

Chauffeur Service Management System

By

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Dissertation submitted in partial fulfillment of

the requirements for the

Bachelor of Technology (Hons)

(Business Information Systems)

JANUARY 2012

Universiti Teknologi PETRONAS

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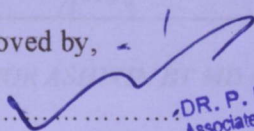
Perak Darul Ridzuan

A project dissertation submitted to the
Business Information System Programme
Universiti Teknologi PETRONAS
in partial fulfillment of the requirement for the

BACHELOR OF TECHNOLOGY (Hons)
(BUSINESS INFORMATION SYSTEM)

JANUARY 2012

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CERTIFICATION OF ORIGINALITY

The purpose of this research project is to improve the business performance of the effective service company specifically in Kuala Lumpur. Case study of one of the Cheafflex Service company in Kuala Lumpur called Alpha Sella Malaysia was taken where few problems had been identified such as conventional system of

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.



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ACKNOWLEDGEMENTS

ABSTRACT

The purpose of this research project is to improve the business performance of the chauffeur service company specifically in Kuala Lumpur. Case study of one of the Chauffeur Service company in Kuala Lumpur called Alpha Stella Malaysia was taken where few problems had been identified such as conventional system of receive and process the reservation by the customers, chauffeur and cars details not updated, no proper client records, and no specific place to cater customer feedback to improve the service. Therefore Chauffeur Service Management System will assist the Alpha Stella in improving their business efficiency as well as to improve the quality of service that they are provided. This web based system was developed using ASP.Net with the concept of Customer Relationship Management (CRM) and Management Information System (MIS). The result of User Acceptance test had shown that Alpha Stella customers agree that the usage of Chauffeur Service Management System will lead towards increase in Alpha Stella business efficiency and also the retention of the loyal customers. Besides Alpha Stella's customers, Alpha Stella's workers also agree that the system will assist them in lessen the work load and reduce time consuming. Furthermore, there were two main usability testing were conducted which covered the System Usability Testing (SUS) and Generic User Interface Questionnaire (QUIS). The result had shown that Chauffeur Service Management System is easy to navigate somehow the administrator and customer service still need the help of technical person in guide them in using the system. However, they are confidence in using the system and believe the system will help them in increasing the work efficiency and productivity.

ACKNOWLEDGEMENTS

Praise to Allah S.W.T, the most gracious and most merciful for giving me the strength and wisdom in completing this project. First and for most, I would like to express my gratitude to my supervisor, Dr. P.D.D Dominic for his understanding and professional ways in assisting and giving his encouragement, guidance, comment and ideas that are useful towards the development of this project.

I would also like to acknowledge with much appreciation the crucial role of Mr.Ali, the owner of Alpha Chauffeur service and also Ms. Sook Yin Accounting Manager in Alpha Client office Kuala Lumpur for giving me such a great assistance with regards to this project requirements and specifications.

Precious thanks to Zain Balfagih for assisting and teaching me the ASP.Net and guided me throughout the completion of the system. Thanks also to my friends and family for giving me a lot of supports.

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CHAPTER 1

1 PROJECT BACKGROUND

1.1 INTRODUCTION

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Target Market

Since Alpha is located in Kuala Lumpur, therefore the target market will be those MNC companies in Kuala Lumpur area.

1.2 CHAPTER 1 STATEMENT

1.2.1 Conventional system of receiving and processing the reservation made by

1 PROJECT BACKGROUND

1.1 INTRODUCTION

A chauffeur is a person employed to drive a passenger motor vehicle, especially a luxury vehicle such as a large sedan or limousine. (Chauffer, August 2011). This service is similar to a cab, or any other pick up service offered in the market. Chauffeur service help carry passengers that have different needs be it in business purpose or leisure. For this final year project, I chose one of the Chauffeur Service Company in Kuala Lumpur, Alpha Stella Malaysia Sdn Bhd (Alpha) as my case study. Alpha Stella is located in Taman Mida Cheras Kuala Lumpur and had established more than 10 years in the service industry. The problems that the Alpha faces currently will be the source of my references in completing this project.

1.1.1 Business Concept of Alpha:

Service

Alpha is a company that provides the customers with the chauffeur plus the pick-up service. The service given will be mainly focusing on corporate customers for any events related to business needs and any other important engagement.

Target Market

Since Alpha is located in Kuala Lumpur, therefore the target market will be those MNC companies in Kuala Lumpur area.

1.2 PROBLEM STATEMENT

1.2.1 Conventional system of receiving and processing the reservation made by the customers.

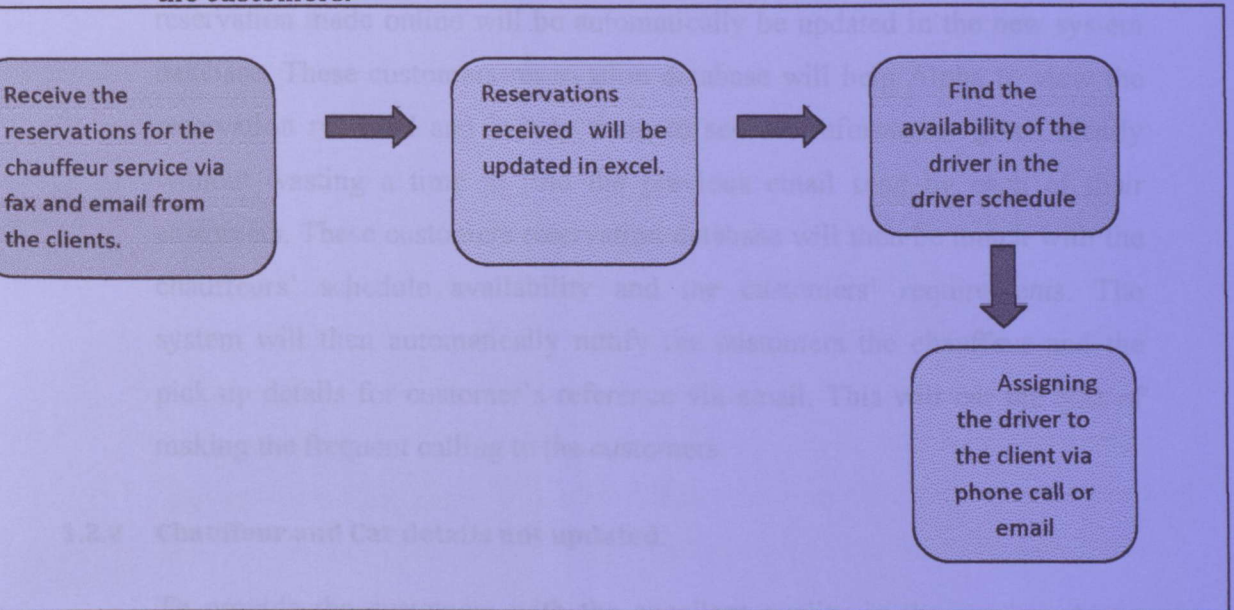


Figure 1-1 Alpha Current reservation Process Flow

In order to increase customer satisfaction and reduce the cost, Alpha needs to have a proper reservation system that can cater customer needs as well as to fasten the process of reservation itself. Right now, Alpha is still using conventional system to process all the reservations made by their customers. Using email and paper forms will slow down the process since the information received can be too minimal or the information given in an email or the paper forms can be too much and messy. If Alpha continues to have the same conventional process flow, they will bear the consequences of wasting time and money since they have to make a lot of phone calls to their customers for confirmation of the reservation details. Also, overlook on certain information especially the time and location will lead to lose loyal customers especially corporate customers who need to attend for important business meeting.

Proposed Solution:

The reservation webpage will be created for the customers in anytime they need to use the service. The reservation form online will have standard format

for the customers to fill in. This standard format will help Alpha to fasten the process of receiving and process the reservation for the customers. The reservation made online will be automatically be updated in the new system database. These customers reservation database will help Alpha to view the reservation received and it help them to see the information given clearly without wasting a time to find the previous email send by each of their customers. These customers reservation database will then be match with the chauffeurs' schedule availability and the customers' requirements. The system will then automatically notify the customers the chauffeur and the pick-up details for customer's reference via email. This will cut the cost of making the frequent calling to the customers.

1.2.2 Chauffeur and Car details not updated.

To provide the customers with the excellent quality in the service, Alpha needs to have efficiency in managing the whole business operation. The current management process in the Alpha is not organized where after the availability of the chauffeur was checked, the task of assigning the chauffeur to the customers is simply base on the random pick. There are no proper database of chauffeur and the cars' details being recorded. The details of the chauffeur that consist of their driving license, phone number, ID and their full name been recorded in the log book and it goes the same to all the cars that they have. Without proper database of the chauffeur and the cars' details, it will lead to wrong information given to the customers. Wrong information given such as the name and the phone number of the chauffeur will then cause the customers a bunch of troubles as they might fail to contact the chauffeur responsible to pick them up. This eventually led them to be late in the meeting or missed the flight for their business purpose. The chances of the Alpha losing their loyal customers are high and lessen the chances to have potential customers. The failure to update the details of the car such as date of service and the condition of the car may cause unforeseen circumstance like car broke down which lead customers unable to be in their important meeting right on the time.

1.2.4 No specific place to cater customers' complaint to improve customer service.

Proposed Solution:

The new system will provide the module of cars' maintenance and the chauffeur's details for the Alpha to manage their business operation. All the data of the chauffeur and the cars will be recorded in the database and should be any changes or new information received, Alpha will update in the system. This updated information will assist Alpha to keep track all the cars that need to be serviced or car that need to be replaced. This automatically will fasten the process of making decision to purchase the new car. Also, whenever Alpha updated the information of the chauffeur in the database, the system will automatically update it in the website. This will help in contributing to a quality service as the customers can always refer to the latest information of the chauffeur on the website.

