleaning room that the housekeeper working. It was benefit for the receptionist to check the status room service.

- Room (Housekeeper Damage)

The page will show the list table of the damage room that the technicians repair the rooms. The receptionist can check the available room for the customer.

- Decision Graphic report (Recapitulation)

The recapitulation will show the amount room sales and revenue of each day by selected from the calendar. The user can know the value room and revenue by date.

- Room graphic Recapitulation (there are 4 figure in this column figure D11-D14)

This graphic show about occupy, vacant, and damage room per floor in each building and it also show room sale and money sale at each floor in which building. The graphic also show about how many customer take place in which building and floor at most.

- Decision Graphic report (Monthly recapitulation)

The monthly recapitulation was showing the total the room sales and revenue by month. And it can print report on the web application by automatic. It was benefit for checking the revenue each month.

- Monthly recapitulation (there are 12 figure in this column figure D16-D27)

All of this graphic in this screen, manager can check occupation room, vacant room or damage room and room sale according to day, month and year. And it also tells about money sale (money which received by selling the room) according to day, month and year. This graphic can help manager to know that how many room are vacant, occupy, damage per day (month, year), room sale per day (month, year) and money sale per day (month, year).

- Season Graphic and table

This table show about people come into the hotel per month. And graphic show about people come into the hotel per month for using hotel's service. This graphic can help manager to make a decision about which month should be highly promote our service and planning about service.

- Customer region report

There are contain two graphic about the province where customer live. The criteria of graphic showing is depend on top 20 province such as Bangkok, Khonkaen and etc. This graphic can

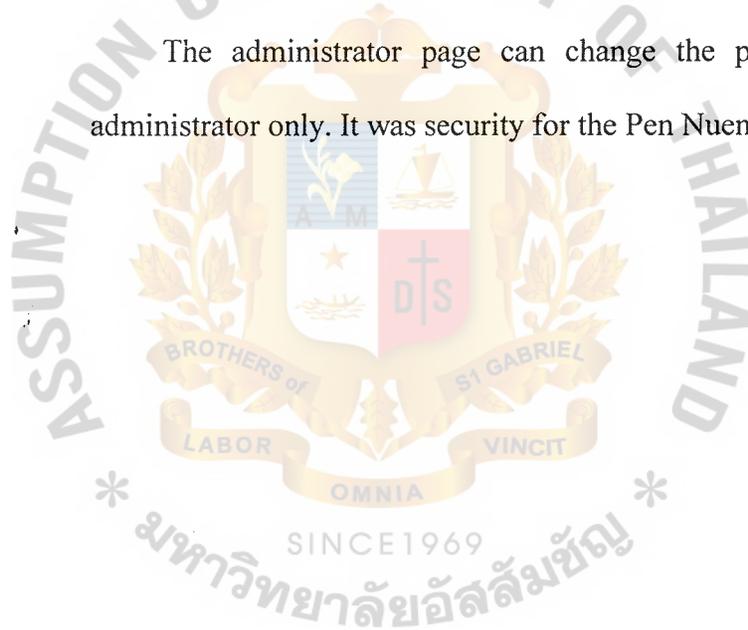
help manager to decide about which province should be promote and stimulus the sale plan. The manager also know which province should stop promoting.

- Administrator (Add user)

This page was only administrator to add new user, which it have two methods. The administrator can select to set the receptionists or the administrator. The administrator can see all menus but the receptionist can see some the menu.

- Administrator (Chang password)

The administrator page can change the password by the administrator only. It was security for the Pen Nueng Hotel system.



(5) Management Report Design

- Service recording form

The service recording form was calculating report the menu on the catalog that the customers have take order. The catalog separate to food, beverage, water, telephone, accessory and other. It was the expense of customer.

- Invoice service

The invoice service was invoice report that inform to the customer about all expense. It was calculating of the all expense of the customer on time at Pen Nueng Hotel.

- Recapitulation of rooms sales form

The recapitulation of room sales form was revenue reports that show about the income each day and amount the room sales by showing each building and each room.

- Monthly recapitulation of rooms sales form

* The monthly recapitulation of rooms sales form was revenue reports that show about the income each month. The report will show all income and total room sales on the month.

IV. SYSTEM IMPLEMENTATION

4.1 Overview of the System Implementation

Our New system will be implemented in the Pen Nung hotel by web browser programming language method. The New system will not immediately replace the existing manual system, rather, they would be used simultaneously for a period of time before we solely use the New system in the firm. This method might prove to be quite effective especially where we are conversing from manual practices to computerized one. Since there are many differences in existing and New system, the errors and inconsistency of the Output might be often found in the early stage of the conversion. By using both systems in the first stage will allow the users to check New Data against old Data to catch any errors in processing the New system until the Output of the New system are in the stable level of reliability. Web browser programming language processing also offers a feeling of security to the users who still not feel comfortable with the New system.

4.2 Test Plan

Once the system has been designed and coded, testing becomes the next most vital step before the system is put customer's information. The main purpose of system testing is to check the correctness of Output and collected of the data to the database, the interfaces between subsystems, the usefulness and understandability of system Output, as well as, to ensure that the system is working with least error.

However, the system testing is not processed just at the end of the system implementation like many misunderstood. The testing process must be done

throughout the system development in Order to find out errors in the early stage and make any corrections.

At the early phase of the test plan the programmer is responsible in checking the errors in his coding while the system analyst works as the advisor and coordinator to the program testing in Order to ensure the correct testing techniques are implemented by the programmer.

Then we are doing link testing which is to see if the system as a whole is working well as planned. After the Output of the earlier testing phase prove satisfactory, we are now test the full systems with live Data, or the Data that have been successfully processed through the existing system.

Even the best-designed system can be considered failed if it does not satisfy the end users of the system. Therefore, we cannot take users' reaction to the New system for granted at all. We are in attempt to be as sensitive as possible in observing and collecting users' Response during the testing period in Order to prepare the needed corrections before the system is put into the actual Production. We will set up the training sessions if necessary.

The system will also be tested in many computers in Order to test the compatibility of the eventual system. After that we join the graphic decision design of the chart to summarized the each season. Which it have error of the chart graphic design with join to the database system and to show summarized to the user.

V. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The Pen Nung hotel has been emerged as a leading customer service of the hotel in khonkaen province for more than ten years with its service operation process. Now with the newly developed information system to be replaced the former pure manual transactions would be expected to enhance overall performance of the company. Early mentioned problems the company has been currently undergoing (2.2 Problem Definition) would be mostly alleviated by the introduction of the new system. For instance, difficulty in retrieve of information will be eliminated by database records of most company's major files with searching functionality which allow the users to quickly retrieve a particular information. Besides, the system also provides the manager some selected reports regarding business operations.

5.2 Recommendations

Despite the advantages early mentioned above, the new system would not totally expected to cover 100 percent service standard level of the company since it was rather developed in-house than by professional offsite programmers, a slight mistakes and errors would be acceptable. In addition, proper system training for existing and new employees is required to make the new system replacement works in the most effective manner. The new program is considered user-friendly, therefore, in-house training would be sufficient.



APPENDIX A
DATABASE DESIGN

Table A-1 User Table

No.	Field Name	Field	Index	Unique	Nullable	Validity Check	Key	FK Referenced Table
1	UserName	varchar(50)						
2.	UserPassword	varchar(50)						
3.	Class	char(1)						

Table A-2 mtRoom Table

No.	Field Name	Field	Index	Unique	Nullable	Validity Check	Key	FK Referenced Table
1	RoomID	char(50)	Y	Y			PK	
2	Building	char(10)						
3	Floors	char(10)						
4	RoomNo	char(10)						
5	RoomRate	currency				#,###,###.00		
6	RoomStatus1	char(3)						
7	RoomStatus2	char(3)						

Table A-3 thRoomCheckin Table

No.	Field Name	Field	Index	Unique	Nullable	Validity Check	Key	FK Referenced Table
1	CheckinID	char(50)	Y	Y			PK	
2	CheckinDate	date				DD-MM-YY		
3	CheckinTime	time						
4	RoomID	char(10)					FK	mtRoom
5.	CustomerID	varchar(50)					FK	mtCustomer
6.	CustomerName	varchar(50)						
7.	CAddress	varchar(80)						
8.	CTel	char(9)						
9.	CProvince	varchar(50)						
10.	CFax	char(9)						
11.	CMobile	char(9)						
12.	CE-mail	varchar(50)						
13.	CheckINType	char(1)				1=Free,2=Debt		
14.	ArrivalDate	date				DD-MM-YY		
15.	RoomRate	currency						
16.	CheckinStatus	char(1)				Y=Yes, N=No		
17.	CheckOutDate	date	*			DD-MM-YY		

Table A-4 thExpense Table

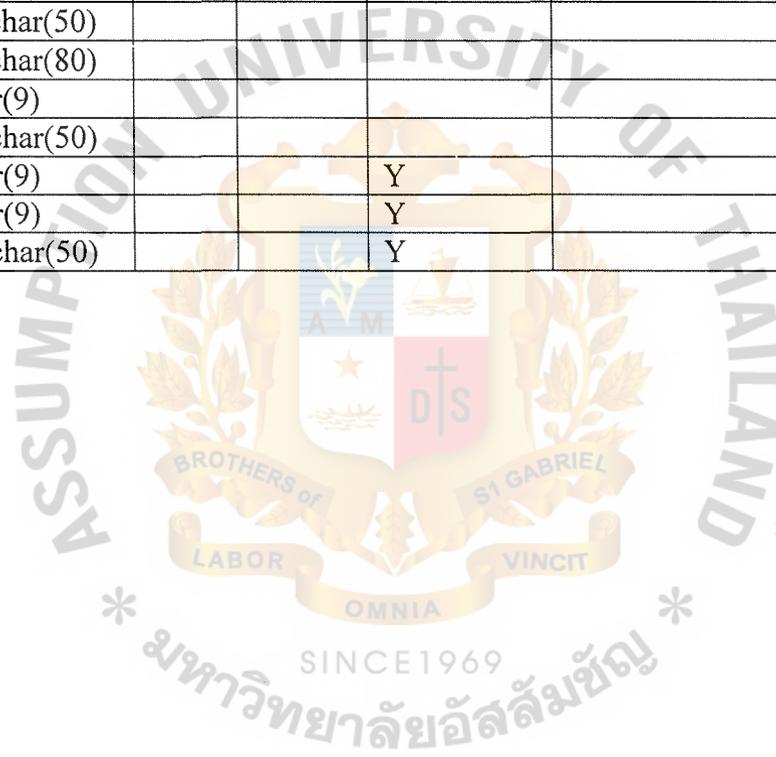
No.	Field Name	Field	Index	Unique	Nullable	Validity Check	Key	FK Referenced Table
1	ItemNo	varchar (50)	Y	Y			PK	
2	CheckinID	char(50)					FK	thRoomCheckin
3	Expdate	date				DD-MM-YY		
4	Paid	int(20)						
5	Food	int(20)						
6	Beverage	int(20)						
7	Water	int(20)						
8	Electrical	int(20)						
9	Telephone	int(20)						
10	Others	int(20)						

Table A-5 Service Table

No.	Field Name	Field	Index	Unique	Nullable	Validity Check	Key	FK Referenced Table
1.	ServiceID	varchar (50)	Y	Y			PK	
2.	CheckInID	int(20)					FK	thRoomCheckin
3.	Detail	Varchar (40)						
4.	Price	int (20)						
5.	Unit	int (20)						
6.	Category	Varchar (10)						
7.	Total	int (20)						

Table A-6 mtCustomer Table

No.	Field Name	Field	Index	Unique	Nullable	Validity Check	Key	FK Referenced Table
1.	CustomerID	Varchar(50)	Y	Y			PK	
2.	CustomerName	Varchar(50)						
3.	CAddress	Varchar(80)						
4.	CTel	Char(9)						
5.	CProvince	Varchar(50)						
6.	CFax	Char(9)			Y			
7.	CMobile	Char(9)			Y			
8.	CEMail	Varchar(50)			Y			





APPENDIX B
PROCESS SPECIFICATION

Table B-1 Process Specification for Process 1.0

Process Name:	Classify room status
Data In:	<ol style="list-style-type: none"> (1) Room status (2) Cleaning order (3) Fixing order (4) New room status (5) Room status (6) Cleaning status (7) Fixing status
Data Out:	<ol style="list-style-type: none"> (1) Room status (2) Cleaning order (3) Fixing order (4) Room status (5) New room status (6) Room status
Process:	<ol style="list-style-type: none"> (1) Record room status/detail. (2) Order to clean/fix room. (3) Return room status. (4) Record new room status. (5) Summary room status.
Attachment:	<ol style="list-style-type: none"> (1) Receptionist (2) Housekeeper (3) Mechanic (4) Data Store D2 (5) Process 3.0

Table B-2 Process Specification for Process 1.1

Process Name:	Record room status/detail.
Data In:	(1) Room status
Data Out:	(1) Room status
Process:	(1) Receive room status form receptionist. (2) Store room status in data store.
Attachment	(1) Receptionist (2) Data Store D2

Table B-3 Process Specification for Process 1.2

Process Name:	Order to clean/fixing room.
Data In:	(1) Cleaning order (2) Fixing order
Data Out:	(1) Cleaning order (2) Fixing order
Process:	(1) Receive cleaning and fixing order from receptionist. (2) Transfer order to mechanic and housekeeper.
Attachment:	(1) Receptionist (2) Housekeeper (3) Mechanic

Table B-4 Process Specification for process 1.3

Process Name:	Return room status.
Data In:	(1) Cleaning status (2) Fixing status

Data Out:	(1) Room status
Process:	(1) Receive room status from housekeeper and mechanic. (2) Return room status to receptionist.
Attachment:	(1) Receptionist (2) Housekeeper (3) Mechanic

Table B-5 Process Specification for Process 1.4

Process Name:	Record new room status
Data In:	(1) New room status
Data Out:	(1) New room status
Process:	(1) Receive new room status from reception. (2) Update new room status in data store.
Attachment:	(1) Receptionist (2) Data Store D2

Table B-6 Process Specification for Process 1.5

Process Name:	Summary room status
Data In:	(1) Room status
Data Out:	(1) Room status
Process:	(1) Receive room status from data store. (2) Summarize all room status.
Attachment:	(1) Data Store D2 (2) Process 3.1 (3) Process 2.3

Table B-7 Process Specification for Process 2.0

Process Name:	Check-in into the hotel
Data In:	<ul style="list-style-type: none"> (1) Room status (2) Check-in (3) Reservation form (4) Customer information (5) Customer information (6) Ex-customer information (7) Room information
Data Out:	<ul style="list-style-type: none"> (1) Room status (2) Check-in information (3) Reservation form (4) Customer information (5) Customer information (6) Room information (7) Check-in information (8) Room status (9) Room information
Process:	<ul style="list-style-type: none"> (1) Receive customer information. (2) Record customer information. (3) Provide room information. (4) Update room status/check-in information.
Attachment:	<ul style="list-style-type: none"> (1) Process 2.0 (2) Process 4.0 (3) Customer

	<ul style="list-style-type: none"> (4) Receptionist (5) Data Store D1 (6) Data Store D2 (7) Data Store D5
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Table B-8 Process Specification for Process 2.1

