



Practical Development of Information System in Business Context:
E-Commerce and Reservation System for Bell Car
Rental & Leasing Co., LTD.

PROJECT WRITE-UP

Prepared by

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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

June, 2004

Project Name: Car Rental Reservation System, Bell Car Rental & Leasing Company

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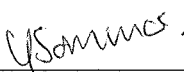
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The Department of Business Information Systems, ABAC School of Management has approved the aforementioned project, which includes complete Project Write-up and System submitted in fulfillment of the 3-credit course BIS 4995 Information System Development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

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ACKNOWLEDGEMENT

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First, we would like to give our special thanks to the managers and staff in Bell Car Rental and Leasing Company for providing us the necessary information as well as data. Also, we would like to thank Mr.Hudsadin Eamsherangkul, Assistant Manager for providing us important suggestions and directions of designing the system as well as information regarding existing system.


Second, we would like to give big thanks you to our project advisor, Acharn Patamate Darnphitsanupan. Without his encouragement, suggestions, we would not be able to complete this project. As he always encourage us to visit him often and he was always available to help us solving the difficulties that we faced.

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The watermark is a large, light gray circular seal of Assumption University of Thailand. It features a central shield with a blue top section containing a white star and a red bottom section containing a white cross and the letters 'DS'. The shield is flanked by golden laurel branches. Above the shield is a golden crown. Below the shield is a golden banner with the Latin motto 'LABOR OMNIA VINCIT'. The outer ring of the seal contains the text 'ASSUMPTION UNIVERSITY OF THAILAND' at the top and 'มหาวิทยาลัยอัสสัมชัญ' at the bottom, with 'SINCE 1969' in the center of the bottom arc. The seal is flanked by two small golden stars.

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I. INTRODUCTION

1.1. Organization's Profile

Bell Cars Rental&Leasing Co.,Ltd. has been established since 1990 by an experienced management team in transportation-related business. With strong commitment to become the rental vehicle company of choice, Bell Cars Rental & Leasing Co.,Ltd. offers excellent services, quality products with service minded personnel and persevering improvement to meet and exceed the expectations of all customers.

Bell Cars Rental&Leasing Co.,Ltd management team consists of accomplished executives, and is constantly inspired to reach the highest potential. With extensive experience in the business for more than three decades, they pursue perfection through constant training, motivated staff, and most of all, customer first attitudes.

1.2. Organization's Location

402 Soi Rewadee Rama VI Road., Samsannai, Phayathai, Bangkok 10400

1.3. Organization's Structure

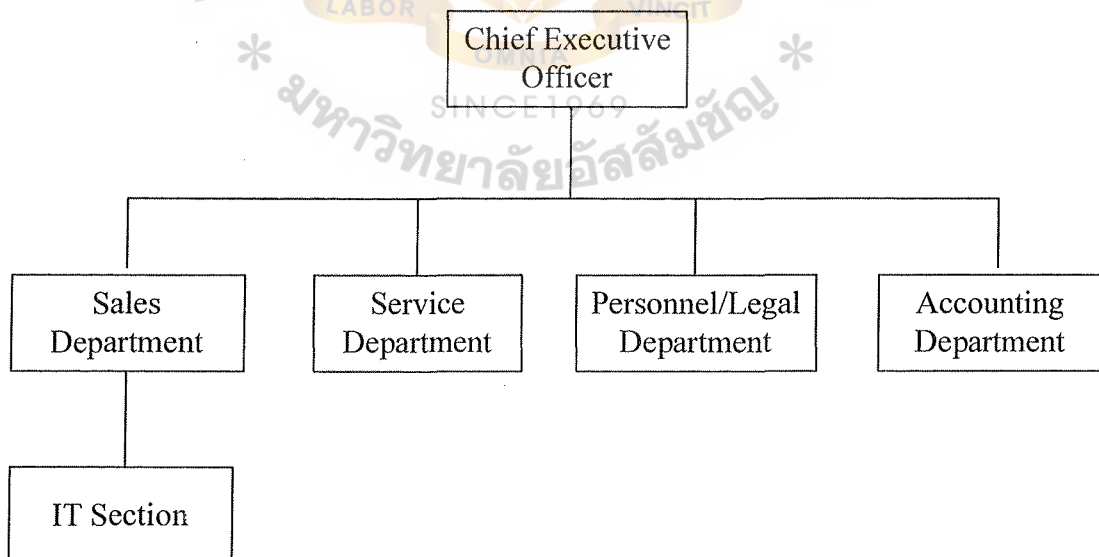


Figure 1-1 Organization Chart of Bell Cars Rental Leasing Co., Ltd

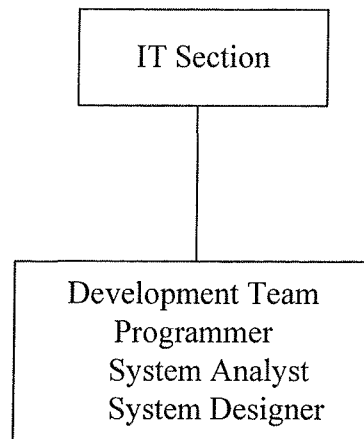


Figure 1-2 Department Chart of IT Department

1.4. Project Plan

Since the plan to implement online reservation system is underway, we have to prepare and create company's website as well as back-end office system to provide e-services to customers and replace internal manual system. The total time to complete this project is estimated to last for 3 months.

First of all, we need one week to analyze of the existing system and it will be starting in the first week of November. During this week, we will study the existing system, identify the existing problems including existing context diagram. Second, we will conduct preliminary investigation from the first to third weeks of November. Within these three weeks, we will define the objectives and scope of new system for two weeks starting the first week to second weeks of November. Then, we start to define Hardware and Software requirements for one week on the third week of November. Third, we will analyze and design the Proposed System for two months and two weeks. We will use two weeks to do Entity-Relationship Diagram and two week for designing the database. For Data Flow Diagram, we will use two weeks for drawing and Data Dictionary in one week. We will also use six weeks for Interface Design starting third week of December to the last week of January. Finally, by the second

week in February, we will finish coding the website including backend office system and the report design in one week by second week of January.



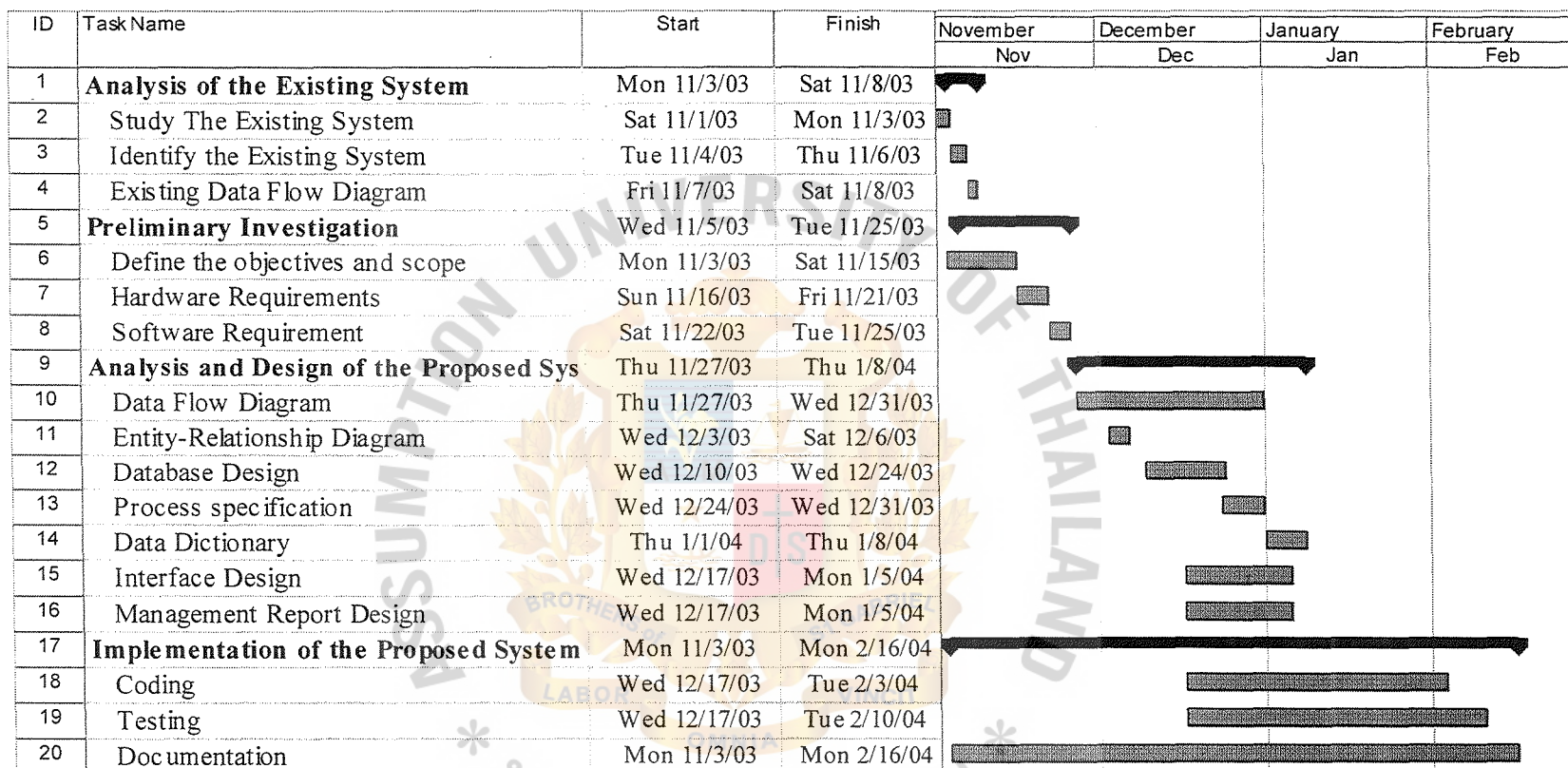


Figure 1-3 Project Plan for Car Rental Reservation System of Bell Car Rental and Leasing Company

II. THE EXISTING SYSTEM

2.1 Background of Existing System

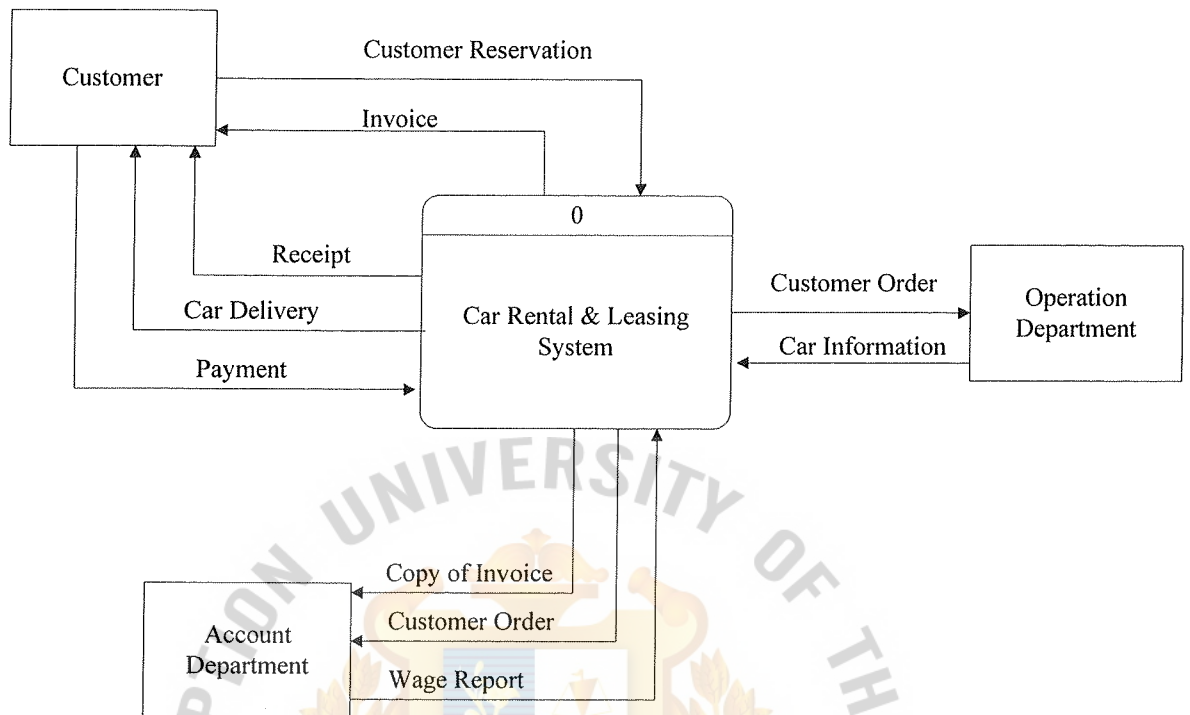


Figure 2-1 Context Diagram of Existing System

2.2 Problem Definition

(1) Inefficient record Management

Documents were recorded in paper or some kept in Microsoft Excel files. There is no database to keep all information including customer details, rental details, documents, and etc. The company uses only Microsoft Excel to keep the cars schedule, while the rest keeping files in folders. Since there is no database to keep information, data and transactions cannot be updated instantly. The company cannot track or trace for specific data, especially the vehicles current status once it leaves the garage.

(2) Conventional customer services

The company does not accept individual customer reservations. Thus, customers have no other choices of making reservation, but through telephone. In addition, there is no company website for customers to check flee rate, special promotions, and awards. If customers would like to know these details, they would have to only call the company for details. Furthermore, customers can make reservations or ask for details only during the office hours, which is not convenient and the company might lose the customers to its competitors.



III. THE PROPOSED SYSTEM

3.1 Feasibility Study

(1) Objectives of the System

- a) To change the existing manual works into computerized system.

First, the system will have to be able to see real time inventory of vehicle in the fleet. Second, system will have to officially share up to date and accurate data for users in various departments with authorized access control as well as keeping all information into database. Third, records will be updated instantly once there are any changes occur. Finally, the most important feature is to build up database to keep all information regarding customer details, vehicles, and etc. So, it will solve the problem of paper-based work. Also, company can retrieve customer information in a very short period of time by searching from the database.

- b) To provides company website with e-services

The Bell Cars Rental would like to provide website to customers. So the customers can log on to website anytime at anywhere. The website will have online reservation, fleet type, rate information provided to customers. The website will have responsive content and with user friendly designs. This website will accept both individual and corporate customers to make reservations. It allows customers to keep track of vehicle usage and check their payment status, including rewarding program. Also, the website must have company profiles and related information.

- c) To help both company and customers reduce time of communication and cost reduction.

The Bell Cars Rental wants to create Internet usage as its business tool. Customers can communicate with the company and gather information via the website. Moreover, Bell Cars Rental has to design a system that provides the company and customers for quick, simple, and convenient functions for their operations.

(2) Scope of the System

a) Quotation & Reservation (E-commerce) Module.

- To allow customers to register online.
- To provide customers of check flee rates, special promotions, and awards.
- To provide customers to check and view the vehicles online.
- To make online reservation forms for individual and corporate customers to reserve online or to accept online reservation.

b) Maintenance Module

- To create and maintain database of customers with level of access control.
- To keep schedules of cars so that the company can check schedule for each car operation date.
- To keep current status of cars so the company can track and trace the cars.
- To assist the management in making decisions whether to keep a vehicle in the rental fleet or to sell it out.

c) Billing and Payment Module

- To make car rental summary for the customers so customers can see summaries of all their rentals.

- To create and maintain maintenance records along with detailed expenses on each rental vehicle.
- To create invoices to customers and summarize income and expenses on each rental job.
- To accept customer payments.
- To create receipt for customer once the payment is done.

d) Management Report Module

- To generate Weekly Vehicle usage report categorized by:
 - Plate Number
 - Car Model and Color
 - Fuel
 - Fuel Consumption
 - Chauffeur name
- To generate Monthly Wage Report categorized by:
 - Chauffeur ID
 - Destination
- To generate Quarterly Purchase Car Report categorized by:
 - Car Model, Color
 - Cost
 - Date of receiving car
- To generate Monthly Car Maintenance Report categorized by:
 - Plate Number
 - Car Model, Color
 - Last and next check up date

- Total cost of maintenance
- Status

(3) Hardware and Software Requirements

Because a server computer in a company is very important, it works as heart network computer systems for the whole company. As a result, it needs high specification computers such as high speed CPU, high volume harddisk, and ram. For a client computer, it does not need to have a high specification as the server; mainly it focused more on the speed or processing data and enough space to keep all the information. The specifications for the server and client computers are shown in Tables 3-1 and 3-3.

For Software, we use Microsoft Windows XP as the operating system because it is the newest products of Microsoft and has good performance and reliability system. Also, Windows XP has the function of IIS that help and support for create Web site with Active Server Page.

Table 3-1 Hardware Requirements for Server Computer

HARDWARE	SPECIFICATION
CPU	Pentium IV 3.0 GHZ Socket 478
MEMORY	512 DDR Ram 400 MHz
HARD DISK	120 GB
CD-ROM DRIVE	52x 24x 52x Internal CD-Rom Drive
FLOPPY DRIVE	1.44 MB 3.5-inch internal
DISPLAY ADAPTER	GF4 MX440 64 MB
DISPLAY	17" Mag Monitor
UPS	1500VA Battery Backup System

Table 3-2 Software Requirements for Server Computer

SOFTWARE	SPECIFICATION
Operating System	Microsoft Windows XP Professional Corporate Edition
Application	Apache Web Server, PHP, MySQL, Microsoft Office XP Professional Edition, Acrobat Photoshop

Table 3-3 Hardware Requirements for Client Computer

HARDWARE	SPECIFICATION
CPU	Pentium IV 2.66 GHz Socket 478
MEMORY	256 DDR Ram 400 MHz
HARD DISK	60 GB
CD-ROM DRIVE	52x 24x 52x Internal CD-Rom Drive
FLOPPY DRIVE	1.44 MB 3.5-inch internal
DISPLAY ADAPTER	GF4 MX440 64 MB
DISPLAY	17" Mag Monitor
UPS	1500VA Battery Backup System

Table 3-4 Software Requirements for Client Computer

SOFTWARE	SPECIFICATION
Operating System	Microsoft Windows XP Professional Corporate Edition
Application	Apache Web Server, PHP, MySQL, Microsoft Office XP Professional Edition, Acrobat Photoshop

(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	Years				
	1	2	3	4	5
Fixed Costs:					
Hardware					
Workstation					
Pentium III 600 MHz	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00
Monitor Mag 17"	1,750.00	1,750.00	1,750.00	1,750.00	1,750.00
Printer Laser HP	5,500.00	5,500.00	5,500.00	5,500.00	5,500.00
Software					
Windows 98	640	640	640	640	640
MS-Excel 97	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
Implementation Cost					
Training Cost (10 Hrs x 500)	7,000.00	-	-	-	-
Maintenance Costs	-	-	2,000.00	3,000.00	3,500.00
Total Fixed Costs	23,892.00	16,890.00	18,890.00	19,890.00	20,390.00
Operating Costs:					
Staff					
Manager 1@ 15,000/month	180,000.00	210,000.00	240,000.00	270,000.00	300,000.00
Operator 2@ 9,000/month	216,000.00	216,000.00	216,000.00	216,000.00	216,000.00
Marketing Officers 4@ 10,000/month	480,000.00	576,000.00	672,000.00	768,000.00	864,000.00
Paper	5,000.00	5,500.00	6,000.00	6,500.00	7,000.00
Utility	6,450.00	7,640.00	7,800.00	7,760.00	8,240.00
Opportunities Cost	55,000.00	61,172.65	68,038.06	75,673.97	84,166.86
Other expenses	1,850.00	1,950.00	2,285.00	2,740.00	2,985.00
Total Operating Costs	944,300.00	1,078,262.65	1,212,123.06	1,346,673.97	1,482,391.86
Total Cost of Existing System	968,192.00	1,095,152.65	1,231,013.06	1,366,563.97	1,502,781.86

(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 IV 3.0 GHz	6,820.00	6,820.00	6,820.00	6,820.00	6,820.00
17" Mag Monitor	1,450.00	1,450.00	1,450.00	1,450.00	1,450.00
3 Client Computers					
Pentium IV 2.66 GHz	5,600.00	5,600.00	5,600.00	5,600.00	5,600.00
17" Mag Monitor	1,450.00	1,450.00	1,450.00	1,450.00	1,450.00
Software					
Windows XP	1,200.00	1,200.00	1,200.00	1,200.00	1,200.00
Microsoft Office XP	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
Acrobat Photoshop	800.00	800.00	800.00	800.00	800.00
Implementation Cost					
Development Cost	200,000.00	-	-	-	-
(400 Hrs@500)					
Training Cost	50,000.00	-	-	-	-
(10 hrs @5000)					
Maintenance Costs	-	-	-	6,000.00	5,000.00
Total Fixed Costs	268,320.00	18,320.00	18,320.00	24,320.00	23,320.00
Operating Costs:					
Staff					
Manager 1 @	180,000.00	210,000.00	240,000.00	270,000.00	300,000.00
15,000/month					
IT Officer 1 @	144,000.00	156,000.00	168,000.00	180,000.00	192,000.00
12,000/month					
Operator 1 @	108,000.00	108,000.00	108,000.00	108,000.00	108,000.00
9,000/month					
Marketing Officers 1@	120,000.00	132,000.00	144,000.00	156,000.00	168,000.00
10,000/month					
Paper	1,500.00	1,800.00	2,100.00	2,400.00	2,700.00
Utility	12,000.00	13,200.00	19,800.00	29,700.00	44,550.00
Opportunities Cost	26,000.00	26,000.00	26,000.00	26,000.00	26,000.00
Other expenses	4,800.00	5,280.00	5,808.00	6,388.00	7,027.00
Total Operating Costs	596,300.00	652,280.00	713,708.00	778,488.00	848,277.00
Total Cost of Proposed System	864,620.00	670,600.00	732,028.00	802,808.00	871,597.00

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

Table 3.7. Accumulated Costs of Existing System for 5 Years, Baht.

