

HOTEL RESERVATION SYSTEM (MALAYSIA HOTEL)

by

MR. PASAKORN NETPRASAT

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

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

December, 1997



ABAC
GRADUATE SCHOOL LIBRARY

12

HOTEL RESERVATION SYSTEM (MALAYSIA HOTEL)

BY

MR. PASAKORN NETPRASAT

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

Submitted in Partial Fulfillment

of the Requirements for the Degree of

Master of Science in Computer Information Systems

Assumption University

December, 1997

Project Title

: Hotel Reservation System.

Name

: Mr. Pasakorn Netprasat

Advisor

: Dr. Thotsapon Sortakul

Academic Year

: 1997

The Graduate School of Assumption University had approved this final report of the Three-credit course, CS6998 System Development Project, submitted in partial fulfillment of the requirements for the degree of Master of Science in Computer Information Systems.

Approval Committee:

(Dr. Thotsapon Sortakul)

Advisor

(Prof.Dr.Srisakdi Charmonman)

Member

(Dr. Sudhiporn Patumtaewapibal)

Member

(Air Marshal Dr. Chulit Meesajjee)

Member

(Assoc.Prof.Somchai Thayarnyong)

Member

ABAC GRADUATE SCHOOL LIBRARY

ABSTRACT

Nowadays, there is more competition for hotel-service business. So each hotel try to change their service or management system for this. To reduce cost and more efficiency work are major policies for each hotel.

Malaysia hotel is also in this competition so they try to change their management and their service processing in each parts such as personal system, purchase, inventory system and hotel reservation system.

Hotel reservation system is one system that is necessary for each hotel, front desk, to service to customer or guest, to make more comfortable service and more efficiency work.

ACKNOWLEDGMENTS

The author is grateful to the individuals who supported the preparation of this project report. First, to thank Dr. Thotsapon Sortrakul, the project advisor for his advice and counsel on the project.

Thank are also given to the MS(CIS) committees for their approved.

The project report will be not successful without the kindness of people who work for Malaysia hotel, who give their valuable time to provide the information and advice of this project.

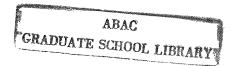


Table of Contents

A	BSTRA	ACT	i		
A	ACKNOWLEDGEMENTS				
T	TABLE OF CONTENTS				
LIST OF TABLES					
LI	ST OI	FIGURES	vi		
1.	Intro	oduction UNIVERS///			
	1.1)	Project Background	1		
	1.2)	Project Objectives	2		
	1.3)	Scope of project	3		
2.	Exist	ting System ROTHERS GABRIEL			
	2.1)	Background of Malaysia Hotel	4		
	2.2)	Area of Studying identification	7		
3.	Prop	osed System			
	3.1)	User Requirement	10		
	3.2)	Context Diagram	11		
	3.3)	Hardware and Software Requirement	22		
	3.4)	Security and Control	25		
	3 5)	Cost and Renefit Analysis	27		

	3.6)	Test Plan	33
	3.7	7)	Implementation Plan	34
W				
4.	C	one	clusions and Recommendations	
	4.1)	Conclusions	36
	4.2	2)	Recommendations	37
			Recommendations VERS//	
RE	F	ER	RENCES	38
			0	
AP	ΡI	EN	DICES	E
	A	-	File Layout	40
	В	-	Data Dictionary	45
1	C	-	Report Layout ROYMEN	56
	D	-	Screen Design	65
			* OMNIA *	6
			SINCE 1969 SINCE 1969	
			้ ^{งท} ยาลัยอัสลิชา	

List of Tables

Table	1	:	File Layout	:	Guest File	40
Table	2	:	File Layout	:	Hotel File	41
Table	3	:	File Layout	:	Reception File	41
Table	4	:	File Layout	:	Department	42
Table	5	:	File Layout	Vi	Check-in File	42
Table	6	:	File Layout	:	Check-out File	43
Table	7	: (File Layout	25	Reservation File	43
Table	8	7	File Layout	Yes	Extra Charge File	44

List of Figures

Figure 1 :	Organization Chart		6
Figure 2 :	(DFD:Level 0):	Existing System	9
Figure 3 :	Context Diagram		11
Figure 4 :	(DFD:Level 0):	Hotel Reservation	12
Figure 5 :	(DFD:Level 1):	Input Guest Information	13
Figure 6:	(DFD:Level 1):	Reservation Room Info.	14
Figure 7 :	(DFD:Level 1):	Check-in Record Process	15
Figure 8 :	(DFD:Level 1):	Check-out Record Process	16
Figure 9 :	(Structure Chart):	Hotel Reservation System	17
Figure 10:	(Structure Chart):	Input Guest Info System	18
Figure 11 :	(Structure Chart):	Reservation Room System	19
Figure 12:	(Structure Chart):	Check-in Record System	20
Figure 13:	(Structure Chart):	Check-out Record System	21
Figure 14:	Hardware Configurati	ON CE1969	24
Figure 15:	Break Event Point G	raph	30
Figure 16:	Implementation Plan		35
Figure C-1:	Room Count Report		56
Figure C-2:	Cashier Report		57
Figure C-3	Cashier Report		58

Figure C-4:	Cash Summary Report	59
Figure C-5:	Check-in Report	60
Figure C-6:	Check-out Report	61
Figure C-7:	Trial Balance (1)	62
Figure C-8:	Trial Balance (2)	63
Figure C-9:	Trial Balance (3)	64
Figure D-1:	Main Menu Screen	65
Figure D-2:	Hotel Information Srceen	66
Figure D-3:	Guest Information Screen	67
Figure D-4:	Reservation Information Srceen	68
Figure D-5:	Check-in Record Screen	69
Figure D-6:	Check-out Record Srceen	70
Figure D-7:	Extra Charge Screen	71
Figure D-8:	Report Selection Srceen	72
Figure D-9:	Daily Report Screen	73
Figure D-10:	Monthly Report Srceen	74
Figure D-11:	Room Rate Screen	75
Figure D-12:	Search Room Available Srceen	76
Figure D-13:	Room Available List Screen	77
Figure D-14:	Enter Program Srceen	78
Figure D-15:	Other Extra Chart Screen	79
Figure D-16:	Food Extra Chart Srceen	80

1. Introduction

1.1 Project Background

Hotel reservation is system that is developed for Malaysia hotel. This hotel has 120 rooms so it is a middle-size hotel.

For the old system, there are front desk officers to operate all the process that occurred when guests come in. Every steps of the process are manual system.

For effective operation of the front disk is major concern to management. To handle guest check In / Out and special services. The front desk is responsible for processing billing and payment.

The process for guest check-in is as follow:

All guest check in are handled at the front-desk. Some guests have already made reservation, someone did not. When a guest arrives, the front disk will ask whether the person has a reservation. So checking in the list of guest reservation.

To determine which room has been reserved for the guest. Someone may have problem about their reservation. The front disk should help them and search for available room for them.

Each room has a specified rate group assign to it. The extra rate depends on the number of persons who will be occupying the room.

After the guest completes the registration information the front desk can give the exact room rate to them. The front desk asks for the planning length to stay and how to pay and write all to information on register-form.

The process for guest Check - out is as follow:

Guest check out are handled by the front desk. The information of all activities will be added. Include room rate, other charges that have been occurred at hotel in that period such as telephone, laundry, food. Payment are usually made by cash or credit card. At end of each day, Report will be generated and send to accounting department and report for front desk will be generated.

1.2 Project Objectives.

The objective of the project on the hotel reservation system are as follow:

- 1. To study the existing system of the hotel reservation system.
- 2. To identify the real problems and user.
- 3. To establish the hotel reservation system.
- 4. To utilize the use of Database approach to generate the efficient design and generate information report.

1.3 Scope of the project

The project will cover major topics of hotel reservation system which includes.

- 1. Check in System.
 - To fill information of each guest who check in.
 - Guest information.
 - Room Rate and planning length to stay.
 - Payment method (Cash/Credit Card).
 - Control or manage the room that available for ever guest.
- 2. Check out System.
 - Addition all of information for guest that occurred at hotel.
 - Calculate payment of guest.
- 3. To keep hotel information.
 - All detail of hotel.
 - Number of room.
 - Type of room.
 - Room rate.
 - Special service information.
- 4. To keep reservation information.
 - All information for guest who made reservation.
- 5. To generate Month end, daily report.

2. Existing System

2.1 Background of Malaysia hotel.

Malaysia hotel established in 1967. The location is on Rama 4 Road, Bangkok Thailand, There are 120 rooms, 6 floors. The ground floor is hotel-lobby, restaurant, swimming-pool, coffee shop and Thai traditional massage. The second floor is hotel office, meeting - room and the other floors are hotel room. There are special services that are provided for guests are as follow: - Luggage storage

- Room services and Laundry
- International Fax and telephone
- Tour desk for local and international travel arrangements
- Thai traditional massage

The guests are European or Western - foreigner a few Asia foreigner. The management of this hotel us family - management system so the operation of each system are as old - management system, almost are manual.

Tariff of Malaysia hotel are as follow.

1) Standard Room Rate		
- Single room	490	
- Twin or double room	580	
- Extra bed	100	

* Room Specification

The room completely air-condition, private bath/shower with hot and cold water.

2) Superior room Rate	baht
- Single room	540
- Twin or double room	650
- Extra bed	100

* Room Specification

The room are equipped with refrigerator, video and TV.

3) Deluxe room Rate	baht	
- Single room	700	
- Twin or double room	840	
- Extra bed	100	
Note The above - mentioned rate are include wi	ith 10 %	
service charge, not include 10 % VAT		
4) Meal Rate		
Continental breakfast	70	
American breakfast	100	
Lunch buffet	140	
Dinner buffet	180	

Note Not include service - charge 10 %, Not include 10 % VAT

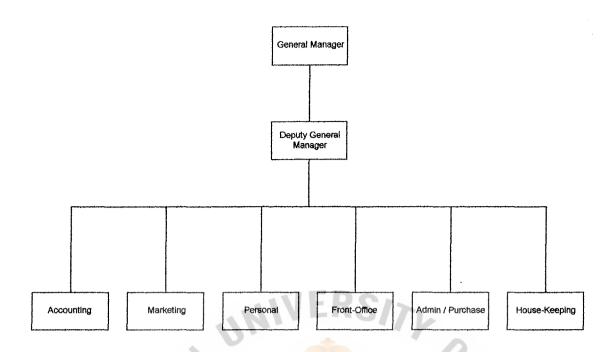


Figure 1: Organization Chart.