Process Name:	Receive customer information.
Data In:	<ul style="list-style-type: none"> (1) Room status (2) Check-in (3) Reservation form (4) Customer information
Data Out:	<ul style="list-style-type: none"> (1) Room status (2) Check-in information (3) Reservation form (4) Customer information
Process:	<ul style="list-style-type: none"> (1) Receive room status. (2) Receive customer information and room requirement. (3) Check-in into the hotel.
Attachment:	<ul style="list-style-type: none"> (1) Process 2.5 (2) Receptionist (3) Customer

Table B-9 Process Specification for Process 2.2

Process Name:	Record customer information
Data In:	(1) Customer information

	(2) Customer information (3) Ex-customer information
Data Out:	(1) Customer information (2) Customer information
Process:	(1) Receive customer information. (2) Record customer information in Data Store D1.
Attachment:	(1) Data Store D1 (2) Receptionist (3) Process 3.1

Table B-10 Process Specification for Process 2.3

Process Name:	Provide room information
Data In:	(1) Room information
Data Out:	(1) Room information (2) Room information (3) Room status
Process:	(1) Receive room information from receptionist. (2) Give information of room to customer.
Attachment:	(1) Receptionist (2) Process 4.1 (3) Customer

Table B-11 Process Specification for Process 2.4

Process Name:	Update room status/check-in information
Data In:	(1) Room status

Data Out:	(1) Check-in information (2) Room status
Process:	(1) Receive room status. (2) Record check-in information in data store. (3) Update room status in data store.
Attachment:	(1) Data Store D2 (2) Data Store D5 (3) Process 3.3



Table B-12 Process Specification for Process 3.0

Process Name:	Calculate service charge
Data In:	<ul style="list-style-type: none"> (1) Room information (2) Acquiring room status (3) Bill printing (4) Room information (5) Service information (6) Room status
Data Out:	<ul style="list-style-type: none"> (1) Room status (2) Room information (3) Bill (4) Service information (5) Acquiring room status
Process:	<ul style="list-style-type: none"> (1) Record service information. (2) Calculate service expense. (3) Print bill.
Attachment:	<ul style="list-style-type: none"> (1) Process 3.0 (2) Process 5.0 (3) Receptionist (4) Data Store D2 (5) Data Store D3 (6) Data Store D5

Table B-13 Process Specification for Process 3.1

Process Name:	Record service information
Data In:	(1) Room information (2) Room status
Data Out:	(1) Room information (2) Room status (3) Recording service information
Process:	(1) Acquire room status from data store. (2) Receive room information and room status. (3) Record room and service information in data store.
Attachment:	(1) Reception (2) Process 3.3 (3) Data Store D2 (4) Data Store D3 (5) Data Store D5

Table B-14 Process Specification for Process 3.2

Process Name:	Calculate service expense
Data In:	(1) Room information (2) Service information
Data Out:	(1) Calculated price
Process:	(1) Receive room and service information from data store. (2) Calculate total cost. (3) Transfer calculated cost to print in the form of bill.
Attachment:	(1) Data Store D3

	(2) Data Store D5 (3) Process 4.3
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Table B-15 Process Specification for Process 3.3

Process Name:	Print bill
Data In:	(1) Calculated price
Data Out:	(1) Bill
Process:	(1) Receive calculated price from last process. (2) Order to print bill.
Attachment:	(1) Process 4.2 (2) Receptionist (3) Process 5.1

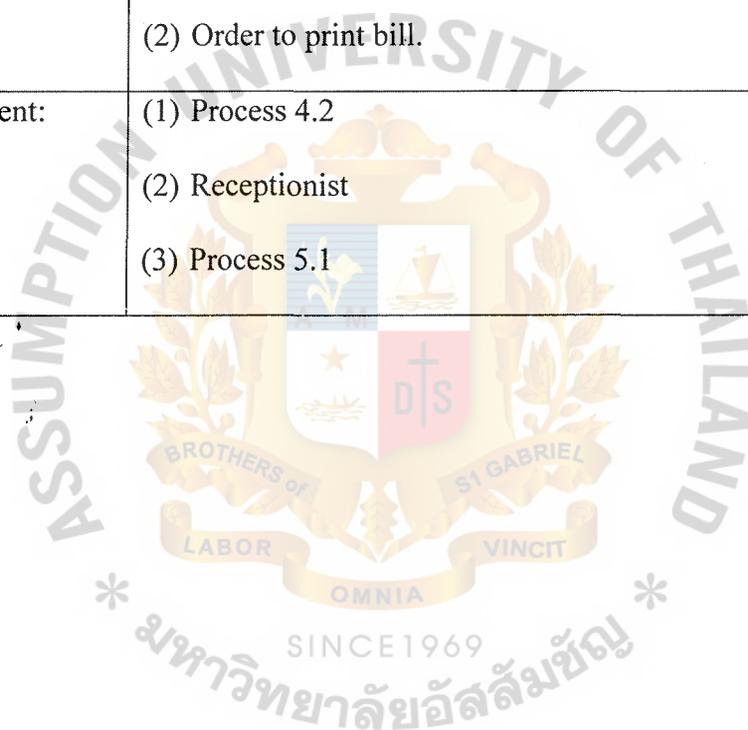


Table B-16 Process Specification for Process 4.0

Process Name:	Check-out from hotel
Data In:	<ul style="list-style-type: none"> (1) Bill (2) Total service detail (3) Customer record (4) Service information (5) Payment (6) Check-out (7) Room information
Data Out:	<ul style="list-style-type: none"> (1) Check-out information (2) Bill (3) Payment (4) Setting new room status (5) Customer record (6) New room status (7) Invoice
Process	<ul style="list-style-type: none"> (1) Inform to reception. (2) Create invoice. (3) Update customer information. (4) Set new room status.
Attachment:	<ul style="list-style-type: none"> (1) Data Store D1 (2) Data Store D2 (3) Data Store D3 (4) Data Store D5 (5) Process 4.0

	(6) Receptionist (7) Customer
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Table B-17 Process Specification for Process 4.1

Process Name:	Inform to reception
Data In:	(1) Bill (2) Check-out
Data Out:	(1) Check-out information (2) Bill
Process:	(1) Receive bill and check-out from customer.
Attachment:	(1) Customer (2) Receptionist (3) Process 4.3

Table B-18 Process Specification for Process 4.2

Process Name:	Create invoice
Data In:	(1) Total service detail (2) Room information (3) Service information (4) Customer information
Data Out:	(1) Invoice
Process:	(1) Receive room, service information and total service detail. (2) Create invoice.
Attachment:	(1) Process 5.3 (2) Receptionist

	(3) Data Store D1
	(4) Data Store D3
	(5) Data Store D5

Table B-19 Process Specification for Process 4.3

Process Name:	Update customer information
Data In:	(1) Invoice (2) Payment (3) Customer record
Data Out:	(1) Invoice (2) Payment (3) Updating customer record
Process:	(1) Receive invoice and customer's payment. (2) Update customer information.
Attachment:	(1) Receptionist (2) Customer (3) Data Store D1 (4) Process 5.2

Table B-20 Process Specification for Process 4.4

Process Name:	Set new room status
Data In:	(1) Setting new room status
Data Out:	(1) Recording new room status
Process:	(1) Set new room status according to receptionist's required. (2) Record new room status into data store.

Attachment:	(1) Receptionist (2) Data Store D2
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Table B-21 Process Specification for Process 5.0

Process Name:	Create graph and table report.
Data In:	<ol style="list-style-type: none"> (1) Customer information (2) Room status (3) Check-in information (4) Room information
Data Out:	<ol style="list-style-type: none"> (1) Customer statistical graph and table (2) Floor room status (3) Timely room status (4) Sale report (5) Seasonal graph and table
Process:	<ol style="list-style-type: none"> (1) Calculation all data for creating graph and table report. (2) Show customer statistical graph and table. (3) Show room status sort by floor and building. (4) Show room status sort by daily, monthly and yearly. (5) Show sale report sort by daily, monthly and yearly. (6) Show seasonal and customer graph and table.
Attachment:	<ol style="list-style-type: none"> (1) Data Store D1 (2) Data Store D2 (3) Data Store D5 (4) Manager

Table B-22 Process Specification for Process 5.1

Process Name:	Calculation all data for creating graph and table report.
Data In:	<ol style="list-style-type: none"> (1) Customer information (2) Room information (3) Check-in information (4) Room status
Data Out:	<ol style="list-style-type: none"> (1) Calculated customer information (2) Calculated room status by floor (3) Calculated room status by time (4) Calculated room information (5) Calculated check-in information
Process:	<ol style="list-style-type: none"> (1) Receive customer information, room status, check-in information and room information from data store. (2) Acquire for graph and table report from manager. (3) Calculated all data that have been received.
Attachment:	<ol style="list-style-type: none"> (1) Data Store D1 (2) Data Store D2 (3) Data Store D5 (4) Manager (5) Process 6.2 (6) Process 6.3 (7) Process 6.4 (8) Process 6.5 (9) Process 6.6

Table B-23 Process Specification for Process 5.2

Process Name:	Show customer statistical graph and table
Data In:	(1) Calculated customer information
Data Out:	(1) Customer statistical graph/table
Process:	(1) Get calculated customer information from process 6.1. (2) Show customer statistical graph and table to manager.
Attachment:	(1) Process 6.1 (2) Manager

Table B-24 Process Specification for Process 5.3

Process Name:	Show room status sort by floor and building.
Data In:	(1) Calculated room status
Data Out:	(1) Room status
Process:	(1) Get calculated room status from process 6.1. (2) Show room status in graphic to manager.
Attachment:	(1) Process 6.1 (2) Manager

Table B-25 Process Specification for Process 5.4

Process Name:	Show room status sort by daily, monthly and yearly.
Data In:	(1) Calculated room status
Data Out:	(1) Room status
Process:	(1) Get calculated room status from process 6.1. (2) Show room status in graphic to manager.
Attachment:	(1) Process 6.1 (2) Manager

Table B-26 Process Specification for Process 5.5

Process Name:	Show sale report sort by daily, monthly and yearly.
Data In:	(1) Calculated room information
Data Out:	(1) Sale report
Process:	(1) Get calculated room information from process 6.1. (2) Show sale report to manager.
Attachment:	(1) Process 6.1 (2) Manager

Table B-27 Process Specification for Process 5.6

Process Name:	Show seasonal and customer graph and table.
Data In:	(1) Calculated check-in information
Data Out:	(1) Seasonal graph and table
Process:	(1) Get calculated check-in information from process 6.1. (2) Show seasonal graph and table to manager.
Attachment:	(1) Process 6.1 (2) Manager



Table C-1 Data Dictionary of Order Processing System

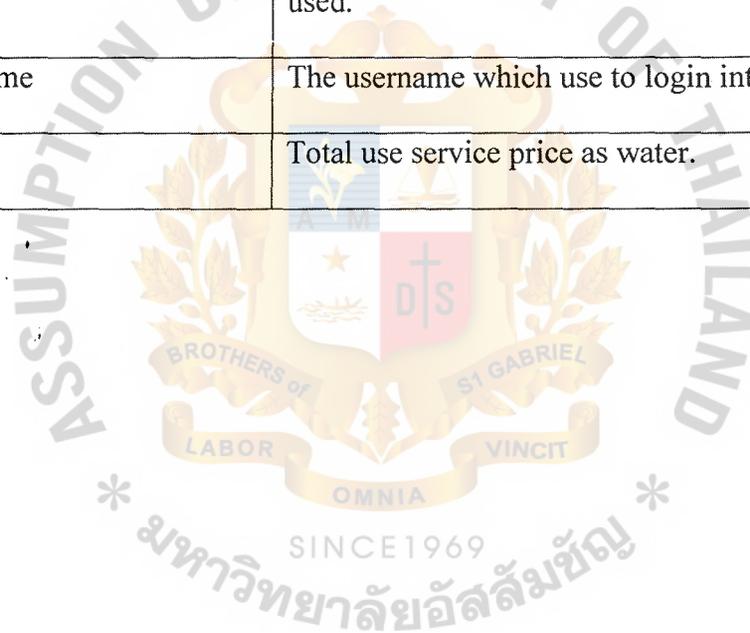
Data items	Meaning
Arrival Date	The day that customer arrival at the hotel.
Beverage	Total use service price as beverage.
Bill	A draft bill that show about expense of customer.
Building	Building no. of the hotel.
CAddress	Customer's address.
Calculated check-in information	Check-in information which have been summarized and calculated in the purpose of showing in graph and table.
Calculated customer information	Customer information which have been summarized and calculated in the purpose of showing in graph and table.
Calculated price	Total service's charge that has been calculated.
Calculated room information	Room information which have been summarized and calculated in the purpose of showing in graph and table.
Calculated room status by floor	Room status which have been summarized and calculated in the purpose of showing in graph and table which sort by floor.
Calculated room status by time	Room status which have been summarized and calculated in the purpose of showing in graph and table which sort by time.
Category	Group of service type.

Data items	Meaning
CEmail	Customer's e-mail.
CFax	Customer's fax number.
CheckInDate	The day that customer check-in into the hotel.
CheckInID	The identify number of check-in.
CheckInStatus	Y = already check out / N = not yet to checkout.
CheckInTime	The time that check-in occurs.
CheckInType	Type of customer check-in (future).
CheckOutDate	The day of check out.
Check-in	Customer comes to rest at the hotel.
Check-in information	Information about check-in.
Check-out	Customer departure form hotel.
Check-out information	Information about check-out.
Class	Class of user priority. There are two class, there are receptionist and manager.
Cleaning order	Receptionist order to housekeeper for cleaning the room.
Cleaning status	Housekeeper clean the room already.
CMobile	Customer's mobile phone.
Correct login	The login of user is correct.
Correct password	The password of user is correct.
Correct username	The username of user is correct.
CProvince	The province where customer stayed.
CTel	Customer's telephone number.

Data items	Meanings
CustomerID	The identify number of customer.
CustomerName	Customer's name.
Customer information	Information of customer.
Customer statistical graph/table	Graph and table that display about statistical of customer.
Detail	Detail about service used.
Electrical	The rate of electric charge.
ExpDate	Payment date.
Ex-customer information	Existing customer information.
Floor room status	Room status sort by floor
Fixing order	Reception order to mechanic for fixing the room.
Fixing status	Mechanic fix the room already.
Floors	Floor number in the building.
Food	Total use service price as food.
Incorrect password	The password of user was incorrect.
Incorrect username	The username of user was incorrect.
Invoice	The document that used to tell customer to pay the money.
ItemNo	Number of the item that customer used.
Manager login	Manager login into the system.
New room status	Reception record new room status after cleaning and fixing already.
Other	Total use service price as others.

Data items	Meanings
Paid	The amount that customer must paid.
Password	The password that used to access into the system.
Payment	Customer's pay the charge.
Price	The price of service charge per unit.
Reception login	Reception login into the system.
Report	Report that manager acquire.
Reservation form	A form of reservation the room when customer check-in.
Room information	The information of each room.
Room status	The status of the room. For example vacancy room, occupy room or out of order room.
Room status cleaning	The status of room after housekeeper cleaned the room.
Room status fixing	The status of room after mechanic fixed the room.
RoomID	The identity number of room.
RoomNO	Number of room.
RoomRate	The rate of each room.
RoomStatus	Room's status has 3 levels as vacancy, occupy and out of order.
RoomStatus1	Room' status has 2 levels if status as damage and cleaning.
Sale report	Report that show income of the hotel.
Seasonal graph and table	Graph which show about seasonal trend of customer.