Year	Total Annual Cost	Accumulated Existing System Cost
1	968,192.00	968,192.00
2	1,095,152.65	2,063,344.65
3	1,231,013.06	3,294,357.71
4	1,366,563.97	4,660,921.68
5	1,502,781.36	6,163,703.04

Table 3.8. Accumulated Costs of Proposed System for 5 Years, Baht.

Year	Total Annual Cost	Accumulated Proposed System Cost
1	864,620.00	864,620.00
2	670,600.00	1,535,220.00
3	732,028.00	2,267,248.00
4	802,808.00	3,070,056.00
5	871,597.00	3,941,653.00

Table 3.9. The Comparison of Accumulated System Costs, Baht.

Year	Accumulated Existing System Cost	Accumulated Proposed System Cost
1	968,192.00	864,620.00
2	2,063,344.65	1,535,220.00
3	3,294,357.71	2,267,248.00
4	4,660,921.68	3,070,056.00
5	6,163,703.04	3,941,653.00

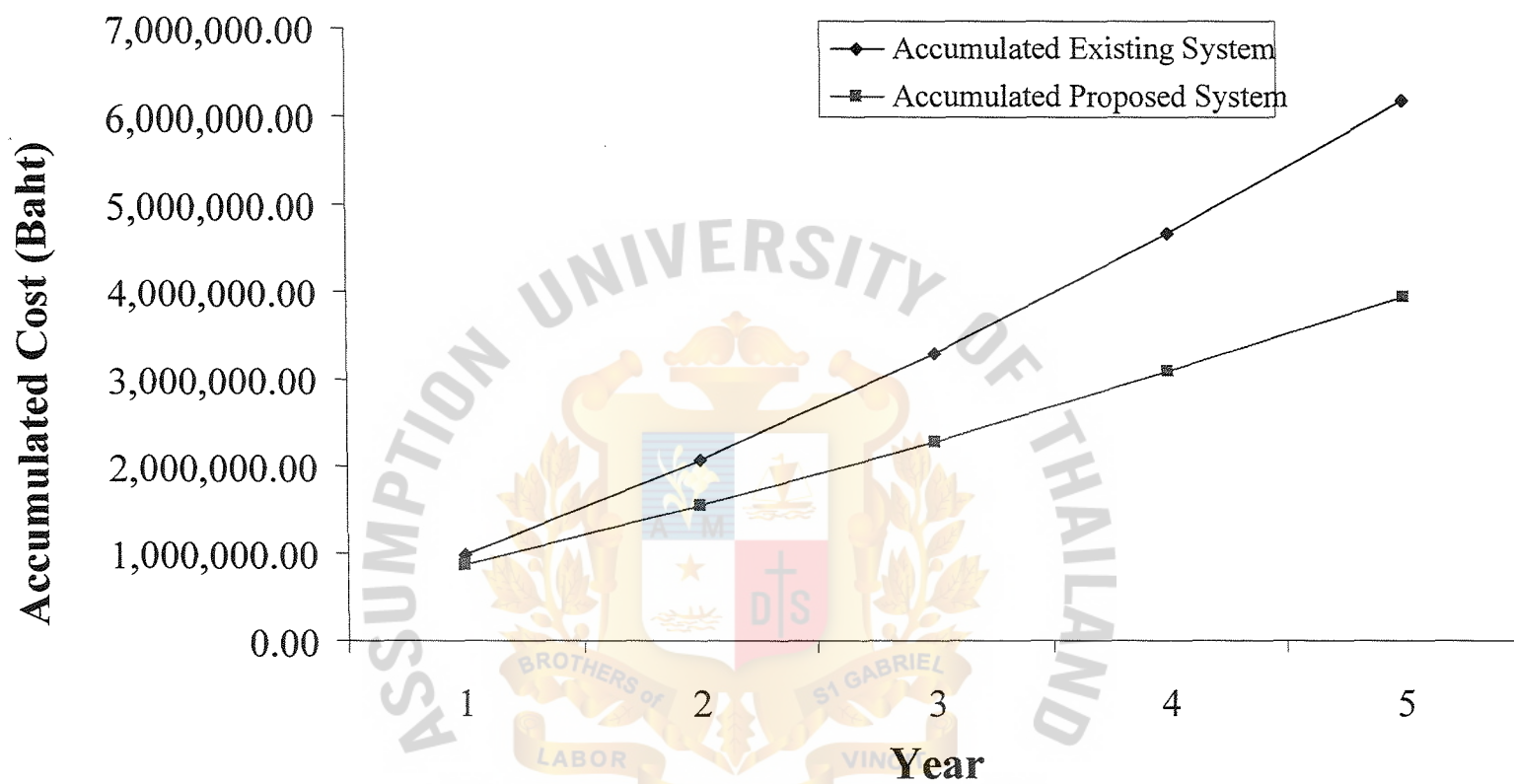
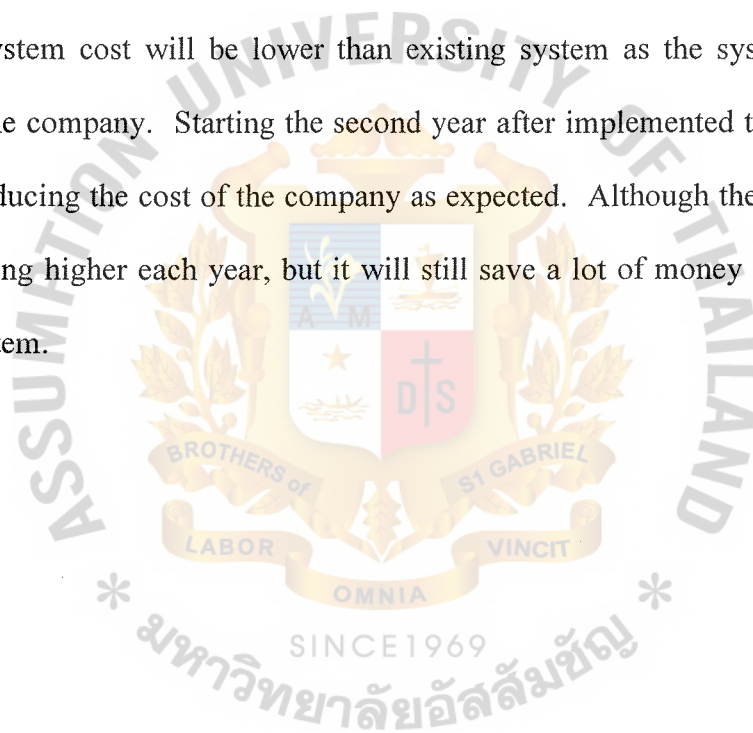


Figure 3-1 Break-even Analysis

From figure 3-1, you can see Accumulated Existing System Cost (AESC) graph and Accumulated Proposed System Cost (APSC) graph. AESC graph is the blue line that shows the existing system accumulated cost for 5 years and the pink line represent the proposed system accumulated cost for 5 years. At the first year, once the company implements the new system, the accumulated cost of proposed system will be higher than the remaining four years because the company has to pay for the implementation cost and training cost for the new system. Also the company has to buy new hardware and software that are required for the new system. However, starting second year proposed system cost will be lower than existing system as the system provides the benefit to the company. Starting the second year after implemented the new system, it will start reducing the cost of the company as expected. Although the new system cost will be getting higher each year, but it will still save a lot of money compare with the existing system.