2.1.2 Organization

Description of each department in Malaysia hotel follow as:

- 1) Accounting: Department of Accounting control and manage about Budget of hotel, do accounting
- 2) Marketing : Department of Marketing makes market plan of hotel and provide tourists
- 3) Personal : Department of Personal manages about Tax , employee , law and searching employee.
- 4) Front-office : Department of Front-office manages about reservation, check-in and check-out processing.
- 5) Administration: Department of Administration manage general works.
- 6) House-keeping: This department manage about hotel services.

2.2 Area of studying identification

Reservation system is an important system for each hotel. It is the first department that communicate with guests or customers who come in. Because the existing system is manual system. For more efficiency and comfortable of operation. We use computer system to manage or operating for this system (Hotel reservation) and make report to summary or analyze report.

The area cover check in system, check out, create summary - report and make reservation system. This system is one part of Hotel management system.

2.2.1 Current Problem.

- 1) The existing system is manually system so every data should be collected in document form (paper). We have many problem to manage data or searching some data.
- 2) Accuracy, we should update data whole time so we should spend a long time to accurate data or because of careless of employee for updating data may be occurred.
- 3) Report, by manually, it use a long time to summary or create report. For each department we need to create summary report for them so we try to reduce time for reporting process.
- 4) Updated data, for your data base design, it will have about redundancy problem so we try to correct this problem by use computerize system to manage and design data base in the correct way.

- 5) Inventory, is the major problem to stock paper or document form. For each year, the organization cost or managed cost is high value for our budget. So we try to reduce about this.
- 6) Not comfortable, for the manual system when guest come in and wait for service. They use a long time for this so some guest feel unhappy.
- 7) Competition, In the same area of Malaysia hotel, there are many hotels which have same group of guests. So we try to take care guest the best for their impression, they will come back more.
- 8) Provide for new technology, for future plan, they try to provide E-mail service to the guest. So they need new computer system instead of the old computer which cannot support for this service.
- 9) Reduce increasing employee in each year. For the future plan, If this hotel grow in the high-rate. There are more guest come in so we need more employees to service. It will have more management cost. This problem is major concern for their planning. (To increase profit but reduce cost)

This existing system can be written into Data Flow Diagram as below. This DFD displayed about transaction flow for each department to connect to each other and about document or data that they provide for each department. The old system for hotel reservation compose of Input guest process, Reserve room process, Check-in process, Check-out process.

2.2.2 Data Flow Diagram of Existing System.

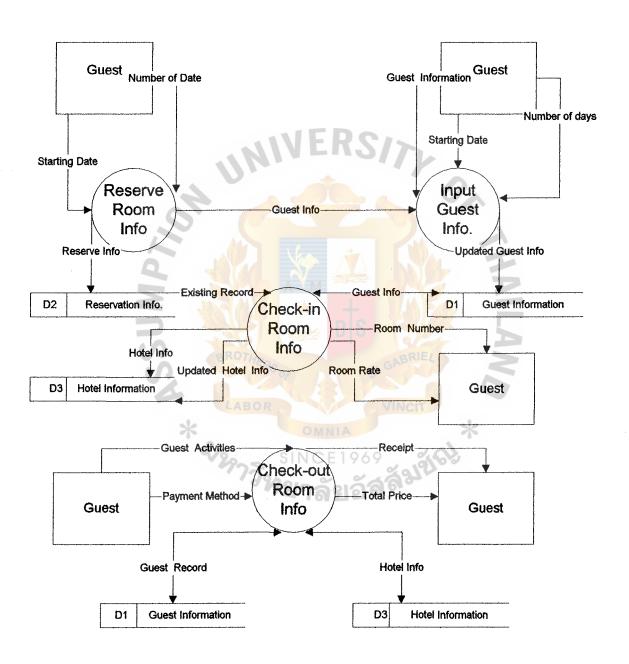


Figure 2 : (DFD) : Level 0 : Existing System

3. Proposed System

3.1 User Requirement

For the problem that is found for the existing system that are major concern for Malaysia hotel. They try to solve these problem. And nowadays, there is more competition in the hotel service. To reduce cost of organization is one policy for them to select. To use computer system instead of manual system which can reduce cost of salary for employees. These below are summary of user requirement follow as:

- 1) Accuracy data, to manage data base to be accuracy and easy to manage.
- 2) Reduce documentation, paper less, to radure cost for stock paper or documentation.
- 3) Reporting, Save time to create or sumary report.
- 4) For efficiency work, All process of front desk should be more efficiency and more comfortable.
- 5) To provide the best service for customer.

3.2 Context Diagram and Data Flow Diagram.

The next part show about analysis and design for new system.

The last chapter that present you the existing data flow diagram which is the old system for hotel reservation. For this part will show you the new system for this hotel.

To display about context diagram of the new system is shown in figure 3, to display about overall hotel reservation is shown in figure 4 (DFD level 0), to display about input guest information is shown in figure 5 (DFD level 1), to display about reservation room record is shown in figure 6 (DFD level 1), to display about check in processing is shown in figure 7 (DFD level 1), to display about check out processing is shown in figure 8 (DFD level 1).

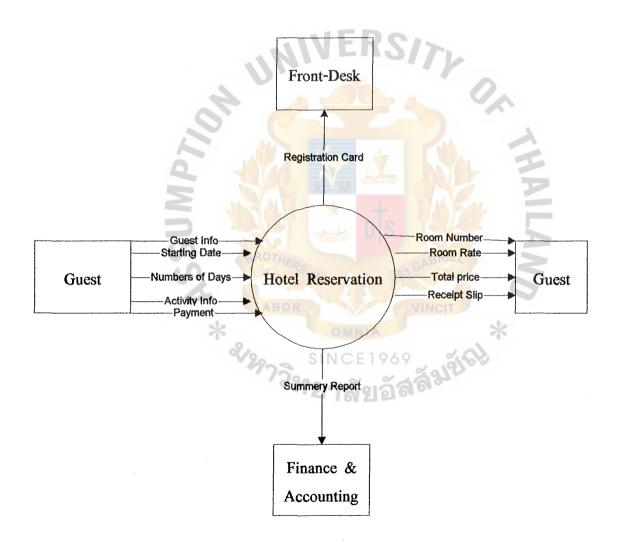


Figure 3 : Context Diagram

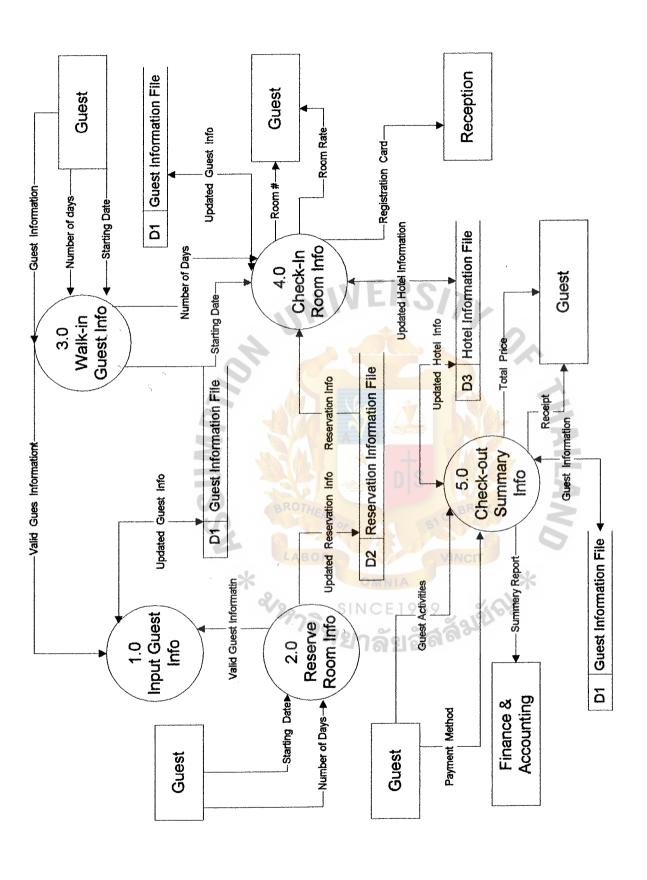


Figure 4: DFD (Level 0) Hotel Reservation.