Data items	Meanings
ServiceID	Identify of service information.
Service information	Information of service in the hotel.
Telephone	Total use service price as telephone.
Timely room status	Room status sort by daily, weekly and monthly.
Total	Total service's charge.
Total service detail	Total service detail that customer used.
Unit	The unit per amount of each service that customer used.
Username	The username which use to login into the system.
Water	Total use service price as water.





APPENDIX D
INTERFACE DESIGN

SINCE 1969



APPENDIX E
MANAGEMENT REPORT DESIGN

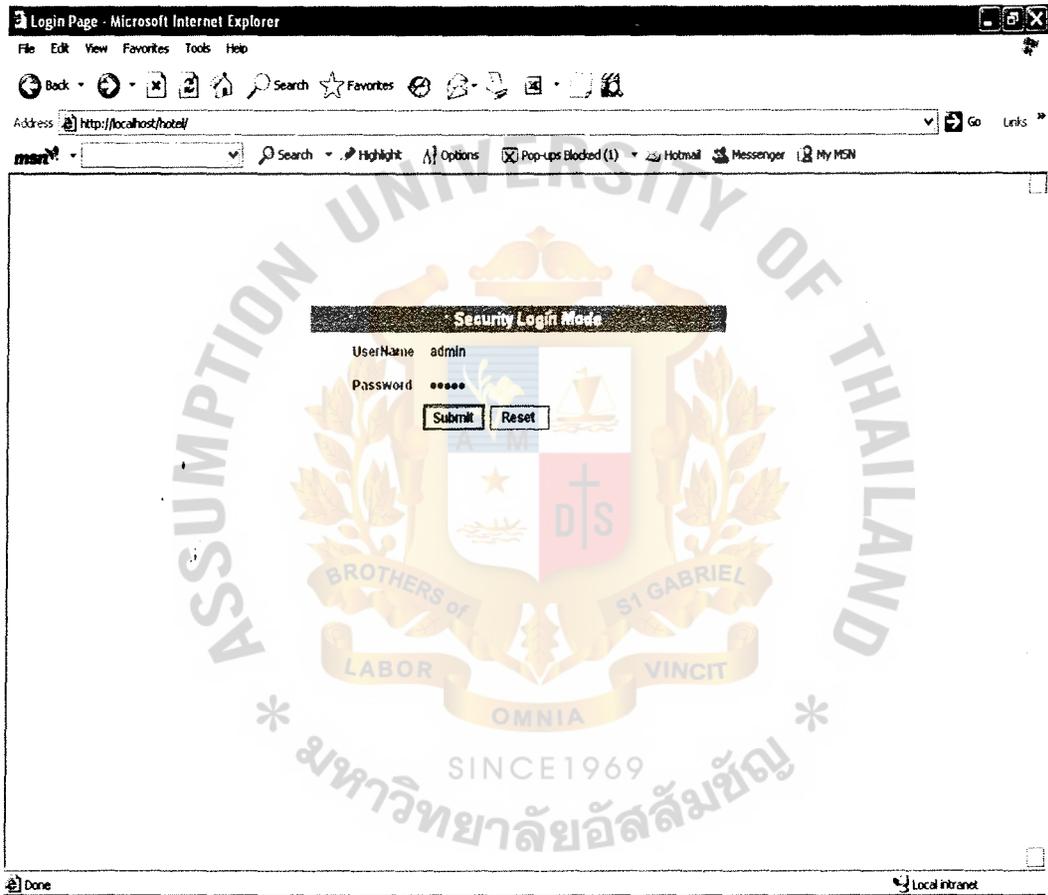


Figure D-1 Login to the System

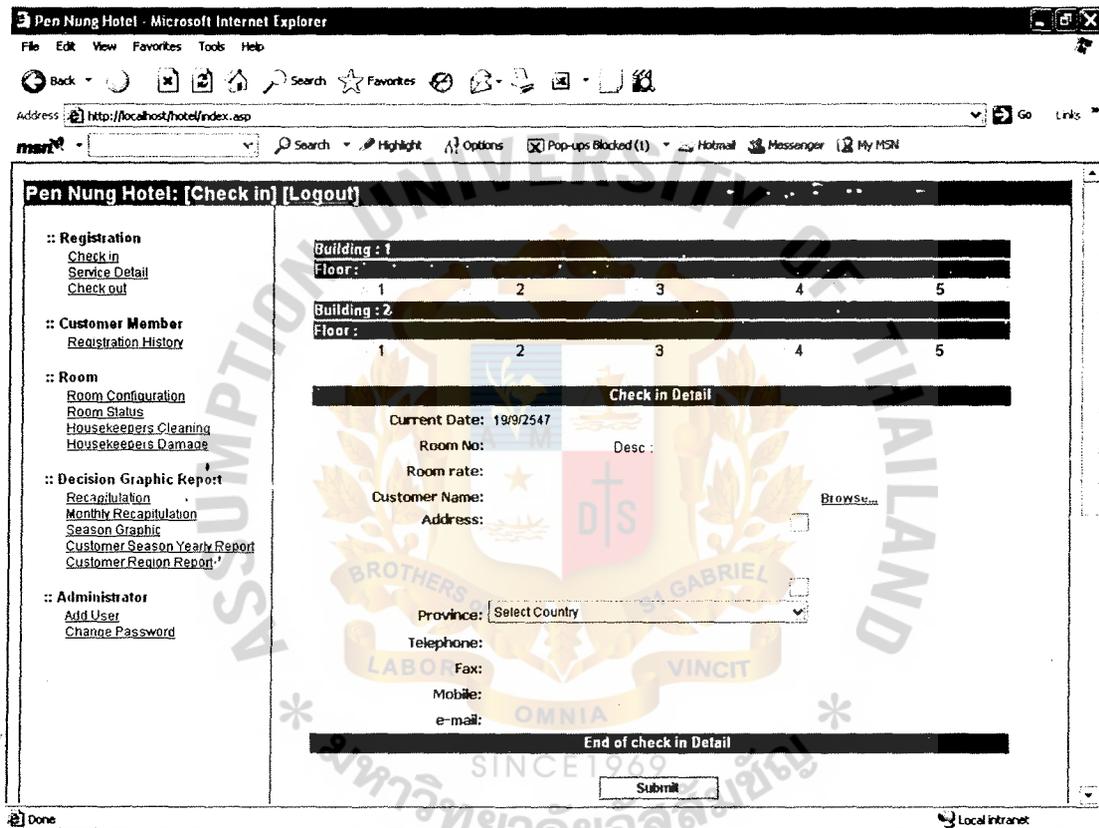


Figure D-2 Registration (Check In)

Pen Nung Hotel - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Home Search Favorites Stop Refresh Print

Address http://localhost/hotel/index.asp Go Links

Search Highlight Options Pop-ups Blocked (1) Hotmail Messenger My MSN

Pen Nung Hotel: [Service Detail] [Logout]

:: Registration
[Check in](#)
[Service Detail](#)
[Check out](#)

:: Customer Member
[Registration History](#)

:: Room
[Room Configuration](#)
[Room Status](#)
[Housekeepers Cleaning](#)
[Housekeepers Damaged](#)

:: Decision Graphic Report
[Recapitulation](#)
[Monthly Recapitulation](#)
[Season Graphic](#)
[Customer Season Yearly Report](#)
[Customer Region Report](#)

:: Administrator
[Add User](#)
[Change Password](#)

Building : 1
Floor :

1	2	3	4	5
---	---	---	---	---

Building : 2
Floor :

1	2	3	4	5
---	---	---	---	---

Service Recording Form

RoomNo.

Detail Price 0 Unit 0

Category SubTotal 0

Detail	Category	Price	Unit	Total
GrandTotal : .00				

Figure D-3 Registration (Service Detail)

Pen Nung Hotel - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print

Address http://localhost/hotel/index.asp Go Links

Search Highlight Options Pop-ups Blocked (1) Hotmail Messenger My MSN

Pen Nung Hotel: [Check out] [Logout]

:: Registration
[Check in](#)
[Service Detail](#)
[Check out](#)

:: Customer Member
[Registration History](#)

:: Room
[Room Configuration](#)
[Room Status](#)
[Housekeepers Cleaning](#)
[Housekeepers Damage](#)

:: Decision Graphic Report
[Recapitulation](#)
[Monthly Recapitulation](#)
[Season Graphic](#)
[Customer Season Yearly Report](#)
[Customer Region Report](#)

:: Administrator
[Add User](#)
[Change Password](#)

Building : 1
 Floor :

1	2	3	4	5
---	---	---	---	---

Building : 2
 Floor :

1	2	3	4	5
---	---	---	---	---

Room No :
 Date : 19/9/2547

Name :
 Detail :

Check In Date :

NO.	Description	Amount
1.	Food	0
2.	Beverage	0
3.	Water	0
4.	Accessory	0
5.	Telephone	0
6.	Other	0
7.	Used Service 0 Day/Night	0
Total :		<input type="text" value="0"/>

http://localhost/hotel/billing.asp Local intranet

Figure D-4 Registration (Check Out)

Pen Nung Hotel - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Home Search Favorites Stop Refresh Print

Address http://localhost/hotel/index.asp Go Links

Search Highlight Options Pop-ups Blocked (1) Hotmail Messenger My MSN

Pen Nung Hotel: [Registration History] [Logout]

:: Registration
[Check in](#)
[Service Detail](#)
[Check out](#)

:: Customer Member
[Registration History](#)

:: Room
[Room Configuration](#)
[Room Status](#)
[Housekeepers Cleaning](#)
[Housekeepers Damage](#)

:: Decision Graphic Report
[Recapitulation](#)
[Monthly Recapitulation](#)
[Season Graphic](#)
[Customer Season Yearly Report](#)
[Customer Region Report](#)

:: Administrator
[Add User](#)
[Change Password](#)

Customer Name:

Customer Region:

Customer Name	Check In	Check Out	Room NO.	Room Rate
Alongkone Poonyarat				
Annai boondee	02/12/2545		Bldg. 1 R.225	500
Arti Pnadey				
Benjaporn Kerdprorsuk				
Chutima Wattanasatharpha				
Hathai Trakoonjulakiet				
Jakapong Wanaputi				
Naisa Suebwongsan				
Noppadon Duangthipnest				
Paifoon Kitihawornkul				
Panida Garsakunrath				
Parepun pongpitukkul				
Patchara Thamatrakoln				
Penpom terat				
Pornpayao Losuwan				
Prawat Larphavanon				
Rattiya Kaewasuntrowchai				
Saengduan Chaisirpom				
Sommart Wattananuk				
Sudarat Buakeaw				
Sukanya Korlerkkul				

Done Local intranet

Figure D-5 Customer Member (Registration History)

Pen Nung Hotel - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print

Address http://localhost/hotel/index.asp Go Links

Search Highlight Options Pop-ups Blocked (1) Hotmail Messenger My MSN

Pen Nung Hotel: [Registration History] [Logout]

:: Registration
[Check in](#)
[Service Detail](#)
[Check out](#)

:: Customer Member
[Registration History](#)

:: Room
[Room Configuration](#)
[Room Status](#)
[Housekeepers Cleaning](#)
[Housekeepers Damage](#)

:: Decision Graphic Report
[Recapitulation](#)
[Monthly Recapitulation](#)
[Season Graphic](#)
[Customer Season Yearly Report](#)
[Customer Region Report](#)

:: Administrator
[Add User](#)
[Change Password](#)

Building : 1

Floor :

1	2	3	4	5
---	---	---	---	---

Building : 2

Floor :

1	2	3	4	5
---	---	---	---	---

Room Configuration

Building :

Floor :

Room No :

Room Rate :

Room Status : Vacancy
 Delete Room From List

Room Configuration

Figure D-6 Room (Room Configuration)

Pen Nung Hotel - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Home Search Favorites

Address: http://localhost/hotel/index.asp

msn Search Highlight Options Pop-ups Blocked (1) Hotmail Messenger My MSN

Pen Nung Hotel: [Room Status] [Logout]

:: Registration
[Check in](#)
[Service Detail](#)
[Check out](#)

:: Customer Member
[Registration History](#)

:: Room
[Room Configuration](#)
[Room Status](#)
[Housekeepers Cleaning](#)
[Housekeepers Damage](#)

:: Decision Graphic Report
[Recapitulation](#)
[Monthly Recapitulation](#)
[Season Graphic](#)
[Customer Season Yearly Report](#)
[Customer Region Report](#)

:: Administrator
[Add User](#)
[Change Password](#)

Building : 1
 Floor : 1

		1	2	3	4	5	
Building: 1 Floors: 1		Close					
	<input type="radio"/> OCC						
<input type="radio"/> Cleaning <input type="radio"/> Damage							
Room 106	<input type="radio"/> VAC <input type="radio"/> OCC	Room 107	<input type="radio"/> VAC <input type="radio"/> OCC	Room 108	<input type="radio"/> VAC <input type="radio"/> OCC	Room 109	<input type="radio"/> VAC <input type="radio"/> OCC
<input type="radio"/> Cleaning <input type="radio"/> Damage							
Room 110	<input type="radio"/> VAC <input type="radio"/> OCC	Room 111	<input type="radio"/> VAC <input type="radio"/> OCC	Room 112	<input type="radio"/> VAC <input type="radio"/> OCC	Room 113	<input type="radio"/> VAC <input type="radio"/> OCC
<input type="radio"/> Cleaning <input type="radio"/> Damage							
Room 114	<input type="radio"/> VAC <input type="radio"/> OCC	Room 115	<input type="radio"/> VAC <input type="radio"/> OCC	Room 116	<input type="radio"/> VAC <input type="radio"/> OCC	Room 117	<input type="radio"/> VAC <input type="radio"/> OCC
<input type="radio"/> Cleaning <input type="radio"/> Damage							

Local intranet

Figure D-7 Room (Room Status)

Pen Nung Hotel - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Home Search Favorites Stop Refresh

Address http://localhost/hotel/index.asp Go Links

Search Highlight Options Pop-ups Blocked (1) Hotmail Messenger My MSN

Pen Nung Hotel: [Decision Graphic Report] [Logout]

- :: Registration**
 - [Check in](#)
 - [Service Detail](#)
 - [Check out](#)
- :: Customer Member**
 - [Registration History](#)
- :: Room**
 - [Room Configuration](#)
 - [Room Status](#)
 - [Housekeepers Cleaning](#)
 - [Housekeepers Damage](#)
- :: Decision Graphic Report**
 - [Recapitulation](#)
 - [Monthly Recapitulation](#)
 - [Season Graphic](#)
 - [Customer Season Yearly Report](#)
 - [Customer Region Report](#)
- :: Administrator**
 - [Add User](#)
 - [Change Password](#)