1.2.3 No proper client records.

In order to serve customers with a good quality service and gain revenue from the loyal customers, Alpha needs to keep tract of its customers' records. Somehow right now, the records of the customers is being kept in excel format where information of customers can be redundant. Besides that, it's very hard to update and retrieve the information of the customer information using excel.

Proposed Solution:

The new system will provide Alpha with the customers' database to help Alpha increase its business performance.

1.2.4 No specific place to cater customers' complaint to improve customer service.

1.3 PROJECT OBJECTIVES

1.3.1 General Objective

Retaining the loyal customers and find a potential customers will help Alpha in making revenue and increase their profit margin. In order to retaining the loyal customers, Alpha needs to attain customers' complaint whenever they receive any and improve their weaknesses. Somehow currently Alpha has no specific place for them to cater all the complaints received. Most of the time customers will send an email to make a complaint. Even there are courtesy and prompt replies from the Alpha; somehow due to the ongoing email received per day, the tendency to overlook some of the complaint is high. When customers' complaints are being ignored by the Alpha, the chances to lose customers are high. This will then affect the business operation. When the business is down and decreasing in the number of the customers, Alpha will still have to bear the expenses of sending the cars for service. The costs are higher than revenue and eventually it will affect the profit margin.

Proposed Solution:

The new system will provide the customers with the specific place for them to throw their complaints to Alpha. All of these complaints will then be kept in the database. By having this, it's easy for the users to keep track and reply to complains promptly. Then there will be customer satisfaction survey send to the customers for their feedback. Answers will be kept in database, and statistical analysis will be produced for management reference. If customers click satisfied, the system will create a link where customers can make a recommendation of Alpha service to their friends. This recommendation records will be kept in the database and statistical analysis will be produced to see the numbers of potential customers that Alpha could have.

1.3 PROJECT RELEVANCY

1.3 PROJECT OBJECTIVES

1.3.1 General Objectives

The main objective of this project is to produce a chauffeur service management system to assist Alpha Stella Malaysia's business operation that will be handled by customer service and administration or management using customer service relationship (CRM) and Management Information System (MIS) concept.

1.3.2 Specific Objectives

- To design web base application which combine the use of Management information system and Customer Relationship Management concept for Alpha for administrator usage.
- To design a website for Alpha which include reservation online for customer usage.
- To improve Alpha Chauffeur Service Company business performance which includes management efficiency, increase in quality service as well as increase customer satisfaction.
- Developing the designated system.
- Testing the prototype so that it can suit everyone within the organization.

1.4 PROJECT SCOPE

The study geographically limited itself at the Alpha Chauffeur Service Company Kuala Lumpur. It focused more on the reinstate the conventional manual business operation with the usage of Management Information System (MIS) and Customer relationship Management (CRM) in the web system concept. The system will also be made as so to meet all the objectives stated earlier.

1.5 PROJECT RELEVANCY

The objective of Chauffeur Service Management System is to improve the business operation performance of Alpha Chauffeur Service Company in terms of its management and customer service. The significance of this project towards Alpha Chauffeur Service Company are:

- Increase in service quality (time efficient, and increase productivity of employees) as well as increase customer satisfaction which will create customer retention.
- Revenue will be increased since the new system will help Alpha in reducing the cost of making a call, cost for paper usage and also cost of maintaining a car.

1.6 FEASIBILITY STUDIES

1.6.1 Technology and system feasibility

Name of personnel that handle the project:	Skills
Nor Ashikin Bt Md Nor	Business Analysis, Database management, System Development.

Table 1-1: Developer details

The system will include several modules which are reservation, Chauffeur’s Schedule, Chauffeur’s records, Cars’ records and Feedback analysis.

There will be large number of data taken from the former system and all data in the new system will be updated on daily basis especially on the reservation and every two weeks on the other modules.

With 1 semester experienced in learning Visual Basics and Internet programming, I decided to use ASP.NET and HTML, XML to build the system and Microsoft Access as a database. ASP.NET provides the easiness in build the web based application, the function more or less similar to combination of Visual Basic and HTML.

The experienced in handling the reservation of the chauffeur’s service, therefore given me the advantages of familiarity with the functional area. The improvement of the business will be guaranteed as there will be less chances of misunderstanding the users’ requirement.

To create familiarity with the new system to the users, training will be conduct for free and user guideline also will be provided. Therefore there will be fewer chances in delaying the usage of the new system. The usage of the data from the current system will help to run the new system smoothly.

1.6.2 Economic Feasibility

Economic analysis is the most frequently used method for evaluating the effectiveness of a new system. More commonly known as cost/benefit analysis, the procedure is to determine the benefits and savings that are expected from a candidate system and compare them with costs (Wikipedia, 2011). Below is the cost and benefits for the Chauffeur Service Management System:

Benefits	
Increase sales	150,000
Improved customer service	50,000
Reduced inventory costs	10,000
Potential customers	20,000
Total benefits	230,000
Development Costs	
Hardware	2500
Visual Basic Software	2495
SPSS	2000
Research	250
Total development costs	7245
Operational costs	
Hardware	8300
Software	3211
Operational labor	15,000
Total operational costs	26,511
Total costs	33,756

Table 1-2 Cost-Benefits Analysis

1.6.3 Operational feasibility

Operational feasibility is a measure of how well a proposed system solves the problems, and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development. (Bentley, L & Whitten, J, 2007)

1.6.3.1 Internal Issue

Since the existing problems in the Alpha lead to the higher chances of losing their loyal customers, therefore the solutions that I came up will help in assisting the business to improve their operation as well as their management.

The users of this system will be those who are not IT savvy, therefore the level of acceptability will be low. Somehow to overcome the problem, I will provide free training to them as well as the user manual as a guideline in using the new system. All the drivers will be briefed on this new system and how they will be assigned to the customers based on the system.

1.6.3.2 External Issue

The client of Alpha will be notified earlier with the reservation online that they can make through the Alpha website. It is assume that the level of acceptability is high since most of them are IT savvy and new system will benefit them in receiving quality service.

1.6.4 Market feasibility

The target markets for this system are those companies that run the chauffer's service in Kuala Lumpur. Based on my findings, the chauffer's service in Kuala Lumpur still using the conventional system in their business process, by all

means the usage of paper works are massive. This system will help them in cutting the usage of paper work and systemize the whole business operations to increase the efficiency.

CHAPTER 2

2 LITERATURE REVIEW

The review of Chauffeur Service Management System covered the literature on Management Information System, Customer Relationship Management, Web Based Management Information System and Customer Relationship Management, and lastly Quality Service and Customer Satisfaction.

The first three terms are interrelated to the Chauffeur Service Management System that I'm about to develop for the Alpha Chauffeur Service Company. And the last terms which are quality service and customer satisfaction are the outcome that Alpha Chauffeur Service Company will achieve from Chauffeur Service Management System usage.

2.1 Management Information system

Management Information System (MIS) usage in the business can be seen as very crucial as technology evolve. The implementation of MIS in the business helps in increasing business efficiency and effectiveness which could lead towards reduction in business operational cost as well as increase in quality service.

According to Laudon and Laudon (2002), MIS was a key to planning, controlling and decision making for management through transaction processing of systems for the data.

Research by Fredrick (n.d) stated that MIS will enhance the quality of services provided, improve data systems and automate all the originally manual operation.

In other research, Connolly and Begg (2001) stated that the usage of Management Information System Software system making information easier to operate automatically.

Therefore, the usage of MIS in replacing the conventional manual system in the business will increase the efficiency, effectiveness, time saving, reduce cost, increase quality service and improve reliability.

2.2 Customer Relationship Management (CRM)

Customer is the important element in running a business as well as the key determinant of how successful the business is. Business will gain profits from the customers, therefore all the business whether in selling services or actual products work hard to improve their relationship with their customers.

According to AkshayJaipuria (n.d), extended relationships with the customers will give the significant impact on transaction cost, profitability, and customer lifetime value. Peelen (2005) agreed that organizations intention of CRM usage is to increase revenue and profit as well as to improve customer satisfaction.

Therefore, business needs to come out with a strategy to improve their after sales service in retaining their loyal customers as well as create the potential customers in order to improve their profit margin.

One of the best strategies is to implement the customer relationship management system (CRM) in a business.

According to Wahab et.al (2011), CRM is an IT-enabled business strategy that leads towards profitability optimization, revenue and customer satisfaction by organizing around customer segments, fostering customer satisfying behaviors and implementing customer-centric processes. CRM provide strategic advantage of customer loyalty to the business. (Illia et al. 2006).

CRM will help the business to keep track customers' after sales service feedback to increase customer satisfaction. By having CRM, business not only improves

their relationship with the customers, they also have higher chances in retaining the loyal customers, as well as create potential customers.

2.3 Benefits of integrated Customer Relationship Management (CRM) and Management Information (MIS) System in a web based system.

Internet and Intranet is one of the opportunities that help business to grow. Internet helps business to connect with their customers, while intranet helps to make connection within the company itself. These two technologies are web based system. By having this web based system, the sharing and exchange of information can be faster. It's not only increase time efficiency, it also helps to reduce cost and boost the efficiency of business operations.

Enrado (2000) said "web-based system should be an easy-to-use system that provided Web-based access for all staffs, rules-based, entry of preferences and viewing of data, credential management, and ability to retrieve information" and Mugoya (2006) stated that organization will benefits in easier to produce presentation as well as speeding time in getting required reports.

Web based MIS and CRM help to retrieve information faster which will lead towards increasing in efficiency level of business management as well retention of customer loyalty in a business.

According to (Joch, 2000 ; Johnsson et al., 2002; Lee et al., 2001; Oddi et al.(2000), minimization of report delayed through better Management Information System was directly related to managers satisfaction, which was always an important criterion for organizations administrators.