3.2. System Design

(1) Data Flow Diagram

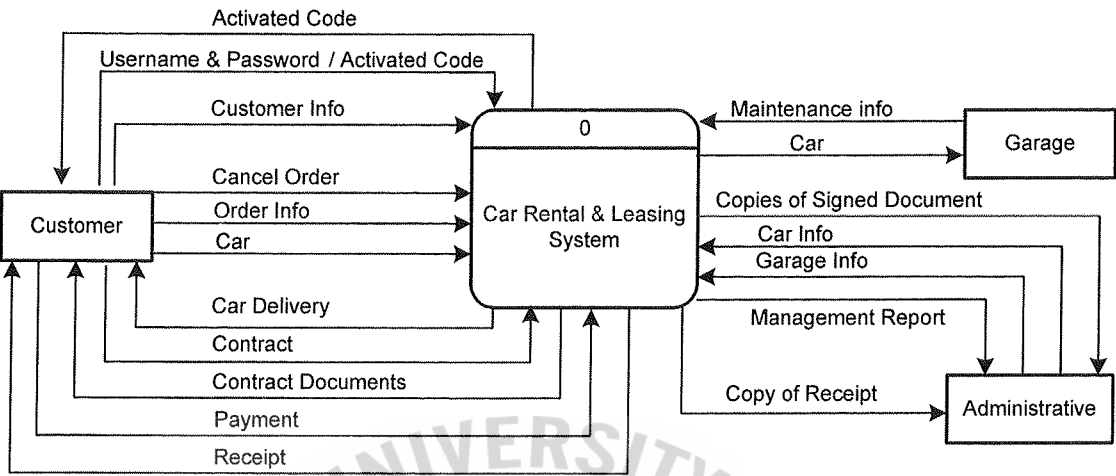


Figure 3-2 Context Diagram of proposed System

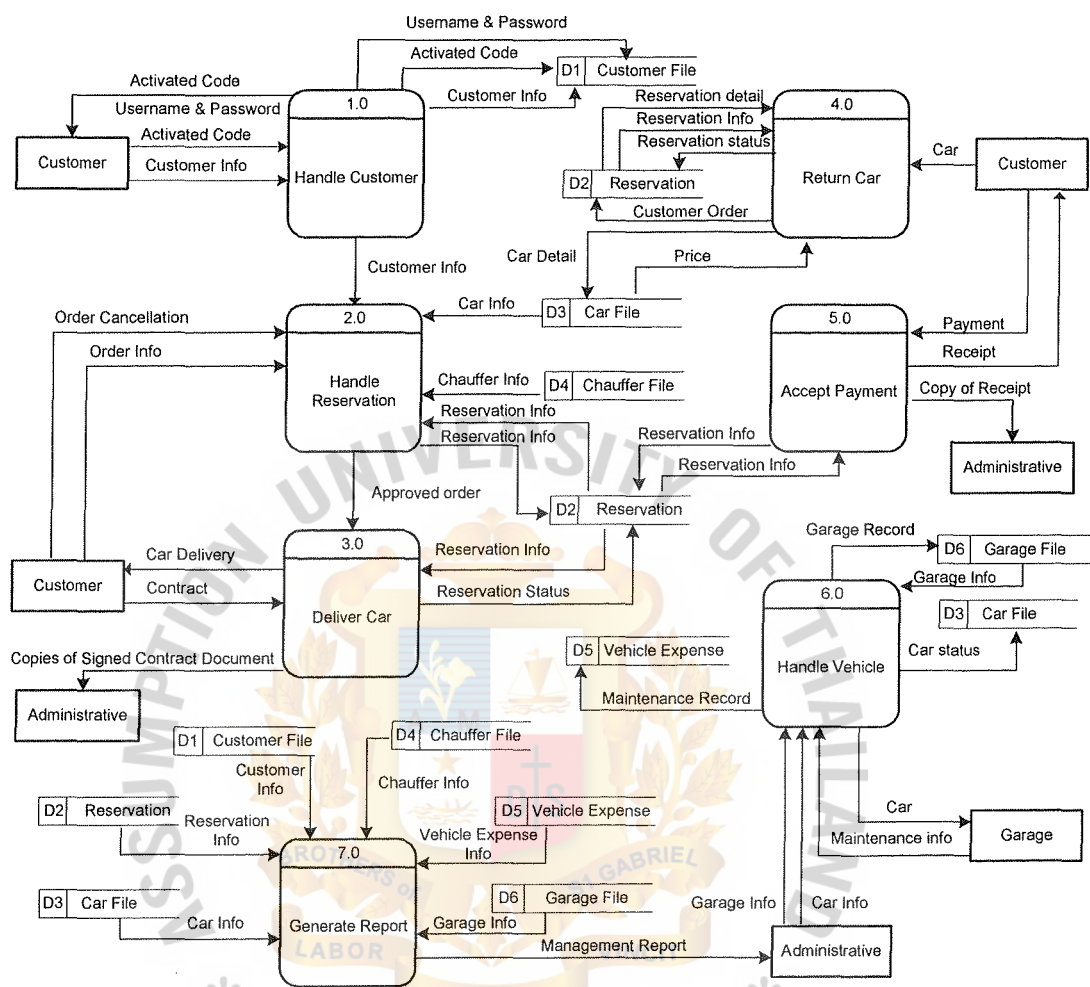


Figure 3-3 Data Flow Diagram – Level 0

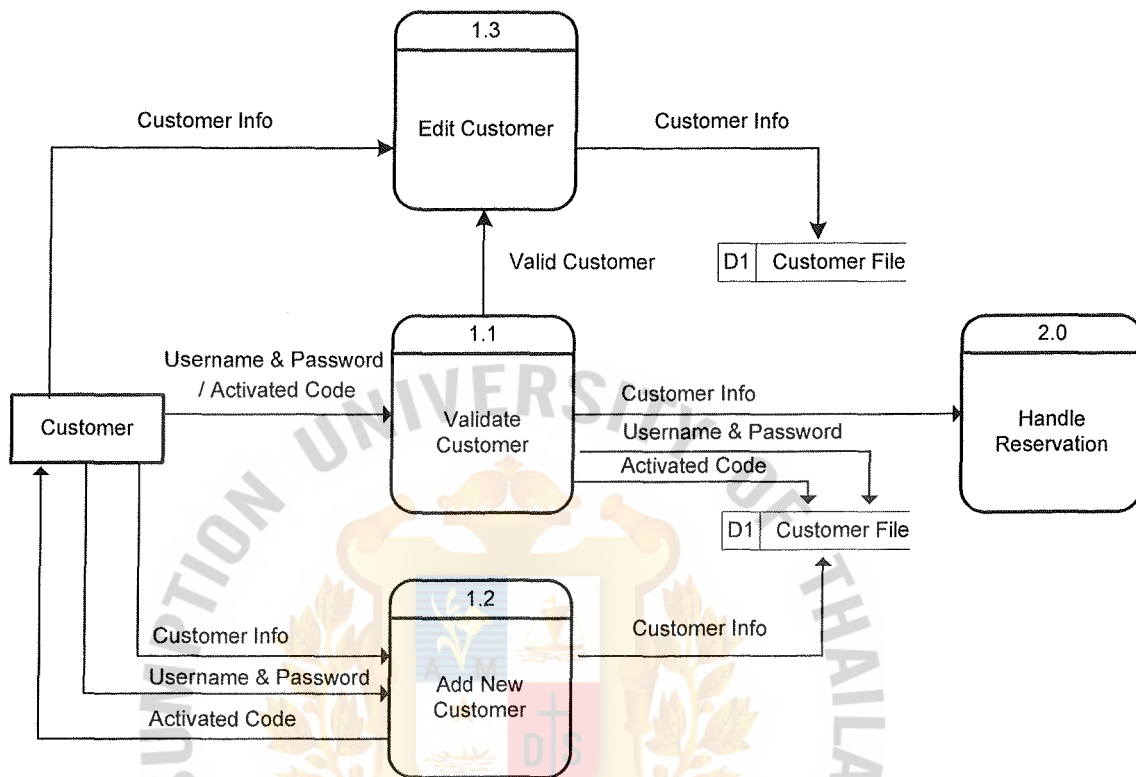


Figure 3-4 Data Flow Diagram – Level 1 for Process 1

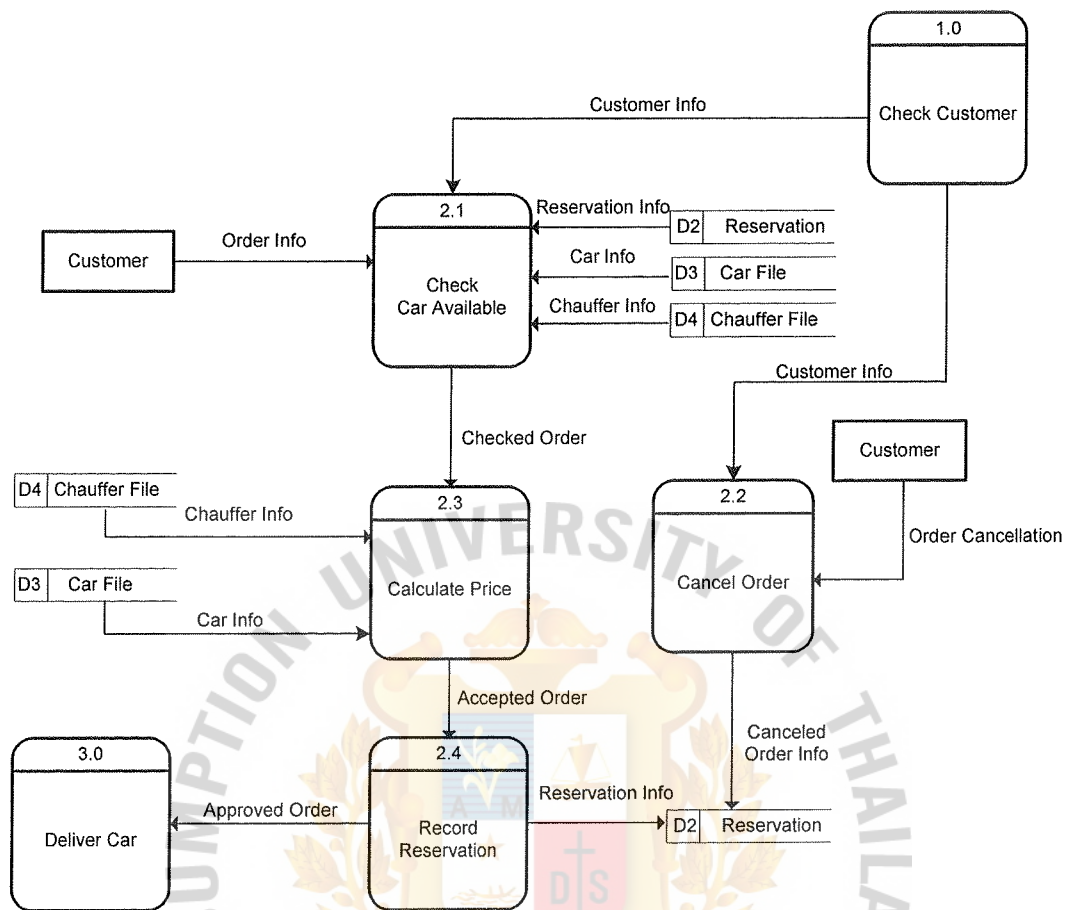


Figure 3-5 Data Flow Diagram – Level 1 for Process 2

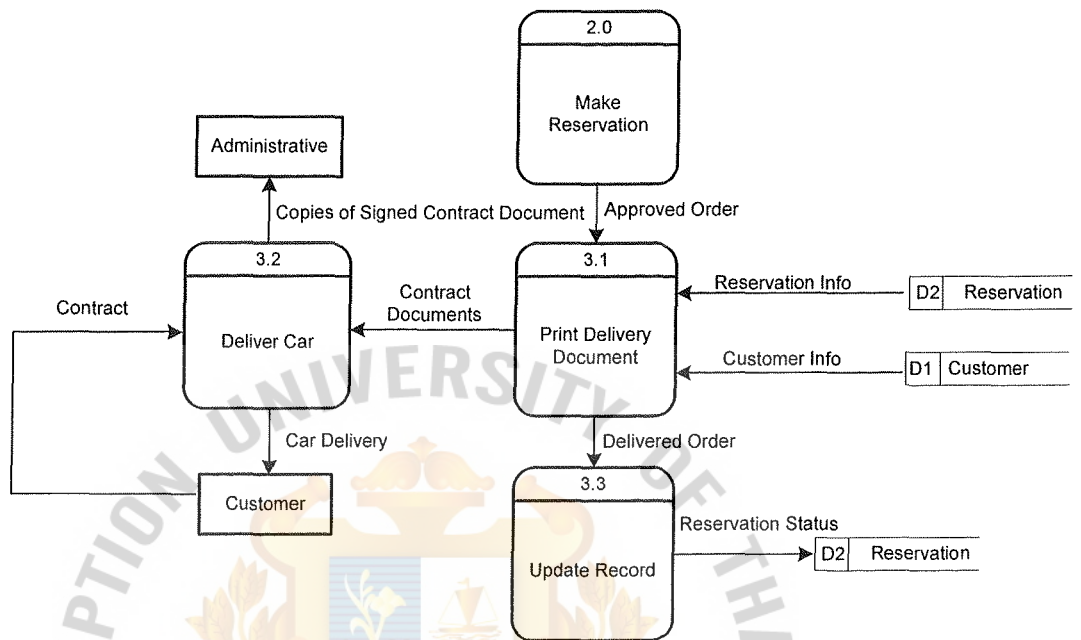


Figure 3-6 Data Flow Diagram – Level 1 for Process 3

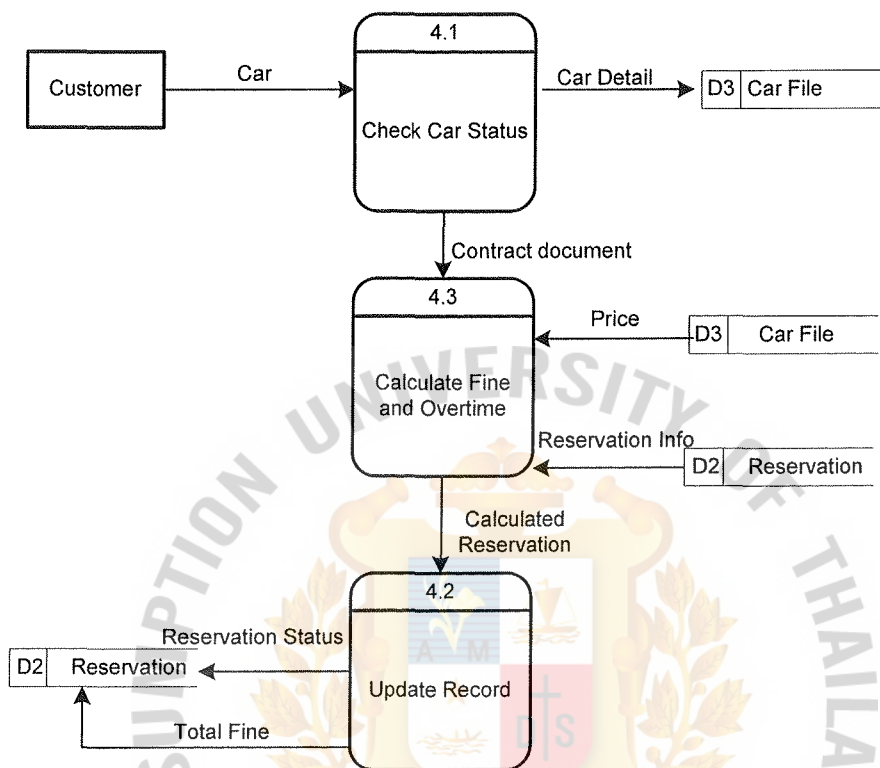


Figure 3-7 Data Flow Diagram – Level 1 for Process 4

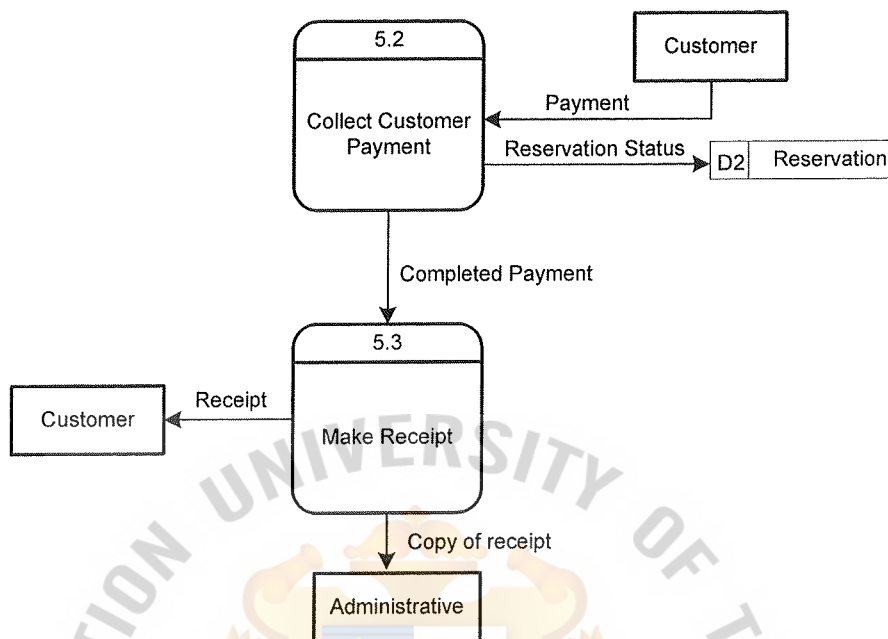


Figure 3-8 Data Flow Diagram – Level 1 for Process 5

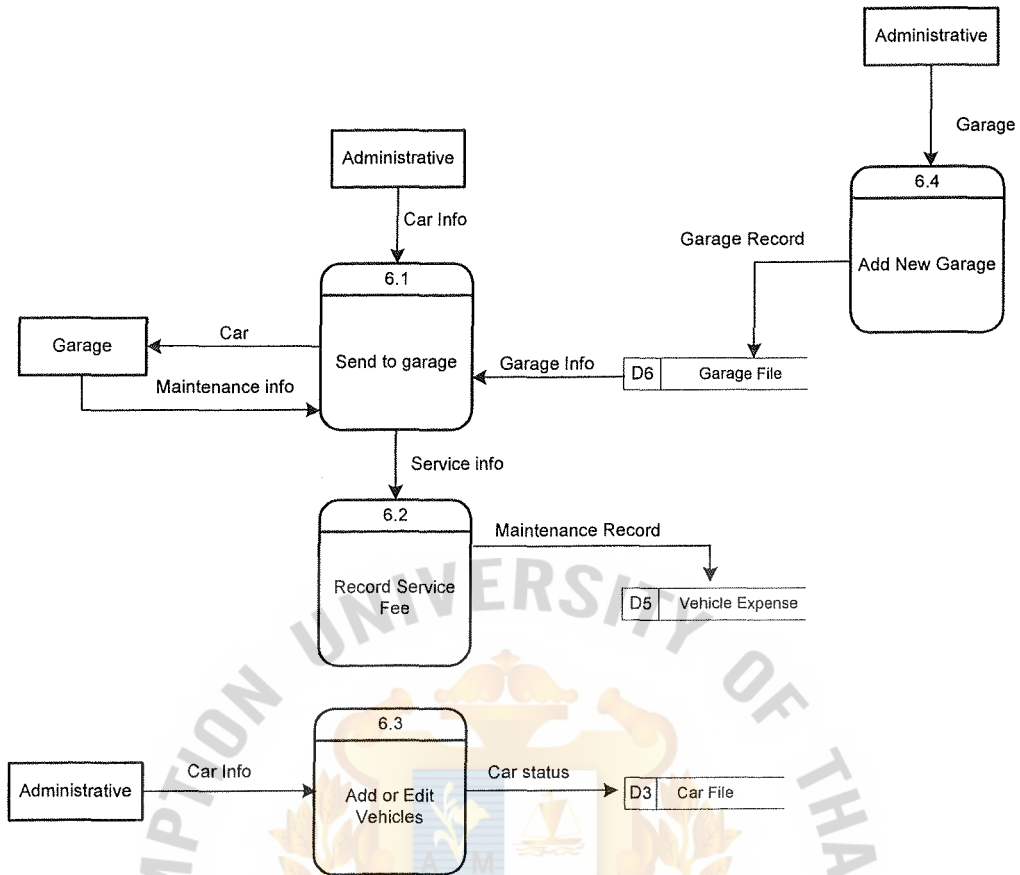


Figure 3-9 Data Flow Diagram – Level 1 for Process 6

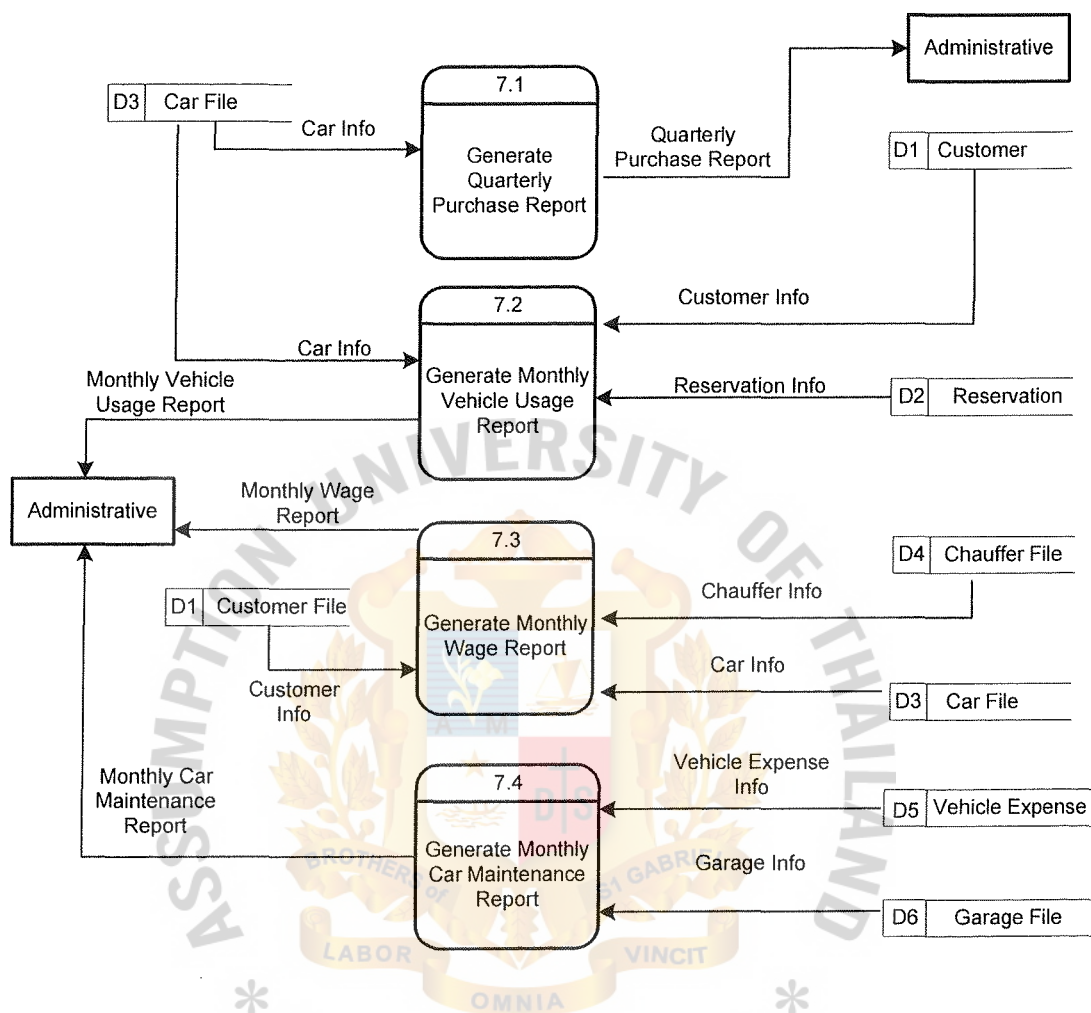


Figure 3-10 Data Flow Diagram – Level 1 for Process 7

(2) Entity-Relationship Diagram

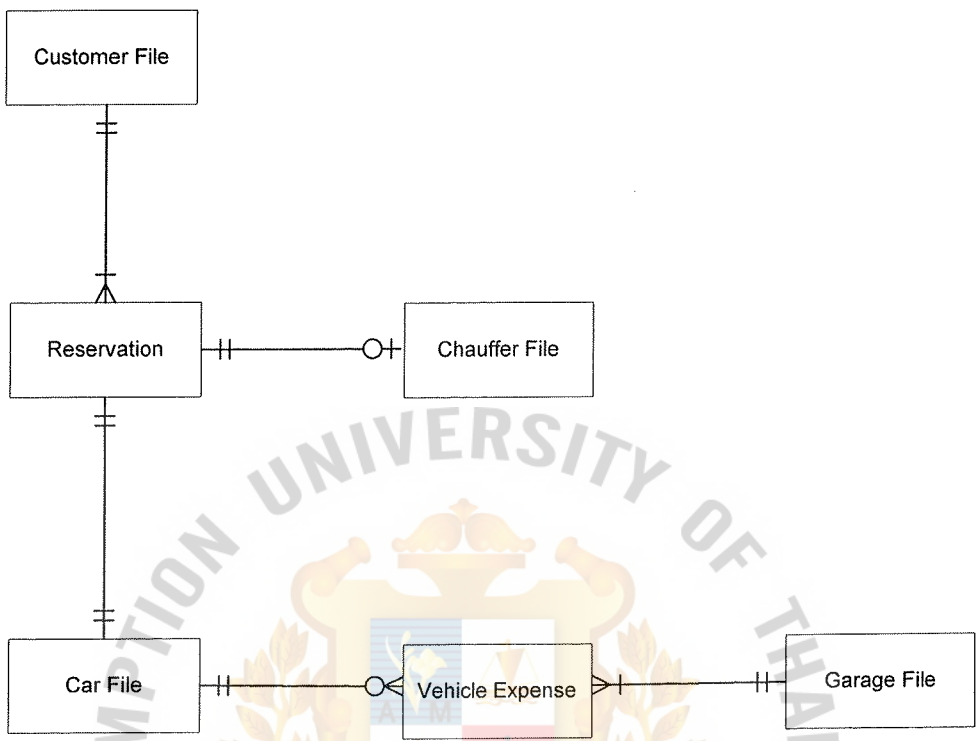


Figure 3-11 Entity-Relationship Diagram

(3) Database Design

The following Database design are shown in Appendix A

- Car
- Chauffer
- Customer
- Garage
- Reservation
- Vehicle expense

Car

This table keeps detail of car information. It stores the information of car ID, type, model, series, color, license number, mileage, rental price, receive car date, car picture, status, and remark. (Refers to Appendix A Table A-1)

Customer

This table keeps detail of customer information. It stores the information of customer ID, type, English name, Thai name, Identification number, license number, address, birth date, telephone number with extension, fax number, e-mail address, password, activation code, status, points earn, membership expiration date. (Refers to Appendix A Table A-2)

Chauffer

This table keeps detail of chauffer information. It stores the information of chauffer ID, name, surname, address, telephone number, status, and fee. (Refers to Appendix A Table A-3)

Garage

This table keeps detail of garage information. It stores the information of garage Id, name, address, province, zip code, telephone number, fax number, and status. (Refers to Appendix A Table A-4)

Reservation

This table keeps detail of reservation information. It stores the information of reservation ID, customer ID, Car ID, Chauffer ID, Reservation duration, Reservation car price, Reservation driver price, Reservation fee rate, Reservation rent date Reservation due date, Reservation return date, Reservation status, Reservation fee. (Refers to Appendix A Table A-5)

Vehicle expense

This table keeps detail of expense of vehicle information. It stores the information of expense ID, Car ID, Garage ID, Check Mileage, Fix Start, Fix Finish, Fix Condition, and Fix Expense. (Refers to Appendix A Table A-6)

(4) Interface Design

The following Interface design are shown in Appendix D

- Online Login Form
- Online Registration Form
- Vehicle Search Form
- Private Policy Form
- Administrator Login Form
- Administrator Menu Form
- Member Registration Form
- Select Customer Form
- Select Date & Time Form
- Select Vehicle Form
- Select Chauffeur Form
- Confirm Reservation Form
- All Reservation Form
- Receive Vehicle Form
- Return Vehicle Form
- Calculate Fine Form
- Payment Record Form
- Customer Management Form
- Member Information Form
- Edit Member Form
- Chauffeur Management Form
- Chauffeur Schedule Form
- Edit Chauffeur Form

- Vehicle Management Form
- Vehicle Schedule Form
- Vehicle Expense Form
- Add Expense Form
- Vehicle Checking Form
- Vehicle Rental Agreement Form
- Invoice Form
- Receipt Form

Online Login Form

It is for registration for both customers who is first time login and customer who had been Bell customer through the telephone before. (Refers to Appendix D Table D-1)

Online Registration Form

This is for online users to fill their details, name, id number, address, telephone number, fax number, email address, and license number. (Refers to Appendix D Table D-2)

Vehicle Search Form

This page show pictures of vehicle and details of vehicle. It show vehicles by categories, compact, midsize, luxury, and VIP van. (Refers to Appendix D Table D-3)

Private Policy Form

This is an agreement between Bell and customer. It contain some policy of reservation. (Refers to Appendix D Table D-4)

Administrator Login Form

This is the login page for administrator. (Refers to Appendix D Table D-5)

Administrator Menu Form

Welcome page for administrator. (Refers to Appendix D Table D-6)

Member Registration Form

This page is for fill in customer detail, name, id number, address, telephone number, fax number, email address, and license number. (Refers to Appendix D Table D-7)

Select Customer Form

This page is for selecting customer who make reservation. It show some personal detail of customer. (Refers to Appendix D Table D-8)

Select Date & Time Form

To select pick-up date with pick up time and return date with return time. (Refers to Appendix D Table D-9)

Select Vehicle Form

This page show the pick up date and time, return date, time, and duration time of renting. Also, vehicles those were available during the time. The lists of vehicles show some detail, model, series, color, and wage. (Refers to Appendix D Table D-10)

Select Chauffer Form

This page shows chauffeurs who available during reservation date. It shows the wage of chauffer and some reservation details. (Refers to Appendix D Table D-11)

Confirm Reservation Form

This page shows all reservation details and allow user to change or edit before confirm the reservation. (Refers to Appendix D Table D-12)

All Reservation Form

This page contains all reservations of customers. It allows user to find reservation status and the rent date, sort all attributes, see details of order, and cancel reservation. (Refers to Appendix D Table D-13)

Receive Vehicle Form

This screen shows all reservations that are waiting to send to customer. All lists are the vehicle that already reserved but not sent to customer yet. (Refers to Appendix D Table D-14)

Return Vehicle Form

This screen shows all reservations that have been renting by customer. (Refers to Appendix D Table D-15)

Calculate Fine Form

This page shows details of customer who order that reservation and it also calculate fine and overtime and record finish mileage of vehicle. (Refers to Appendix D Table D-16)

Payment Record Form

This screen shows all reservations that are waiting for payment. All lists are the vehicle that already returned but not paid yet. (Refers to Appendix D Table D-17)

Customer Management Form

This screen shows all customers and their details. And delete customer record. (Refers to Appendix D Table D-18)

Member Information Form

This show customer personal details award point and history record of the customer. (Refers to Appendix D Table D-19)

Edit Member Form

This screen is used to edit customer's information. (Refers to Appendix D Table D-20)

Chauffer Management Form

This screen shows chauffeurs those working in Bell. User can see chauffer schedule and manage on this page. (Refers to Appendix D Table D-21)

Chauffer Schedule Form

This screen shows the chauffer history work. (Refers to Appendix D Table D-22)

Edit Chauffer Form

This screen is used to edit chauffer information. (Refers to Appendix D Table D-23)

Vehicle Management Form

This screen shows all lists of vehicle of Bell. It is able to sort all attribute on this page. (Refers to Appendix D Table D-24)

Vehicle Schedule Form

This is the schedule of the selected vehicle. It show its job history of this vehicle. (Refers to Appendix D Table D-25)

Vehicle Expense Form

This page is for maintenance vehicle. It shows detail of the vehicle and maintenance history. (Refers to Appendix D Table D-26)

Add Expense Form

This screen adds current status, date in, date out, check condition, and expense of since the car is sent to maintenance. (Refers to Appendix D Table D-27)

Vehicle Checking Form

This form is for the company to check the vehicle damage parts and details before handing the car to the customer. (Refers to Appendix D Table D-28)

Vehicle Rental Agreement Form

This form is the rental agreement for company and customer. (Refers to Appendix D Table D-29)

Invoice Form

This form is provided to the customers when handing the vehicle to them. (Refers to Appendix D Table D-30)

Receipt Form

This form is provided to customers when they return the vehicle and make the payment. (Refers to Appendix D Table D-31)

(5) Management Report Design

- Report Menu
- Monthly Car Maintenance Report
- Monthly Vehicle Usage Report
- Monthly Wage Report
- Quarterly Purchase Car Report
- Late Return Report
- No Show Customer Report
- Daily Reservation Report
- Vehicle Maintenance Report

Report Menu

This is the menu of the report. It includes management and summary report menu.