Graphic Decision Report

Cleanning Table

No.	Building	Floor	Room No.
1	1	1	105
2	1	2	204
3	1	2	206
4	1	3	322
5	1	3	330
6	2	2	204
7	2	2	206
			Total rooms to clean : 7

* มหาวิทยาลัยอัสสัมชัญ *
SINCE 1969

Done Local intranet

Figure D-8 Room (Housekeeper Cleaning)

Pen Nung Hotel - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Home Stop Search Favorites Stop

Address http://localhost/hotel/index.asp Go Links

msn Search Highlight Options Pop-ups Blocked (1) Hotmail Messenger MY MSN

Pen Nung Hotel: [Housekeepers Damage] [Logout]

:: Registration
[Checkin](#)
[Service Detail](#)
[Checkout](#)

:: Customer Member
[Registration History](#)

:: Room
[Room Configuration](#)
[Room Status](#)
[Housekeepers Cleaning](#)
[Housekeepers Damage](#)

:: Decision Graphic Report
[Recapitulation](#)
[Monthly Recapitulation](#)
[Season Graphic](#)
[Customer Season Yearly Report](#)
[Customer Region Report](#)

:: Administrator
[Add User](#)
[Change Password](#)

Graphic Decision Report

Room Damage Table

No.	Building	Floor	Room No.
1	1	1	101
2	1	1	102
3	1	1	103
4	1	1	104
5	1	3	302
6	1	3	309
7	1	3	317
8	1	3	324

Total rooms to repair : 8

* มหาวิทยาลัยอัสสัมชัญ *
 SINCE 1969

Local Intranet

Figure D-9 Room (Housekeeper Damage)

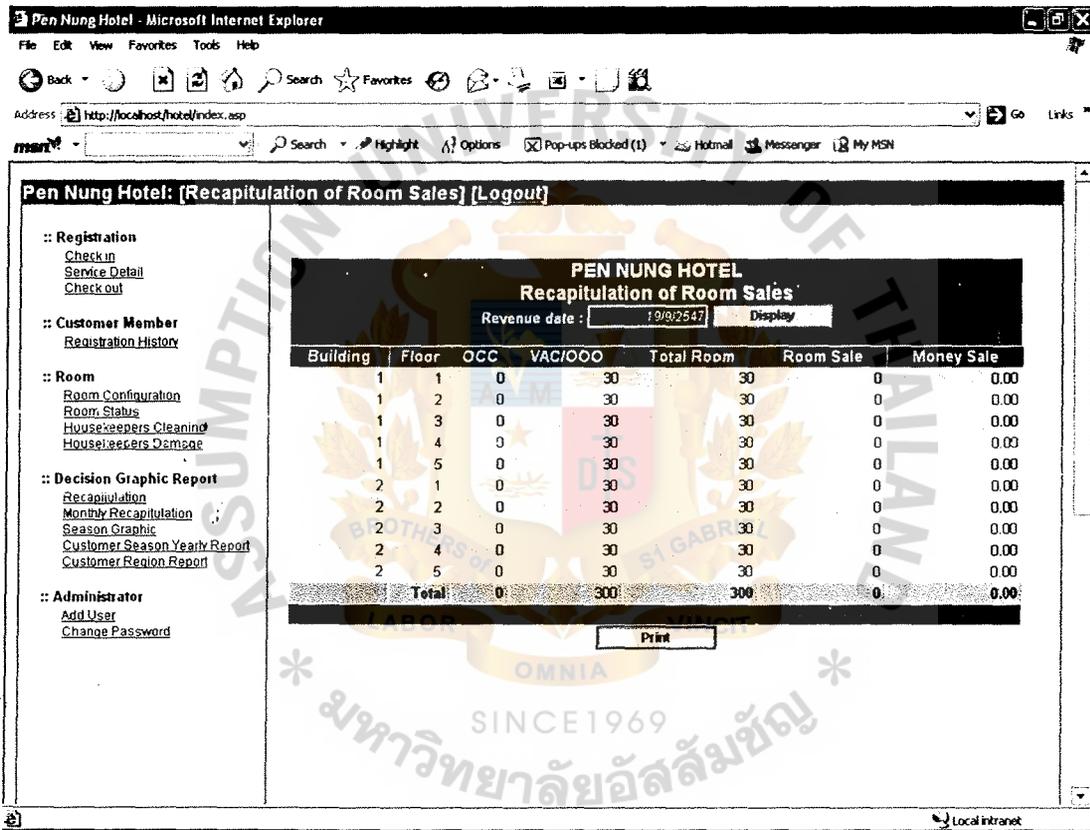


Figure D-10 Decision Graphic Report (Recapitulation)

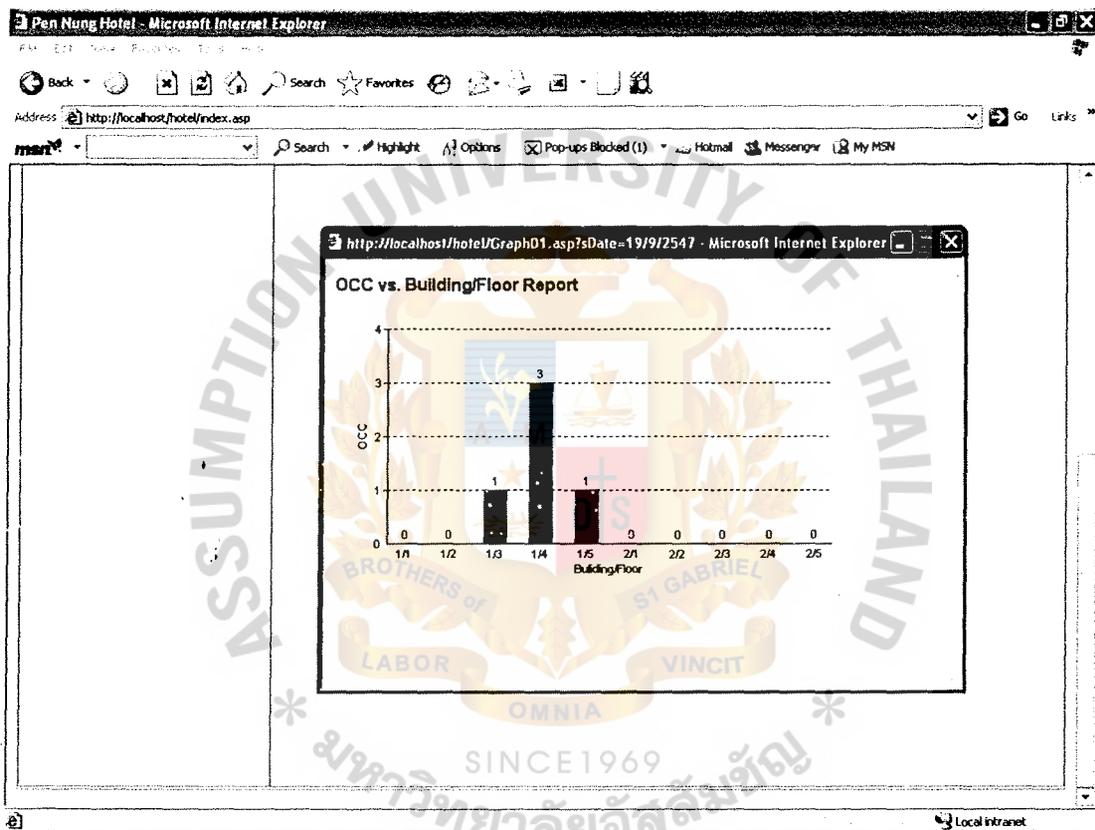


Figure D-11 Decision Graphic Report (Recapitulation-OCC Chart)

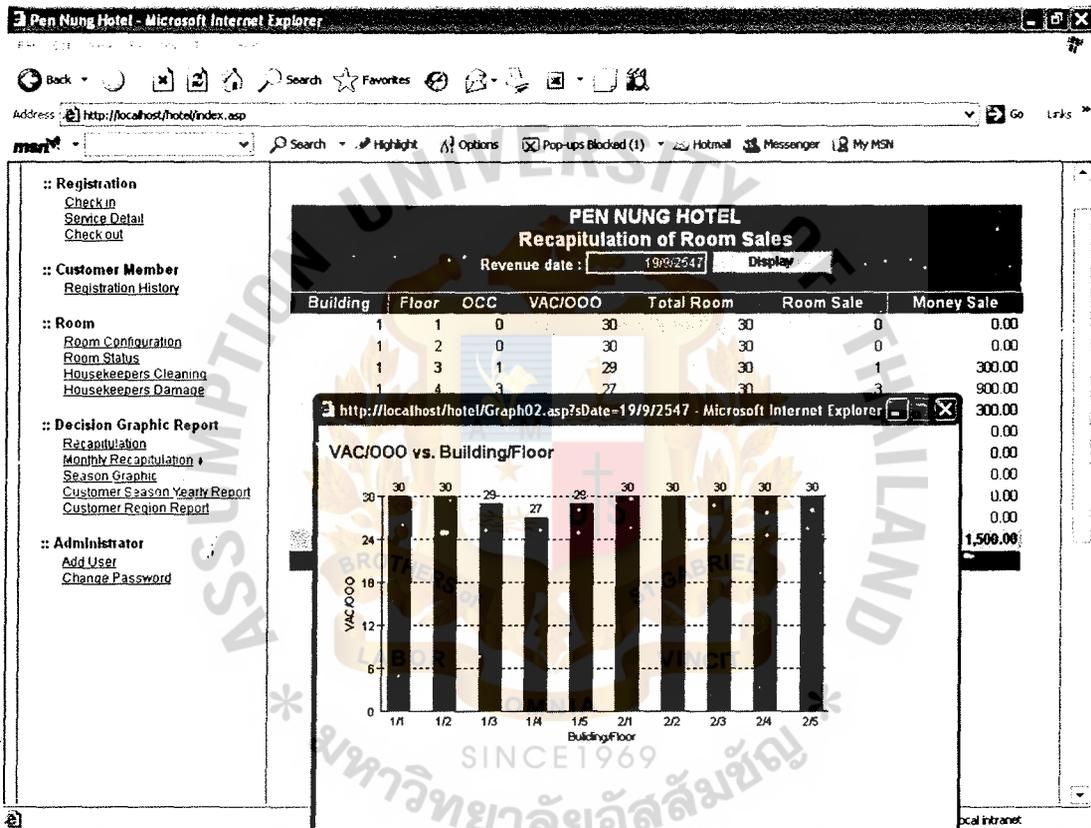


Figure D-12 Decision Graphic Report (Recapitulation-VAC/OCC Chart)

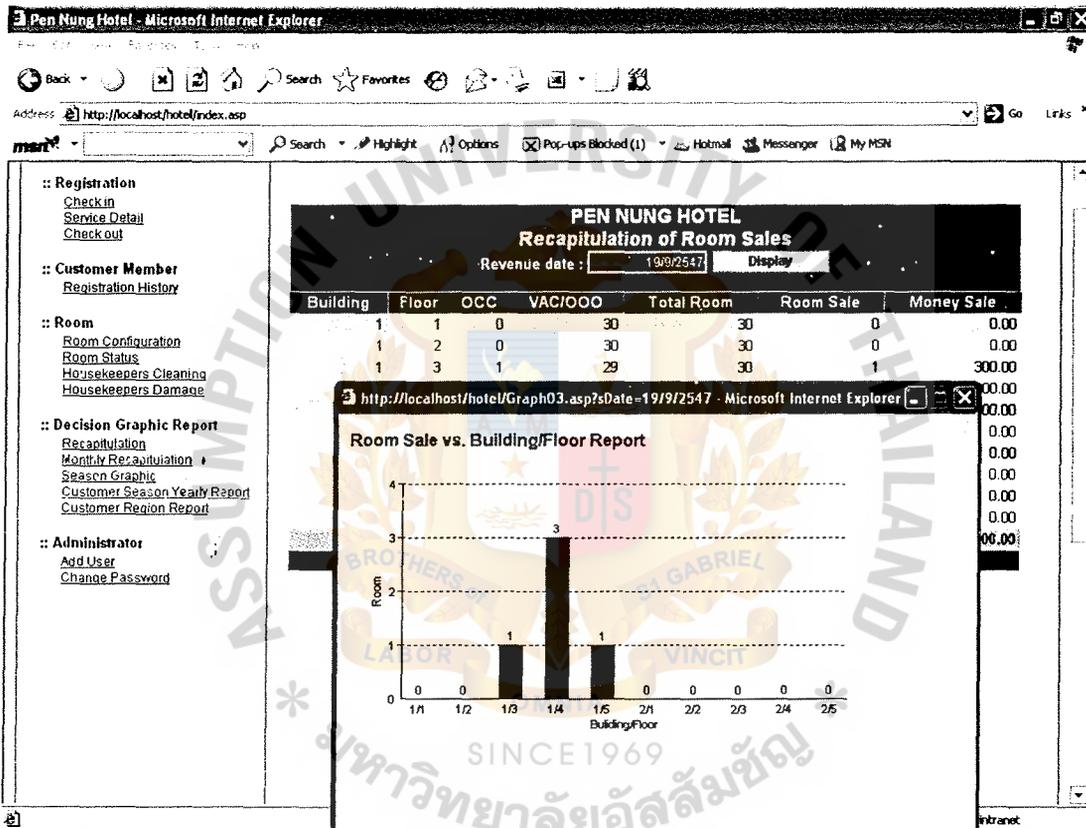


Figure D-13 Decision Graphic Report (Recapitulation-Room Sales Chart)

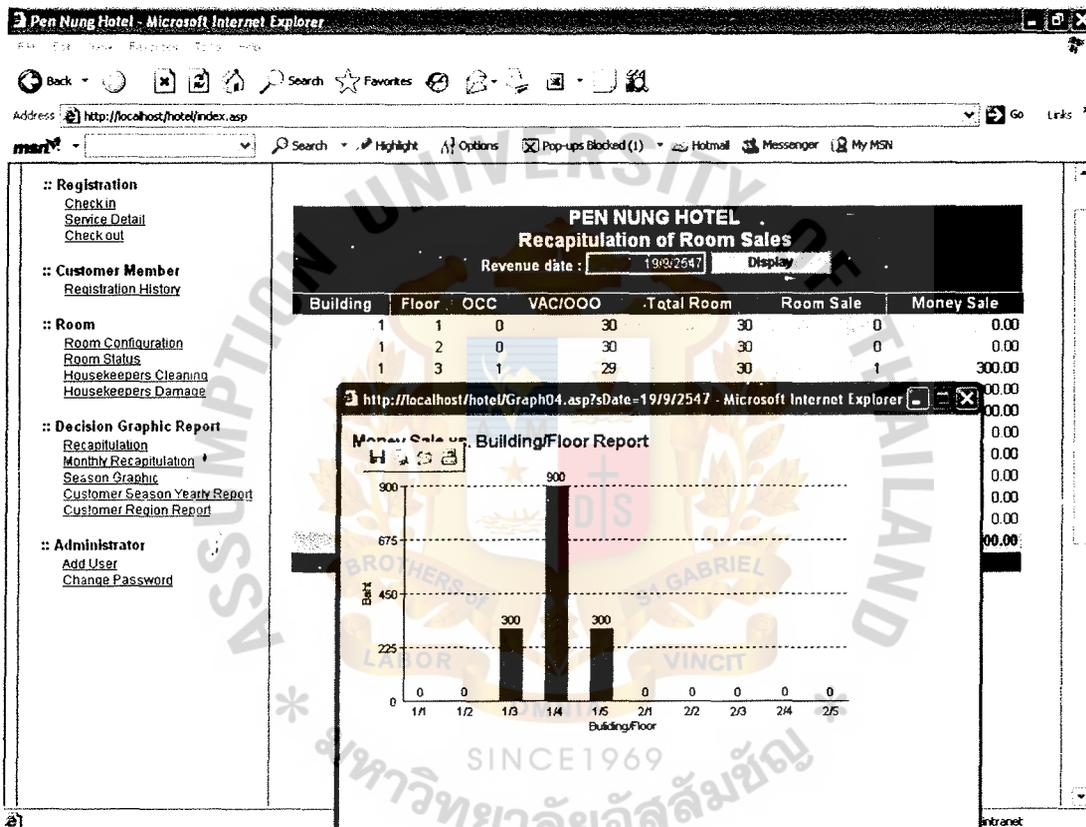


Figure D-14 Decision Graphic Report (Recapitulation-Money Sales Chart)