Research by Body & Limayem (2004) illustrated that the use of Web site characteristics to strengthen existing CRM can increase businesses loyalty to each other. The Web site characteristics such as the level of presence on the Internet and the level of interactivity on the Internet can support the formation and maintenance of CRM because they facilitate the way organizations understand customer expectations, partner, build relations with customers, interact, empower and personalize to create loyal customers.

In other research on CRM, Avlotinis & Karayanni (2000); Geysken, Gielens & Dekimpe (2000) stated that enhance informational communication capabilities of the web base can be used as a business channel which lead to the development of more effective CRM.

2.4 Website usability in improving business performance

The usage of website in the business is becomes widely in this century. Website is one of the marketing tools that help business improve their business performance.

According to Acharya, Kagan, Lingam & Gray (2008), many businesses are now using Internet websites as a competitive tool to attract new customers, improve service quality, and boost overall financial performance.

The website usability play the important role in determines business performance. Certain criteria such as website interface design, reliability, and responsiveness should be considered in developing effective website. The website that I'm about to develop contains these criteria.

Davis (2000), agreed that more usable website can attract and retain customers in the long-run thereby increasing revenues, reducing customer support costs, and increasing profits.

2.4.1 Interactive Interface Design

Interactive design of the website will attract user and create more traffic. Research by Riel, Semeijin, Pauwels (n.d) illustrated that the way information is

presented, in terms of color use, layout, number, relevance and quality of pictures, font size and style will affect the way customers respond to the service.

Many empirical studies have found the significant effects of website design quality on consumers 'trust (Cyr, (2008); Lowry et al., (2008); Vance et al., (2008)) and satisfaction (McKinney & Yoon, (2002); Shim et al., (2002); Cheung & Lee, (2005); Wixom & Todd, (2005)). Therefore it is important for the developer to work hand in hand with the business person to understand the business functions as well as their customers to develop interactive interface website design.

2.4.2 Responsiveness

One of the aspects in the responsiveness factor is "gives prompt service". The amount of time it takes to download a Web page appears to be of great importance to the users of the Internet. (Iwaarden and Erasmus, 2002)

The level of responsiveness therefore plays the role in attaining customers' feedback. According to Cox and Dale (2002), when delays exceed 12 s, a staggering 70 percent of users leave a Web site.

The online customer is relatively powerless in enforcing help, having to rely on the willingness of the firm to provide support. The faster and more accurately a provider responds to requests, the better the service will be evaluated. (Riel, Semeijn, Pauwels, n.d)

2.4.3 Reliability

As website represent the company, therefore most of the time customers will depends on the information available on the website. Information as well as the online service should be reliable to create customers' trustworthy.

According to Iwaarden and Erasmus (2002), if customers cannot trust an organization to do what they ask, those customers will be dissatisfied.

The process aspect of reliability perceptions is driven by the correct technical functioning of the site, or the technical aspects of the user interface, while the outcome aspect is defined by the accuracy of service promises, billing and product information (Zeithaml et al., 2000).

Kim et al., (2003) also stated that the effectiveness of the websites consists of reliability of the website and the response time

2.5 Quality service and Customer Satisfaction

Chauffeur service industry is growing from time to time. It can be seen as the potential businesses as the numbers of expatriates are working in MNC companies are increasing day by day.

Multinational corporations from more than 60 countries have invested in over 3000 companies in Malaysia's manufacturing sector, attracted by the conducive business environment which has resulted in the country being one of the most prominent destinations for manufacturing and service based operations. ("Multinational Companies in Malaysia", 2009)

These are the corporate customers that need to be served since most of them depend on the chauffeur service to carry them in the important engagement. Therefore quality in service can be seen as something crucial in this business.

According to Gronroos (2000), services, by definition, are intangible and easily duplicated. They can be divided into high-touch or high-tech services. High-touch services are mostly dependent on people in the service process producing the service, whereas high-tech services are predominantly based on the use of automated systems, information technology and other types of physical resources. However, one should always remember that high-touch also includes physical resources and technology-based systems that have to be managed and integrated into the service process in a customer-oriented fashion.

Service quality has been recognized as having the potential to deliver strategic benefits, such as improved customer retention rates, whilst also enhancing

operational efficiency and profitability (Cronin, 2003; Rust et al., 2001; Zeithaml, 2000).

AlHawari and Ward (2006) stated that service quality impacts on customer satisfaction.

According to Conklin (2006), customer satisfaction is tied directly to profitability. Customers tend to be loyal if they are happy. Well-established research by Bain & Company found that, for many companies, an increase of 5% in customer retention can increase profits by 25% to 95%. The same study found that it costs six to seven times more to gain a new customer than to keep an existing one.

Customer satisfaction is seen as a key differentiator and increasingly has become a key element of business strategy (Lawrence and McDaniel, 2005).

Therefore it is important for Alpha Stella chauffeur service to improve their quality service in order for them to increase customer satisfaction towards their service that will lead towards customer retention and increase in revenue.

2.6 Public transportation usage in Kuala Lumpur

Public transport is been widely used in Malaysia especially in busy state like Kuala Lumpur. Due to busy traffic in Kuala Lumpur, people tend to choose to commute to work or any places using public transportation. According to myGovernment (2011), Public transport in Kuala Lumpur and the Klang Valley covers a variety of transport modes such as bus, rail and taxi.

- **Bus transport**

- RapidKL Bus
- CityLiner
- Len Ngiap
- Len Seng
- Mega Coach
- Metrobus

- Selangor Omnibus
- SJ Bus
- Sri Indah/RM Transport
- Transnasional/Kelang Banting
- Triton
- KL Hop On Hop Off Bus
- Rail transport, including
 - RapidKL Rail
 - Kelana Jaya Line
 - Ampang Line
 - KTM Komuter
 - Rawang-Seremban Route
 - Sentul-Port Klang Route
 - KL Monorail
 - Express Rail Link (ERL)
 - KLIA Ekspres
 - KLIA Transit
- Taxi transport
- Other intercity services

However there are still problems occurred related to the public transportation in Kuala Lumpur.

According to Jamesesz (2009), the real problem in Kuala Lumpur is the planning and management of the system. Location of the LRT is not convenience and bus stops are not in the place where crowds should be and overhead bridges on the other hand are build at wrong locations and poorly maintained.

Nasir (2010) in his research said “although Klang Valley is Malaysia’s most prominent conurbation where the economic activities are the most active and the population enjoys the highest quality of life in the country, the same cannot be said about the public transport system.”

2.6.1 Taxi

It is easy to find taxi in Kuala Lumpur area. Those who are living in the area where other public transportation cannot be found chose to have taxi service as a medium of the transportation. Taxi service provides their customers with on call service where customers may call and book the taxi to go to their destination or they can just flag since many taxis will pass by the road.

Somehow, taxi service offered in Kuala Lumpur mostly lack of hospitality, unethical and they don't use standard pricing compared to the chauffeur service. There have been many incidents of taxi drivers charging extravagant fares, especially among tourists. (Wikipedia 2011).

Adam 2011 in his article "Taxis in Kuala Lumpur Malaysia" agreed that taxi drivers in Kuala Lumpur are lazy and dishonest in terms of charging the customers without using a standard charge rate and meters.

2.6.2 Bus

There are many public bus operators in Kuala Lumpur namely Metrobus, Selangor Omnibus, Len Seng, Transnasional/KenderaanKlang-Banting, Triton, PermataKiara and newly is RAPIDKL. Most of the public busses in Kuala Lumpur are old and lousy. The existing of RapidKL buses however has change the perception of the public bus since it has provide the passengers with the good condition of the busses and much comfortable than the other public busses in Kuala Lumpur. RAPID stand for Rangkaian Pengangkutan Integrasi Deras Kuala Lumpur Sdn Bhd) took over the operations of the two main bus operators, Intrakota and Cityliner. (Wikipedia, 2011)

Even though the existing of RAPIDKL has overcome the weaknesses of public bus condition, somehow RAPIDKL bus cannot cater the amount of passengers due to the demand of the passengers to use RAPIDKL bus as medium to commute compare to other public busses operators. This will lead to additional waiting time plus the traffic congestion. According to Wikipedia (2011), passengers have complained that RapidKL is not in time which leads them to switch to other public bus operator. Barter (2004) in his research stated that,

buses are also vulnerable to traffic congestion although bus priority has been tried several times in Kuala Lumpur, somehow it has not been strongly pursued.

2.6.3 Train

Jamesesz (2009), in his article “The main problem with Kuala Lumpur” stated that Kuala Lumpur traffic problem is caused by the many private transport on the road since the main way to travel from one destination to another is by driving. However, commute by train is the alternative to avoid getting trapped in traffic.

According to Wikipedia (2011), Kuala Lumpur's rail-based transit system consists of two Light Rail Transit lines (rapid transit), one monorail line, two commuter rail systems consisting of four lines, and an airport rail link.

- Light Rail Transit lines operated by RapidKL Rail:
 - Kelana Jaya Line
 - Ampang Line
- The sole monorail line known as the KL Monorail.
- commuter rail lines:
 - Sentul-Port Klang Route, KTM Komuter
 - Rawang-Seremban Route, KTM Komuter
 - Rawang-Tanjung Malim Route, KTM Komuter
 - KLIA Transit, commuter rail service with three additional stops to Kuala Lumpur International Airport, operated by Express Rail Link (ERL)
- KLIA Ekspres, non-stop service to the airport, operated by Express Rail Link (ERL)

Even though commute by train can help the passenger to get away from the traffic, somehow passengers have a problem of lack of integration between the lines. There are only two stations that cater to the integration problems which are KL Sentral and Bandar Tasik Selatan. Somehow these two stations are not covering certain areas in Kuala Lumpur. According to Wikipedia (2011), different companies operated the various systems and having developed them separately at different times. As a result, many of the lines do not integrate well,

making transferring from system to system inconvenient for passengers. Moving from one system to another often require a lot of walking, stair-climbing, escalator-use and even crossing busy roads.