(Appendix E Figure E-1)

Monthly Car Maintenance Report

This report shows the vehicle that goes to the garage for maintenance. It includes the starting date and ending date as well as service fee.

(Appendix E Figure E-2)

Monthly Vehicle Usage Report

This report shows the detail of vehicle usage monthly. It includes rental date, return date, duration, and rental fee.

(Appendix E Figure E-3)

Monthly Wage Report

This report shows the monthly wage of chauffer. It includes the date on work, duration, and wage details.

(Appendix E Figure E-4)

Quarterly Purchase Report

This report shows the quarterly purchase car report. It includes model, series, color, car receiving date, and price of the car.

(Appendix E Figure E-5)

Late Return Report

This report shows the late return reservation. It includes the customer name, rental date, due date, rental fee, and status.

(Appendix E Figure E-6)

No Show Customer Report

The report shows customers that do not show up after making reservation. It includes customer name, rental date, due date, rental fee, and status.

(Appendix E Figure E-7)

Daily Reservation Report

The report shows the daily reservation list. It includes customer name, rental date, due date, rental fee, and status.

(Appendix E Figure E-8)

Vehicle Maintenance Report

The report shows the vehicle maintenance report. It includes model, series, color, and mileage details

(Appendix E Figure E-9)

IV. SYSTEM IMPLEMENTATION

4.1 Overview of the System Implementation

Nowadays, many business organizations are interested in E-commerce because of its accuracy, convenience and easy to use. The company develops the e-commerce Web site as internet tools to expand their business channel to 24 hours a day, 7 days a week.

For our implementation, since the company is new to the E-commerce business tools, we will be cooperating existing system and proposed system together. The system of company will still needs to maintain existing system and proposed system together. We do not expect the company to change the whole system at once or in a short period of time. Therefore, the company will need to use manual work system to cooperate with proposed system. Due to new system, some staffs in the company may not be able to operate the proposed system. As a result, we will need to take some time to provide staffs training and knowledge of the proposed system. For the customer, since we do not have E-commerce web site before, it will be new to the customer. There might be conflicts between customers and company, but we expect these conflicts to be solved as customers use our web site often. In this case, the company will still keep the existing system to reduce the conflicts and encourage customers to use our new technology until they fully adopted our new system.

4.2 Test Plan

- Database Testing

Database must be developed before doing the program because database system is the most important thing for the entire system as we need database to store all the data and information of the company.

- Review the necessary database design requirements that are stated in documentation.
- Create database from design specifications.
- Input sample data to the database.
- Revise database design to suitable structure.

- Program Testing

Once the program has been fully developed, program testing will be done for checking errors and bugs.

- Write programs and perform unit testing.
- Conduct system testing to make sure that all programs work properly and logically. The program has to be bugs-free and contain no errors. If there is any error or bug discover, programmer has to correct error and re-test it again.

IV. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

As we study the existing system of Bell Car and Leasing Company, we discovered that the present process of the system has many problems such as inefficient record management because documents were written in paper or kept as Excel files. Also, the company does not accept individual reservation because the existing system does not applicable for individuals. Since the existing system is manual work process, there were always mistakes and errors occur between customers and company. Therefore, we conclude that the company needs to develop a new system. The new system makes use of the new computer technology to apply for more efficient system. The Web site is created to facilitate the company and to expand company's business channel. All data and information will be keep in database system which is more consistent than manual work, company can retrieve information and to save time for business transaction and communication.

The proposed system is designed and implemented to take advantage of the high technology at present. It will improve the effectiveness and efficiency of the reservation by using Web site. Web site can serve customers 24 hours a day, 7 days a week, customers are able to make reservation at any time. The new system can help the company to increase a number of customers by increasing the customer's satisfaction. In addition, it also serves staffs to track reservation easily, also, to check the present car inventory at once to make sure that company will have enough cars as they need.

We expect the proposed system to be pay back within 2 years time. As the company implement the new system, company can expand it's business channel and provide better customer satisfaction.

5.2 Recommendations

As the company implements the new system, they will have to train and provide knowledge to the staffs in order to quickly adapt the new system. Company will need to make use of the new system as it develops for the company to make sure of the database design and reservation system. Another essential problem will be the server; company has to make sure that the server will be working normally. There should not be server down in any time as it might lose customer and important information. Company should always backup the files in case the server might be down.

The company should periodically review the business opportunities from the use of the new system and try to maintain any add on product and services to the system.





**APPENDIX A
DATABASE DESIGN**

Table 1 Car Table

No	Field Name	Field Type	Index	Unique	Nullable	Validity Check	Key	FK Referenced Table
1	Car_id	Varchar(10)	Y	Y		9999999999	PK	
2	Car_compact	Varchar(30)						
3	Car_model	Varchar(255)			Y			
4	Car_series	Varchar(30)						
5	Car_color	Varchar(50)						
6	Car_plateno	Varchar(50)						
7	Car_mileage	Varchar(7)						
8	Car_price	Varchar(10)						
9	Car_receive	Datetime				YYYY-MM-DD		
10	Car_picture	Varchar(255)						
11	Car_status	Varchar(1)			Y	R,M,A		
12	Rent_fee_day	Varchar(6)			Y	###,###.00		
13	Rent_fee_month	Int(6)			Y	###,###.00		
14	Rent_fee_oneyear	Int(6)			Y	###,###.00		
15	Car_remark	Longtext			Y			

Table 2 Customer Table

No	Field Name	Field Type	Index	Unique	Nullable	Validity Check	Key	FK Referenced Table
1	Cus_id	Varchar(10)	Y	Y		9999999999	PK	
2	Cus_type	Char(1)			Y			
3	Cus_engname	Varchar(100)			Y			
4	Cus_thainame	Varchar(100)			Y			
5	Cus_idcard	Varchar(13)			Y			
6	Cus_licard	Varchar(13)			Y			
7	Cus_address	Varchar(255)			Y			
8	Cus_bdate	Date			Y			
9	Cus_tel	Varchar(12)			Y	9-999-9999		
10	Cus_tel_ext	Varchar(50)			Y			
11	Cus_fax	Varchar(12)			Y	9-9999-9999		
12	Cus_email	Varchar(50)						
13	Cus_password	Varchar(32)			Y			
14	Cus_activatecode	Varchar(8)			Y			
15	Cus_status	Char(1)			Y			
16	Points	Int(10)			Y	9999999999		
17	Expiration_date	Date				YYYY-MM-DD		

Table 3 Chauffeur Table

No	Field Name	Field Type	Index	Unique	Nullable	Validity Check	Key	FK Referenced Table
1	Drv_id	Varchar(10)	Y	Y		9999999999	PK	
2	Drv_name	Varchar(30)						
3	Drv_sname	Varchar(30)						
4	Drv_address	Varchar(255)						
5	Drv_tel	Varchar(9)				9-9999-9999		
6	Drv_status	Varchar(10)				Y,N		
7	Drv_fee	Int(6)				###,###.00		
8	Drv_fee_month	Int(7)			Y	###,###.00		

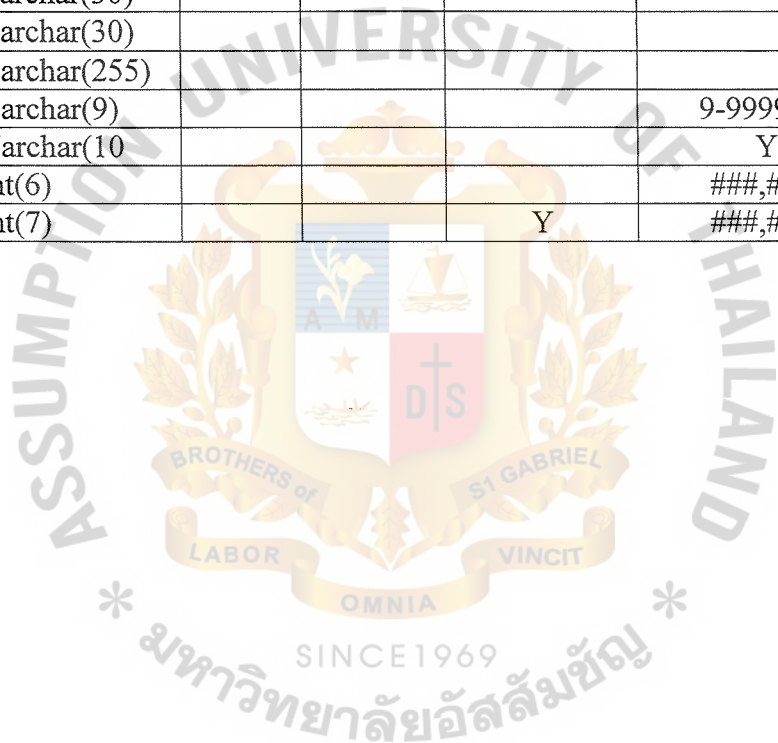


Table 4 Garage Table

No	Field Name	Field Type	Index	Unique	Nullable	Validity Check	Key	FK Referenced Table
1	Garage_id	Varchar(10)	Y	Y		999999999	PK	
2	Garage_name	Varchar(255)			Y			
3	Garage_address	Varchar(255)			Y			
4	Garage_province	Varchar(120)			Y			
5	Garage_zipcode	Varchar(5)			Y			
6	Garage_tel	Varchar(20)			Y	9-9999-9999		
7	Garage_fax	Varchar(20)			Y	9-9999-9999		
8	Garage_status	Varchar(50)			Y			

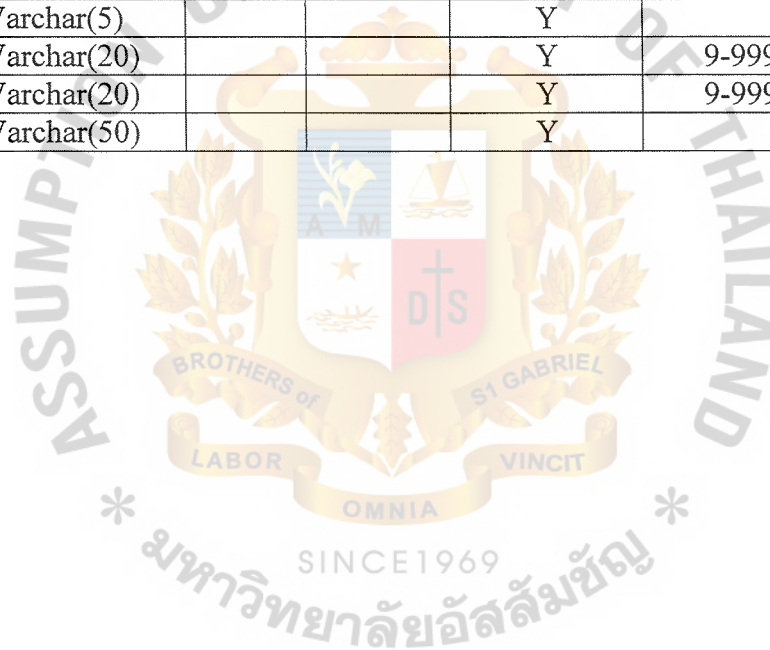


Table 5 Reservation Table

No	Field Name	Field Type	Index	Unique	Nullable	Validity Check	Key	FK Referenced Table
1	Res_id	Varchar(10)	Y	Y	Y	9999999999	PK	
2	Cus_id	Varchar(10)			Y	9999999999	FK	Customer
3	Car_id	Varchar(10)			Y	9999999999	FK	Car
4	Drv_id	Varchar(10)			Y	9999999999	FK	Chaffuer
5	Res_duration	Varchar(10)			Y			
6	Res_durationtype	Char(1)			Y			
7	Res_carprice	Varchar(10)			Y	###,###.00		
8	Res_drvprice	Varchar(10)			Y	###,###.00		
9	Res_feerate	Varchar(10)			Y	###,###.00		
10	Res_rentdate	Datetime			Y	YYYY-MM-DD		
11	Res_duedate	Datetime			Y	YYYY-MM-DD		
12	Res_returndate	Datetime			Y	YYYY-MM-DD		
13	Res_status	Char(1)			Y			
14	Res_fee	Varchar(10)			Y			
15	Res_checkpoint	Int(3)			Y			
16	Return_id	Varchar(10)			Y			

Table 6 Vehicle Expense Table

No	Field Name	Field Type	Index	Unique	Nullable	Validity Check	Key	FK Referenced Table
1	Exp_id	Varchar(10)	Y	Y		999999999	PK	
2	Car_id	Varchar(10)	Y	Y	Y	9999999999		Car
3	Garage_id	Varchar(10)			Y	###,###.00		Garage
4	Check_mileage	Varchar(7)			Y			
5	Fix_start	Datetime			Y			
6	Fix_finish	Datetime			Y			
7	Fix_condition	Varchar(255)			Y			
8	Fix_expense	Varchar(10)			Y	YYYY-MM-DD		



APPENDIX B
PROCESS SPECIFICATION

Table B-1 Process Specification for Process 1.0

Process Name:	Handle Customer
Data In:	(1) Username & Password and Activated Code (2) Customer Info
Data Out:	(1) Username & Password (2) Customer Info (3) Activated Code
Process:	(1) Get username and password from a customer (2) Check validity of customer (3) Add new customer into customer file (4) Generate activated code (5) Edit customer information
Attachment:	(1) Customer (2) Data Store D1 (3) Process 2.0

Table B-2 Process Specification for Process 1.1

Process Name:	Handle Reservation
Data In:	(1) Username & Password and Activated Code
Data Out:	(1) Username & Password (2) Activated Code (3) Customer Info
Process:	(1) Get username and password from a customer (2) Check validity of customer
Attachment:	(1) Customer (2) Process 1.3 (3) Process 2.0 (4) Data Store D1

Table B-3 Process Specification for Process 1.2

Process Name:	Add New Customer
Data In:	(1) Customer Info (2) Username & Password
Data Out:	(1) Activated Code (2) Customer Info
Process:	(1) Add new customer into customer file (2) Generate activated code
Attachment:	(1) Customer (2) Data Store D1

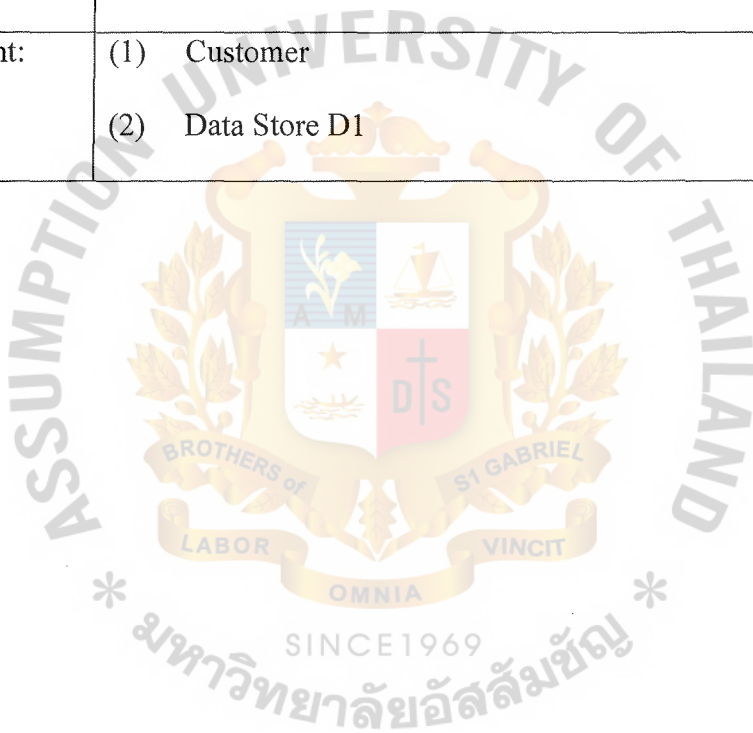


Table B-4 Process Specification for Process 1.3

Process Name:	Edit Customer
Data In:	(1) Customer Info (2) Valid Customer
Data Out:	(1) Customer Info
Process:	(1) Edit customer personal information
Attachment:	(1) Customer (2) Data Store D1 (3) Process 1.1



Table B-5 Process Specification for Process 2.0

Process Name:	Handle Reservation
Data In:	<ul style="list-style-type: none"> (1) Customer Info (2) Car Info (3) Chauffer Info (4) Reservation Info (5) Order Info (6) Order Cancellation
Data Out:	<ul style="list-style-type: none"> (1) Approved Order (2) Reservation Info
Process:	<ul style="list-style-type: none"> (1) Check availability of vehicle and chauffer (2) Approve order (3) Calculate the primary rental fee of reservation (4) Cancel the reservation (5) Record the reservation information into reservation file
Attachment:	<ul style="list-style-type: none"> (1) Customer (2) Data Store D2 (3) Data Store D3 (4) Data Store D4 (5) Process 1.0 (6) Process 3.0

Table B-6 Process Specification for Process 2.1

Process Name:	Check Car Available
Data In:	(1) Order Info (2) Reservation Info (3) Car Info (4) Chauffeur Info (5) Customer Info
Data Out:	(1) Checked Order
Process:	(1) Check the availability of vehicle and chauffeur (2) Approve order
Attachment:	(1) Customer (2) Data Store D2 (3) Data Store D3 (4) Data Store D4 (5) Process 1.0 (6) Process 2.3

Table B-7 Process Specification for Process 2.2

Process Name:	Cancel Order
Data In:	(1) Customer Info (2) Order Cancellation
Data Out:	(1) Reservation Info
Process:	(1) Cancel the reservation
Attachment:	(1) Customer (2) Data Store D2 (3) Process 1.0



Table B-8 Process Specification for Process 2.3

Process Name:	Calculate Price
Data In:	(1) Checked Order (2) Chauffer Info (3) Car Info
Data Out:	(1) Accepted Order
Process:	(1) Calculate the rental fee of reservation
Attachment:	(1) Data Store D3 (2) Data Store D4 (3) Process 2.1 (4) Process 2.4

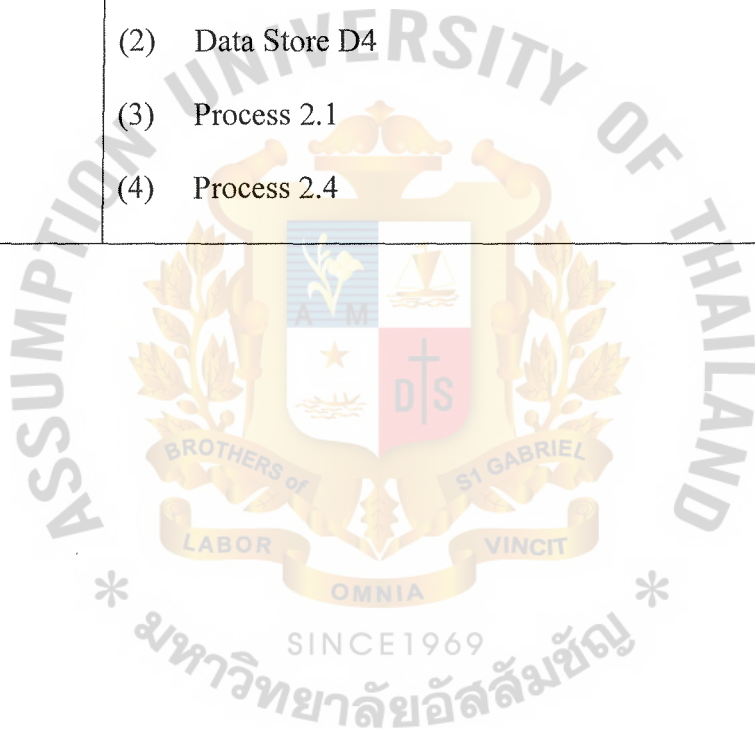


Table B-9 Process Specification for Process 2.4

Process Name:	Record Reservation
Data In:	(1) Accepted Order
Data Out:	(1) Approved Order (2) Reservation Info
Process:	(1) Record the reservation information into reservation file (2) Pass the accepted order to delivery
Attachment:	(1) Data Store D2 (2) Process 2.3 (3) Process 3.0



Table B-10 Process Specification for Process 3.0

Process Name:	Deliver Car
Data In:	(1) Approved Order (2) Reservation Info (3) Contract
Data Out:	(1) Reservation Status (2) Car Delivery (3) Copies of Signed Contract Documents
Process:	(1) Print delivery document (2) Deliver car to customer (3) Update reservation file
Attachment:	(1) Customer (2) Administrative (3) Data Store D2 (4) Process 2.0

Table B-11 Process Specification for Process 3.1

Process Name:	Print Delivery Document
Data In:	(1) Approved Order (2) Reservation Info (3) Customer Info
Data Out:	(1) Contract Documents (2) Delivered Order
Process:	(1) Get information from reservation and customer file (2) Print delivery document
Attachment:	(1) Data Store D1 (2) Data Store D2 (3) Process 2.0 (4) Process 3.2 (5) Process 3.3