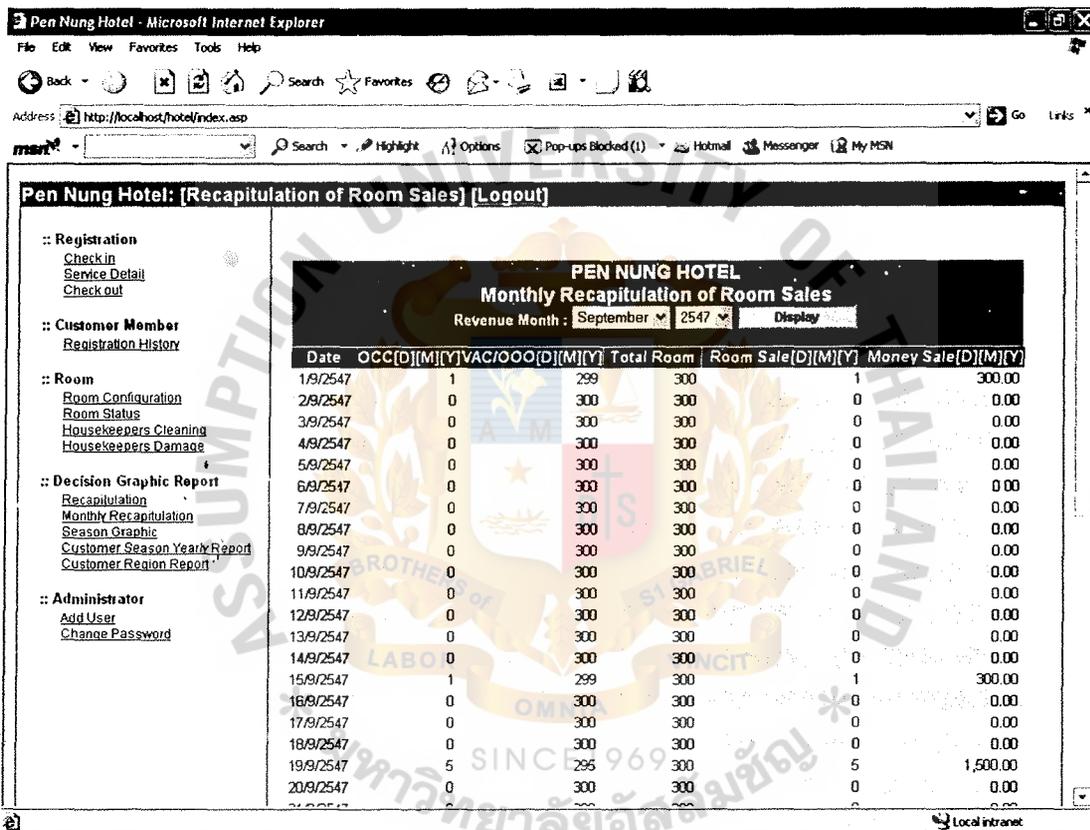


Figure D-15 Decision Graphic Report (Monthly Recapitulation)

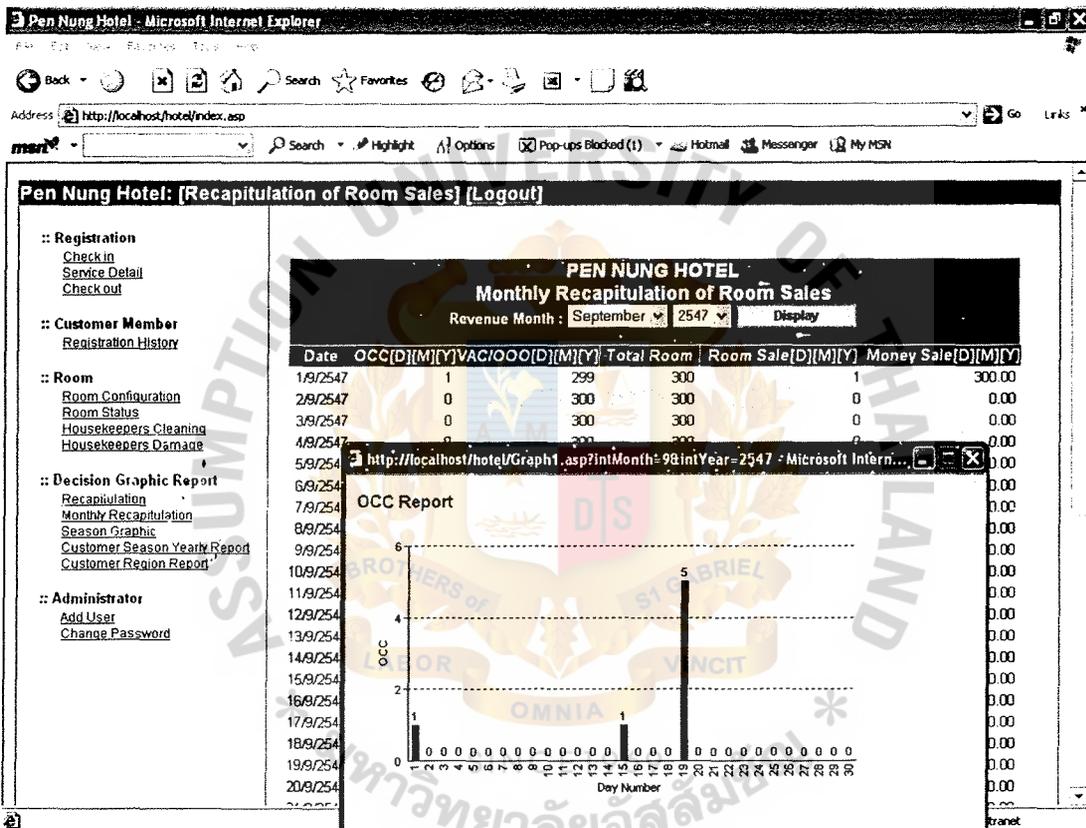


Figure D-16 Decision Graphic Report (Monthly Recapitulation-OCC [D])

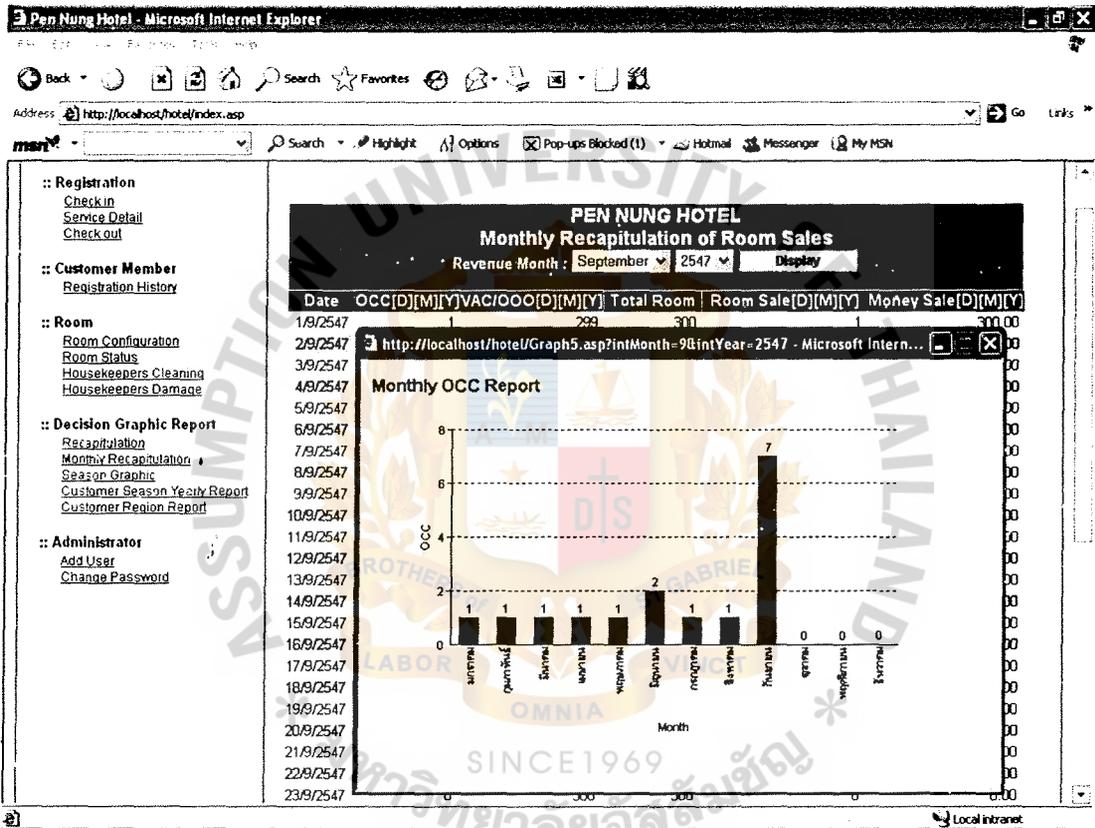


Figure D-17 Decision Graphic Report (Monthly Recapitulation-OCC [M])

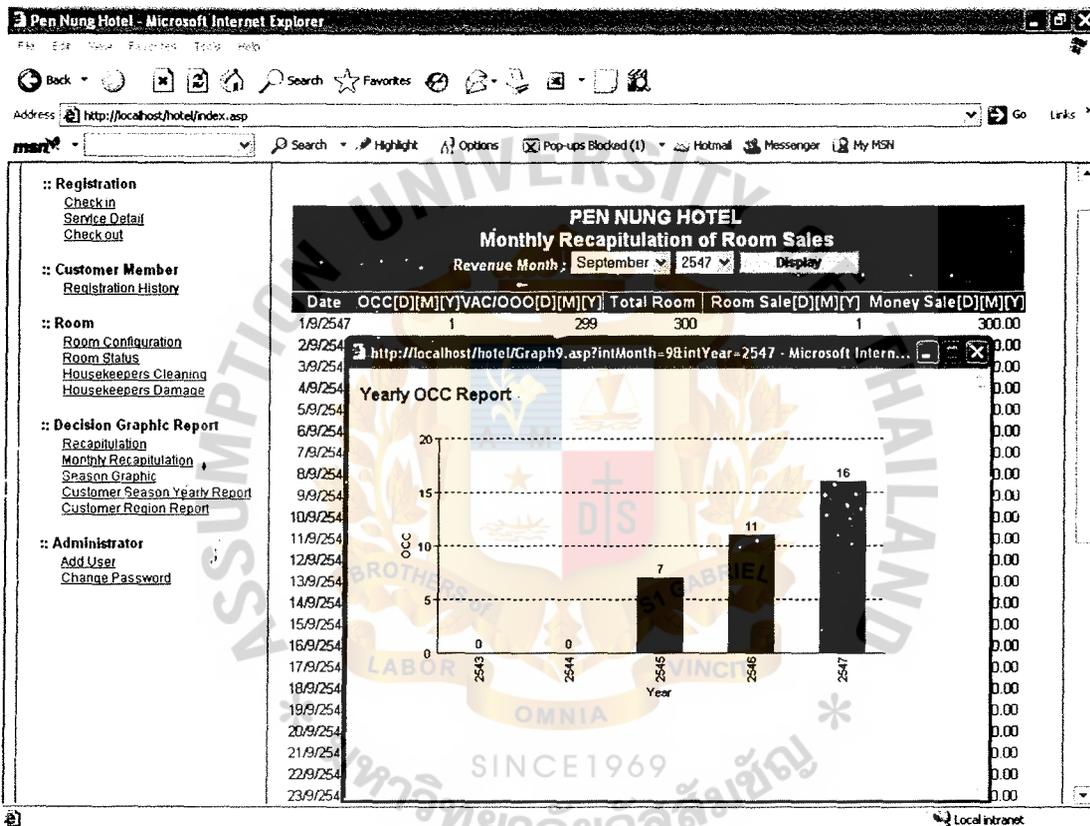


Figure D-18 Decision Graphic Report (Monthly Recapitulation-OCC [Y])

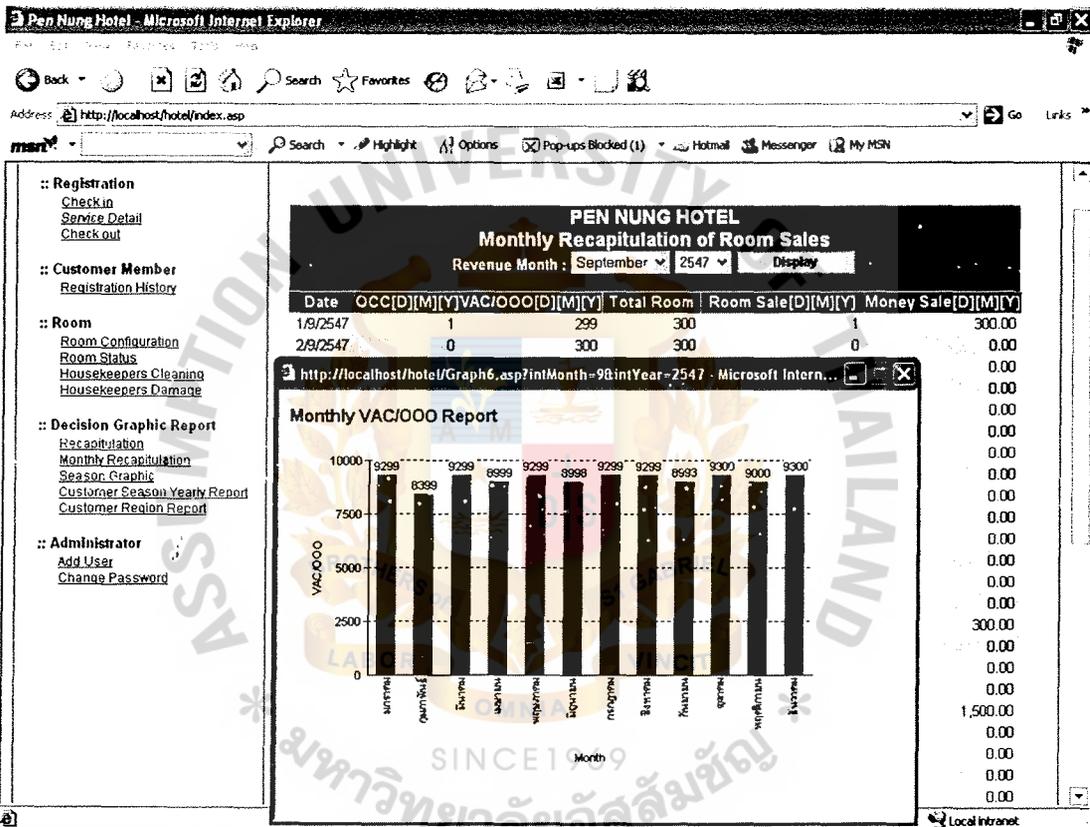


Figure D-20 Decision Graphic Report (Monthly Recapitulation-VAC [M])