This can be supported by TripAdvisor (2011) in the article “Kuala Lumpur: Public Transportation” where it stated that even train system in KL is fairly modern and efficient however many of the lines do not interconnect and there is limited integration between the lines.

Based on the problems that have been highlighted above regarding the public transportation in Kuala Lumpur, therefore it is more reliable, comfortable and efficient enough for the MNC employees to use the service of chauffeur service.

3.1.1 Features of the population

The population for this research are the 120 consultants from Alpha Client which one of the MNC located in Kuala Lumpur that use the chauffeur services from the Alpha.

3.1.2 Sample Selection

Sample is selected using the random sampling method. From the 120 of consultants in Alpha Client office, 30 of sample will be picked randomly.

3.1.3 Methods of data collections

For this project's research, I will use both primary and secondary sources to examine the success of the Chauffeur Service Management system. Data collection methods consist of:

- Distribution of questionnaire to the 30 random sample from Alpha Client office that are using the chauffeur service. The design

CHAPTER 3

3 METHODOLOGY

For this project to be successfully completed, the survey and interview has been conducted to measure the suitability and effectiveness of the system and the website to the target group. There were two surveys conducted, first was the user acceptance survey (before development of the system). Second survey was conducted after the system had been 70 % completed.

3.1 User Acceptance research

In this survey, 50 respondents from the Alpha Stella Malaysia's client workers were been selected randomly to answer the questionnaires regarding the service that they receive from Alpha Stella and also their feedback towards the system that about to be built.

3.1.1 Features of the population

The populations for this research are the 120 consultants from Alpha client which one of the MNC located in Kuala Lumpur that use the chauffer services from the Alpha.

3.1.2 Sample Selection

Sample is selected using the random sampling method. From the 120 of consultants in Alpha Client office, 50 of sample will be picked randomly.

3.1.3 Methods of data collections

For this project's research, I will use both primary and secondary sources to examine the success of the Chauffer Service Management system.

Data collection methods consist of:

- Distribution of questionnaires to the 50 random samples from Alpha Client office that are using the chauffer service. The design

of the questionnaires will be the combination of the open and close ended questions. The accuracy and reliability of data is ensured by the factors below:

- **Clarity:**

To avoid respondents misinterpreted while filled in the questionnaires, it is important to have a clear, succinct and unambiguous question in designing the questionnaires.

- **Minimize Bias**

In order to have sincere answer from the respondents, the question will be designed as private as possible. The information of my client which is "ABC" will be hidden from the respondents.

- Interview with some of the workers in Alpha chauffeurs Service Company that handles the reservation and also the drivers.
- Secondary data will be obtained from the website related to the effective website usability in improving business performance, database design and management, user adaptability towards system complexity, quality service, customer satisfaction and chauffeur service.

3.2 Usability Testing

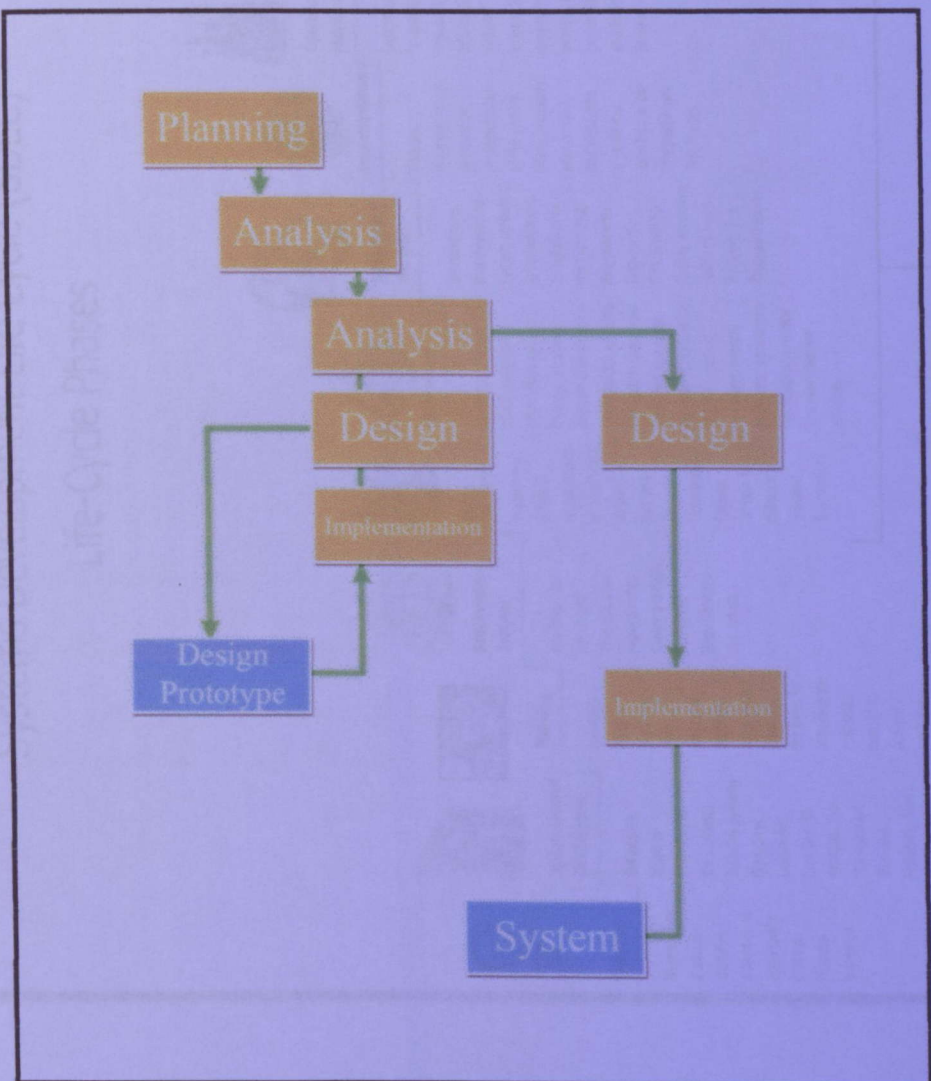
This survey was called usability testing. 4 workers from Alpha had been chosen to test the system and another 11 respondents are randomly picked students from Universiti Teknologi Petronas (UTP) to test on the website that I had created. The reasons why I chose students from UTP to be part of my respondents are because to combine the IT literate and Non IT literate users to help in comparing the different feedbacks in determined the effectiveness of this web system.

This usability testing consists of two parts which are general view of the website and the web system, and another part is the questions specifically made for the

user of the web system and the website. Since the Chauffeur Service Management System consist of 3 users: Alpha Stella's customers who will use reservation online and make the after sales feedback, Customer Service who will handle the reservations coming in and to cater to all the customers feedback given, and lastly is the administrators who will handle all the administration job which consist of reporting and finance.

3.3 Project Activities

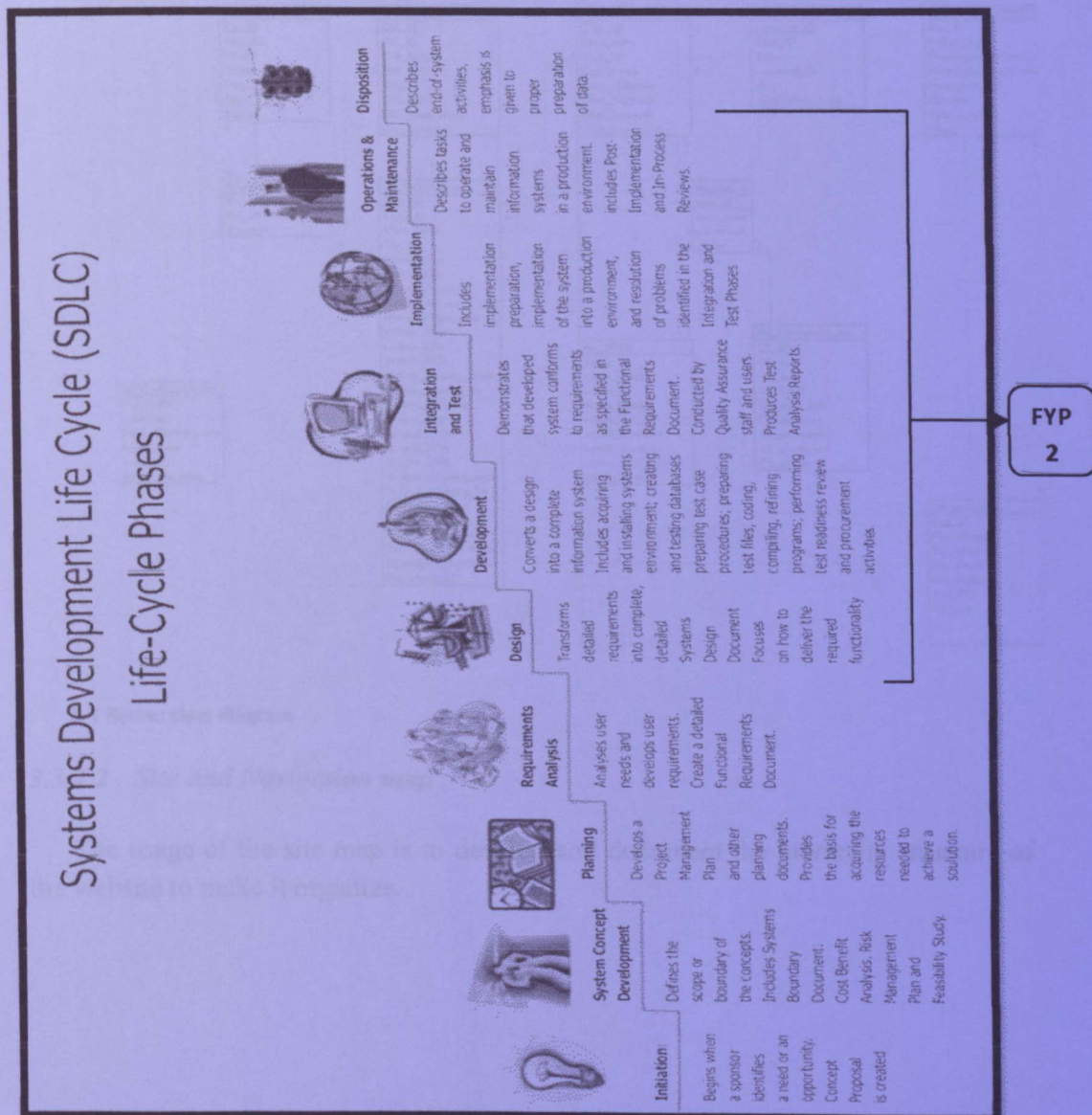
Throwaway prototyping-Based Methodology



3.2 Throwaway prototyping methodology is similar to prototyping methodology which it included the development of the prototype. The only different is that, in throwaway prototyping, the prototypes are done at a different point of System Development Life Cycle. For this Final Year Project 2, I emphasised on the design Development, Integration and Test, Implementation and Operations and Maintenance phase.