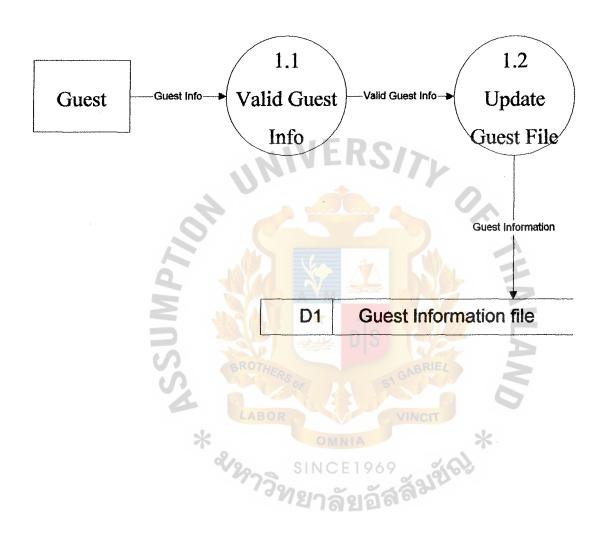


Figure 5 : DFD (Level 1) : Input Guest Information

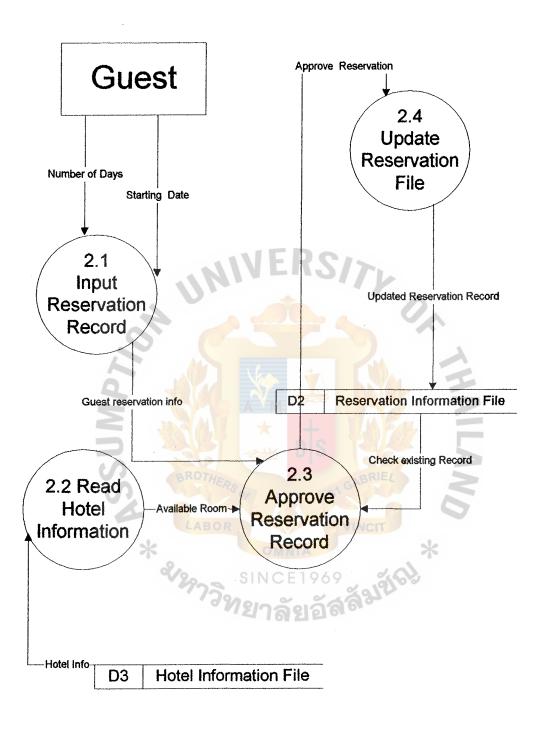


Figure 6: DFD (Level 1) Reservation Room Information

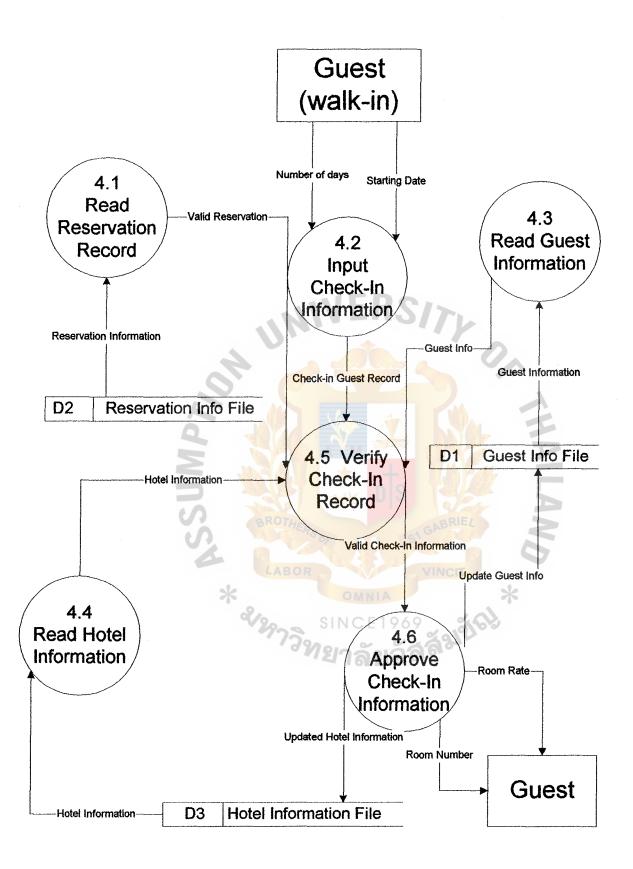


Figure 7: DFD (Level 1) Check-In Hotel Information

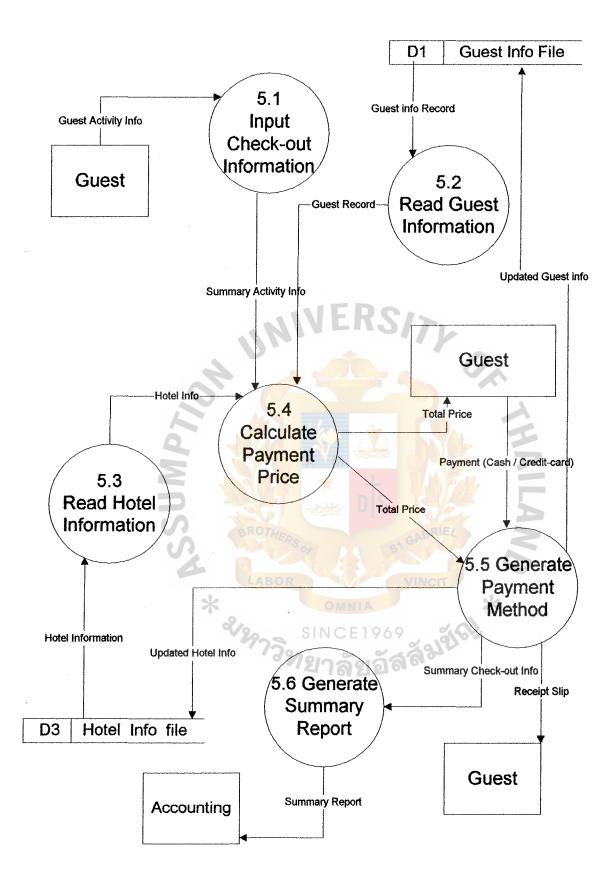


Figure 8: DFD (Level 1) Check-out Processing

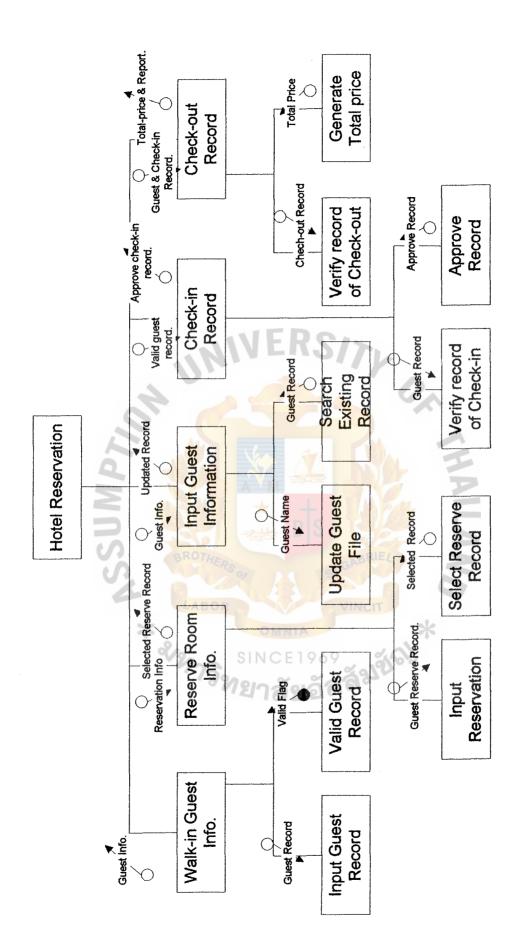


Figure 9 : (Structure Chart) : Hotel Reservation System.

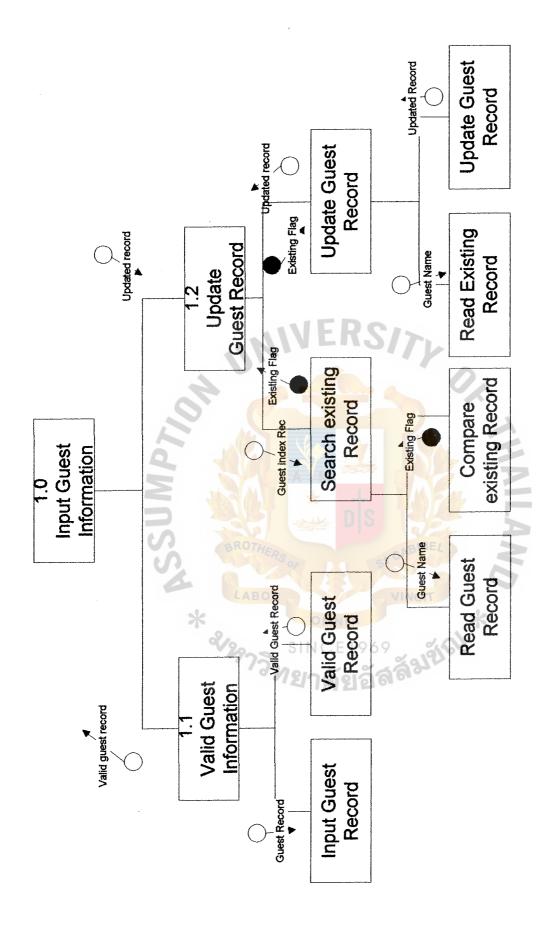


Figure10 (Structure Chart): Input Guest Record.

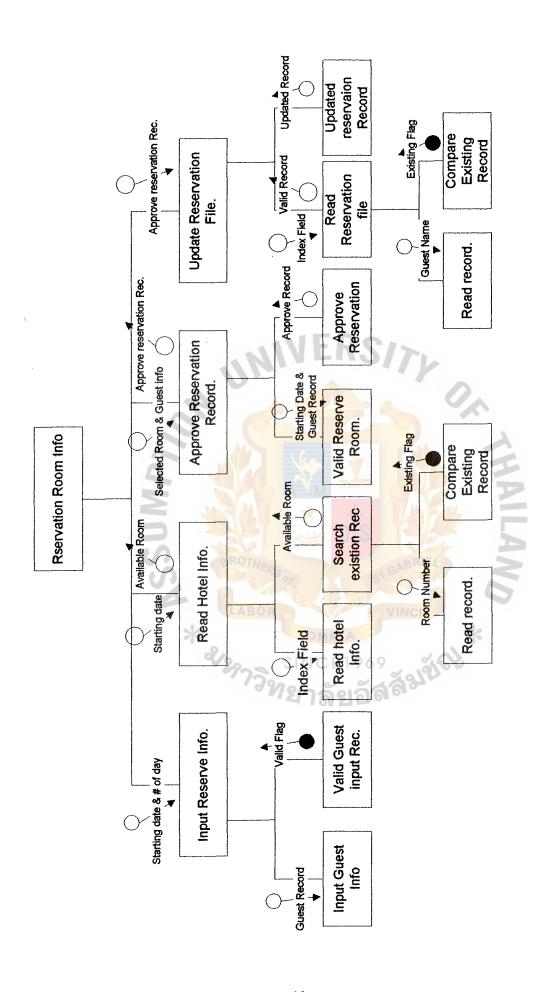


Figure 11 (Structure Chart): Reservation Room Record.