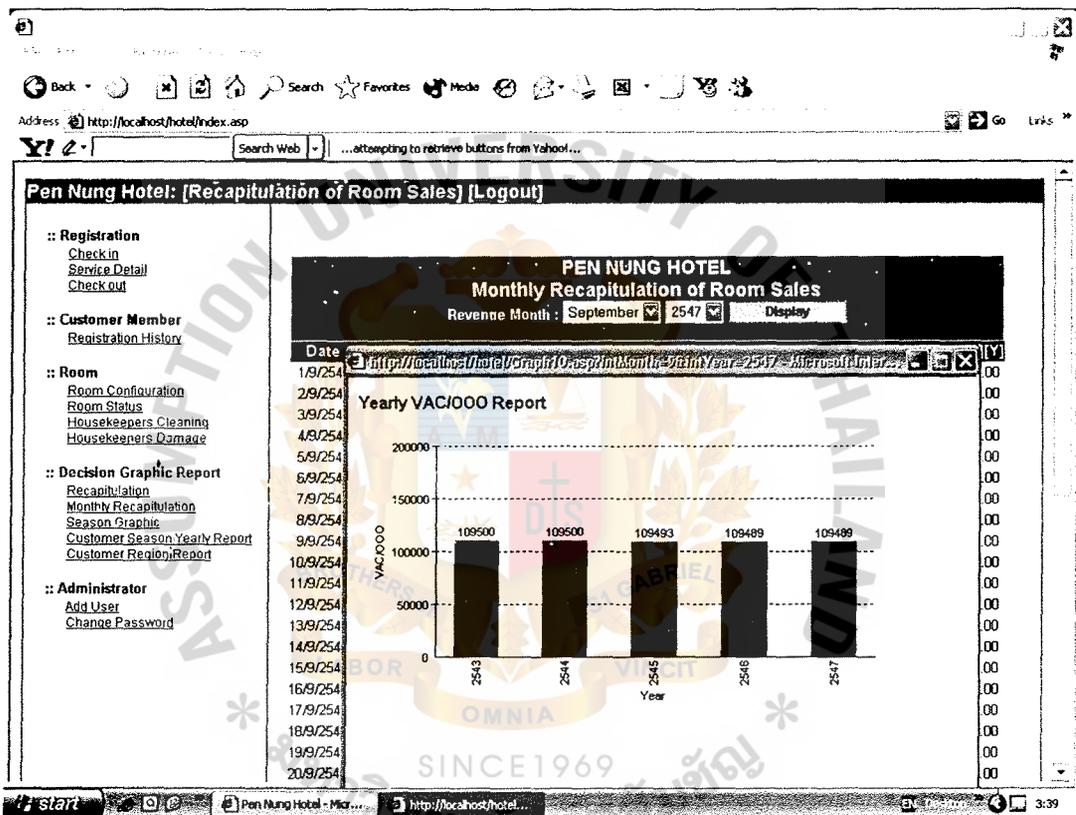


Figure D-21 Decision Graphic Report (Monthly Recapitulation-VAC [Y])

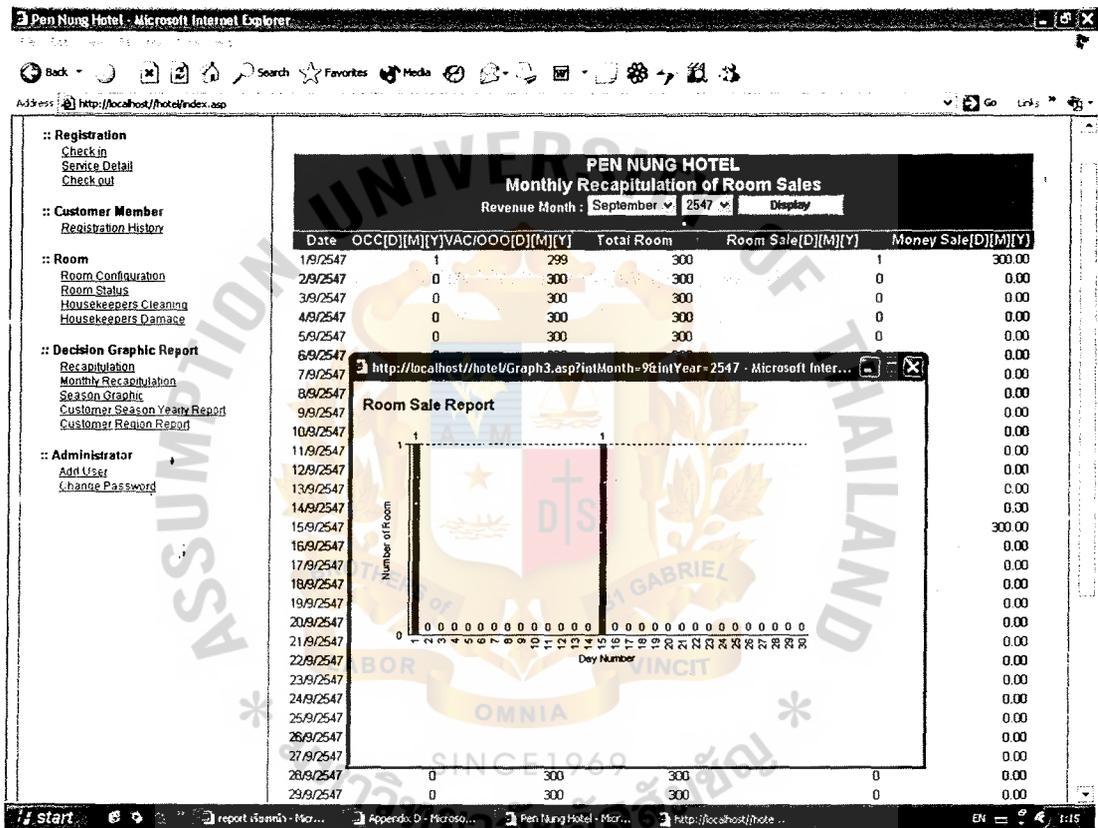


Figure D-22 Decision Graphic Report (Monthly Recapitulation-Room Sales [D])

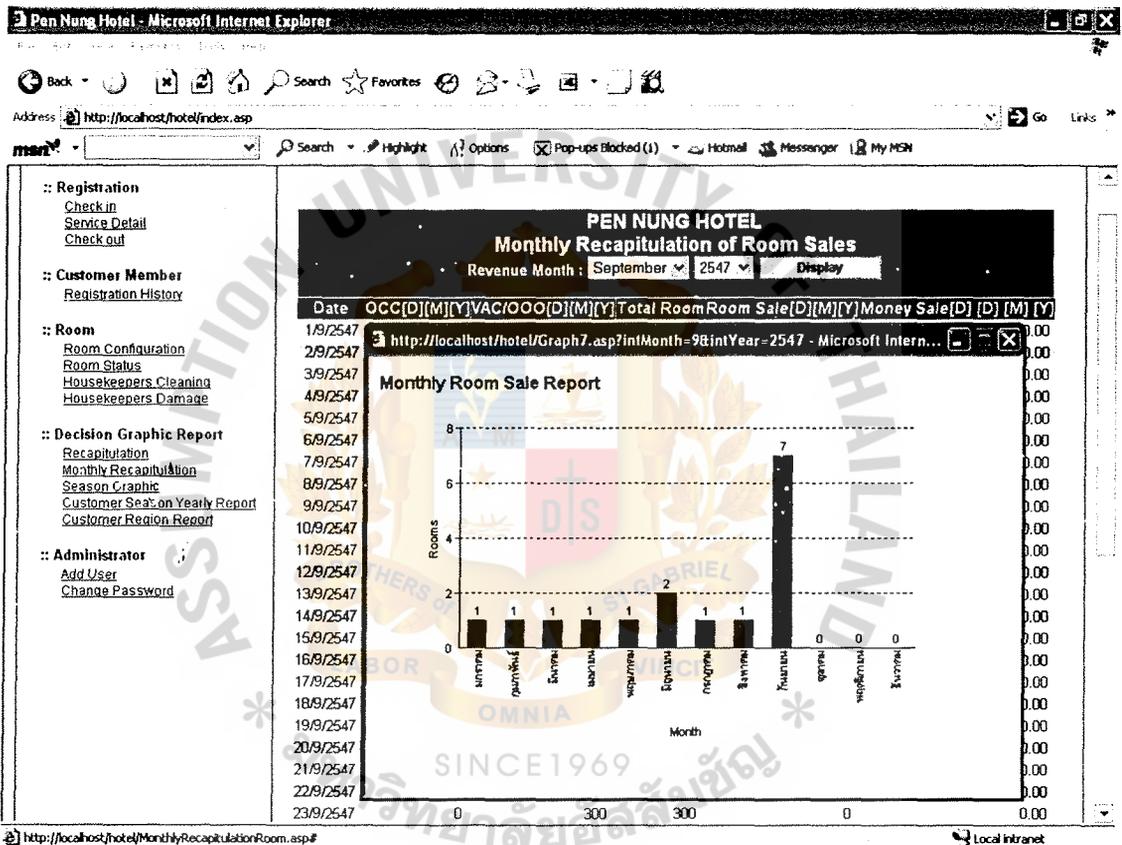


Figure D-23 Decision Graphic Report (Monthly Recapitulation-Room Sales [M])

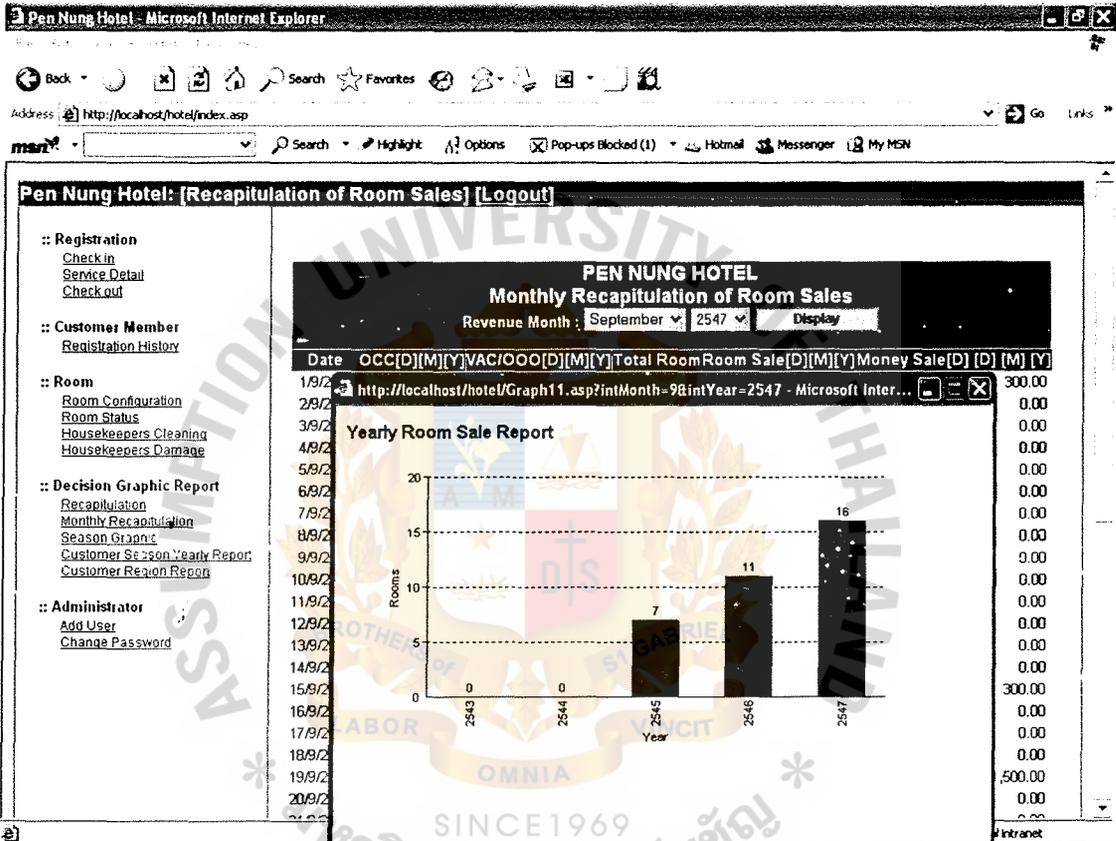


Figure D-24 Decision Graphic Report (Monthly Recapitulation-Room Sales [Y])

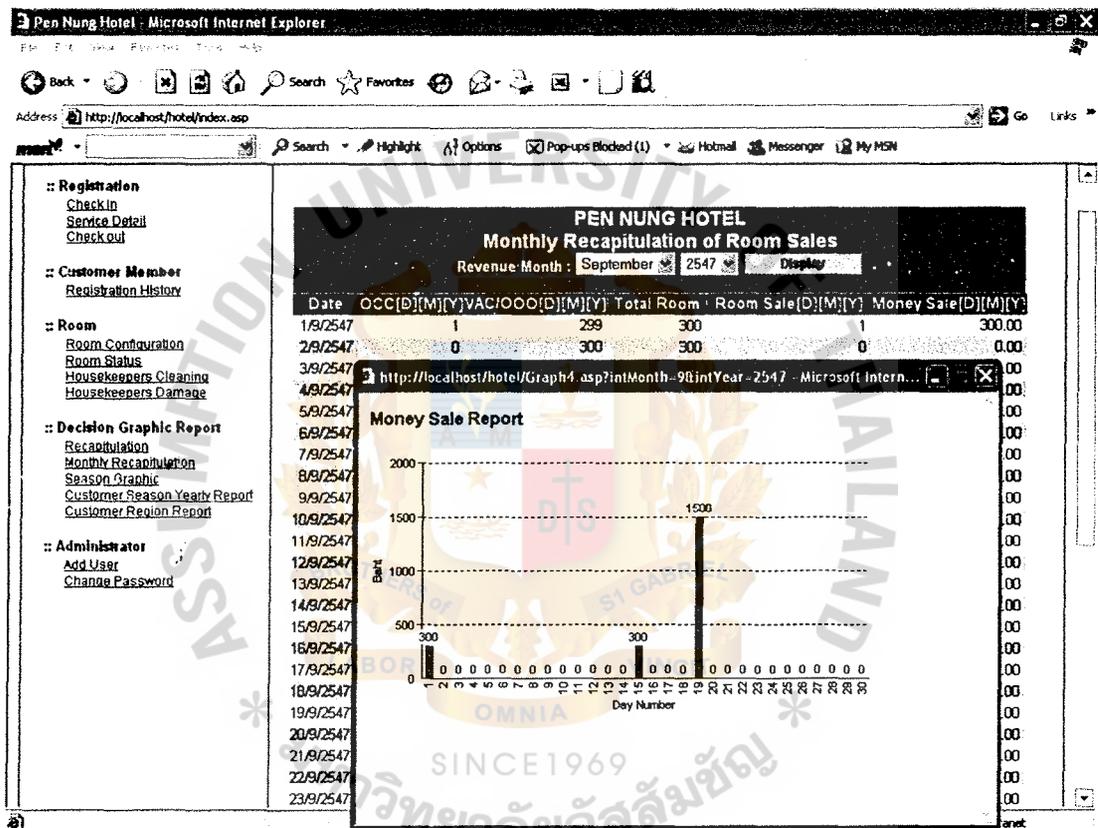


Figure D-25 Decision Graphic Report (Monthly Recapitulation-Money Sales [D])