3.3.1.1 Database Design

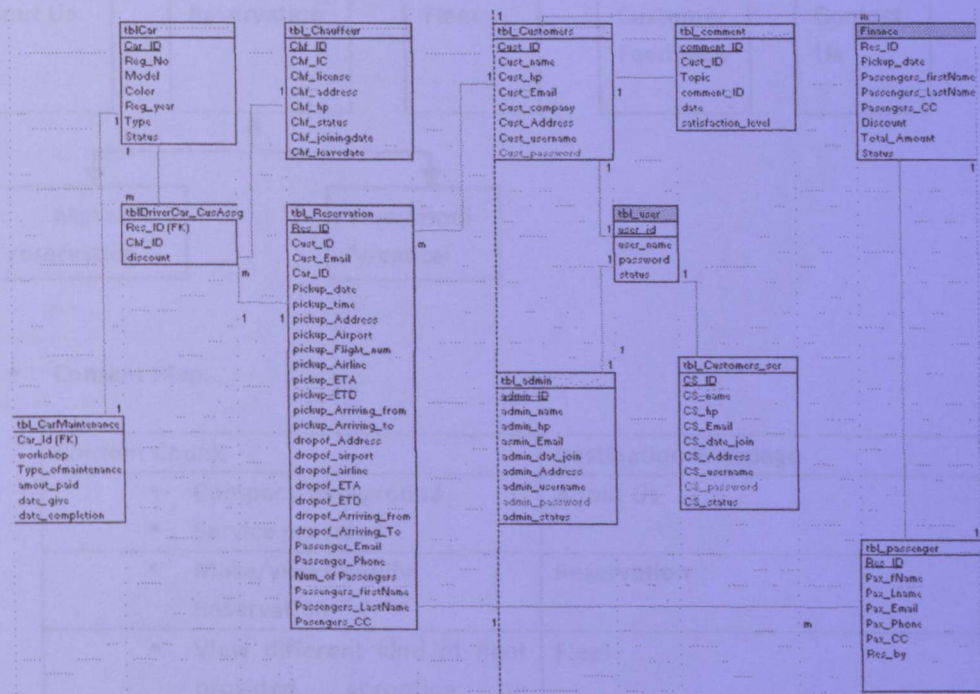
System Development Life Cycle (SDLC)



3.3.1 Design

Creation of design was more focuses on interface design and data design. There are three users for the website that I had created which are Alpha’s customers, Alpha’s customer service and Alpha administration. Therefore, each interface will look different for each user.

3.3.1.1 Database Design

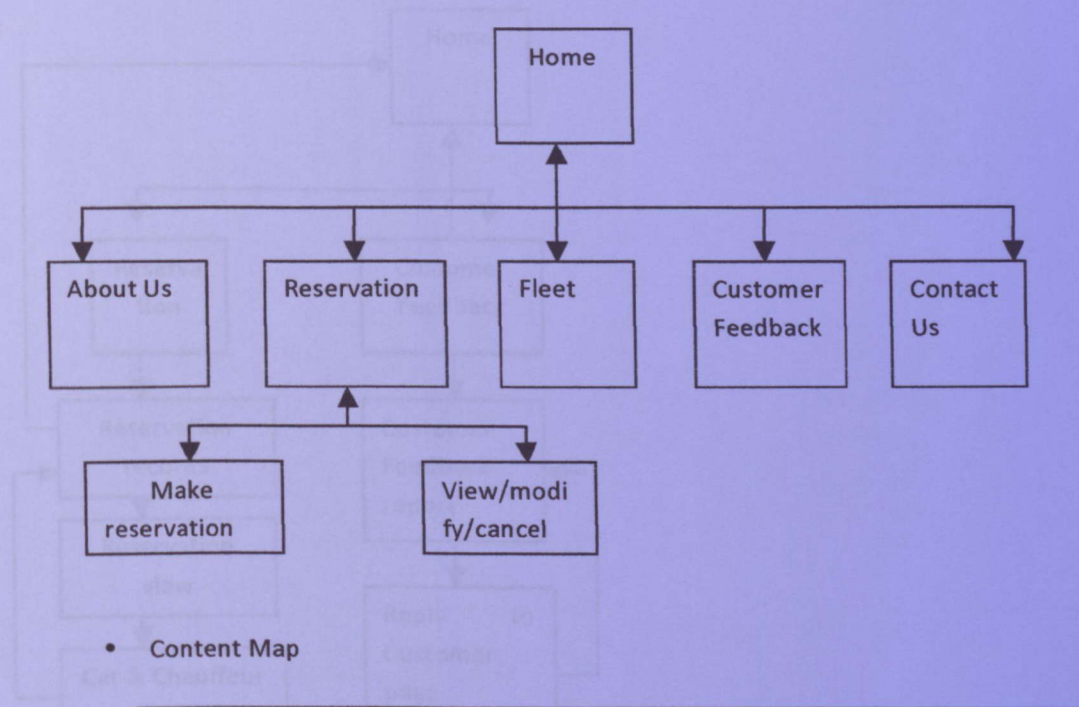


3-1 figure: class diagram

3.3.1.2 Site and Navigation map

The usage of the site map is to develop and document the hierarchy structure of the website to make it organize.

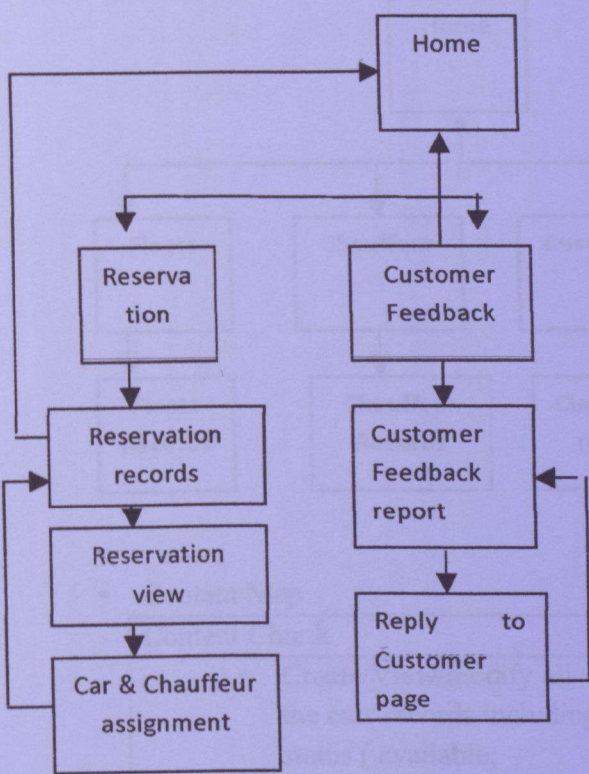
3.3.1.2.1 Alpha’s Stella Website for customers



• Content Map

Content Chunk	Destination Webpage
<ul style="list-style-type: none">• Company Background• Service provided	About Us
<ul style="list-style-type: none">• Make/view/modify Reservation	Reservation
<ul style="list-style-type: none">• View different kind of fleet provided according to number of passengers	Fleet
<ul style="list-style-type: none">• Space where customers can give feedback on the service provided by the Alpha	Customer Feedback
<ul style="list-style-type: none">• Contact information	Contact Us