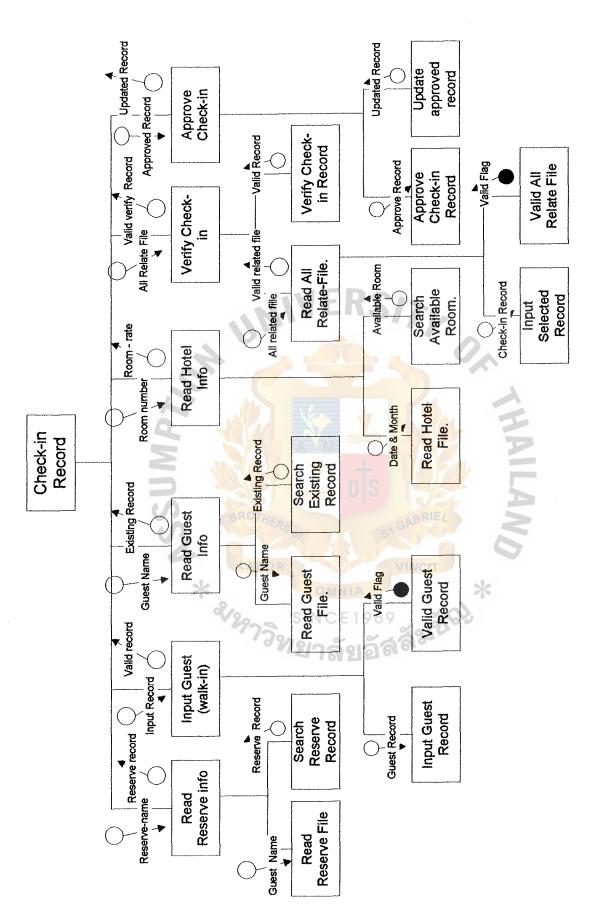


Figure 12 (Structure Chart): Check-in Record Processing

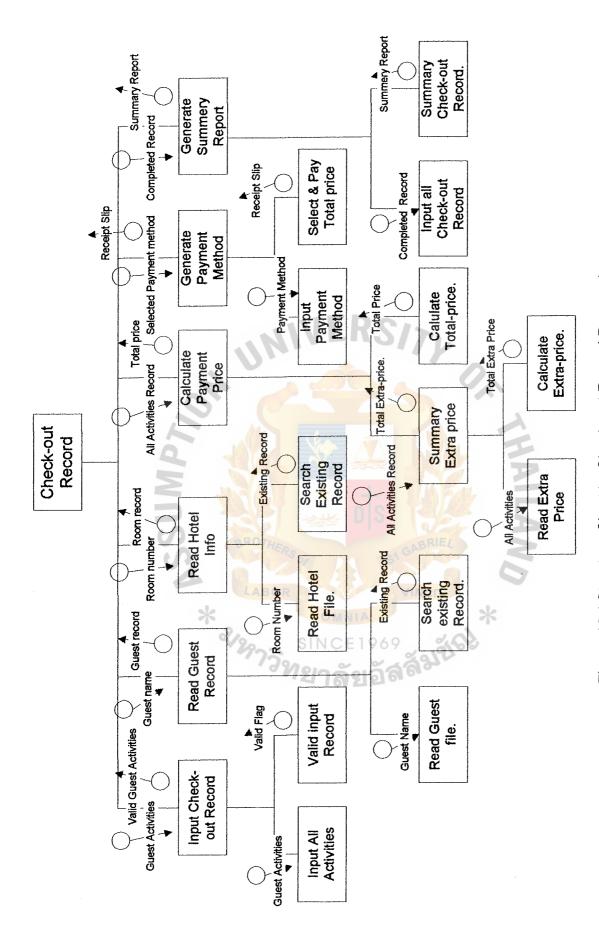


Figure 13 (Structure Chart): Check-out Record Processing

3.3 Hardware & Software Requirement

For the new system is provided, the prepare hardware specification and software specification to support this system is the major concern because the cost in this part is expensive and it is long period of time to use. So should provide them for the good way as follow:

3.3.1 Hardware Requirement

1) Computer Server

- 64 bits 266 MHz Microprocessor (Intel Pentium Pro)
- 64 MB on board RAM Memory expandable to 512 MB
- 2 MB ECC on board cache
 - Server EISA slots 2 PCI slots
 - One PCI/EISA Combination slots
 - Integrated PCI-based Fast Narrow SCSI-2 Controller with DMA and external SCSI-2 Controller
 - Intergrated SVGA graphic controller
 - One 1.44 MB diskette drive and Hard disk 4 GB.
 - One CD_ROM 16 x
 - 15" SVGA, non-interlaced, MPR-2 emission standard color Monitor

2) Micro Computer

10 Sets

- Pentium, 166 MHz Microprocessor
- Sim RAM 32 MB, expondable to 64 MB
- 256 kb on board cache
- Drive 1.44 MB and harddisk 1.7 GB.

- Card VGA PCI
- Monitor 15" SVGA (non-interlaced)
- 2 serial ports / one parallel port
- Network Ethernet card / lan card

3) Dot Matric Printer (Paint report)

- 24 Pin, Impact Dot Matric
- 10 character / inch at draft mode
- Parallel Inter face

4) Uninterrupt Power Supply

- 600 VA Capacity (For Server) and 1KVA
- Stabilizer mode 220 VA
- Back up time 60 minutes at full load
- 5) Hub & Lan-card & UTP line.

3.3.2 Software Requirement

1) Network Operating System

- Microsoft Windows NT Server, 10 user for computer server
- Microsoft Window 95, 10 sets

2) Database Management System

- Visual basic for Window Version 3.0
- Crystal Report for Window
- Microsoft Access for Window

3.3.3 Hardware Configuration

For the hardware configuration is the major concept for the new system to be implemented and should be provided to support the future system may be the good design for hardware configuration design as follow:

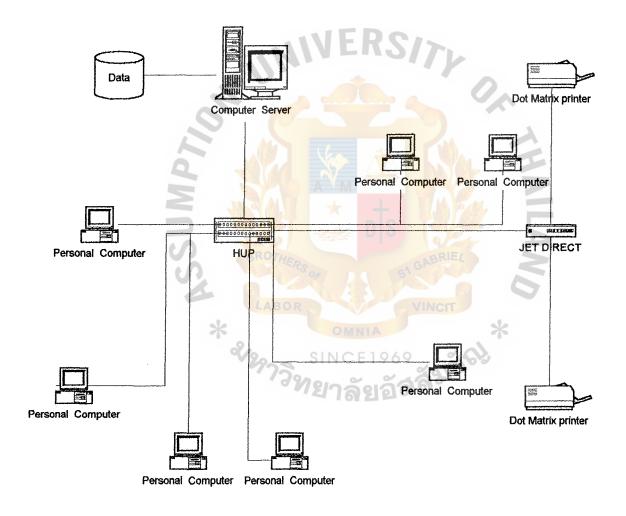


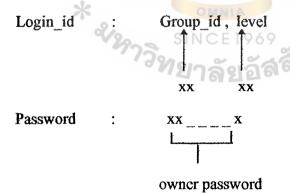
Figure 14 Hardware Configuration

3.4 Security & Control

In Malaysia hotel, there are many employees who work whole day, so the most important that should be considered is security-control for maintain computer system and data

The basic concept that is used is functional and group-level whrer the functional is the operation system for each process in hotel. And group-level is for each person who work in the some work, we set as group. In each group which have some work but we separate level for authorization process.

For Malaysia hotel, there are 6 department as Accounting, Marketing, Personal, Front-office, Admin/purchase and House-keeping. Eash department, there is a manager and employees so manager like leader in each group and employees are as member in each group. Security system use as login_id and Password for each login_id, the authorization is different and as:



Definition of Group level

front-office: Set group_id as 30

there are 10 emplyee in the department.

So we set login id and level use as

- Front_office Manager : 30, 50

- Assistance Manager : 30, 40

- Staff (1) : 30, 21

- Staff (2) : 30, 22

| | | | | |

- Staff (n) : 30, 2n

For this group, Manager has highest capability to authorize process and staffs have lower authorization. All above are security for authorization program.

The other security measurement are as follow

1) Check for authorization

For each person who logon to the program. They have different authorization and priority to process their job at the same time.

2) Keep logon Record

To set Program to keep security of each logon_id. Who use Program and write the record every time that someone change or update record file.

3) To keep back up data file

The computer administration who maintain this computer system. He should back up data file into diskette such as everyday, every 2 days or weekly-keeping-record.

3.5 Cost and Benefit Analysis

The existing system is as follow

The Malaysia hotel, Management as family system, The existing system for front desk is manually when guest come in, reservation, reception will ask them to fill in the form and keeping that information as document so they need to manage system for collecting, searching, reporting or Update that information. Sometime, they use along time to do about those processes and about accuracy of data is problem. So they try to solve all of these problem to use computer system to manage organization, to manage data collection, create report and use this program to input all information. To Compare about cost benefit of this system the first time, they need more resourses such hardware, software, training-course for their employees. But for long term, they will get more benifit and to be able to solve problems that occured.

The starting cost include:

- Hardware, software, cable line
- The installtion cost
- The cost of providing support during implementation
- The cost of any necessary remodeling

Ongoing cost include:

- The system maintainance cost
- The cost of Backup system
- Training cost
- Accessories cost, include paper, diskettes, printer, ribbon
- The addition equipment cost

To consider about all of cost and compare for the future. This system can saving cost, not only labor reduction benifit but also increase time less, accuracy, completion work are benifit for this system.

3.5.1 The cost of hardware and software

The cost of whole system include hardware cost, software cost, implementation cost and maintainance cost (include training cost) that need for this hotel reservation system. It is a major system for each hotel to make more comfortable and more efficiency.

(1) Hardware cost

Total of hardware part =	548,000	Baht
- Uninterrupted Power supply 2 set =	24,000	Baht
- Dot Matrix Printer 2 set =	24,000	Baht
- Micro computer 10 set	350,000	Baht
- Computer Server 1 set =	150,000	Baht

(2) Cabling System Requirement

- Hub and Lan-card	==	29,410	Baht
- UTP cable	349	4,000	Baht
Total of Software part	=	33,410	Baht

(3) Software Requirement

Total of Investment		601,410	Baht
Total of Software part	==	20,000	Baht
- Database management System		5,000	Baht
- Network Operating System	==	15,000	Baht

Payback Period =
$$I$$
 (1 - T) R

Where I = Investment
$$T = Tax rate$$

$$R = Annual Saving$$

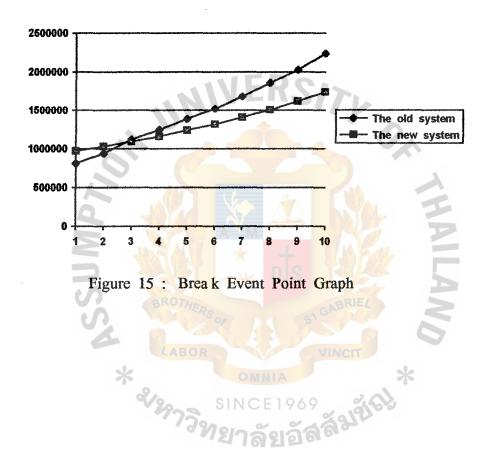
$$I = 601,410$$
 $T = 0.3$
 $R = ABO 288,000$

Note. (Continues)

For Malaysia Hotel, to separate front-office into 3 groups as

		Old system	New system]	Reduce
8.00am 16.00pr	n :	5	3	2	persons
16.00pm - 24.00p	m :	5	3	2	persons
0.00am - 8.00am	:	2	2	-	persons
Total	:	12	8	4	persons
Average s	salary fo	or each perso	on is 6,000	baht.	
Save cost	for 4	persons is	24,000	baht /	month
1 year = 1	2 mont	hs, save cost	t is 288,000	baht /	year

For Break-event point Graph.