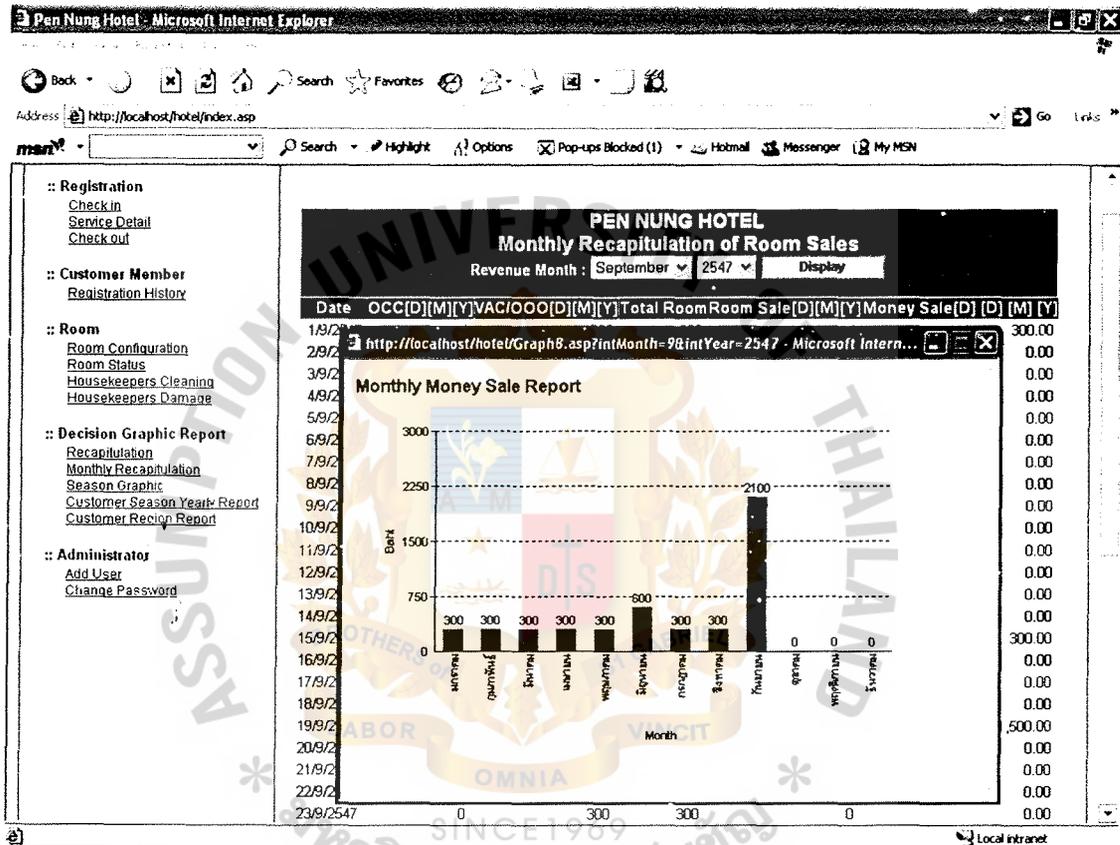


Figure D-26 Decision Graphic Report (Monthly Recapitulation-Money Sales [M])

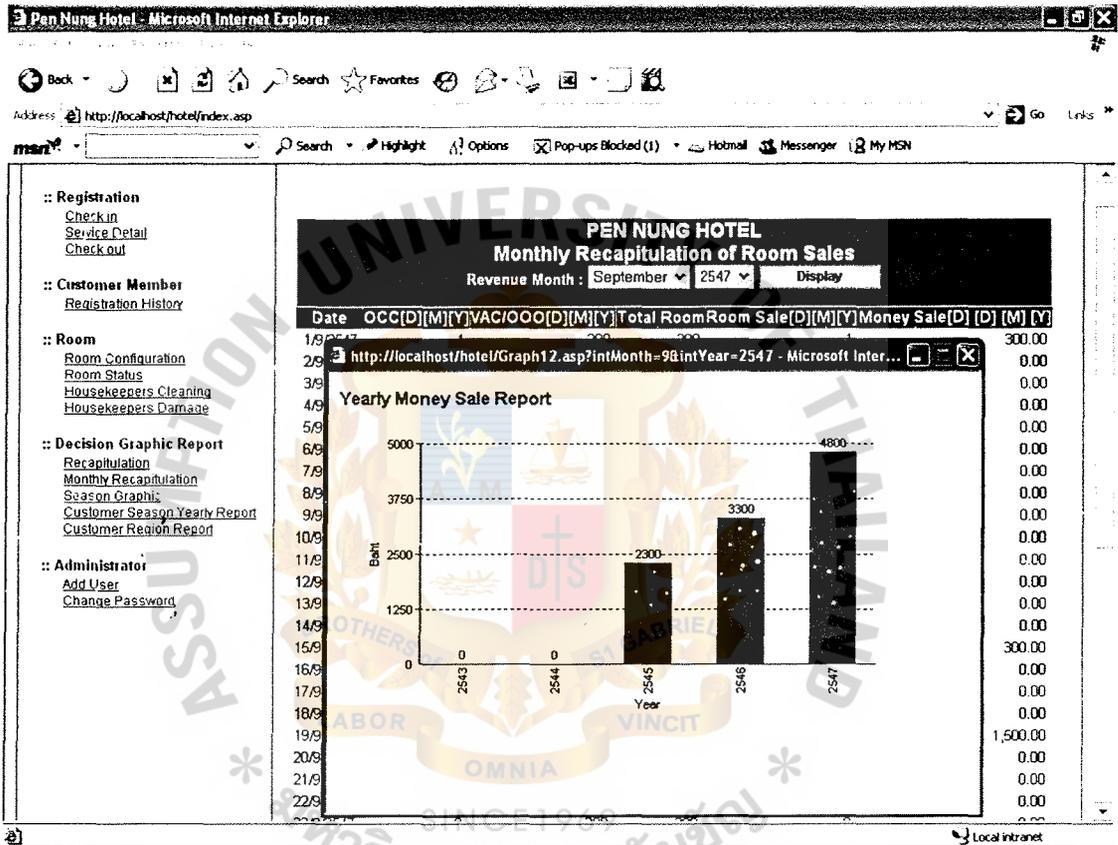


Figure D-27 Decision Graphic Report (Monthly Recapitulation-Money Sales [Y])

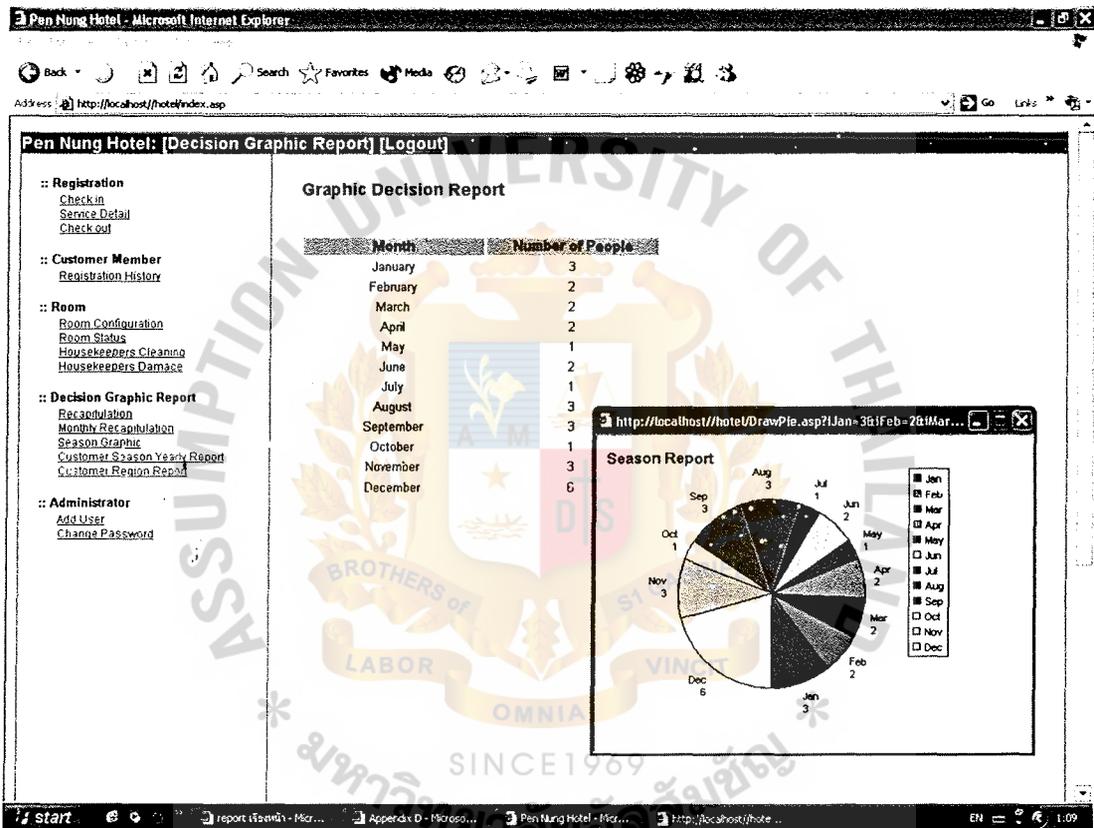


Figure D-28 Decision Graphic Report (Season Graphic)

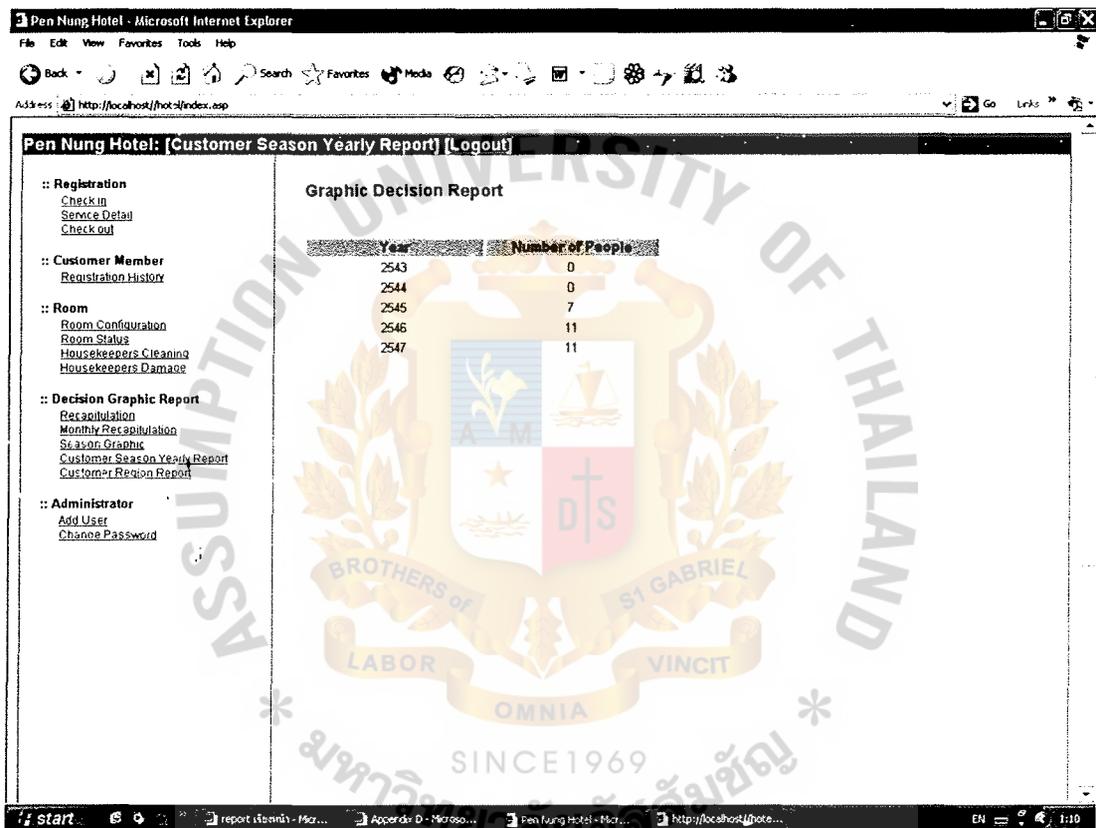


Figure D-29 Decision Graphic Report (Customer Season Yearly Report)

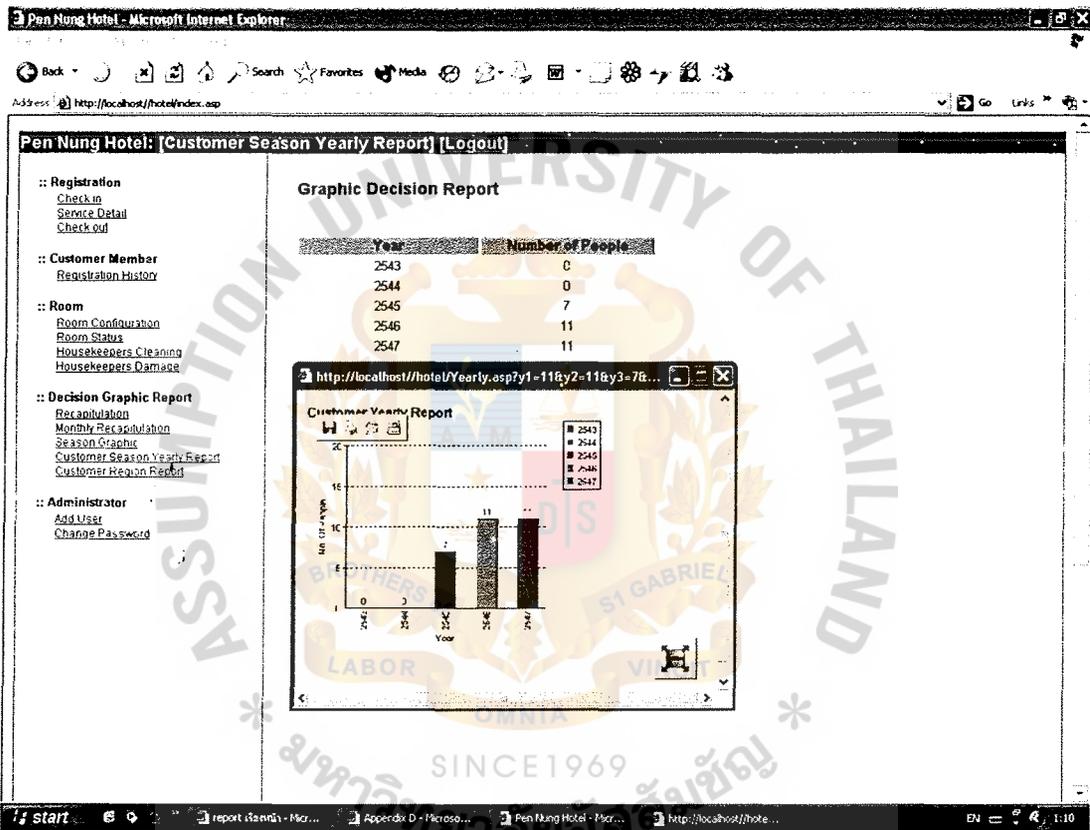


Figure D-30 Decision Graphic Report (Customer Season Yearly Report - Chart)