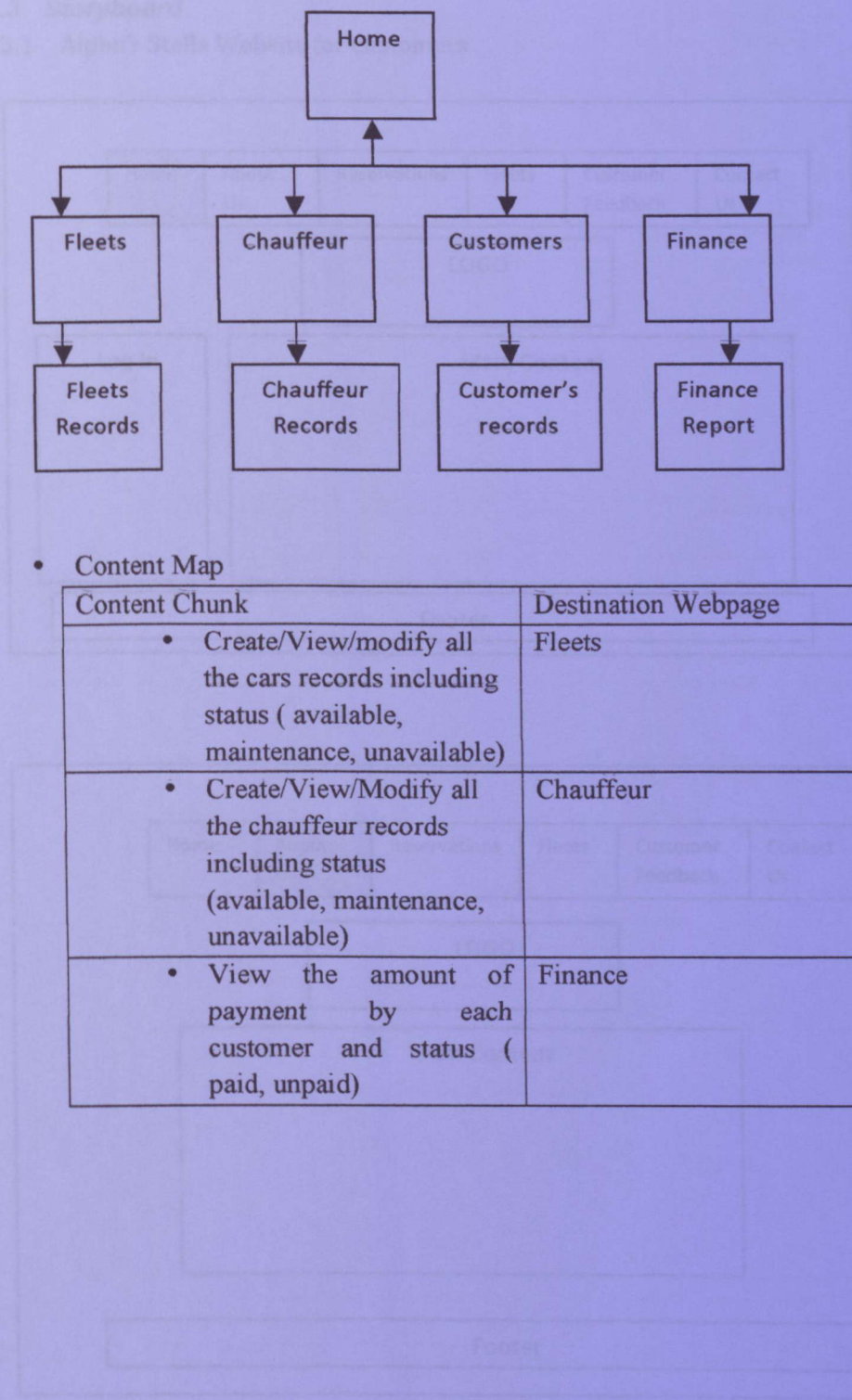
3.3.1.2.2 Customer Service Website system



• Content Map

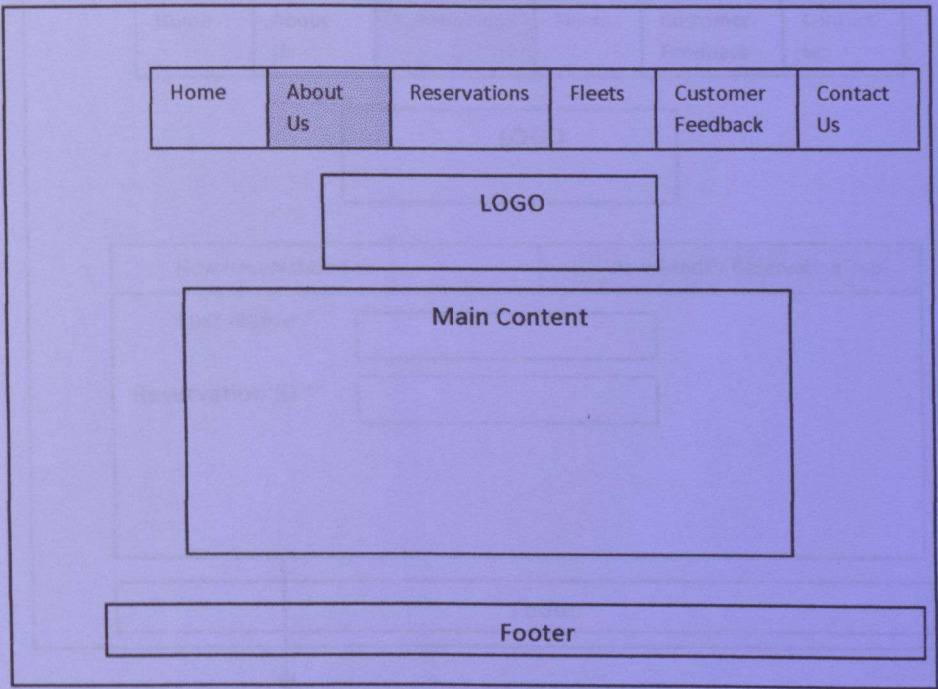
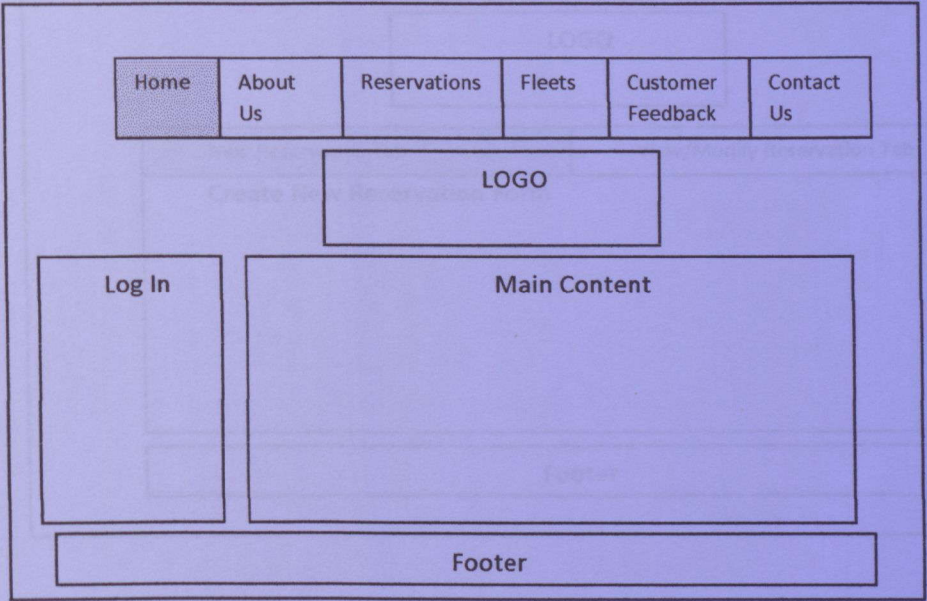
Content Chunk	Destination Webpage
<ul style="list-style-type: none">• Can view reservation made by the customers• Assign car and chauffeur to customer based on the reservation records	Reservation
<ul style="list-style-type: none">• View customer complaints• Reply to customer complaints	Customer feedback

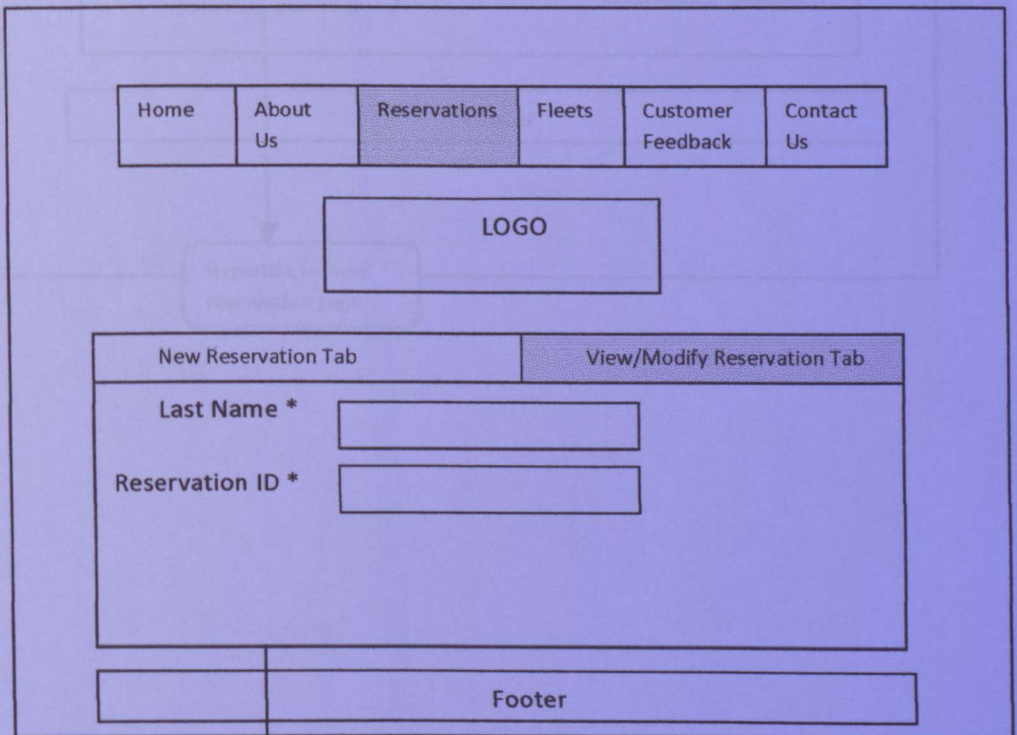
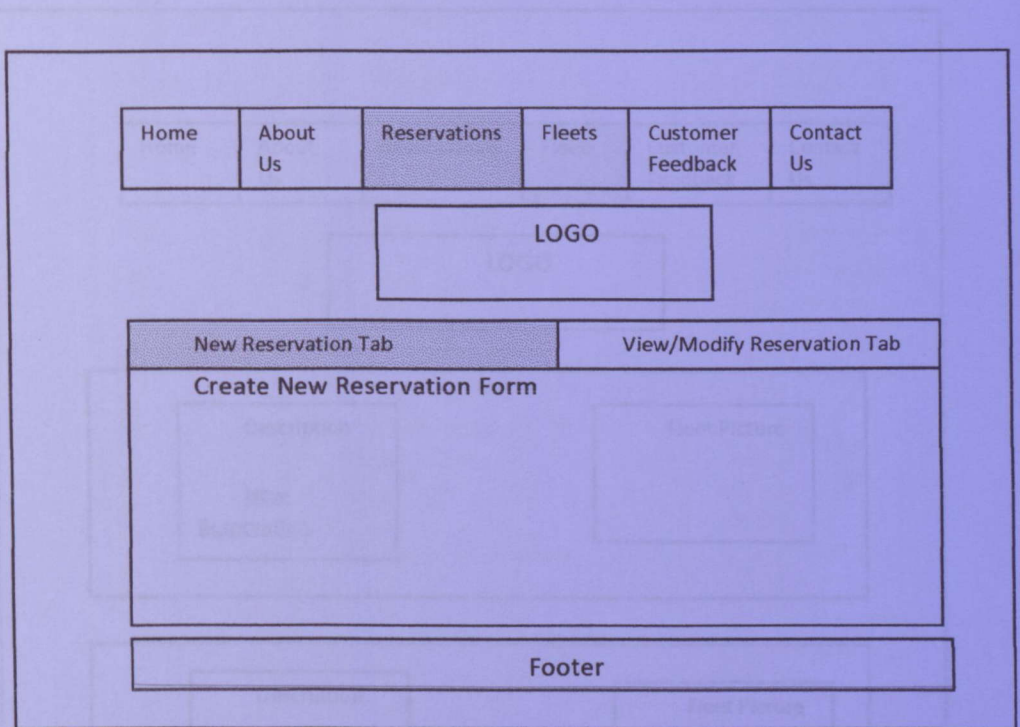
3.3.1.2.3 Administration website system