Table B-12 Process Specification for Process 3.2

Process Name:	Deliver Car
Data In:	(1) Contract Documents (2) Contract
Data Out:	(1) Car Delivery (2) Copies of Signed Contract Document
Process:	(1) Delivery car to customer (2) Submit the copy of document to administrative
Attachment:	(1) Customer (2) Administrative (3) Process 3.1

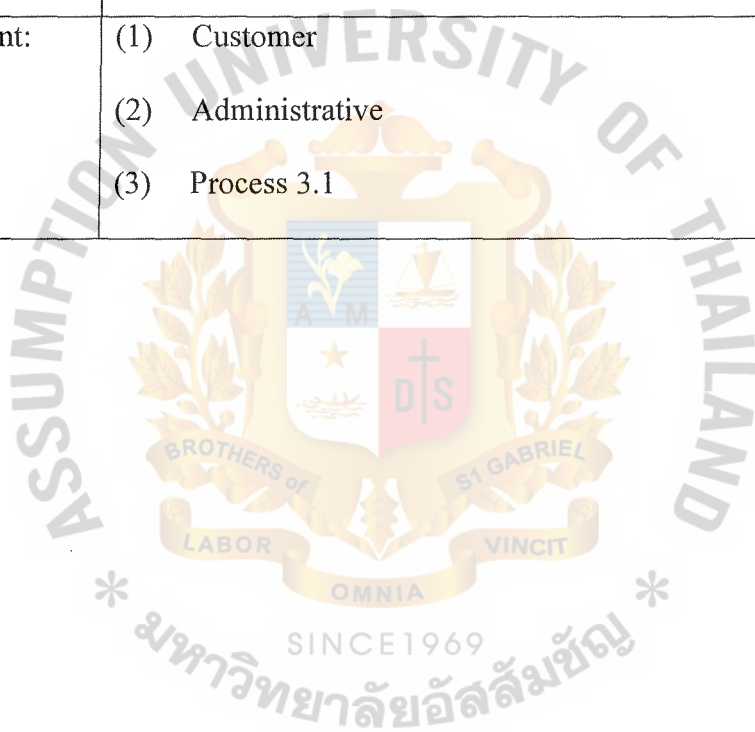


Table B-13 Process Specification for Process 3.3

Process Name:	Update Record
Data In:	(1) Delivered Order
Data Out:	(1) Reservation Status
Process:	(1) Update reservation file
Attachment:	(1) Data Store D2 (2) Process 3.1



Table B-14 Process Specification for Process 4.0

Process Name:	Return Car
Data In:	(1) Car (2) Reservation Info (3) Price
Data Out:	(1) Total Fine (2) Reservation Status
Process:	(1) Receive vehicle from customer (2) Update status of car (3) Calculate fine and overtime of reservation (4) Update reservation file
Attachment:	(1) Customer (2) Data Store D2 (3) Data Store D3

Table B-15 Process Specification for Process 4.1

Process Name:	Check Car Status
Data In:	(1) Car
Data Out:	(1) Car Detail (2) Contract Document
Process:	(1) Receive vehicle from customer (2) Update car file
Attachment:	(1) Customer (2) Data Store D3 (3) Process 4.3



Table B-16 Process Specification for Process 4.2

Process Name:	Update Record
Data In:	(1) Calculated Reservation
Data Out:	(1) Reservation Status (2) Total Fine
Process:	(1) Update reservation file
Attachment:	(1) Data Store D2 (2) Process 4.3



Table B-17 Process Specification for Process 4.3

Process Name:	Calculate Fine and Overtime
Data In:	(1) Contract Document (2) Price (3) Reservation Info
Data Out:	(1) Calculated Reservation
Process:	(1) Get information from car, reservation, and chauffeur information from data store (2) Calculate fine and overtime
Attachment:	(1) Data Store D2 (2) Data Store D3 (3) Process 4.1 (4) Process 4.2

Table B-18 Process Specification for Process 5.0

Process Name:	Accept Payment
Data In:	(1) Payment (2) Reservation Info
Data Out:	(1) Reservation Status (2) Receipt (3) Copy of Receipt
Process:	(1) Calculate total payment (2) Collect payment from customer (3) Generate receipt
Attachment:	(1) Customer (2) Administrative (3) Data Store D2

Table B-19 Process Specification for Process 5.1

Process Name:	Collect Customer Payment
Data In:	(1) Payment
Data Out:	(1) Reservation Status (2) Completed Payment
Process:	(1) Collect payment from customer (2) Update reservation file
Attachment:	(1) Customer (2) Data Store D2 (3) Process 5.2



Table B-20 Process Specification for Process 5.2

Process Name:	Make Receipt
Data In:	(1) Completed Payment
Data Out:	(1) Receipt (2) Copy of receipt
Process:	(1) Get customer detail from Customer file (2) Generate receipt
Attachment:	(1) Customer (2) Administrative (3) Process 5.1



Table B-21 Process Specification for Process 6.0

Process Name:	Handle Vehicle
Data In:	(1) Maintenance Info (2) Car Info (3) Garage Info
Data Out:	(1) Maintenance Record (2) Car (3) Car Status (4) Garage Record
Process:	(1) Get information from vehicle expense file (2) Send vehicle to garage (3) Update vehicle file (4) Add or edit vehicle file (5) Add new garage into garage file
Attachment:	(1) Administrative (2) Garage (3) Data Store D3 (4) Data Store D5 (5) Data Store D6

Table B-22 Process Specification for Process 6.1

Process Name:	Send to Garage
Data In:	(1) Car Information (2) Maintenance Info (3) Garage Info
Data Out:	(1) Car (2) Services Info
Process:	(1) Get information from garage file (2) Send car to garage (3) Retrieve maintenance info
Attachment:	(1) Administrative (2) Data Store D6 (3) Process 6.2

Table B-23 Process Specification for Process 6.2

Process Name:	Record Service Fee
Data In:	(1) Service info
Data Out:	(1) Maintenance Record
Process:	(1) Update vehicle expense
Attachment:	(1) Data Store D5 (2) Process 6.1



Table B-24 Process Specification for Process 6.3

Process Name:	Add or Edit Vehicle
Data In:	(1) Car Info
Data Out:	(1) Car Status
Process:	(1) Update Car File
Attachment:	(1) Administrative (2) Data Store D3



Table B-25 Process Specification for Process 6.4

Process Name:	Add New Garage
Data In:	(1) Garage
Data Out:	(1) Garage Record
Process:	(1) Get new garage information (2) Add garage information into garage file
Attachment:	(1) Administrative (2) Data Store D6



Table B-26 Process Specification for Process 7.0

Process Name:	Generate Report
Data In:	(1) Customer Info (2) Car Info (3) Chauffer Info (4) Vehicle Expense Info (5) Garage Info (6)
Data Out:	(1) Management Report
Process:	(1) Make Management Report
Attachment:	(1) Data Store D1 (2) Data Store D2 (3) Data Store D3 (4) Data Store D4 (5) Data Store D5 (6) Data Store D6

Table B-27 Process Specification for Process 7.1

Process Name:	Generate Quarterly Purchase Report
Data In:	(1) Car Info
Data Out:	(1) Quarterly Purchase Report
Process:	(1) Make Quarterly Purchase Report
Attachment:	(1) Administrative (2) Data Store D3



Table B-28 Process Specification for Process 7.2

Process Name:	Generate Monthly Vehicle Usage Report
Data In:	(1) Car Info (2) Customer Info (3) Reservation Info
Data Out:	(1) Monthly Vehicle Usage Report
Process:	(1) Make Monthly Vehicle Usage Report
Attachment:	(1) Administrative (2) Data Store D3 (3) Data Store D2 (4) Data Store D1

Table B-29 Process Specification for Process 7.3

Process Name:	Generate Monthly Wage Report
Data In:	(1) Car Info (2) Customer Info (3) Chauffer Info
Data Out:	(1) Monthly Wage Report
Process:	(1) Make Monthly Wage Report
Attachment:	(1) Administrative (2) Data Store D3 (3) Data Store D4 (4) Data Store D1

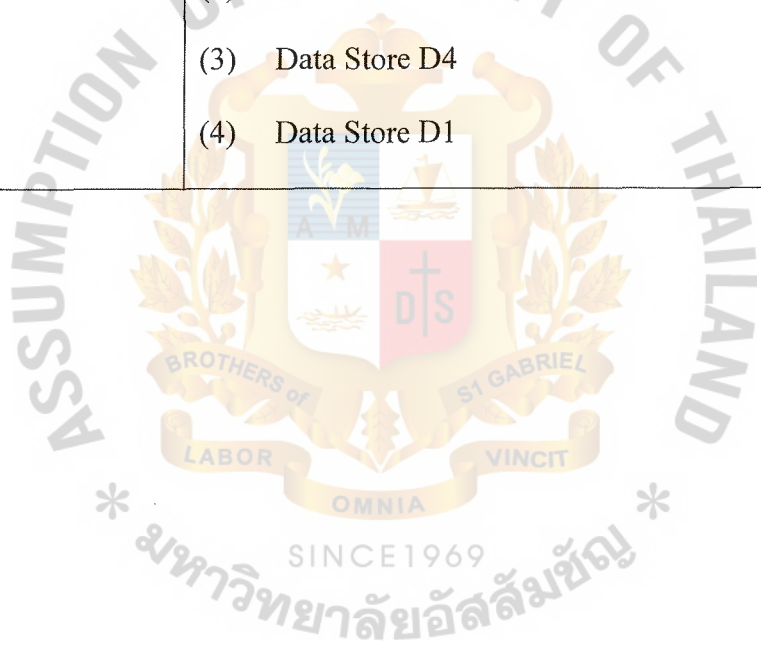


Table B-30 Process Specification for Process 7.4

Process Name:	Generate Monthly Car Maintenance Report
Data In:	(1) Vehicle Expense Info (2) Garage Info
Data Out:	(1) Monthly Car Maintenance Report
Process:	(1) Make Monthly Car Maintenance Report
Attachment:	(1) Administrative (2) Data Store D6 (3) Data Store D5





APPENDIX C
DATA DICTIONARY

Table C-1 Data Dictionary of Reservation System

Data Items	Meanings
Accepted Order	An order accepted after checked status of car and chauffer
Activated Code	A code used to be login for accessing online system at the first time
Approved order	Order customers make reservation
Calculated Reservation	Calculation to find the rental fee
Car	A vehicle
Car Delivery	A car that delivered to customer
Car File	A file storing all details of vehicles (Car_id + Car_compact + Car_model + Car_series + Car_color + Car_plateno + Car_mileage + Car_price + Car_receive + Car_picture + Car_status + Rent_fee_day + Rent_fee_month + Rent_fee_year + Car_remark)
Car Info	An information containing all details of a vehicle
Car_color	Car's Color
Car_compact	Type of the car including of economy or luxury
Car_id	Car's Identification
Car_mileage	Car's Mileage
Car_model	Car's Model
Car_picture	Picture of car
Car_plateno	Plate Number
Car_price	A purchasing price of car
Car_receive	A date acquiring a car
Car_remark	Car's Remark
Car_series	The model of the car
Car_Status	Status of car, available or not available
Chauffer File	A file storing all details of chauffeurs (Drv_id + Drv_name + Drv_sname + Drv_address + Drv_tel + Drv_status + Drv_fee + Drv_fee_month)
Chauffer Info	An information containing all details of a Chauffer
Chauffer Schedule	A job schedule of chauffer
Check_mileage	A mileage before sending to Garage
Checked Order	A order available be confirm
CheckUp_date	Date a vehicle are checked
Completed Payment	A payment already paid
Contract	An agreement of rental customer accepts contract
Contract document	An agreement of rental between customer and company
Copies of Signed Document	Copies of rental documents
Copy of Invoice	A copy of invoice that is kept at account department

Copy of Receipt	A copy of receipt that is kept at account department
Cus_address	Customer address
Cus_bdate	Customer's Birthday
Cus_email	Customer E-mail address
Cus_engname	Customer English name
Cus_fax	Customer fax number
Cus_id	Customer's Identification
Cus_idcard	Identification Card No.
Cus_licard	License No.
Cus_point	Point for exchanging award
Cus_tel	Customer telephone number
Cus_tel_ext	Ext. of telephone number
Cus_thainame	Customer Thai name
Cus_type	Type of the customer including individual or corporate
Customer File	A file that store all details of customers (Cus_id + Cus_engname + Cus_thainame + Cus_idcard + Cus_licard + Cus_address + Cus_bdate + Cus_tel + Cus_tel_ext + Cus_fax + Cus_point)
Customer Info	An information containing all information of a customer
Date	Date
Delivered Order	A order the vehicle already delivered to customer
Delivery_notice	A notice showing customer rental details and car details when delivered
Copies of signed Contract Documents	A rental document signed by customer and administrative officer
Drv_address	Chauffer address
Drv_fee	Chauffer payment (day rate)
Drv_fee_month	Chauffer payment (month rate)
Drv_id	Chauffer's Identification
Drv_name	Chauffer name
Drv_sname	Chauffer last name
Drv_status	Chauffer status, busy or ready
Drv_tel	Chauffer telephone number
Due_date	Date customer returns vehicle
Exp_id	Expense's Identification
Expiration date	Expiration date of the membership points award of the customer
Fix_condition	Condition for checking at garage
Fix_expense	Expense's Identification
Fix_finish	Finish date to maintenance
Fix_start	Start date to maintenance
Garage Record	A detail containing all details of a garage
Garage File	A file storing all details of garages

	(garage_id + garage_name + garage_address + garage_province + garage_zipcode garage_tel + garage_fax + garage_status)
Garage Info	Information of garage
Garage_address	Garage address
Garage_fax	Garage fax number
Garage_id	Garage's Identification
Garage_name	Garage name
Garage_province	Garage province
Garage_status	Garage status
Garage_tel	Garage telephone number
Garage_zipcode	Garage zip code
Management Report	A report that is generate from the system
Invoice	An invoice
Order Cancellation	Customer cancelled reservation order that order last time.
Order Info	An information containing all information of a order
Pay_date	Customer's pay date
Payment	A payment from a customer
Price	Rental rate
Receipt	A receipt of car rental
Rent_fee_day	Rental rate of one day contract
Rent_fee_month	Rental rate of one month contract
Rent_fee_year	Rental rate of one year contract
Rental Fee	A fee of rental service
Res_carprice	Car rental price
Res_date	Date reservation are made
Res_drvprice	Chauffer wage
Res_duedate	Duedate on reservation
Res_duration	Duration of rental
Res_fee	A charge fee
Res_feerate	Total amount of fee without a charge
Res_id	Reservation's Indentification
Res_rentdate	Rental Date on reservation
Res_returndate	Return Date on reservation
Res_status	Changed status in Reserrvation file
Reservation Detail	A detail containing all detail of Reservation
Reservation File	A record of reservation (Res_id + Cus_id + Car_id + Drv_id + Car_model + Car_series + Car_color + Car_plateno + Res_duration + Res_carprice + Res_drvprice + Res_feerate + Res_rentdate + res_duedate + Res_returndate + Res_status + Res_fee + Res_checkpoint)

Service Info	An information containing all details of a maintenance service
Service_fee	Fee of maintenance
Signed Contract Documents	A rental document customer already signed by customer and staff
Username & Password	Username & Password used to access to the Reservation system
Vehicle Expense file	A record of maintenance of vehicles Exp_id + Car_id + Garage_id + Check_mileage + Fix_start + Fix_finish + Fix_condition + Fix_expense
Wage	Chuafter's wage





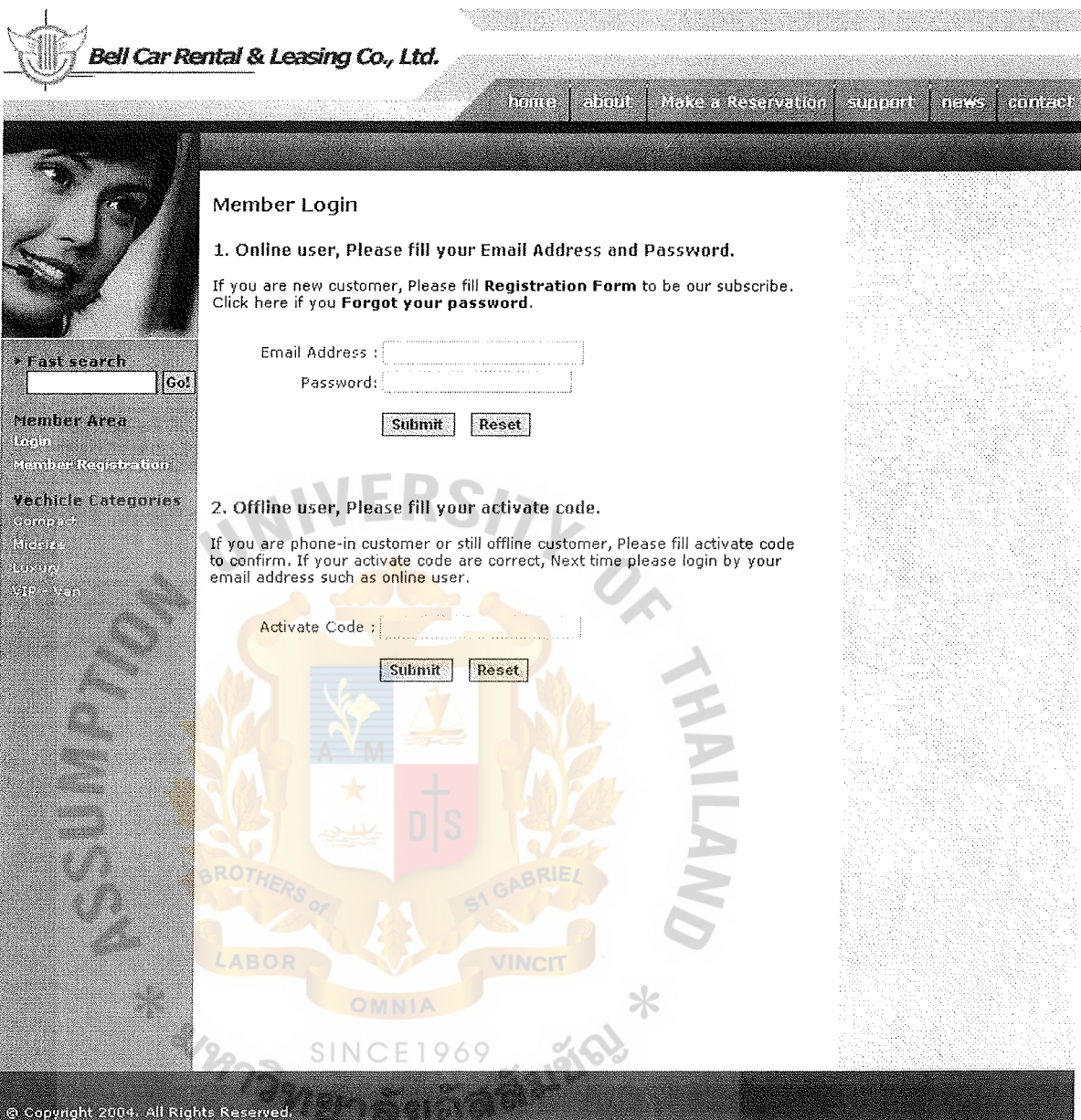


Figure D-1 Member Login Page (Online)



Member Registration

Please fill the registration form.

Please fill **Registration Form** to be our subscribe. Member only to authorize and can make a reservation online. Be sure that your email address is correctly, It used for login to our website. For more information, Please read our **Privacy Policy**.

If you are Our subscribe please **Login**. Click here if you **Forgot your password**.

Fast search

Member Area

[Login](#)

[Member Registration](#)

Vehicle Categories

[Compact](#)

[Midsize](#)

[Luxury](#)

[VIP - Van](#)

Contact Information

Customer Type : ☒ Personal ☐ Company/Organization

English Name : *

Thai Name :

ID Card Number : *

Address : *

Telephone No. : ext *

FAX No. :

Email Address : *

New Password : *

Re-Type Password : *

* Important!! Your email address and password use to login

Driver's License

License Number : *

Date of Birth: June 9 1986

Figure D-2 Member Registration Form (Online)



Vehicle Search

Fast search

Member Area

[Login](#)

[Member Registration](#)

Vehicle Categories

[Compact](#)

[Midsize](#)

[Luxury](#)

[VIP Van](#)



[\[make a reservation\]](#)

1. Toyota VIOS 1.5 A/T

Model: Mercedes-Benz C220

Color: Blue

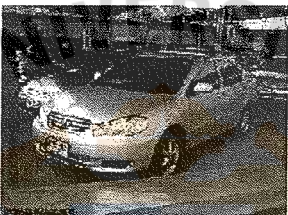
Plate No.: AA-123

Fee Rate

Fee/Day: 1,400.00 Baht

Fee/Month: 26,000.00 Baht

Fee/1 Year: 22,000.00 Baht



[\[make a reservation\]](#)

2. Toyota Altis 1.6 E M/1.6J A/T

Model: Mercedes-Benz C220

Color: Silver

Plate No.: AB-5555


Fee Rate

Fee/Day: 1,700.00 Baht

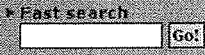
Fee/Month: 32,000.00 Baht

Fee/1 Year: 28,000.00 Baht

Figure D-3 Vehicle Search Form (Online)


Bell Car Rental & Leasing Co., Ltd.