3.5.2 Tangible Benefits

Tangible benefit are advantage measurable in value (Baht), save time, reduce resources that accrue to the organization through use of the information system. After implementation of the new system for Malaysia Hotel we will accept benefit are as follow:

- 1) More efficiency work, increase in speed of processing for each department to connect to each others to exchange some information or sending data to storage and adjust more efficient data base design. To reduce redundancy problem. To be able to decrease the amount of employee time needed to complete specification task.
- 2) Reduce work. For computer system, we provide the system to process some work instead of people work so employees can save their time to do some work such as summary report, use them for analyze future planning.
- Reduce increasing employee. For each year, they need more employees to support their business so the cost of organization will increase every year. To solve this problem, they decided to use computer system instead.
- 4) Reduce inventory document form and paper. To stock document form is high cost for the budget of hotel. So they need their budget plan is balance and reduce the organization cost. They use computer system instead for stock paper and document form.
- 5) To support for new technology. To provide new resource to support new service to guest is one thing that should be concerned because to make them for their comfortable and impression of this service such as provide E-mail for them to communicate to their own country. Let them to use computer for their work such as typing document or letter.

3.5.3 Intangible Benifits

Some benefits that is getted to the organization from use of information system are difficult to measure but it is important. This benefit are known as intangible benefit. For the hotel reservation system of Malaysia hotel can be summary for intangible benefit as follow:

- 1) To Impose discipline for all of the emplyees and management throughout the system.
- 2) To forcast or improving management planing activies.
- 3) To get more currently and accuracy information for management and planing for future plan.
- 4) Becoming more competition in customer service.
- 5) Increasing job satisfaction for employees by eliminating tedious tasks.

3.6 Test Plan

The testing for new system is important step to do. Although it may use a long time to test and prepare data for this. But it is necessary to ensure that there is no error for new system to be implemented. Testing is the best way to do when user departments are asked to assist in identify all possible situations that might arise. Another method is to inquire the internal auditors of their opinions on possible situations that may arise.

3.6.1 Code Testing

To test, program-module to examine logic of the program so that the result in executing module should return correct result or expected result. Or testing an individual program to ensure that it performs according to the program specifications.

3.6.2 Specification Testing

The specification test is performed to test what the program should do or how to perform under the various condition such as peak load testing, storage testing, performance time testing.

3.6.3 Recovery testing

To test for recover data, whenever there is some problem about data such as damage data, last of data to solve this problem by backup all data in everyday or every week. To backup and restart test to ensure that all files can be reconstructed if they were totally destroyed.

3.6.4 Human factor testing

To test, human ability or understanding for new system. How to change their roution work to new system. How new system do (stop of working). Maybe some time they need more training.

3.7 Implementation Plan

Implementation plan includes all steps to converse from existing system to use new system (that already tested) It should includes hardware installation and software implementation, prepare for new system and maintainance service.

There are many steps to implement as:

- 1) Hardware set up and installation
- 2) Software implementation
- 3) Converse data new system
- 4) Training
- 5) Maintanance

3.7.1 Hardware set up and installation

- Design where to install computer system in this building
- Installation hardware part such as computer-server, PC
- Installation line to link for this LAN network
- Set up hardware configuration

3.7.2 Software implementation

- install operating system
- Set up hardware configuration
- Implement new hotel reservation system
- Testing, it can work or not

3.7.3 Converse Data for new system

Data in existing system, should be conversed to new system format and store is new system and testing correctness of data.

3.7.4 Training

To prepare people for new system. Some people do not know how to use the new one. We should have training course to them to make them understand how the new system work (step by step) and how to create report. To overview flow of this program so they can analyze and solve problem that happens.

3.7.5 Maintainance

After implementation new system. Malaysia hotel still needs us to maintain their system. And still introduce their user about their work question or they use program which has some problem, to be able to solve for them.

Activities		Au	gus	t	S	ept	emt	er	()ct(bei	ŗ	ľ	Vov	eml	er
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Preparation and Interview																
- Interview					-											
- Identify the area of study			10				1		7							
- Identify Current Problem			17.						4							
System Analysis and Design											C					
- Develop Context Diagram																
- Develop Data Flow Diag.		. (3)			1					M.						
- Data Dictionary	Ą		1/		N/		V		N	N/V	-					
- Data Base Design	-			F						Y	7		Ė			
- Process Specification	W				X		T						F			Ī
- Screen Design			2/						19				2			
- Report Design		BRO	HE	S				G1	AB	dE/ Y			3	3		
Implementation	((,		
- Coding		LA	80			V			INC	IT						
- Implementation & Testing	0				0	MN	A					*				
- Document	9	29.	2	S	ΙN	CE	19	69	o/ _	3	68					
		-	7	775	1	à	16	1	93	-3						

Figure 16 : Gantt Chart of Project Implementation

4. Conclusions and Recommendations

4.1 Conclusions

Hotel reservation system is sub system of Hotel management system but it is one system that is more important than some others.

Become of more competition, Now a day, each hotel try to develop their work or work processing For more efficiency, comfortable and easier.

To implement computer system is one way for them to be selected. It is answer for their problem. Almost old system are manual system. So when processes the work processing is complicate (many step to do for each processing). To reduce step of work is one reason for computer system.

Computer system use help them for their Database management, front desk servicing, create reporting. It can reduce your time for processing some work such as create daily-report, monthly-report or analysis-report which you can use all of these report to be analyze and planning your hotel policy or business planning.

For your accuracy data or information, to reduce error of manual system, and reduce your management cost are also good reason for implement computer system.

4.2 Recommendations

Since this hotel reservation system is implemented instead of the existing system which is the manual system. The serious concerning is about the implementation plan, for operation plan and management plan.

Sometime, there is the rejected reaction from some users who do not want to use the computer or never use computer, they will against to change. Lacking of skill in computer using maybe the cause of computer fearing. So the good way is to propose the alternative to solve this problem should have computer training course for end users.

At the same time, there are more training course or understanding in the system should be provided. For maintainance system, we need more people who have more understanding or experience to teach or introduce the end users.

For the future plan, to use more powerful of this system. To connect modem to provide E-mail to guest is another alternative to do, to addmore PC (computer or workstation) for future service may be provided.

REFERENCES

- Senn, J.A. Analysis and Design of Information System.
 Singapore: McGraw-Hill Publishing Company, 1989.
- 2. Kendall, Kenneth E and Kendall, Julie E. System Analysis and Design. Singapore: Prentice Hall International, Inc., 1995.
- 3. Gray, William S and Liguori, Salvatore C. Hotel and Motel management and Operation. New York: Prentice Hall International, Inc., 1996
- 4. Lucas, H.C. The Analysis Design and Implementation of Information Systems. Singapore: McGraw-Hill International edition, 1992.
- 5. Yourdon E., Modern Structured Analysis. New Jersey: Prentice-Hall International, Inc, 1989.



A - File Layout

The file layout of the proposed system are shown in table 1 to table 8 as follow.

Table 1: Guest File.

File ID : Guest

File name: Guest Information

No.	Fieldname	Width	Туре	Valid	Description
1.	G#	7	Character	YYXXXXXX	
2.	Gname	30	Character		Guest name
3.	Pass_No	16	Character	nts M	Passport number
4.	Address	50 RO	Character	DIO ONBR	Address of guest
5.	Nationality	25	Character	SIGH	
6.	Payment_	2 LA	Character	CR (credit)	How to pay
	Method	T 2/20	SINC	CA (cash)	cash / credit
7.	Deposit	- "	Numeric	รัยอัสสั ^ญ	Deposit cash of
					payment when
					guest check - in.



Table 2: Hotel File.

File ID : Hotel

File name: Hotel Information

No.	Fieldname	Width	Туре	Valid	Description
1.	R#	3	Character		Room number
2.	R_Type	2	Character		Type of each room
3.	R_Rate	-	Numeric		Room Rate for
					each room type.
4.	Chk_in_date	8	Date	DD/MM/YY	Check - in date.
5.	Chk_out_date	8	Date	DD/MM/YY	Expected checkout
	, c				date or check out
			Ven	an C	date.
6.	Reserve_Flag	2	Character	(Y/N)	Reserve Flag for
	JA	100	*	to V	hotel reservation
	S	- POI		nlo (

Table 3: Reception File.

File ID : Re

: Reception

File name

: Reception Information

T	T: -1.1	337: 341.		NELZIA O	Di-4:
No.	Fieldname	Width	Type	Valid	Description
1.	Rept_ID	6	Character		Running number
					reception_Employee
2.	Rept_name	25	Character		Name of reception
					employee
3.	Position	20	Character		Position of each
					employee.



Table 4: Department File.

File ID : Department

File name: Department Information

No.	Fieldname	Width	Туре	Valid	Description
1.	Dept_name	15	Character		Name of each
					department.
2.	Dept_tel	4	Character		Extention telephone
		1	MIVE	RSI	number.
3.	Number_of_	-1)	Numeric		Number of person
	employee				in each department.

Table 5: Check-in File.

File ID : Check - In

File name: Check-In record

No.	Fieldname	Width	Type	Valid	Description
1.	Gname	30	Character	CE1969	Guest name
2.	R#	3	Character	ลัยอัส ^ส	Room number
3.	chk_in_date	8	date	DD/MM/YY	Check in date
4.	chk_out_date	8	date	DD/MM/YY	Experted check
					out date.
5.	Number_of_	-	Numeric		Number of person
	person				in each room

Table 6: Check-out File.

File ID : Check_out

File name : Check_out record

No.	Fieldname	Width	Туре	Valid	Description
1.	Gname	30	Character		Guest number
2.	R#	3	Character		Room number
3.	Chk_out_date	8	date	DD/MM/YY	Check out date
4.	Total_price	-	Numeric		Total price of
			JIVE	RS/>	each room
5.	Payment_	2	Character	CA (cash)	Credit Card or
	Method			CR (credit)	cash

Table 7: Reservation File.