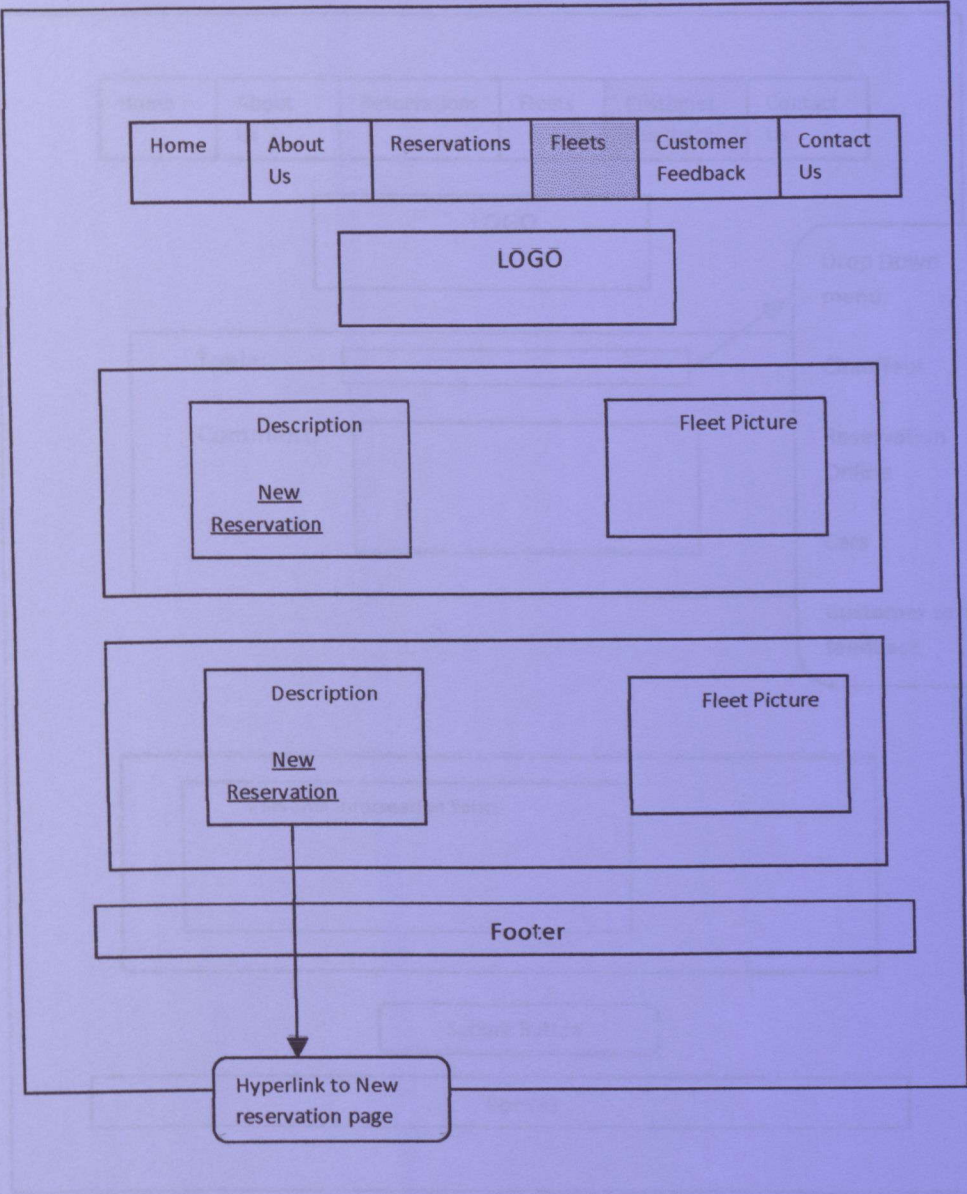
3.3.1.3 Storyboard

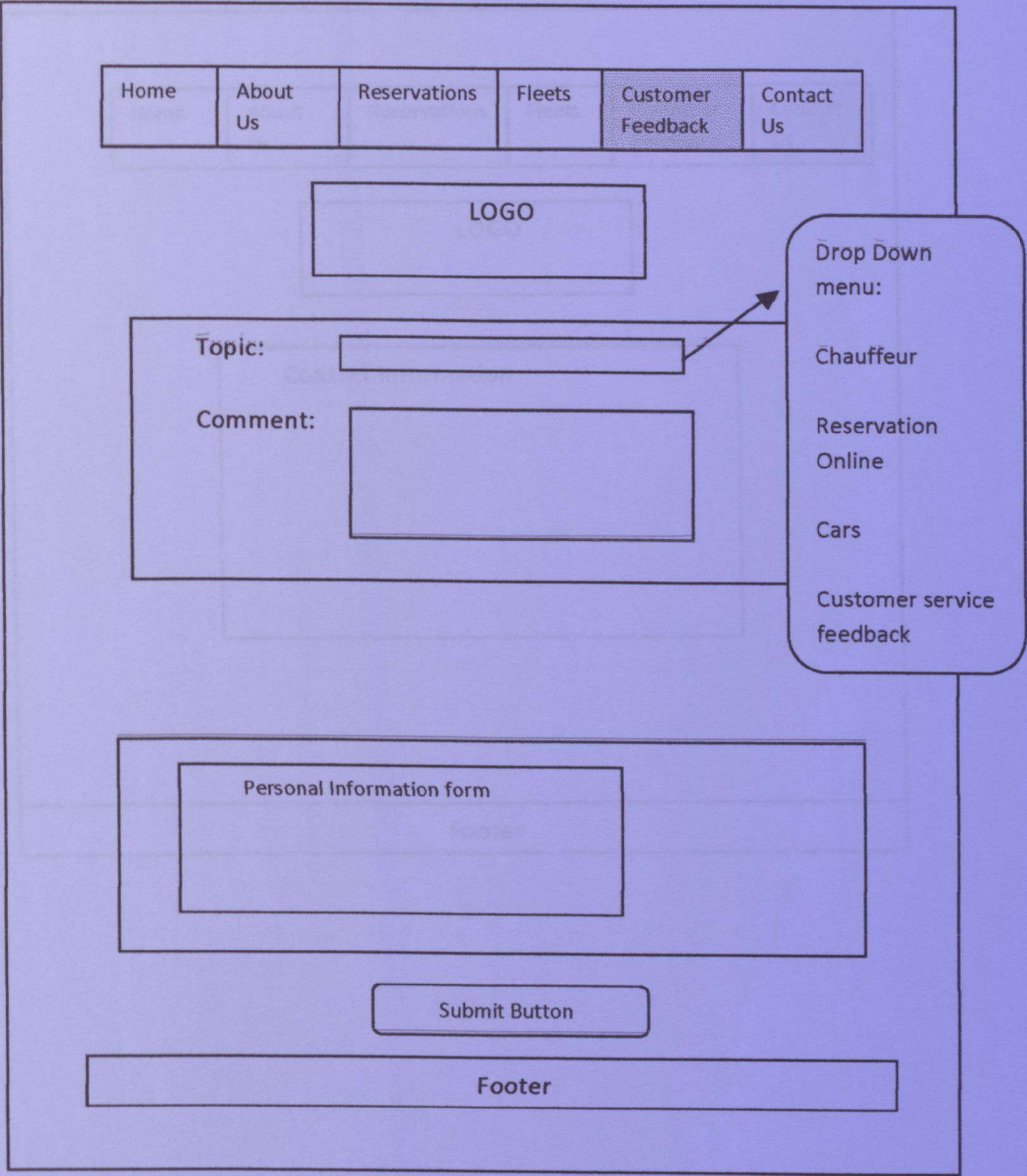
3.3.1.3.1 Alpha's Stella Website for customers