[home](#)
[about](#)
[Make a Reservation](#)
[support](#)
[news](#)
[contact](#)



Member Area
[Login](#)
[Member Registration](#)
Vehicle Categories
[Compact](#)
[Midsize](#)
[Luxury](#)
[Van](#)

Privacy Policy

Terms and Conditions throughout the Rental Agreement

1. The Lessor will be responsible for the following expense:

- Vehicle registration fee
- Insurance premium (1st class, full coverage)
- Annual Tax and License Fee

2. Service and Maintenance

- The Lessee can bring the vehicle to any service centers of VOLVO in Thailand for regular service and maintenance free of charge.
- In case of other service centers that are not VOLVO's certified, the Lessee can bring the vehicle to B-Quik service centers nationwide without being incurred any charges.
- For other service centers, please bring us official receipt, we can reimburse the expenses up to 1,000 Baht.
- In all cases, the Lessee must notify the Lessor every time before taking the vehicle for service.

3. Insurance: The Lessor will provide the Lessee with first class insurance from the leading insurance company.

- Third Party Liability Coverage for Bodily Injury up to a maximum of 1 million Baht per person or 10 million baht per accident
- Liability Coverage for Collision Damage up to a maximum of 5,000,000 Baht per accident
- Personal Accident Insurance (In case of death and handicap) of up to 100,000 Baht per person but not more than seven (7) persons
- Medical Reimbursement of up to 50,000 Baht per person but not more than seven (7) persons
- Bailing amount for the vehicle operator in case of criminal charge of up to 200,000 Baht

*Note: If the party at fault in case of lost vehicle or accidents is the Lessee, the Lessee agrees to be responsible for the rental fee throughout the duration that the vehicle cannot be put into service. In addition, the Lessee will pay for the difference between the actual market price of the vehicle and the amount that the insurance company reimburses the Lessor.

4. Substitution Vehicle: The Lessor will provide a substitution vehicle for the Lessee within 24 hours (for Bangkok and adjacent provinces) after being notify by the Lessee in case of service and maintenance that take more than 24 hours.

Accept

Figure D-4 Private Policy Reservation Form (Online)



► Back-End Menu
[Login](#)

Administrator Login

Please enter Username and Password.

Username:

Password:

Figure D-5 Administrator Login Form (Backend Office)

home

Make a Reservation Vehicle Chauffeur Customer Orders Reports

Administrator Menu

Please select from the left menu.

- Administrator
 - + Change Password
 - Logout

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* มหาวิทยาลัยอัสสัมชัญ *


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Figure D-6 Administrator Menu Form (Backend Office)


Bell Car Rental & Leasing Co., Ltd.

home

Make a Reservation
Vehicle
Chauffer
Customer
Orders
Reports



Member Registration

Please fill the registration form.

Please fill **Registration Form** to be our subscribe. Member only to authorize and can make a reservation online. Be sure that your email address is correctly, It used for login to our website.

Administrator
+ Register Customer
+ Customer Management
Logout

Contact Information

Customer Type : ☒ Personal ☐ Company/Organization

English Name : *

Thai Name :

ID Card Number : *

Address : *

Telephone No. : ext *

FAX No. :

Email Address :

Driver's License

License Number : *

Date of Birth: June 9 1986

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Figure D-7 Member Registration Form (Online and Backend Office)

Please select customer to start reservation.

Search:

- **Administrator**
 - + Make a Reservation
- Logout**

Figure D-8 Select Customer Form (Backend Office)



Step1: Select Date & Time

Please select reservation date & time.

Make a Reservation

Rental Date & Time

Pick-up Date:

June 14 2004

Pick-up Time:

09 00

Return Date:

June 14 2004


Return Time:

09 00

[<<Cancel](#)

[Next>>](#)


Figure D-9 Reservation Rental Date and Time Form (Online and Backend)


Bell Car Rental & Leasing Co., Ltd.

login: Administrator Admin

[home](#)

[Make a Reservation](#)
[Vehicle](#)
[Chauffer](#)
[Customer](#)
[Orders](#)
[Reports](#)



Administrator
+ Make a Reservation
[Logout](#)

Step2: Select Vehicle
















Please select your vehicle.

Make a Reservation
All Vechicles
Go!

Rental Date & Time
Pick-Up Date: 2004-06-14 09:00:00
Return Date: 2004-06-15 09:00:00
Rental Duration: 0 Years, 0 Months, 1 Days

[Change Date & Time]


Vehicle List

	Model	Series	Color	Wage(Baht)	Picture
<input type="radio"/>	Toyota	VIOS 1.5 A/T	Blue	1,400	
<input type="radio"/>	Toyota	CAMRY 2.0 E	Green	2,800	
<input type="radio"/>	Mercedes Benz	220 CDI	Blue	7,000	
<input type="radio"/>	Mercedes Benz	200 K	Black	7,000	
<input type="radio"/>	Toyota	VIOS 1.5 A/T	Black	1,500	
<input type="radio"/>	Benz	E-200 KOM	Silver	7,000	
<input type="radio"/>	Nissan	Cefiro 2.0	Gold	2,800	
<input type="radio"/>	Toyota	Altis 1.6 JWT-I	Gold	1,400	
<input type="radio"/>	Toyota	Altis 1.6 JWT-I	Gold	1,700	
<input type="radio"/>	Toyota	Altis 1.6 JWT-I	Gold	1,700	
<input type="radio"/>	KIA	Transport GS	Silver	2,700	
<input type="radio"/>	KIA	Transport GS	Gold	2,700	
<input type="radio"/>	KIA	Transport GS	Gray	2,700	
<input type="radio"/>	KIA	Transport GS	Sky Blue	2,700	
<input type="radio"/>	Toyota	Camry 2.4 EWTi	Gold	3,000	

* Not include VAT 7%


<<Back
Next>>

Figure D-10 Select Vehicle Form (Online and Backend)


Bell Car Rental & Leasing Co., Ltd.

login: Administrator Admin

home



Administrator
[+ Make a Reservation](#)
[Logout](#)

[Make a Reservation](#)
[Vehicle](#)
[Chauffer](#)
[Customer](#)
[Orders](#)
[Reports](#)


Step2: Select Chauffer

Please select your chauffer.

Make a Reservation

Rental Date & Time
 Pick-Up Date: 2004-06-14 09:00:00
 Return Date: 2004-06-15 09:00:00
 Rental Duration: 0 Years, 0 Months, 1 Days

[Change Date & Time]

Vehicle Selection
 Vehicle ID: 1000000004
 Vehicle Detail: Mercedes Benz 220 CDI Blue
 Vehicle Plate No.: AA-1111
 Vehicle Picture: 
 Vehicle Fee: 7,000 Baht.

[Change Vehicle]

Chauffer List

Chauffer Name	Wage(Baht)
<input type="radio"/> Wanthida Jittayananthakul	400
<input type="radio"/> Peerayut Yongsue	500

* Not include VAT 7%
 * If you don't want a chauffer, Please click "Next" without chauffer selection.


[<<Back](#)
[Next>>](#)

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Figure D-11 Select Chauffer Form (Online and Backend)


Bell Car Rental & Leasing Co., Ltd.

login: Administrator Admin

[home](#)

[Make a Reservation](#)
[Vehicle](#)
[Chauffer](#)
[Customer](#)
[Orders](#)
[Reports](#)




Step4: Finish Reservation

Finished reservation, If you want to reserve next vehicle please click "Finish" button.

Administrator
[+ Make a Reservation](#)
[Logout](#)

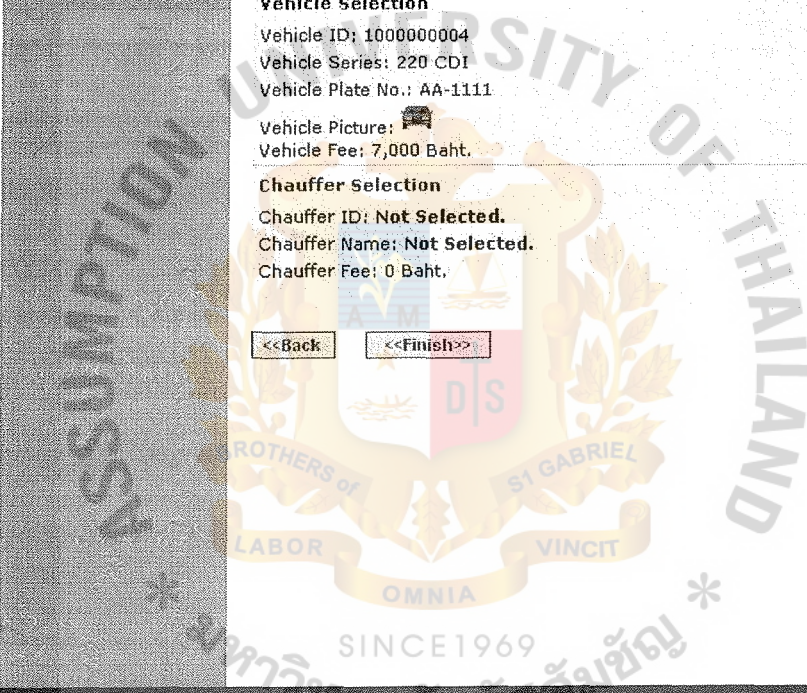
Make a Reservation

Rental Date & Time
Pick-Up Date: 2004-06-14 09:00:00
Return Date: 2004-06-15 09:00:00
Rental Duration: 0 Years, 0 Months, 1 Days [\[Change Date & Time\]](#)

Vehicle Selection
Vehicle ID: 1000000004
Vehicle Series: 220 CDI
Vehicle Plate No.: AA-1111
Vehicle Picture: 
Vehicle Fee: 7,000 Baht. [\[Change Vehicle\]](#)

Chauffer Selection
Chauffer ID: **Not Selected.**
Chauffer Name: **Not Selected.**
Chauffer Fee: 0 Baht. [\[Change Chauffer\]](#)

[<<Back](#)
[<<Finish>>](#)



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Figure D-12 Confirmation Form (Online and Backend)


Bell Car Rental & Leasing Co., Ltd.

login: Administrator Admin

home

Make a Reservation
Vehicle
Chauffer
Customer
Orders
Reports

All Reservation

print | select all | deselect all

Date

June
9
2004


Status:
ALL
Go!

Order ID	Customer Name	Rent Date	Due Date	Rent Price	Status	
<input type="checkbox"/> 1000000022	Hudsadid Eamsherangkul	2004-05-31 09:00:00	2004-05-31 17:00:00	1,605	Reservation	
<input type="checkbox"/> 1000000024	Hudsadid Eamsherangkul	2004-06-03 09:00:00	2004-06-11 11:00:00	67,410	Reservation	
<input type="checkbox"/> 1000000029	Weerachart	2004-06-14 09:00:00	2004-06-15 09:00:00	7,490	Reservation	
<input type="checkbox"/> 1000000025	Boat	2004-06-12 12:00:00	2004-06-13 12:00:00	1,605	Renting	
<input type="checkbox"/> 1000000012	Wanthida Jittayananthakul	2004-03-31 09:00:00	2004-04-01 09:00:00	7,490	Renting	
<input type="checkbox"/> 1000000018	Wanthida Jittayananthakul	2004-05-22 09:00:00	2004-06-22 09:00:00	14,445	Renting	
<input type="checkbox"/> 1000000017	Nuttapon Tipotikul	2004-06-01 09:00:00	2004-07-10 09:00:00	64,093	Renting	
<input type="checkbox"/> 1000000020	Nuttapon Tipotikul	2004-07-01 09:00:00	2004-07-05 16:00:00	11,984	Renting	
<input type="checkbox"/> 1000000023	Hudsadid Eamsherangkul	2004-06-03 09:00:00	2004-06-09 09:00:00	9,630	Renting	
<input type="checkbox"/> 1000000013	Nuttapon Tipotikul	2004-05-01 09:00:00	2004-05-04 09:00:00	6,420	Renting	
<input type="checkbox"/> 1000000019	Wanthida Jittayananthakul	2004-05-22 09:00:00	2004-05-30 09:00:00	12,840	Renting	
<input type="checkbox"/> 1000000021	Hudsadid Eamsherangkul	2004-05-26 09:00:00	2004-05-30 09:00:00	22,684	Not Payment	
<input type="checkbox"/> 1000000014	Wanthida Jittayananthakul	2004-05-01 09:00:00	2004-05-10 09:00:00	94,695	Not Payment	
<input type="checkbox"/> 1000000011	Nuttapon Tipotikul	2004-03-31 09:00:00	2004-04-01 09:00:00	517,238	Not Payment	
<input type="checkbox"/> 1000000001	Nuttapon Tipotikul	2004-02-01 09:00:00	2004-02-09 09:00:00	15,408	Complete	
<input type="checkbox"/> 1000000004	Wanthida Jittayananthakul	2004-03-23 09:00:00	2004-03-25 09:00:00	45,582	Complete	
<input type="checkbox"/> 1000000015	Nuttapon Tipotikul	2004-05-22 09:00:00	2004-05-30 09:00:00	63,344	Complete	
<input type="checkbox"/> 1000000003	Nuttapon Tipotikul	2004-04-25 09:00:00	2004-04-30 09:00:00	123,585	Complete	
<input type="checkbox"/> 1000000010	Wanthida Jittayananthakul	2004-06-25 09:00:00	2004-06-30 09:00:00	17,655	Complete	
<input type="checkbox"/> 1000000002	Nuttapon Tipotikul	2004-02-27 09:00:00	2004-03-05 09:00:00	131,075	Complete	
<input type="checkbox"/> 1000000028	Boat	2004-06-10 09:00:00	2004-06-12 09:00:00	29,960	Complete	
<input type="checkbox"/> 1000000016	Hudsadid Eamsherangkul	2004-05-22 09:00:00	2004-05-30 09:00:00	23,968	Complete	

Print
Reset


Administrator
+ All Order List
+ Reservation list
+ Return Car
+ Customer Payment
Logout

Figure D-13 All Reservation Form (Backend)


Bell Car Rental & Leasing Co., Ltd.
login: Administrator Admin

home

Make a Reservation
Vehicle
Chauffer
Customer
Orders
Reports



Administrator


- + All Order List
- + Reservation list
- + Return Car
- + Customer Payment
- Logout

Receive Vehicles

save & print | select all | deselect all

Order ID	Customer Name	Rent Date	Due Date	Rent Price	Status	
<input type="checkbox"/> 1000000022	Hudsadid Eamsherangkul	2004-05-31 09:00:00	2004-05-31 17:00:00	1,605	Reservation	
<input type="checkbox"/> 1000000024	Hudsadid Eamsherangkul	2004-06-03 09:00:00	2004-06-11 11:00:00	67,410	Reservation	
<input type="checkbox"/> 1000000029	Weerachart	2004-06-14 09:00:00	2004-06-15 09:00:00	7,490	Reservation	

Save & Print
Reset



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Figure D-14 Customer Receive Vehicle Form (Backend)




Administrator
+ All Order List
+ Reservation List
+ Return Car
+ Customer Payment
Logout

Make a Reservation Vehicle Chauffer Customer Orders Reports

Return Vehicles

Order ID	Customer Name	Rent Date	Due Date	Rent Price	Status
1000000012	Wanthida Jittayananthakul	2004-03-31 09:00:00	2004-04-01 09:00:00	7,490	Renting
1000000013	Nuttapon Tipotikul	2004-05-01 09:00:00	2004-05-04 09:00:00	6,420	Renting
1000000017	Nuttapon Tipotikul	2004-06-01 09:00:00	2004-07-10 09:00:00	64,093	Renting
1000000018	Wanthida Jittayananthakul	2004-05-22 09:00:00	2004-06-22 09:00:00	14,445	Renting
1000000019	Wanthida Jittayananthakul	2004-05-22 09:00:00	2004-05-30 09:00:00	12,840	Renting
1000000020	Nuttapon Tipotikul	2004-07-01 09:00:00	2004-07-05 16:00:00	11,984	Renting
1000000023	Hudsadid Eamsherangkul	2004-06-03 09:00:00	2004-06-09 09:00:00	9,630	Renting
1000000025	Boat	2004-06-12 12:00:00	2004-06-13 12:00:00	1,605	Renting


Figure D-15 Return Vehicles Form (Backend)


Bell Car Rental & Leasing Co., Ltd.

login: Administrator Admin

home

Make a Reservation
Vehicle
Chauffer
Customer
Orders
Reports



Administrator
+ All Order List
+ Reservation list
+ Return Car
+ Customer Payment
Logout

Reservation Return Detail

Chauffer & Vehicle	Customer
Driver Name: Car Model/Series: Toyota VIOS 1.5 A/T Car Plate No.: NJ-233	Name: Hudsadid Eamsherangkul Assress: 1667/124 Charunsanitwong Rd Arunarmarin Bangkoknoi Bangkok 10700 Tel: 02-866-7866

Return Detail

Order ID: **1000000023** (Click for order detail)

Starting Mileage:

Finishing Mileage:

Vehicle Wage: **9000** Baht.

A fine: 1500 Baht. (Return late 1 day(s) x 1,500 Bath/day)

Fuel Consumption: Baht.

Driver Wage: **0** Baht.

Over Time: Baht.


Hotel: Baht.

Other: Baht.

Payment Method : ☒ Cash ☐ Credit


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Figure D-16 Vehicle Return Details Form (Backend)


Bell Car Rental & Leasing Co., Ltd.
login: Administrator Admin

home

Make a Reservation
Vehicle
Chauffer
Customer
Orders
Reports



Administrator
+ Order List
+ Reservation List
+ Return Car
+ Customer Payment
Logout

Payment Record


print receipt | select all | deselect all

Order ID	Customer Name	Rent Date	Due Date	Return Date	Rent Price	Status
<input type="checkbox"/> 1000000011	Nuttapon Tipsotikul	2004-03-31 09:00:00	2004-04-01 09:00:00	2004-06-08 18:08:51	517,238	Not payment
<input type="checkbox"/> 1000000014	Wanthida Jittayananthakul	2004-05-01 09:00:00	2004-05-10 09:00:00	2004-05-26 01:53:21	94,695	Not payment
<input type="checkbox"/> 1000000021	Hudsadid Eamsherangkul	2004-05-26 09:00:00	2004-05-30 09:00:00	2004-06-09 13:14:37	22,684	Not payment

Print Receipt
Reset


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Figure D-17 Customer Payment Form (Backend)



Bell Car Rental & Leasing Co., Ltd.

home

[Make a Reservation](#)
[Vehicle](#)
[Chauffer](#)
[Customer](#)
[Orders](#)
[Reports](#)



Customer Management


Search:


Name	Address	Tel.	Point			
Aaron Xiao	Soi Charunsanitwong 31	070108610	0			
Boat	กตเอดเ กตเอดเ กตเอดเอดเ กตเ กตกตเ	0-1254-3520	299			
Hudsadid Eamsherangkul	1667/124 Charunsanitwong Rd Arunarmarin Bangkoknoi Bangkok 10700	02-866-7866	139			
jeY	123 ลุมพินี ปทุมวัน กทม.	0-1949-1081	1			
Nuttapon Tipsoitkul	2/66 ลาดพร้าว ซ.47 รังทองหลาง ก.ท.ม. 10310	019032200	1135			
Wanthida Jittayananthakul	123 Navaminre Rd, Bangkokpi Bangkok 10230	0-1949-10	455			
Weerachart	พรหมราม3	016596593	1			

Administrator

+ Register Customer

+ Customer Management

Logout




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Figure D-18 Customer Management Form


Bell Car Rental & Leasing Co., Ltd.

home

Make a Reservation
 Vehicle
 Chauffeur
 Customer
Orders
Reports



Member Information

Customer Type : Personal
 English Name : Wanthida Jittayananthakul (วรณิดา จิตตานันท์กุล)
 ID Card : 5556841202314
 Driver's License : 5471411210240
 Address : 123 Navaminre Rd, Bangkapi Bangkok 10230
 Telephone No. : 0-1949-10 ext.
 FAX No. : 0-2946-77
 Point : 455
 Activate Key : AMLPusF2

Administrator
 + Register Customer
 + Customer Management
 Logout

Member Information

Cancel Order | select all | deselect all

Status:


ALL

 Go!