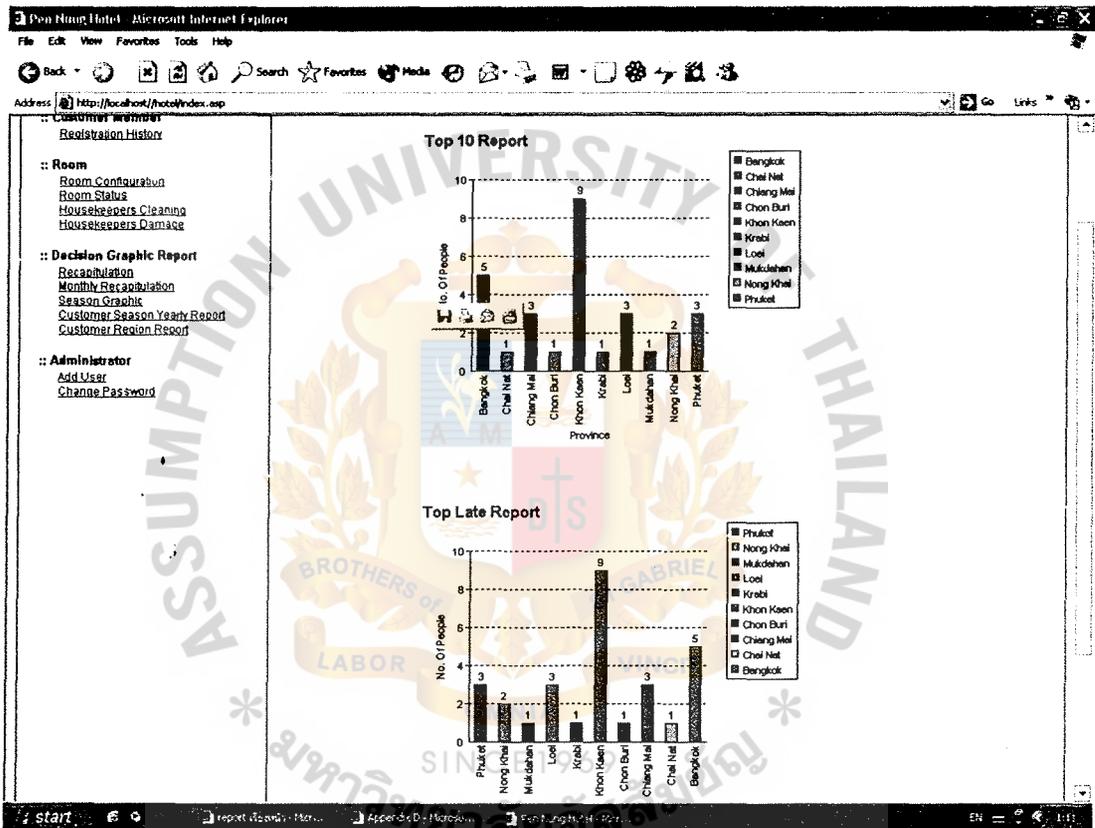


Figure D-31 Decision Graphic Report (Customer Region Report)

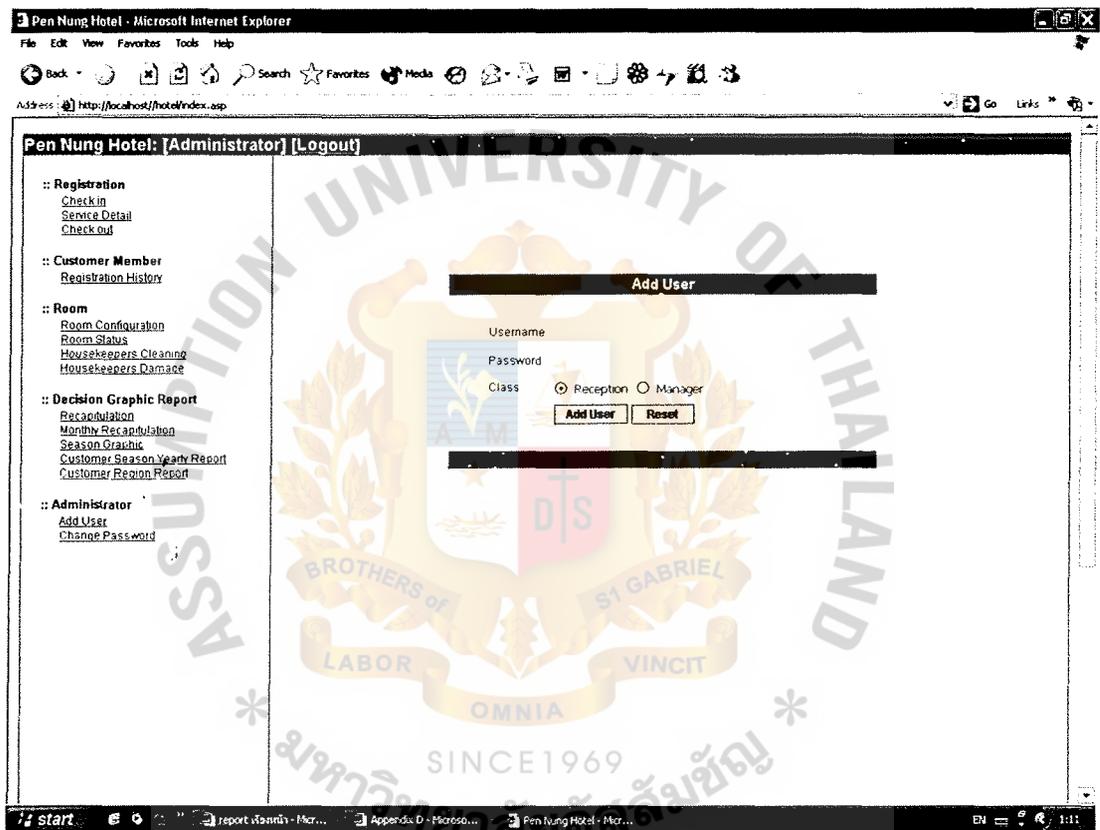


Figure D-32 Administrator (Add User)

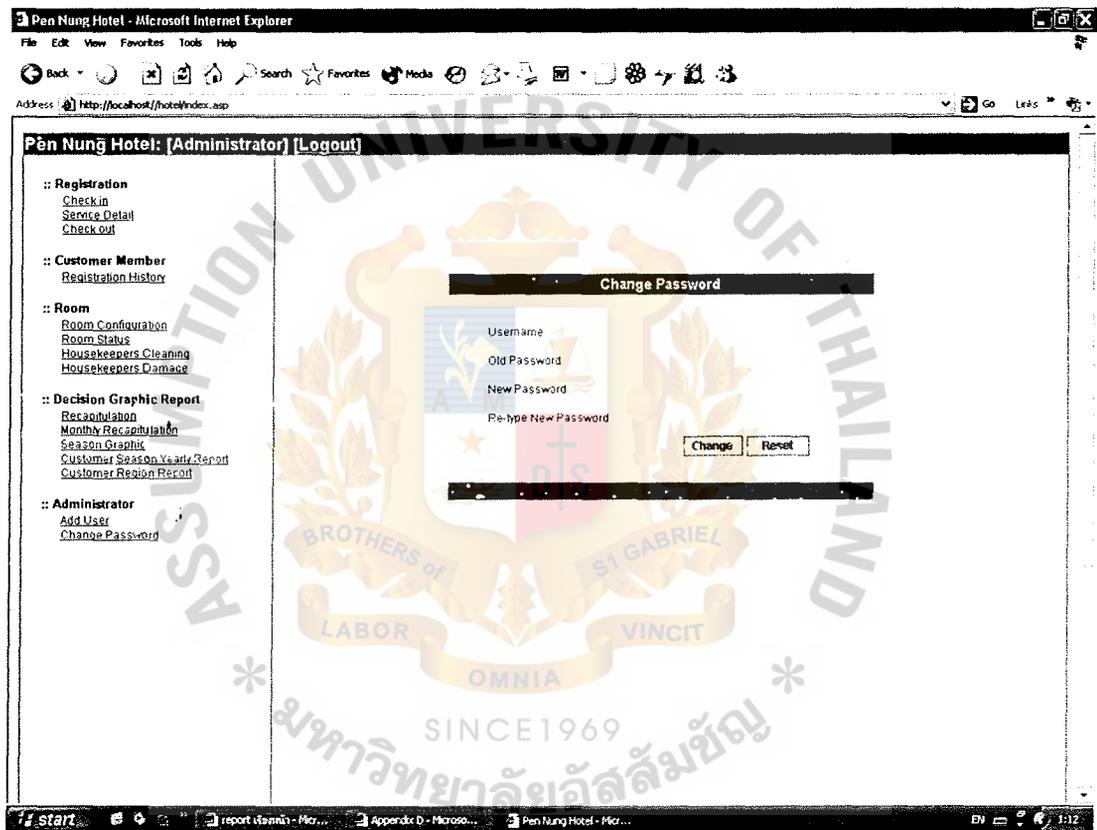


Figure D-33 Administrator (Change Password)



APPENDIX E
MANAGEMENT REPORT DESIGN

Pen Nueng Hotel

105 Chainarong Rd, Naimuang, Amphur Muang, Khonkhean, 40000. TEL. 01-873-2032.

Service Recording Form

RoomNo. 203

Detail

Price 0

Unit 0

Catagory SubTotal 0

No	Detail	Price	Unit	Total	
1	ผ้าห่ม	20	1	20.00	<input type="button" value="Delete"/>
2	น้ำเปล่า	5	1	5.00	<input type="button" value="Delete"/>
3	น้ำแข็ง	10	1	10.00	<input type="button" value="Delete"/>
4	Pensi	15	1	15.00	<input type="button" value="Delete"/>
5	Coke	15	1	15.00	<input type="button" value="Delete"/>
6	Rice	10	2	20.00	<input type="button" value="Delete"/>
7	Tom Yam Kung	50	1	50.00	<input type="button" value="Delete"/>
8	Taxi	200	1	200.00	<input type="button" value="Delete"/>
9	โทรทางไกล	105	1	105.00	<input type="button" value="Delete"/>
10	น้ำ	20	1	20.00	<input type="button" value="Delete"/>
GrandTotal :				460.00	

Figure E-1 Service Recording Form

PEN NUNG HOTEL

Invoice# 38

Room No : 203
Date : 17/9/2547

Name : **Tanakit Janthai**
 Detail : 47/5 Saladang Dusitta Huangjeng Tel : 024457778 Fax : 025884777
 Mobile : 014747477 e-mail : koblovermee@hotmail.com
 Check In Date : 14/09/2547

NO.	Description	Amount
1.	Food	70
2.	Beverage	45
3.	Water	20
4.	Accessory	20
5.	Telephone	105
6.	Other	200
7.	Used Service 3 Day/Night	900
Total :		1360

Receiver :: _____

Print

Figure E-2 Invoice Service Form

PEN NUNG HOTEL						
Recapitulation of Room Sales						
Revenue date : <input type="text" value="-17/9/2547"/> <input type="button" value="Display"/>						
Building	Floor	OCC	VAC/OOO	Total Room	Room Sale	Money Sale
1	1	0	30	30	0	0.00
1	2	0	30	30	0	0.00
1	3	0	30	30	0	0.00
1	4	0	30	30	0	0.00
1	5	0	30	30	0	0.00
2	1	0	30	30	0	0.00
2	2	0	30	30	0	0.00
2	3	0	30	30	0	0.00
2	4	0	30	30	0	0.00
2	5	0	30	30	0	0.00
Total		0	300	300	0	0.00

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Figure E-3 Recapitulation of Room Sales Form

Monthly Recapitulation of Room Sales						
Revenue Month : September 2547 Display						
Date	OCC[G]	VAC/OOO[G]	Total Room	Room Sale[G]	Money Sale[G]	
1/9/2547	0	300	300	0	0.00	
2/9/2547	0	300	300	0	0.00	
3/9/2547	0	300	300	0	0.00	
4/9/2547	0	300	300	0	0.00	
5/9/2547	0	300	300	0	0.00	
6/9/2547	0	300	300	0	0.00	
7/9/2547	0	300	300	0	0.00	
8/9/2547	0	300	300	0	0.00	
9/9/2547	0	300	300	0	0.00	
10/9/2547	0	300	300	0	0.00	
11/9/2547	0	300	300	0	0.00	
12/9/2547	0	300	300	0	0.00	
13/9/2547	0	300	300	0	0.00	
14/9/2547	29	271	300	29	8,900.00	
15/9/2547	0	300	300	0	0.00	
16/9/2547	0	300	300	0	0.00	
25/9/2547	0	300	300	0	0.00	
26/9/2547	0	300	300	0	0.00	
27/9/2547	0	300	300	0	0.00	
28/9/2547	0	300	300	0	0.00	
29/9/2547	0	300	300	0	0.00	
30/9/2547	0	300	300	0	0.00	
Total Amount					8,900.00	

Print

Figure E-4 Monthly Recapitulation of Room Sales Form

REFENRENCES

1. Komjit, Chadnuklob. Manager, Pen Nueng Hotel. Interview, 20 May 2004
2. Pailin, Nantawowart. Receptionist, Pen Nueng Hotel. Interview, 3 July 2004.



Enter the Program

1. Install IIS Program for Server to runing web in localhost.
2. Copy the folder to Destop.
3. right click to share web folder as hotel
4. Entering Program by type ----- <http://localhost/hotel/default.asp>
5. Default Userser and Password as admin

Technical support system for using Graphical Decision report

1. Copy and Paste file csDrawGraphicTrail.dll to c:\ and c:\window\system32
2. Goto Command Prompt --> type --> c:\regsvr32 csDrawGraphicTrail.dll
3. Set time out for IIS --> Default Website Properties -->Connection timeout to 5,000 seconds
-->Home Dirctory---->Configure---->Option---->Session timeout 120 mintes
-->Asp scipttime out to 5,000 seconds

#####Enjoy you Program#####