File ID : Reservation

File name: Reservation Information

No.	Fieldname	Width	Туре	Valid	Description
1.	RV_name	30	Character	1	Reservation name
2.	Number_of_	29-7	Numeric	E1969	Expected number
	days		121.19	1515161	of day to stay
3.	Start_date	8	date	DD/MM/YY	Starting date for
4.	No_of_Room		Numeric	-	Number of Room
5.	R_Rate	-	Numeric	-	Room Rate for
				¥	reservation.
6.	Rcpt_ID	6	Character	-	Employee who
					make reservation.

Table 8 : Extra-charge File.

File ID : Extra-charge

File name : Extra-charge of each room.

No.	Fieldname	Width	Туре	Valid	Description
1.	R#	3	Character		Room number
2.	Gname	30	Character		Name of guest
3.	Service_charge	-	Numeric	RS/	Service Charge
					10%
4.	Govern_tax		Numeric	4	Government TAX
					10%
5.	Laundry		Numeric		Total laundry price
6.	Others	100	Numeric	+ 1	Others price.
7.	Food	1	Numeric Numeric	DIS	Total of food price.
8.	Telephone Telephone	BROT	Numeric	ST GAR	Total Tel price.
9.	Miscelleneous	LAB	Numeric	VIN	Total of Miscell -
	3	K 24	01	NIA	eneous price.
10.	Total_price_	297	Numeric	E1969	Total price of
	room		านก	355990 00	room

B - Data Dictionary

Guest Information	=	Guest number +
		Guest name +
		Address +
		(Pass-No) +
		Nationality +
		Payment-Method +
	A V	Deposit
Guest name	=	First name +
2		(Middle name) +
		Last name
S		OTU. BRIE/
Address	=	House number +
	LA	Road
>	8/0	City +
	129	(State) +
		Country +
		Zip
Payment-Method		[credit card/cash]
Credit card	union species	[VISA/MASTER/AMEX/DINER]

Hotel Information Room-number Room-type Room-Rate (chk_in_date) (chk_out_date) (Resouce-flag) [Standard / Supervisor / Deluxe] Room-type Standard-Room [Single / Double] [Single / Double] Supervisor [Single / Double] Deluxe Room-Rate + (Extra-bed charge) Room-Rate [Reserve / Vacant] Reserve flag Reception Information Rcpt_ID Rcpt-name Position Rcpt-name First name Last_name

Department		Dept_name	+
		Dept_tel	+
		number of employe	e
Depart_name =	=	[Accounting / Market	eting / Personal /
		Front office / Adm	inistration /
		House-keeping]	
Check_in Record	11	Gname	+
0		Room_number	† /)
OF		Chk_in_date	+
		Chk_out_date	+
2		Room_Rate	5
		Number of person	
S GROT			A
Chk_in_date	TERSO	Date	+ 5
LAB		Month	+
* 2/20-	9	Year SINCE1969	El *
Chk_out_date =	3 _N	ยาลัยอัสลั ^{มเ} Date	+
		Month	+
		Year	

Check-out Record =	Gname +
	Room_number +
	chk_out_date +
	(Total_Price) +
	Payment-Method
Reservation Information =	RV_name +
	Number of day +
M.	Starting_date +
Die	Room_Rate +
OF C	(Rcpt_ID)
RV_name =	First name +
	(Middle name) +
CA GROTH	Last name
V)	Sor GI GAD
Starting-date A=OR	Date VINCIT +
* 2/20-	Month +

Extra-charge Room Number Gname Service-charge Govern-tax (Telephone) (Laundry) (Food) (Others) (Misselleneous) Total-price_room

Process Specification.

Process Name : Input Guest Information

Process Number: 1.0

Description : To process, input guest information when check-in.

Inbound : Valid guest information.

Outbound : Updated guest information.

Process Name : Reserve Room Information.

Process Number: 2.0

Description : To process reservation Transaction and keep record.

Inbound : Number of days, Starting date.

Outbound: Valid guest information, Updated reservation record.

Process Name : Walk-in Guest Information.

Process Number: 3.0

Description : To process input guest (walk-in) record.

Inbound : Guest information, Number of days, Starting date.

Outbound : Valid guest record.

Process Name : Check-in Room Information.

Process Number: 4.0

Description : To process check-in for guest.

Inbound : Starting date, Number of date, Guest information,

hotel information record.

Outbound : Room-number, Room-rate, Updated guest record,

registration card, Updated hotel record.

Process Name : Check-out Information Record.

Process Number : 5.0

Description : To process check-out record.

Inbound : Guest activities, Payment method, Hotel record,

Guest information record.

Outbound : Receipt-slip, Total-price, Summary report,

Updated hotel record, Updated guest record.

Process Name : Input Reservation Record.

Process Number : 2.1

Description : To process Guest Input Record.

Inbound: Number of days, Starting date, Guest information.

Outbound : Guest reservation record.

Process Name : Read Hotel Information.

Process Number : 2.2

Description : To read available room in the hotel.

Inbound : Date and Month.

Outbound : Available room.

Process Name : Approved Reservation Record.

Process Number : 2.3

Description : To approve reservation record for guest reservation.

Inbound : Available room, Guest record.

Outbound : Approved reservation record.

Process Name : Update Reservation File.

Process Number : 2.4

Description : To update reservation file.

Inbound : Approved reservation record.

Outbound : Updated reservation record.

Process Name : Read Reservation Record.

Process Number: 4.1

Description : To read reservation file by selected index.

Inbound : Guest name.

Outbound : Selected reservation record.

Process Name : Input Check-in Information.

Process Number: 4.2

Description : To process guest check-in record (Walk-in guest)

Inbound: Number of days, Starting date, Guest information.

Outbound : Check-in guest record.

Process Name : Read Guest Information.

Process Number: 4.3

Description : To read existing guest record.

Inbound : Guest name.

Outbound : Selected guest record.

Process Name : Read Hotel File.

Process Number: 4.4

Description : To read hotel record.

Inbound : Date, Month

Outbound : Room number, Room rate.

Process Name : Verify Check-in Record.

Process Number: 4.5

Description : To verify check-in record for guest.

Inbound: Check-in guest record, Selected reservation record,

Hotel information record.

Outbound : Valid check-in transaction.

Process Name : Approve Check-in Record.

Process Number: 4.6

Description : To approve check-in transaction for guest.

Inbound : Valid check-in transaction.

Outbound: Updated guest record, Updated hotel record,

Room rate, Room number.

Process Name : Input Check-out Information.

Process Number : 5.1

Description : To process guest check-out record.

Inbound : Guest activities.

Outbound : Summary guest activities record.

Pocess Name

Read Guest Information.

Process Number

5.2

Description

To read guest information record.

Inbound

Guest name.

Outbound

Selected guest record.

Process Name

Read Hotel Information.

Process Number

5.3

Description

To read hotel record by room number.

Inbound

Room number

Outbound

Selected room record.

Process Name

Calculate Payment Price.

Process Number

5.4

Description

To calculate total price for guest.

Inbound

Room record, Summary activities, Guest record.

Outbound

Total price.

Process Name

Generate Payment Method.

Process Number:

5.5

Description

To generate payment method for guest.

Inbound

Total price, Payment Method.

Outbound

Receipt slip, Summary check-out information,

Updated hotel record, Updated guest record.

Process Name : Generate Summary Report.

Process Number : 5.6

Description : To generate summary report for check-out

transaction.

Inbound

Summary check-out information.

Outbound

Summary report.



C - Report Layout

Malaysia Hotel

Night Clerk-Room Count : (dd/mm/yy)

Room	Person	Rate	Service	Tax
		WER	2/5	
		Mr.		
tinka tariha sama tariha tariha da masa masa masa masa masa masa masa				
al Magazinia anti di Santa de La Santa de Santa	.9" (
	4			
hemanungungungkan kepulatun dinak berawata		I * +	TIME AS	
***************************************		TO SEE DIS		15
 	BROT	IERS	GABRIEL	
***************************************		2011/2011		6
Total	LAI	OMNIA	VINCIT	

Total Vacant Occupy

No. of Room

No. of Guest

Figure C-1: Room Count Report

Cashier Report (dd/mm/yy)

Description	Correction	Net
	Quantity Amount	Quantity Amount
Room Charge	nu	<i>Y</i>
Room Day Used		S A
Coffee Shop		
Long Call		
Oversea Call	ASMIX + I	A Falls
Facimile	186 (# UP)	E A
Laundry	ST GA	
Miscelleneous	LABOR	CIT
*	OMNIA SANCE 1040	**
Total Price	^{ชาวิ} ทยาลัยลัสส์	713100

Figure C-2: Cashier Report

Cashier Report (dd/mm/yy)

Description	Correction		Net		
	Quantity	Amount	Quantity	Amount	
Cash					
American Ex			4		
Visa Card					
Master Card	9			5	
		J * 1			
Total	S BROT		aRIE/	2	
	US.	201 /A	51	6	

Figure C-3: Cashier Report

Cash Summary Report (dd/mm/yy)

Room	Gname	Arrive	Depart	Deposit	Cash	Card	Adv	Ву
					011	}		
					4	9	<u> </u>	
				* 4			至	
	2		NAM7					
				** I			5	
		Ř.	BROTHERS	9r/ J)KI	SIGAE	RIEL	3	
			Total		VIN	CIT		

Figure C-4: Cash Summary Report

Check-in Report (dd/mm/yy)

Room	Gname	PayMtd	Arrive	Depart	Rate	Pass No	Deposit
						2	
	1						
en ditu miljeriumi gagrapinu yak kerum milita gal Mi	2						
		W			UMPA	F	
**************************************	V	R			Q/]
	U		OF OF			8	
		*	ABOR	A. 24 (1.14)	VINCIT		

Total of Room Rooms

Figure C-5: Check-in Report

Check-out Report (dd/mm/yy)

Room	Gname	PayMtd	Arrive	Depart	Rate	ExCharge	Total
			-11V	ERS	17.		
/) 1/2 -		4//		
Anno 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 - 1800 -						%	
·- ·	1				F MA		
	2					5	····
		W				All I	
······································	V				Q/A	K B	
	U		of Sold				

V20 SII	NCE1969 %
Total of Room	าลัยอัสล์ Rooms
Total Room Charge	Baht
Total Service Charge	Baht
Total Govern-Tax	Baht