Order ID	Vehicle	Rent Date	Due Date	Rent Price	Status
1000000004	Toyota Altis 1.6 E M/1.6J A/T [AB-5555]	2004-03-23 09:00:00	2004-03-25 09:00:00	45,582	Complete
1000000010	Toyota CAMRY 2.0 E [KB-9999]	2004-06-25 09:00:00	2004-06-30 09:00:00	17,655	Complete
1000000012	Mercedes Benz 200 K [AA-2222]	2004-03-31 09:00:00	2004-04-01 09:00:00	7,490	Renting
1000000014	Toyota VIOS 1.5 A/T [NJ-233]	2004-05-01 09:00:00	2004-05-10 09:00:00	94,695	Not payment
1000000018	Toyota VIOS 1.5 A/T [MK-2544]	2004-05-22 09:00:00	2004-06-22 09:00:00	14,445	Renting
1000000019	Toyota VIOS 1.5 A/T [NJ-233]	2004-05-22 09:00:00	2004-05-30 09:00:00	12,840	Renting

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Figure D-19 Member Information Form (Backend)



Bell Car Rental & Leasing Co., Ltd.

home

Make a ReservationVehicleChaufferCustomerOrdersReports



Administrator

- + Register Customer
- + Customer Management
- Logout

Edit Member

Please enter member information.

Contact Information

Customer Type : ☒ Personal ☐ Company/Organization

English Name : *

Thai Name :

ID Card Number : *

Address : *

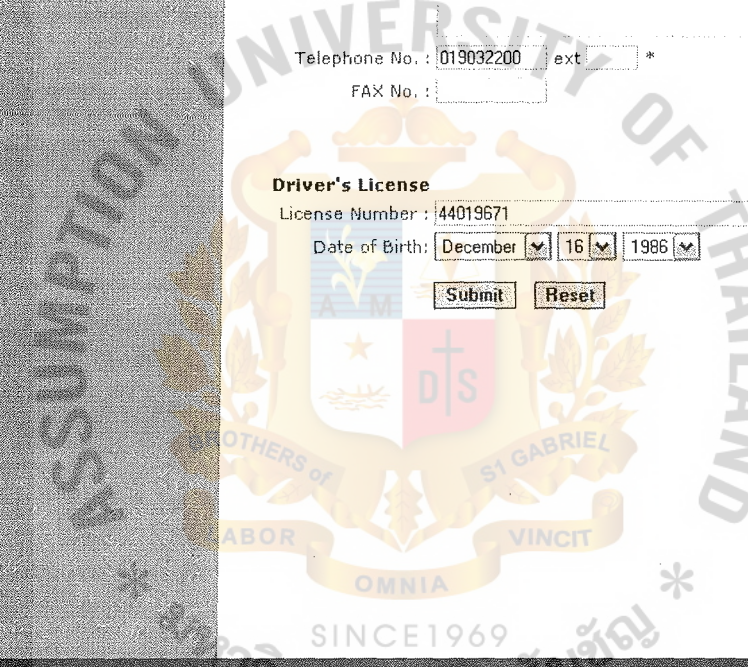
Telephone No. : ext. *

FAX No. :

Driver's License

License Number : *

Date of Birth:



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Figure D-20 Edit Membership Form (Backend)

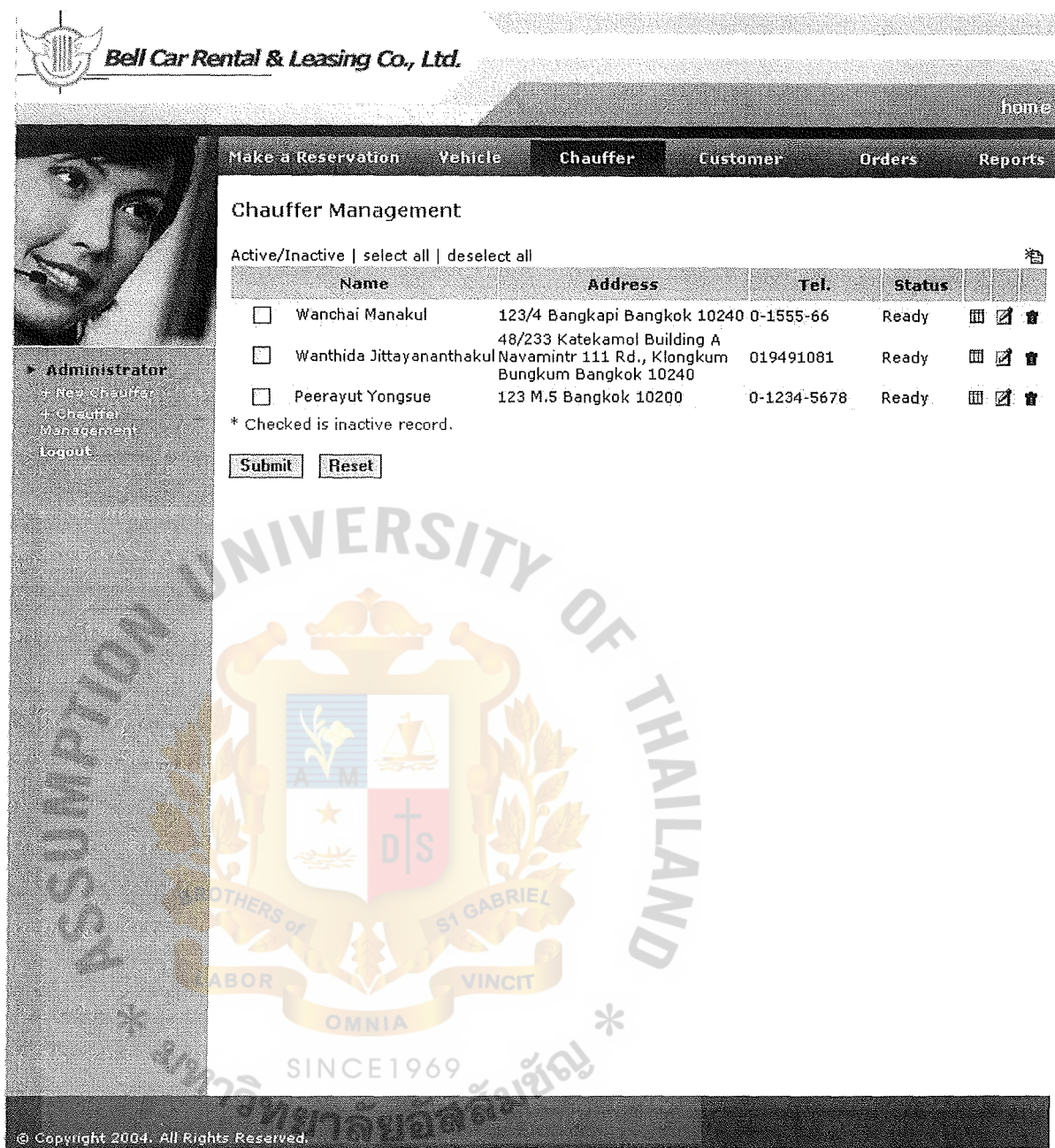




Figure D-21 Chauffeur Management Form (Backend)


Bell Car Rental & Leasing Co., Ltd.

home

Make a Reservation
Vehicle
Chauffer
Customer
Orders
Reports




Chauffer Schedule

Chauffer ID: 1000000002

Name: Wanthida Jittayananthakul
Address: 48/233 Katekamol Building A Navamintr 111 Rd.,
Klongkum Bungkum Bangkok 10240
Tel: 019491081

Administrator
+ New Chauffer
+ Chauffer Management
Logout

Order ID	Customer	Car	Rent Date	Due Date	Return Date	Rent Price
1000000003	Nuttapon Tipsotikul	Toyota AB-5555	2004-04-25 09:00:00	2004-04-30 09:00:00	2004-05-22 05:42:11	11,235
1000000011	Nuttapon Tipsotikul	Mercedes Benz AA-1111	2004-03-31 09:00:00	2004-04-01 09:00:00	2004-06-08 18:08:51	7,918
1000000021	Hudsadid Eamsherangkul	Toyota AA-123	2004-05-26 09:00:00	2004-05-30 09:00:00	2004-06-09 13:14:37	7,704




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Figure D-22 Chauffer Schedule Form (Backend)

**Bell Car Rental & Leasing Co., Ltd.**

home


Make a ReservationVehicleChaufferCustomerOrdersReports



► **Administrator**
+ New Chauffer
+ Chauffer Management
Logout

Administrator : Create/Edit Chauffer
Please enter chauffer information

Chauffer Information
FirstName:
LastName:
Address:
Telephone No. :
Fee/Day: Baht.
Fee/Month: Baht.



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Figure D-23 Create or Edit Chauffer Form (Backend)

Vehicle Management

Vehicle:

	Model	Series	Color	Plate No.	Wage							
					day	month						
Aviable	Toyota	VIOS 1.5 A/T	Blue	AA-123	1,400	26,000						
Aviable	Toyota	Altis 1.6 E M/1.6J A/T	Silver	AB-5555	1,700	32,000						
Aviable	Toyota	CAMRY 2.0 E	Green	KB-9999	2,800	48,000						
Aviable	Mercedes Benz	220 CDI	Blue	AA-1111	7,000	95,000						
Aviable	Toyota	VIOS 1.5 A/T	Black	NJ-233	1,500	12,000						
Aviable	Toyota	VIOS 1.5 A/T	Green	MK-2544	1,500	12,000						

* Aviable = Vehicle not rented today

* Unaviable = Vehicle are rented or checked today.

Figure D-24 Vehicle Management Form (Backend)


Bell Car Rental & Leasing Co., Ltd.

home

Make a Reservation
Vehicle
Chauffer
Customer
Orders
Reports



Vehicle Schedule

Vehicle ID: 1000000003

Vehicle Type: Midsize
Model: Toyota
Series: CAMRY 2.0 E
Color: Green
Plate No.: KB-9999
Current Mileage: 0000120 Km.



Administrator
+ New Vehicle
+ Vehicle Management
Logout

Order ID	Customer	Rent Date	Due Date	Return Date	Status
1000000002	Nuttapon Tipsotikul	2004-02-27 09:00:00	2004-03-05 09:00:00	2004-03-24 23:37:02	Complete
1000000010	Wanthida Jittayananthakul	2004-06-25 09:00:00	2004-06-30 09:00:00	2004-05-22 05:43:17	Complete
1000000016	Hudsadid Eamsherangkul	2004-05-22 09:00:00	2004-05-30 09:00:00	2004-05-26 03:25:49	Complete
1000000020	Nuttapon Tipsotikul	2004-07-01 09:00:00	2004-07-05 16:00:00	-	Renting




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Figure D-25 Vehicle Schedule Form (Backend)


Bell Car Rental & Leasing Co., Ltd.

home


Make a Reservation
Vehicle
Chauffer
Customer
Orders
Reports



Vehicle Expense

Vehicle ID: 1000000005

Vehicle Type: Luxury
Model: Mercedes Benz
Series: 200 K
Color: Black
Plate No.: AA-2222
Current Mileage: 0000120 Km.




Administrator
+ New Vehicle
+ Vehicle Management
Logout

Expense ID	Start Date	Finish Date	Check Mileage	Check Condition	Expense
101	2004-03-23 09:00:00	2004-03-01 16:00:00	0005200	Normal Check	2,500
102	2004-04-01 09:00:00	2004-04-01 16:00:00	0010200	Normal Check	1,250


Summary Expense: 3,750 Baht

Add new expense



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Figure D-26 Vehicle Expense Form (Backend)



Bell Car Rental & Leasing Co., Ltd.

home

Make a ReservationVehicleChaufferCustomerOrdersReports




Administrator

- + New Vehicle
- + Vehicle Management
- Logout

Enter Vehicle Expense

Vehicle ID: 1000000005

Vehicle Type: Luxury
Model: Mercedes Benz
Series: 200 K
Color: Black
Plate No.: AA-2222
Current Mileage: 0000120 Km.



Expense Detail

Garage Name : บริษัท โตโยต้า เคมเตเลอร์ สาขาลาดพร้าว [Add new garage]
Check Mileage:
Start Date : Date: January 01 2004 Time: 08 00
Finish Date : Date: January 01 2004 Time: 08 00
Check Condition : Normal Check
Check Expense : Baht

Save Cancel

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Figure D-27 Extra Vehicle Expense Form (Backend)



Bell Car Rental & Leasing Co., Ltd.

Reservation No. : 1000000029

Date : 09-06-2004 23:06:07

ใบส่งมอบรถเช่า

Customer ID: 1000000007

Name: Weerachart ()

Address: พระราม3

Tel.: 016596593

FAX:

Email: vee_wee@hotmail.com

BELL CAR RENTAL & LEASING CO., LTD.

405 Soi Rewadee Rama VI Road.,

Samsannai, Phayathai, Bangkok 10400

Tel. 662-681-6820-2

Fax. 662-618-6301

ยี่ห้อ/รุ่น: Mercedes Benz 220 CDI	สี: Blue	เลขทะเบียน: AA-1111
เลขที่กรมธรรม์:	เลขตัวถัง:	เลขเครื่องยนต์:
สัญญาเลขที่: 1000000029	วันที่เริ่มเช่า: Date: 2004-06-14 Time: 09:00:00	อัตราค่าเช่า: 7,490

อุปกรณ์ประจำรถ	ป้ายทะเบียน	ป้ายวงกลม	พรบ.	ยางอะไหล่	เครื่องมือ	แม่แรง	วิทยุเทป	ยางปูพื้น	อื่น ๆ
ส่ง									
รับ									

ปริมาณน้ำมัน	ส่ง	E	1/8	1/4	3/8	1/2	5/8	3/4	7/8	F	ลงชื่อลูกค้า	เวลา
	รับ	E	1/8	1/4	3/8	1/2	5/8	3/4	7/8	F/...../.....	

ระยะเวลาการเช่า	ป้ายทะเบียน	ป้ายวงกลม	พรบ.	ยางอะไหล่	ขับเอง	มี พรบ.
เลขไมล์ส่ง	รวมระยะทาง	A	B	C	D	E
เลขไมล์รับ		รอยขีดข่วน/ครูด	บุบเล็กน้อย	บุบมาก	เสียหายมาก	บุ/แตก/ร้าว
สถานที่ส่งรถ	เวลา	** โปรดนำสิ่งของมีค่าออกจากรถ มั่นใจใน บริษัทจะไม่รับผิดชอบใด ๆ ทั้งสิ้น **				

รายละเอียดอื่น ๆ

ผู้ส่งรถ	ลูกค้า/บริษัท ผู้รับรถ	ผู้รับรถ	ลูกค้า/บริษัท ผู้ส่งรถ
(.....)	(.....)	(.....)	(.....)

405 Soi Rewadee Rama VI Road., Samsannai, Phayathai, Bangkok 10400 Thailand. Tel. 662-681-6820-2 Fax. 662-618-6301

Figure D-28 Vehicle Checking Form (Backend)

VEHICLE RENTAL AGREEMENT

THIS AGREEMENT is made and entered into on **09/06/2004**, in Bangkok Metropolis.

BY AND BETWEEN

1. **BELL CAR RENTAL AND LEASING CO.,LTD.**, a limited company registered under the laws of Thailand and having its registered office located at 402 Soi Rewadee, Rama VI Road, Samsennai sub-district, Phyathai district, Bangkok, the "LESSOR" of one part; and
2. **Weerachart ()** having the office or address located at พระราม3, the "LESSEE" of the other part.

THEREFORE, in consideration of the mutual covenants hereinafter set forth, the parties hereto do hereby agree as the followings:

1. The Lessor hereby agrees to allow the Lessee to rent the following:
Brand: Mercedes Benz Model: 220 CDI Year: License Plate number: AA-1111, to be referred hereinafter set forth, the "VEHICLE".
For the period from: 2004-06-14 until: August 2004-06-15.
2. The Lessee agrees to make payments in cash to the Lessor for the amount of 7,490 Thai Baht.
The amount includes the rental fee (unlimited mileage), the chauffeur wage, full coverage (1st class) insurance, and all maintenance costs. The stated amount excludes tax (VAT), gasoline, toll way & expressway fee, parking fee, and other expenses.
The first payment shall be paid within 15 days since the vehicle has returned.
3. The Lessee has received from the Lessor, the Vehicle along with the vehicle delivery document attached at the end of this Agreement and has been acknowledged as part of the Agreement.
4. In case of late payment, the Lessee agrees to pay late fee. This late fee will be calculated from the first day of late payment until the day the payment is paid.
5. If there is suspicion that the Lessee might use the Vehicle in violation of the laws, the Lessor reserves the right to terminate this Agreement immediately, and the Lessee agrees to seek no compensation from the termination of the Agreement.
6. The Lessor agrees to provide first class insurance on the Vehicle to the Lessee and will be responsible for the expenses that may exceed the insurance coverage in case of the accident if and only if the operator of the Vehicle is the chauffeur provided by the Lessor. The Lessor will not be responsible for the deductible fee and the expense that exceeds the insurance coverage if the operator of the Vehicle is the Lessee.
7. The Lessee agrees to allow the Lessor to take the Vehicle in case of maintenance services and inspections. The Lessor will inform the Lessee at least 48 hours in advance. If the services take more than 24 hours, the Lessor will provide substitution vehicle until the Vehicle is ready. The usage of substitution vehicle is subjected to the same conditions as this Agreement.
8. The Lessee agrees not to rent the Vehicle to other party outside of this Agreement or use the Vehicle for illegal act. If the Lessee violates the Agreement, the loss and damages shall rest solely with the Lessee.
9. At the end of the Agreement period, the Lessee agrees to pay the Lessor the missing parts or equipment that originally come with the Vehicle when the Agreement period begins.
10. This Agreement shall be governed and construed in accordance with the laws of Thailand. Any dispute arising from this Agreement shall be submitted to the Thai Court.

THIS AGREEMENT is made in duplicate, each copy is to be retained by the Lessor and the Lessee respectively. Both parties declare that they have thoroughly read, understood, and approved the contents herein contained.

IN WITNESS WHEREOF, the Lessor and the Lessee have hereunto affixed their signatures and sealed in the presence of witnesses on the date aforementioned.

LESSOR
Signed by:-

LESSEE
Signed by:-

Mr. Hudsadin Eamsherangkul
For and on behalf of
BELL CAR RENTAL&LEASING CO.,LTD.

Weerachart

In the presence of:-

In the presence of:-

Figure D-29 Vehicle Rental Agreement Form (Backend)



Bell Car Rental & Leasing Co., Ltd.


Reservation No. : 1000000029

Date : 09-06-2004 23:06:07

TAX INVOICE

Customer ID: 1000000007
 Name: Weerachart ()
 Address: พระราม3
 Tel.: 016596593
 FAX:
 Email: vee_wee@hotmail.com

BELL CAR RENTAL & LEASING CO., LTD.
 405 Soi Rewadee Rama VI Road.,
 Samsannai, Phayathai, Bangkok 10400
 Tel. 662-681-6820-2
 Fax. 662-618-6301

No.	Detail	Start Date	Due Date	Total [Baht]
1	Car Service: Model: Mercedes Benz 220 CDI Color: Blue Plate no: AA-1111	Date: 2004-06-14 Time: 09:00:00	Date: 2004-06-15 Time: 09:00:00	7,000
				
Remark:				Sub Total: 7,000
				VAT 7 %: 490
				Net Total: 7,490

(.....)
 Authorized Signature

Date/...../.....

Receive check date/...../.....


(.....)
 General Manager
 Bell Car Rental & Leasing Co., Ltd.

Date/...../.....

Bell Car Rental & Leasing Co., Ltd.

405 Soi Rewadee Rama VI Road., Samsannai, Phayathai, Bangkok 10400 Thailand. Tel. 662-681-6820-2 Fax. 662-618-6301

Figure D-30 Invoice Form (Backend)



Bell Car Rental & Leasing Co., Ltd.

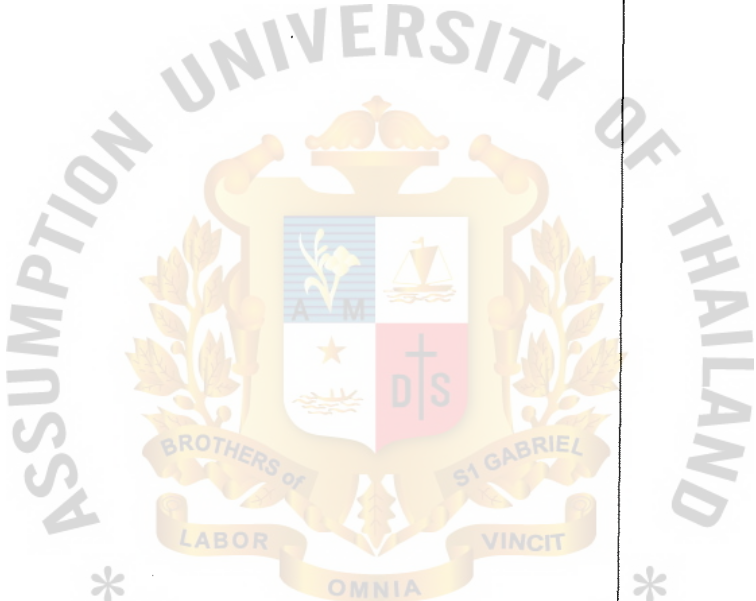
Reservation No. : 1000000029

Date : 09-06-2004 23:06:33

RECEIPT

Customer ID: 1000000007
 Name: Weerachart ()
 Address: พหลโยธิน 3
 Tel.: 016596593
 FAX:
 Email: yee_wee@hotmail.com

BELL CAR RENTAL & LEASING CO., LTD.
 405 Soi Rewadee Rama VI Road.,
 Samsannai, Phayathai, Bangkok 10400
 Tel. 662-681-6820-2
 Fax. 662-618-6301

No.	Detail	Start Date	Due Date	Total [Baht]
1	Car Service: Model: Mercedes Benz 220 CDI Color: Blue Plate no: AA-1111	Date: 2004-06-14 Time: 09:00:00	Date: 2004-06-15 Time: 09:00:00	7,000
				
Remark:			Sub Total:	7,000
			VAT 7 %:	490
			Net Total:	7,490

(.....)
 Authorized Signature

Date/...../.....

Receive check date/...../.....

(.....)
 General Manager
 Bell Car Rental & Leasing Co., Ltd.

Date/...../.....

Bell Car Rental & Leasing Co., Ltd.

405 Soi Rewadee Rama VI Road., Samsannai, Phayathai, Bangkok 10400 Thailand. Tel. 662-681-6820-2 Fax. 662-618-6301

Figure D-31 Receipt Form (Backend)



APPENDIX E
MANAGEMENT REPORT DESIGN

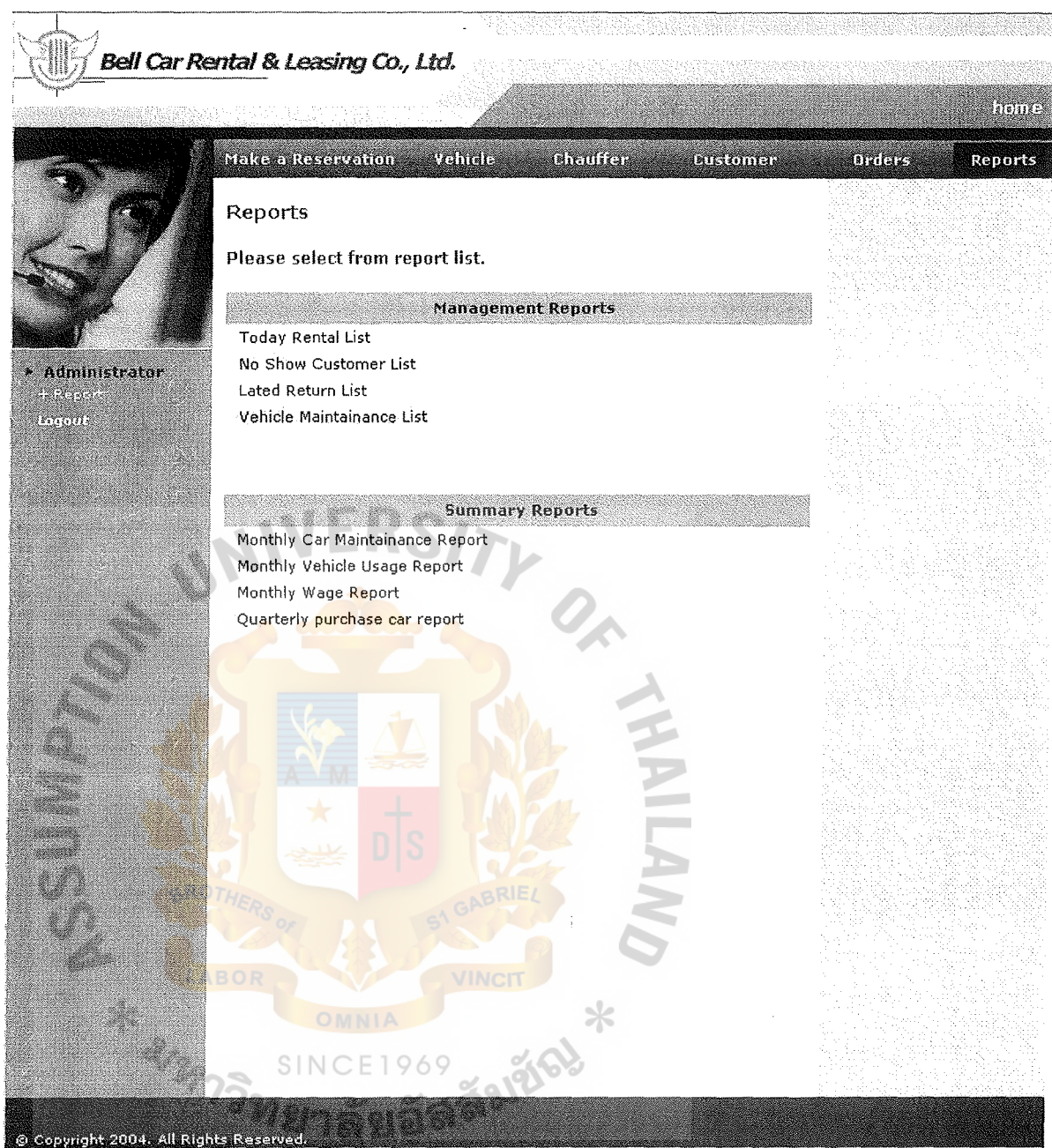




Figure E-1 Report Menu (Backend)


Bell Car Rental & Leasing Co., Ltd.

home

[Make a Reservation](#)
[Vehicle](#)
[Chauffer](#)
[Customer](#)
[Orders](#)
[Reports](#)




Monthly Car Maintenance Report.

Month: Year:

No.	Car	Plate No.	Garage	Start Date	Finish Date	Mileage	Service Fee
1	Benz E-200 KOM	VV 8703	บริษัท โตโยต้า เคมโอดอร์ส สาขา ลาดพร้าว	2004-06-01 08:00:00	2004-01-01 08:00:00	0000100	5,000

Summary Expense: 5,000 Baht

Administrator
 + Report
 Logout



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Figure E-2 Monthly Car Maintenance Report (Backend)

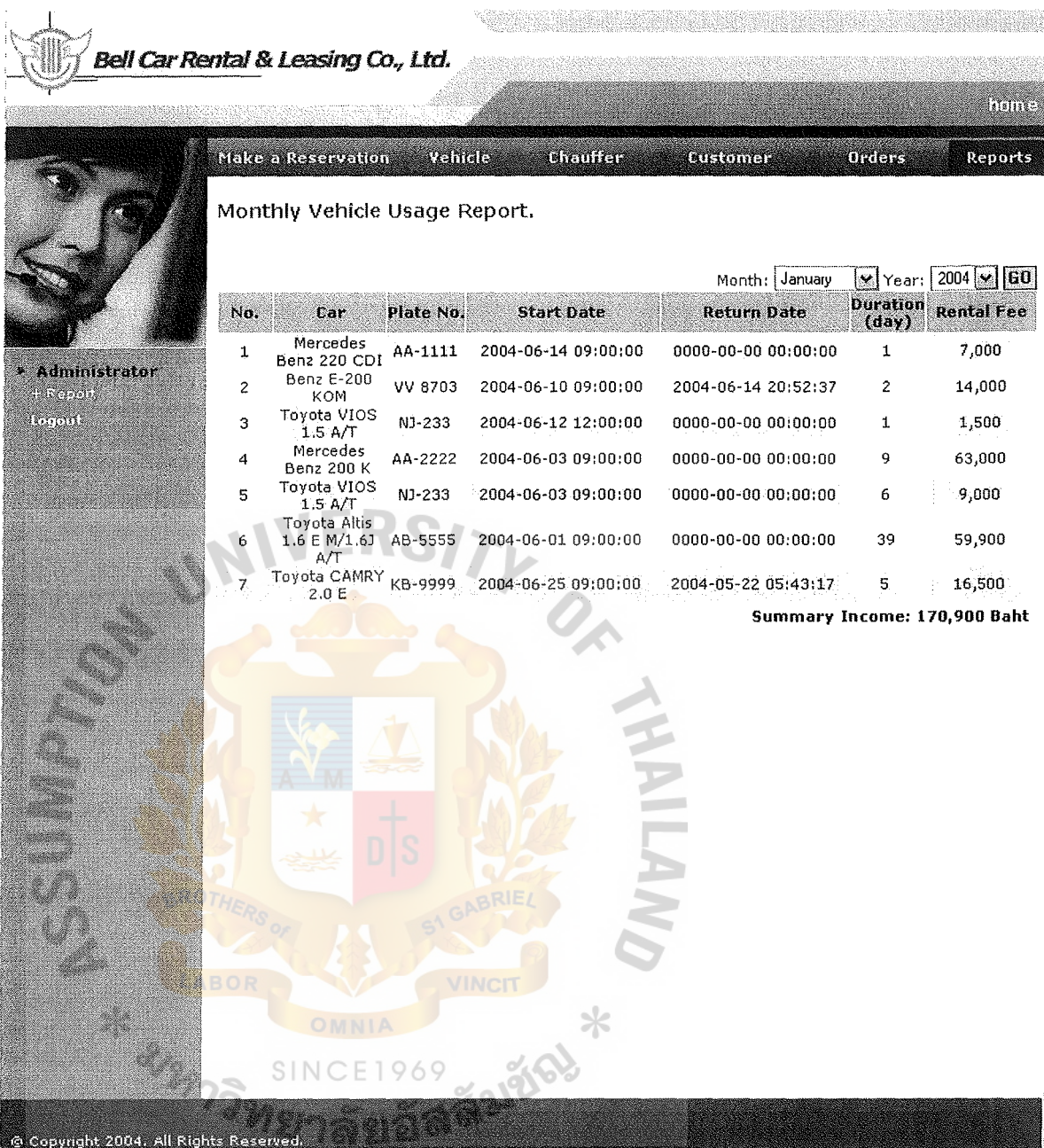


Figure E-3 Monthly Vehicle Usage Report (Backend)

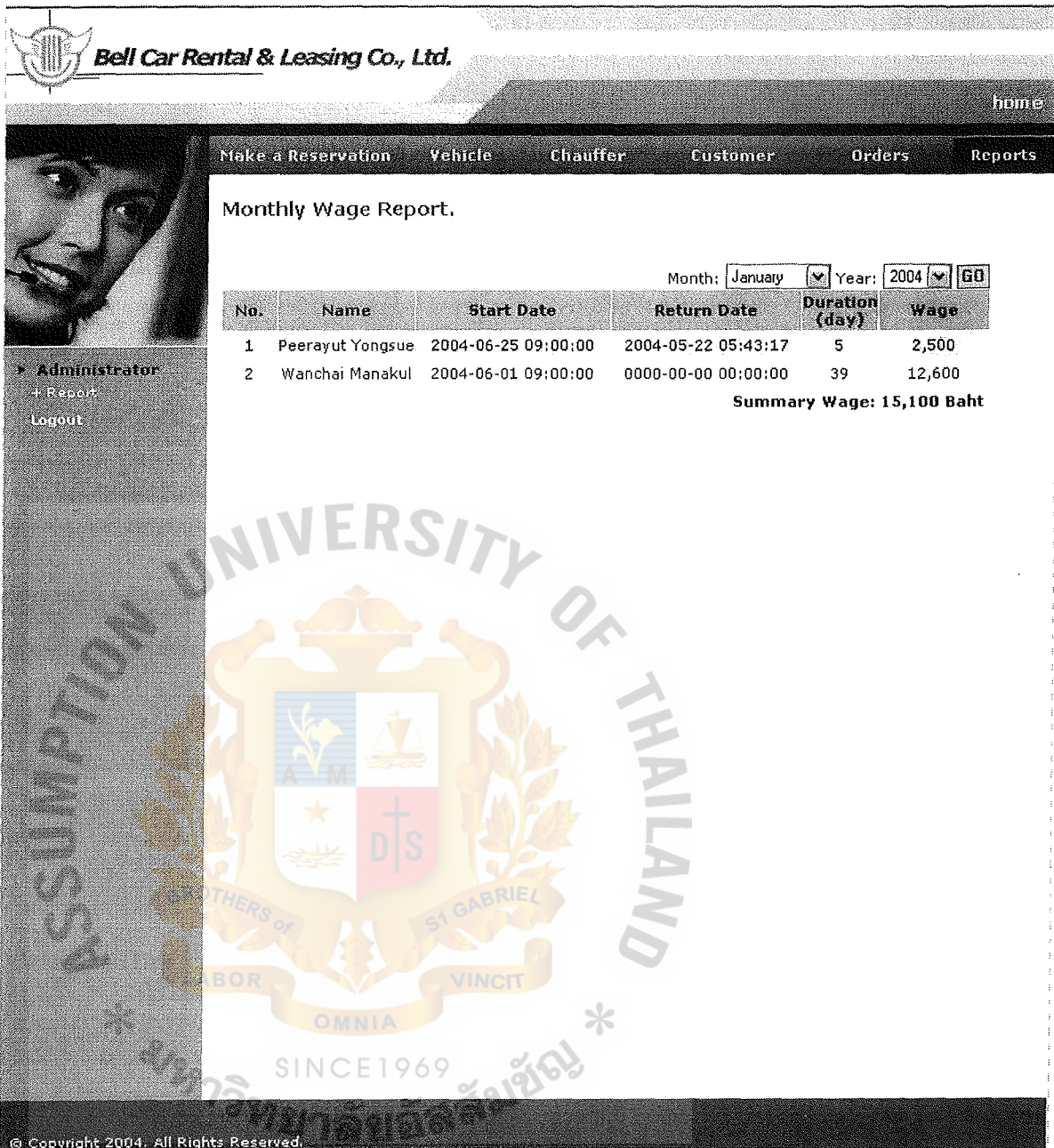


Figure E-4 Monthly Wage Report (Backend)

Quarterly purchase car report.


Quarter: Year:

No.	Model	Series	Color	Plate No.	Receive Date	Cost
1	Toyota	VIOS 1.5 A/T	Blue	AA-123	2004-01-05 09:00:00	650,000
2	Toyota	Altis 1.6 E M/1.6J A/T	Silver	AB-5555	2004-01-05 09:00:00	820,000
3	Toyota	CAMRY 2.0 E	Green	KB-9999	2004-01-08 09:00:00	1,250,000
4	Mercedes Benz	220 CDI	Blue	AA-1111	2004-01-10 00:09:00	1,535,000
5	Toyota	VIOS 1.5 A/T	Black	NJ-233	2004-02-10 00:09:00	820,000
6	Toyota	VIOS 1.5 A/T	Green	MK-2544	2004-02-12 00:09:00	650,000
7	Mercedes Benz	200 K	Black	AA-2222	2004-02-18 00:09:00	1,806,000

Summary Expense: 7,531,000 Baht


[Administrator](#)
[+ Report](#)
[Logout](#)

Figure E-5 Quarterly Purchase Report (Backend)


Bell Car Rental & Leasing Co., Ltd.

home


[Make a Reservation](#)
[Vehicle](#)
[Chauffer](#)
[Customer](#)
[Orders](#)
[Reports](#)



> Administrator
 + Report
 Logout

Lated Return List

Order ID	Customer Name	Rent Date	Due Date	Rent Price	Status
1000000023	Hudsadid Eamsherangkul	2004-06-03 09:00:00	2004-06-09 09:00:00	9,630	Renting
1000000022	Hudsadid Eamsherangkul	2004-05-31 09:00:00	2004-05-31 17:00:00	1,605	Renting
1000000019	Wanthida Jittayananthakul	2004-05-22 09:00:00	2004-05-30 09:00:00	12,840	Renting
1000000013	Nuttapon Tipsotikul	2004-05-01 09:00:00	2004-05-04 09:00:00	6,420	Renting
1000000012	Wanthida Jittayananthakul	2004-03-31 09:00:00	2004-04-01 09:00:00	7,490	Renting




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Figure E-6 Late Return Report (Backend)


Bell Car Rental & Leasing Co., Ltd.

home


[Make a Reservation](#)
[Vehicle](#)
[Chauffer](#)
[Customer](#)
[Orders](#)
[Reports](#)



Administrator
 + Report
 Logout


No Show Customer List

Order ID	Customer Name	Rent Date	Due Date	Rent Price	Status
1000000024	Hudsadid Eamsherangkul	2004-06-03 09:00:00	2004-06-11 11:00:00	67,410	Reservation




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Figure E-7 No Show Customer Report (Backend)


Bell Car Rental & Leasing Co., Ltd.

home

[Make a Reservation](#)
[Vehicle](#)
[Chauffer](#)
[Customer](#)
[Orders](#)
[Reports](#)



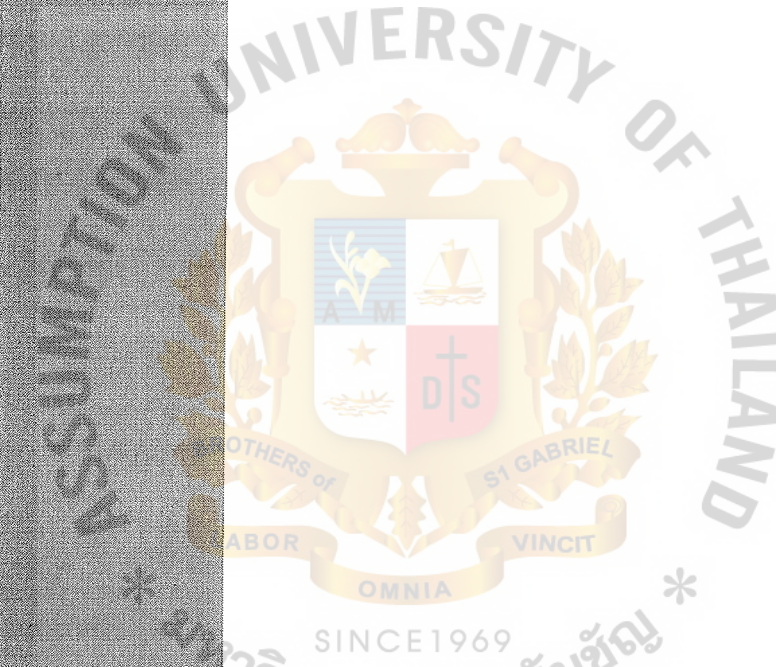
Administrator

+ Report

Logout


Today Reservation List

Order ID	Customer Name	Rent Date	Due Date	Rent Price	Status	
1000000024	Hudsadid Eamsherangkul	2004-06-03 09:00:00	2004-06-11 11:00:00	67,410	Reservation	ⓧ




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Figure E-8 Daily Reservation Report (Backend)


Bell Car Rental & Leasing Co., Ltd.

home

[Make a Reservation](#)
[Vehicle](#)
[Chauffer](#)
[Customer](#)
[Orders](#)
[Reports](#)



Administrator
[+ Report](#)
[Logout](#)

Vehicle Maintenance Report

Vehicle:

No.	Model	Series	Color	Plate No.	Checked Mileage	Current Mileage	
1	Toyota	VIOS 1.5 A/T	Blue	AA-123	123	0012154	<input type="checkbox"/>
2	Toyota	Altis 1.6 E M/1.6J A/T	Silver	AB-5555	-	0000120	<input type="checkbox"/>
3	Toyota	CAMRY 2.0 E	Green	KB-9999	-	0000120	<input type="checkbox"/>
4	Mercedes Benz	220 CDI	Blue	AA-1111	-	0000120	<input type="checkbox"/>
5	Mercedes Benz	200 K	Black	AA-2222	0010200	0000120	<input type="checkbox"/>
6	Toyota	VIOS 1.5 A/T	Black	NJ-233	-	0000120	<input type="checkbox"/>
7	Toyota	VIOS 1.5 A/T	Green	MK-2544	120000	0000120	<input type="checkbox"/>
8	Benz	E-200 KOM	Silver	VV 8703	0000100	0000000	<input type="checkbox"/>
9	Nissan	Cefiro 2.0	Gold	VB-5033	-	223	<input type="checkbox"/>
10	Toyota	Altis 1.6 JWT-I	Gold	ZA 3827	-	341	<input type="checkbox"/>
11	Toyota	Altis 1.6 JWT-I	Gold	ZT-7913	-	243	<input type="checkbox"/>
12	Toyota	Altis 1.6 JWT-I	Gold	ZK-7783	-	107	<input type="checkbox"/>
13	KIA	Transport GS	Silver	OH-9788	-	235	<input type="checkbox"/>
14	KIA	Transport GS	Gold	OH-9787	-	123	<input type="checkbox"/>
15	KIA	Transport GS	Gray	OO-822	-	143	<input type="checkbox"/>
16	KIA	Transport GS	Sky Blue	OO-883	-	168	<input type="checkbox"/>
17	Toyota	Camry 2.4 EWTi	Gold	ZT-8339	-	289	<input type="checkbox"/>

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Figure E-9 Vehicle Maintenance Report (Backend)

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