Figure C-6: Check-out Report

Malaysia Hotel

Trial Balance (mm/yyyy)

Description	Moi	nth	Yea	r
	Quantity	Net	Quantity	Net
Room Charge		MEN	31//	
Serve Charge				
Govern Tax.				
Sub Total:				至
		A A A		
	Quantity	Net	Quantity	Net
Discountroom	S BROTH	ERSOF	SAGABRIEZ	3
Room Rve. :	LABO	OR .	VINCIT	
Total:	*	OMNIA SINCE 10	% «A	

Figure C-7: Trial Balance (1)

Malaysia Hotel

Trial Balance (mm/yyyy)

Description	Moi	nth	Ye	ar
	Quantity	Net	Quantity	Net
Coffee Shop				
Bag / Store				
Lobby Bar		WER	C/>	
Pool Bar	1)		21//	
Local Call			4	
Long Call				1
Oversea Call	Q 100			8
Telex				
Facsimile	3			A
Breakfast	S S	ERSOF	STGABRILL	8
Lunch	LANC	OR OR	VINCIT	
Dinner	* %	OMNIA	40 80	
Laundry	77	างเกล้อย	์ลลั้ ^{มขึ} ้ง	
Tour Services		~ 101ZIE		
Car Park				
Miscelleneous				
Deposit Cash				
Total:	·			

Figure C-8: Trial Balance (2)

Malaysia Hotel

Trial Balance (mm/yyyy)

Description	Me	onth	Year		
	Quantity	Net	Quantity	Net	
Cash		WER	CIL		
American Exp			9///		
Visa Card					
Master Card					
Diner's Club					
SCB Card		T * -	TARRA		
TFB Card			Sep.		
BBL Card	S BROY	HERSOF	ST GABRIEL	3	
	LAI	OR	VINCIT		
Total:	* 2/0	OMNIA	3		

Figure C-9: Trial Balance (3)

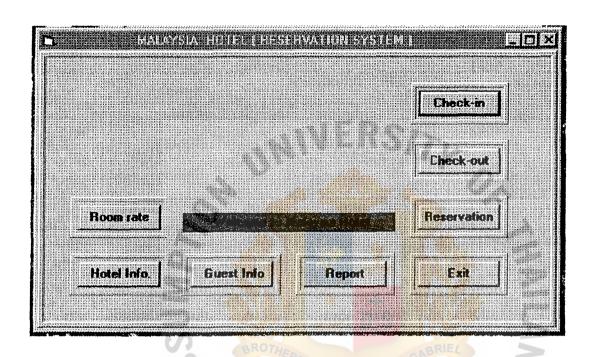


Figure D-1: Main Menu Screen

		TENEST I	nformatio	13				
			A CONTRACTOR OF THE CONTRACTOR	2001111111111111				CALESTON AND AND
		****************	**************************************	**************************************	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	***************		**************************************
Room Number				2898888888888888 2282888888888888	######################################		**************************************	NEWNARACENS
	NEWS NEWS							244 X X X X X X X X X X X X X X X X X X
		************	NAVARNURY CHRANESES AVELUATION NAME AND ASSESSED.	TANKEN PRESENTATION PROPERTY OF THE PROPERTY O	**************************************	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		**************************************
		202000000000000000		7		********		
Room Type :	XXXX XXXX			************		*****************	***********	**************************************
	999				************	**************************************	*************	RESERVED TO THE PROPERTY OF TH
2217 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	**************************************	11111111111111111111111111111111111111	*****			NEED AND AND AND AND AND AND AND AND AND AN		KERNYANKENYANA KERNYAKENYA
Room Rate :	ES S			*************	**************************************	ENRERS TO SERVE SERVE		ANNERS NEEDS NO.
	O.XE	~ [CARENESSES	ARNERS EN EN
**************************************		ENCOPERCION CONTRACTOR	#5000000000000000000000000000000000000		XX X X X X X X X X X X X X X X X X X X	######################################		SENSON SENSON
***************************************			ALL CALLES OF STREET	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			CHERRY	ZNAKHA KAUTANE KANAKEMENENEN
Reserve Flag :	CENTE CENTE CENTE	[Y/N	NEXT MENT MENT OF THE STATE OF	20152200222222222 2015222222222222222222	**************************************		**************************************	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
MINISTER STATE				XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	CHECKENSTERS ER	CERRENCE CONTRACT		*************
PARKET PARKET STATES	************	*****************	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	**************************************	**************************************		*************	RETRESCRIPTION MRQ DEFRICATION TERRESCRIPTION
Check-In-date :				eck-out			******************	
LINEUX-IN-CORE ;						CHANG	/ /	122
		**************	KANANANANANANANANANANANANANANANANANANAN	**************************************	************	*************	*******	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
		000000000000000000000000000000000000000			**************************************	0092254255	100000000000000000000000000000000000000	\$1000000000000000000000000000000000000
	CHECKNERS CONTRACTOR	NOT AN UNICOS NAMES OF STREET OF STR	**************************************	HERRESER ER E	CENTERNATIONS CONTRACTOR OF THE CONTRACTOR OF TH	EXEMPTANTA CONT.	**************************************	**************************************
	******			***	********	/		
	38668358388888888		** (200000000000000000000000000000000000	0.0000000000000000000000000000000000000	8668868686868686		25225475088588 ***************	182000000000000000000000000000000000000
Add	Delete	ANNEXE AT SEC.	Update		earch	M	ain me	
	************				ni en			
			************	well commen		SUSPENSION STATES		
******************************	Deres verener bereit	A STATE OF THE STA	**************	CAN PARTON NENW ARREST	************	NAMES AND ADDRESS OF THE PARTY.	***********	AND
A COLUMN A MARKAN MARKA	ZANNZENZKANANI	CANAL MANAGEMENT	XI-XXIDANYZONA IKK	CHYMXHXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	S NA RNEWS XX DESERT	AND RESERVOIS AND RESERVOIS	ALERS MERCHANISM	KEXEXEXED SELVE

Figure D-2: Hotel Information Screen

Guest-ID ;		
Guest-name :		
Passport-number	* Asionally :	
Address :		
Payment :	Deposit:	
Add	Delete Update Search	Main menu

Figure D-3: Guest Information Screen

11	Number of	Floor !	
	Number of	Room :	
	Number of	Room :	
//	Number of	Room !	
	Number of	Room !	
	Number of	Room ::	
	Number of	Room #	
	Number of	icus	
		loen :	
	in in the second of the second	ligia (Ma laa	
			B0000000000
CHENNY NAMED ENGINE A TENNAMENT OF		AND THE PROPERTY OF THE PARTY O	NAMES AND A
ENNEY NEW TAXABLE SERVICES OF THE SERVICES OF			
		ANNOTES AND THE PRESENCE OF THE PROPERTY OF TH	KNEEKKELEEREKKE KKEEEKELEEREKEEK KKEEEKELEEREKEEKE
**************************************	CORRECTION OF CARLY STREET AND CONTRACTOR OF CARL	**************************************	
	18. 18. 18. 18. 18. 18. 18. 18. 18. 18.	************************	······································
Gto i	puble 5ea	ich dan e	eral .
			CANADA CA
*****************		**************************************	
	ato III	elo Updalo Sea	ele Update Search Main s

Figure D-4: Reservation Information Screen

Room-number: Room-rate: Check-in-date:: / / Departure date: / / Number of person:	Guest-name :		
Number of person:	THE A RESPONDED TO THE PROPERTY OF THE PROPERT	/ / Departure date :	17
	Number of person :		

Figure D-5: Check-in Record Screen

	Check-out	Talualiti		September 1	
		tato baba ta aparaman			
**************************************				**************************************	
Guest name :					200 X
			len kakenika ka		

Room numbers	4 11 11 11 11			**************************************	
		-			in the second
Check in date	11	Depart	we dale :	7	1
				A THE REAL PROPERTY OF THE REA	
		- NAMES OF THE PERSON OF THE P		**************************************	
Total price :	- Ma		nicaselhad		2000 2000 2000 2000 2000 2000
		ATRICA TENED			
				20.000.000.000.000.000.000.000.000.000.	
Search	Update	i i i i i i i i i i i i i i i i i i i	-charge		18-27NJ
					Benii kalilii 📗
		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			LISTENNIA PROGRAMMATORIA LISTENNIA PROGRAMMATORIA
DOING ST					

Figure D-6: Check-out Record Screen

Guert name			7	ELENTAL STATES
Room number :		Total-extra-charge ;		
Laundry :		Service-Charge		7
Miscelleneous :		Government Tax		1
Food :				l
Others		Total price]
	Update	Exit		
	* &%75		*	

Figure D-7 : Extra-Charge Screen

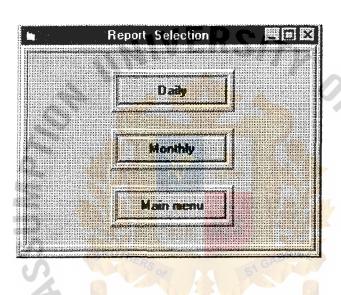


Figure D-8: Report Selection Screen

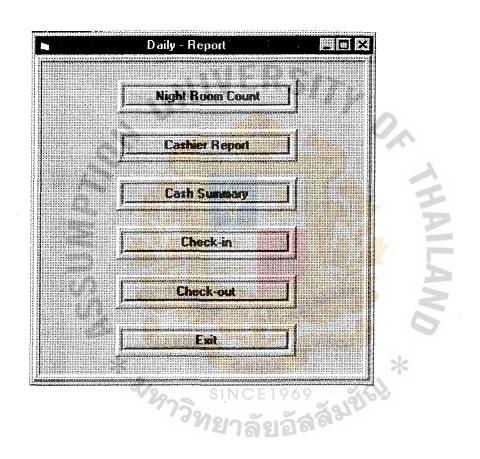


Figure D-9: Daily Report Screen

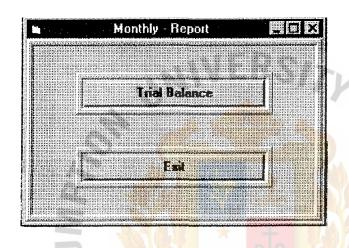


Figure D-10: Monthly Report Screen.

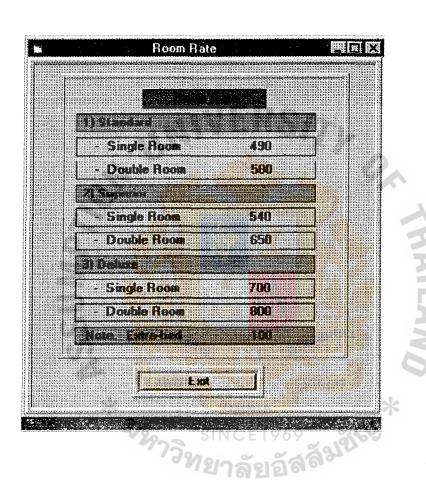


Figure D-11: Room Rate Screen.

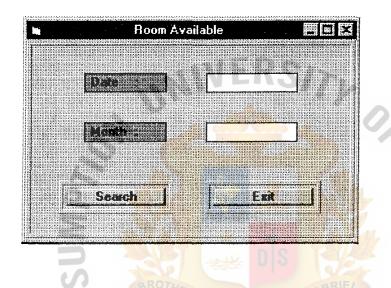


Figure D-12: Search Room Available Screen



Figure D-13: Room Available List Screen.

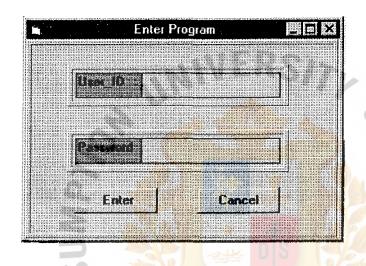


Figure D-14: Enter Program Screen

		are Mile D
	anner di	
perdantionophreption	\$\$\$\$\$\$\$\$\$#############################	todagan kada intanan periodi (i) Colonian and data
* HERNENBERG FREEZ FALSE	**************************************	************************
k ozali karini kari	NATURE OF THE PROPERTY OF THE	EVEREPRENENT ENTRE NEW YORK THE PROPERTY OF TH
*********	KENNYHNYNNYF NYERRENORINA PER	NAME OF THE OWNER, WAS ARREST OF THE OWNER, WHEN THE OWNER, WHEN THE OWNER, WHEN THE PROPERTY OF THE OWNER, WHEN THE OWNER, WH
Local	EX TO SERVICE SERVICES	CHEEK AND AND THE CONTRACT OF
CONTRACTOR OF THE STREET	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	CONTRACTOR OF THE CONTRACTOR O
	NAME OF THE PARTY	www.complements.com
AND REAL PROPERTY OF THE PROPE	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	CONTRACTOR OF THE CONTRACTOR O
Long (A STATE OF THE STA	CHEEKLY PERSON STEERS
************	AND	KRINENNAN PORENTENEN E
****************	NXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	
ZEZNEK KERKEREKETAN		\$2,000 per 12 pe
Overse		***************************************
CONTRACTOR CONTRACTOR	elenkingerkonnelijakinisi	FEFTNERSESSESSESSES
. 000000000000000000000000000000000000	20000000000000000000000000000000000000	AND THE RESERVE AND THE PROPERTY OF THE PROPER
EXECUSE EXPENSES AND EXPENSES.	CARL DE RESERVACION DE SERVE DE LA COMPANSION DE LA COMPA	TERRETARE
Bag /	Chrometer	ERRENKANNERSPERE
************		CONTRACTOR OF THE CONTRACTOR O
EXECUTATE SERVICE SERVICES	CHRIRK KAREEL KAMAMAKAN	KRAWARAKANAN KARA
RESERVATION FRANCES		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ervices !	CARLES SANCE AND A SANCE OF SANCE SA
Maria Company	CONTRACTOR	PEREZENERAL DE CENTRAL DE CONTROL
	2002202222222222222222	ERRESPENDENT FRANKERS
NEEDS CONTRACTOR CONTRACTOR	TOTAL PROPERTY OF THE PROPERTY	PRESENTATION OF THE PROPERTY O
Telex	IN CONTRACTOR SERVICES	FARRANNERS RECEIVED TO THE PROPERTY OF THE PRO
ANNEXE CONTRACTOR	MANAKARANAKANAKANAKA	**************************************
	**************************************	ELECTRONICAL DE LA COMPANSION DE LA COMP
CARRENGE CARREST	CANDRED CANDESCANA CANDESCANA CANDA	ASSULTED TO THE CONTRACT OF T
Falesin	A CONTRACTOR OF THE PARTY OF TH	ANNAUGH STATES
	ARTHUR DESIGNATION OF THE PROPERTY OF THE PROP	#4000000000000000000000000000000000000
	NAMES AND ADDRESS OF TAXABLE PARTY.	
Total s		CHERRENE CHERREN CONTRACTOR CONTR
NEXXXXII SEENKAL NAMEDES	ANNA KATANTA KANA MANANA	C0000000000000000000000000000000000000
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	NEXT THE STREET STREET STREET,	NAMES AND BURKEY BURK BURKEY B
		SERLING THE PROPERTY OF THE PR
NEWARKERS.	SOLVER THE SERVICE STREET, SER	S-CKENNESS SANDAN MANAGEMENT SANDAN S
SERVICE CONTRACTOR	AND RESIDENCE AN	COMPANIES CONTRACTOR C
SELECTION OF CHICAGO	PRESENT THE PROPERTY OF THE PR	CARREST CONTRACTOR CONTRACTOR OF THE CARREST CONTRACTOR
SERVERPENT OF THE PROPERTY.		ring and the second
NAME OF STREET STREET	Enter	Esst
PERKENDEN PERKET PRES		
\$123828501 1 CO. 12888	AND ENGINEER CONTRACTOR OF THE PROPERTY OF THE	NAMES OF THE OWNER O
RESIDENCE OF PERSONS FOR	The state of the s	
TANKARAN (MARKANARA	THE STREET OF THE STREET STREET STREET STREET	li di
PROPERTY NAMES OF THE	AND THE RESERVE OF THE PARTY OF	
HINAKTKANAK ANMARTAKAN Karagaran-barbarak	LEAD TAXABLE MANAGEMENT OF THE PROPERTY OF THE	TARREST SERVICES SERV
MAGARASANAANISTEKKAAL	KI MAN AR KINKARAMANAN KANNAN KANNAN KANAN	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Figure D-15: Other Extra Charge Screen.

.	Food-Extra-Ch	rarge			i žia
RENEWED RESERVED TO	****************************	KKNENESKO MERKENESK	XXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXX
			*******	***********	2000
COLEMN DE CONTRACTOR	CARREST CARREST CARREST CONTRACTOR CONTRACTO		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		SERVICE SERVICE
	THE EXPLOSION OF THE PROPERTY	in the second	************ **********		******
prea	fast :	C.X.	**************************************	*****	KARMERS
*************	PRINCESSACES		*******		******
NAMES AND ASSESSED AND ASSESSED AND ASSESSED ASS	RABBURKER REGEREN ER ELLEN BERKER BERK BERK	*************	*********** **********		22222
**************		I THE REAL PROPERTY OF THE PARTY OF THE PART	202202222 202202222 20220222	*********	**************************************
Lunci	24.5	ek Gr	*****	**********	NEWSKY
	***************************************		********		10000
ANALKSKE KREEKERE	KENNERSENNINGSENESENSEN	easter and a second	************		STREET
		***************	**************************************	GENERAL SERVICES	NAME OF STREET
ANNALY DESCRIPTION			**************************************		******
Dinne	AND NEW THE SERVICE OF THE SERVICE O	100 100 100	************	**************************************	FREEN
************	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			CANALAN MARKA	CHANGES
STREET STREET, STREET STREET	NEEDNAMEN VANNE MANNE SERVEN VAN DE SERVE VA	**************************************	KANANANAN KANANANAN	*********	WENTER!
COLUMN CO		AND THE RESERVE OF THE PERSON	ANNAFARA	****	KKHXXXX
e Pani	ANAMANAAANAANAANAA		NEED VERVAN	EXPLOSED FOR	******
99 99 P. C. C. F.				SEXXNERS NOT	CXXXXX
**************************************	NAME OF TAXABLE PARTY O	7	************	*****	ANNANA GRANKE
**************************************		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	PANTANCANA	**************************************	N CHANG
NAMES AND ASSESSMENT OF THE PARTY.			**********	******	MAKKAK.
Lote	e Shop 🚼		*********	27 25 21 2 2 2 2 2 8 8 8 8 8 8 8 8 8 8 8 8 8	
**************	CHARLES MERKEN NAMED CONT.		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		(XXXXXX)
CANNERS OF STREET	ANNENNALENSE ENGEREREN SER VORFRESE EN SER VERSE	******************	ZENZENESE		CHENENS !
*************	**************************************	***************	CARRELLES CONTRACTOR	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	CENTRAL CONTRACTOR
NAME OF THE OWNER O				****	CKENKY 1
A CONTRACTOR OF SERVICE	AND REPORT OF THE PROPERTY OF	***************	CXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	AND THE REAL PROPERTY.	SEREN!
SANGERS CARRESINA	NUNCENKKKKERESKESKESKESKESKESKESKESKESKESKESKESKESKE	*************	caracter acceptable	HE SERVICE SHEET	XXXXX
		ANNO STRUCTURE DE LA CONTRACENTA DEL CONTRACENTA DE LA CONTRACENTA	********	TO THE REAL PROPERTY.	SHEET !
PRINCIPLE (MINERAL)		*******************	YXXXXXXXXXX		22222
PUREFERENCE CONTROL ON	Enter i		NAN MARKAN	A STANSON S	KRAKAS 6
			ENGRED OF	A CONTRACTOR	MANAGE OF
NAMES OF THE RES			11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Carrier Contract	DECOM:
mening benera		**************	*********	SECTION AND AND AND AND AND AND AND AND AND AN	AUGUST S
NENNYMEN OF THE PERSONNELS	CAMBANANAN ENXHUNANANANANANANANANANANANANANANANANANANA	RENERESENTATE	NEXNATEREX	A BOUNDARY STAN	XXXXXXX
**************	REPRESENTATION OF THE PROPERTY	STREET REAL PROPERTY OF THE PR	XXXXXXXXXXX	X X X X X X X X X X X X X X X X X X X	NEWENS O
000000000000000000000000000000000000000	OCCUPATION OF THE PROPERTY OF	***************	******	******	******

Figure D-16: Food Extra Charge Screen.

SINCE 1969 SINCE 1969

ABAC GRADUATE SCHOOL LIBRARY