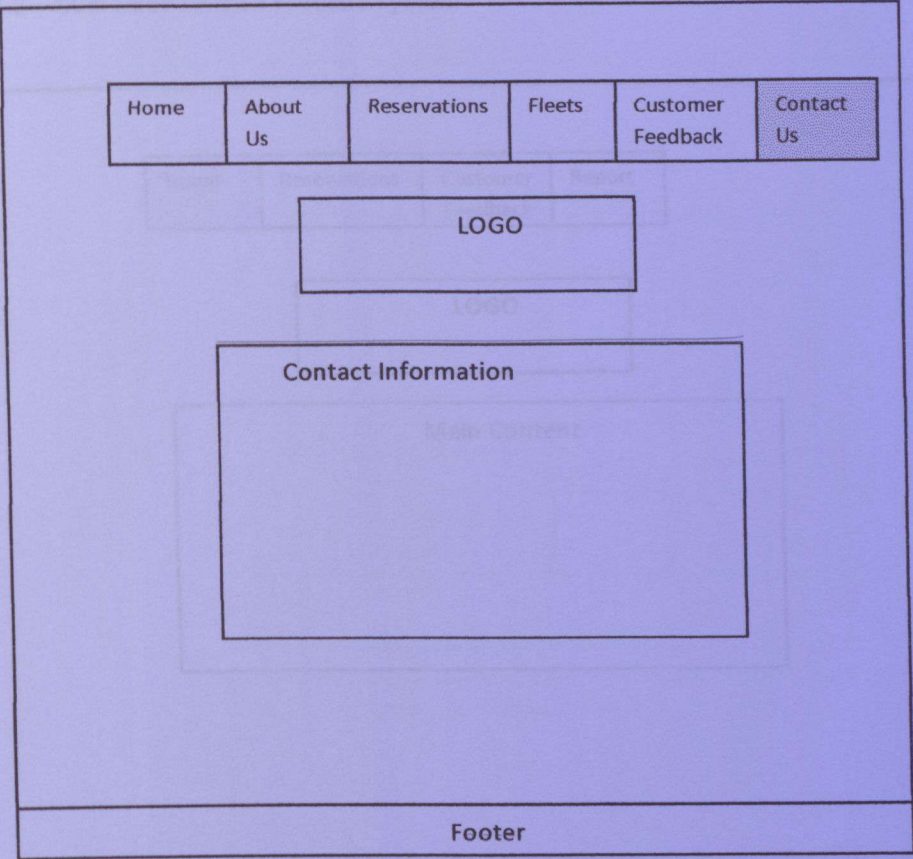




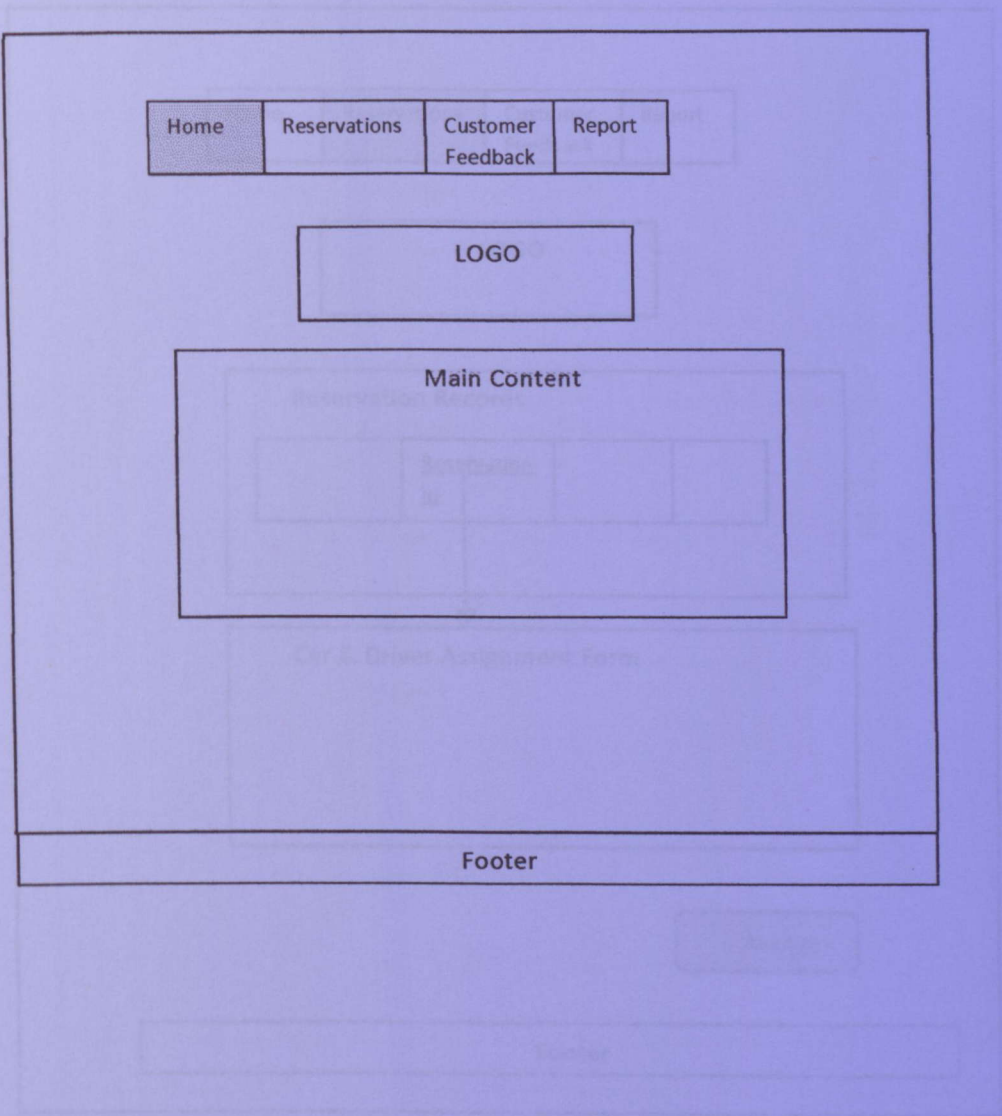
Reservation can be viewed and modified by entering the information. Reservation ID will be send to customers via email once new reservation submitted.

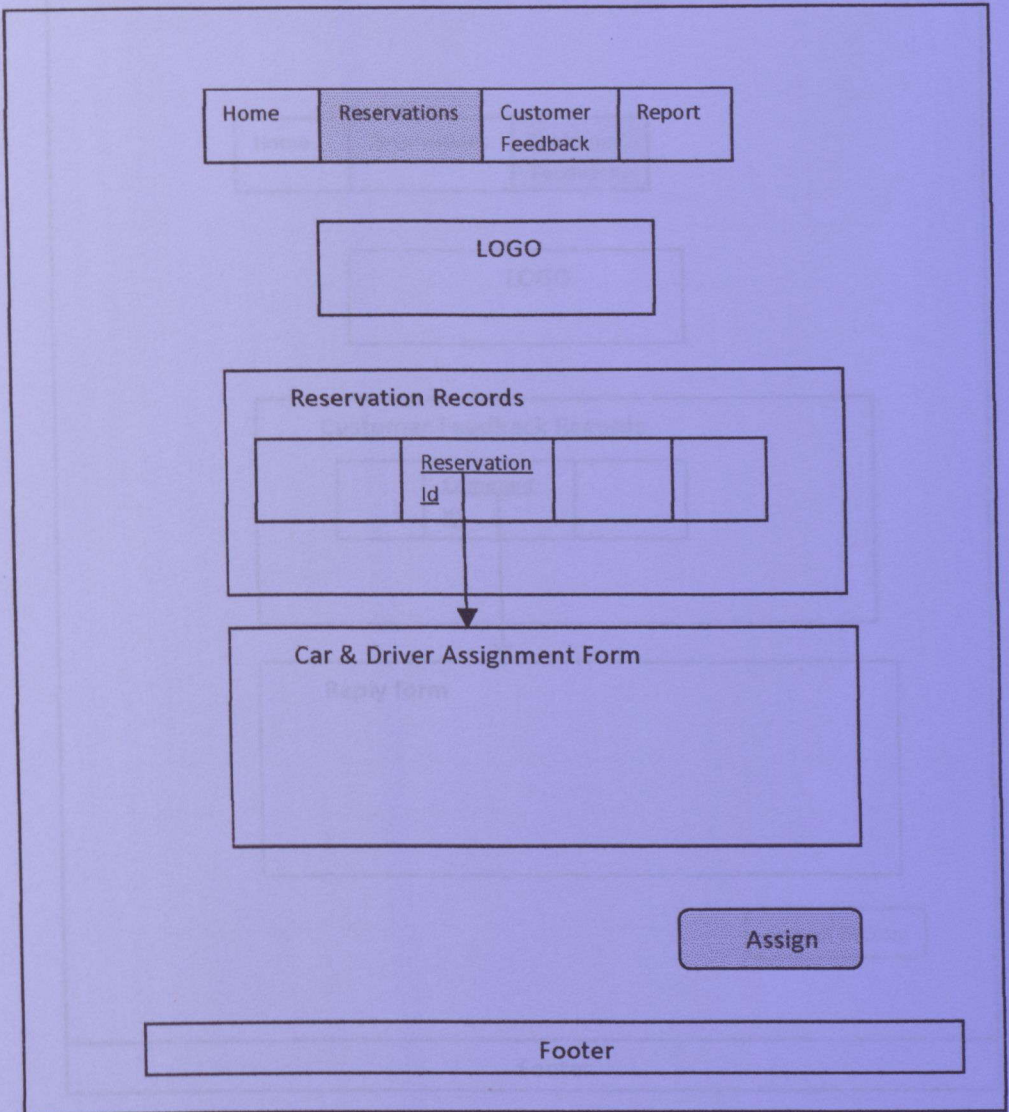




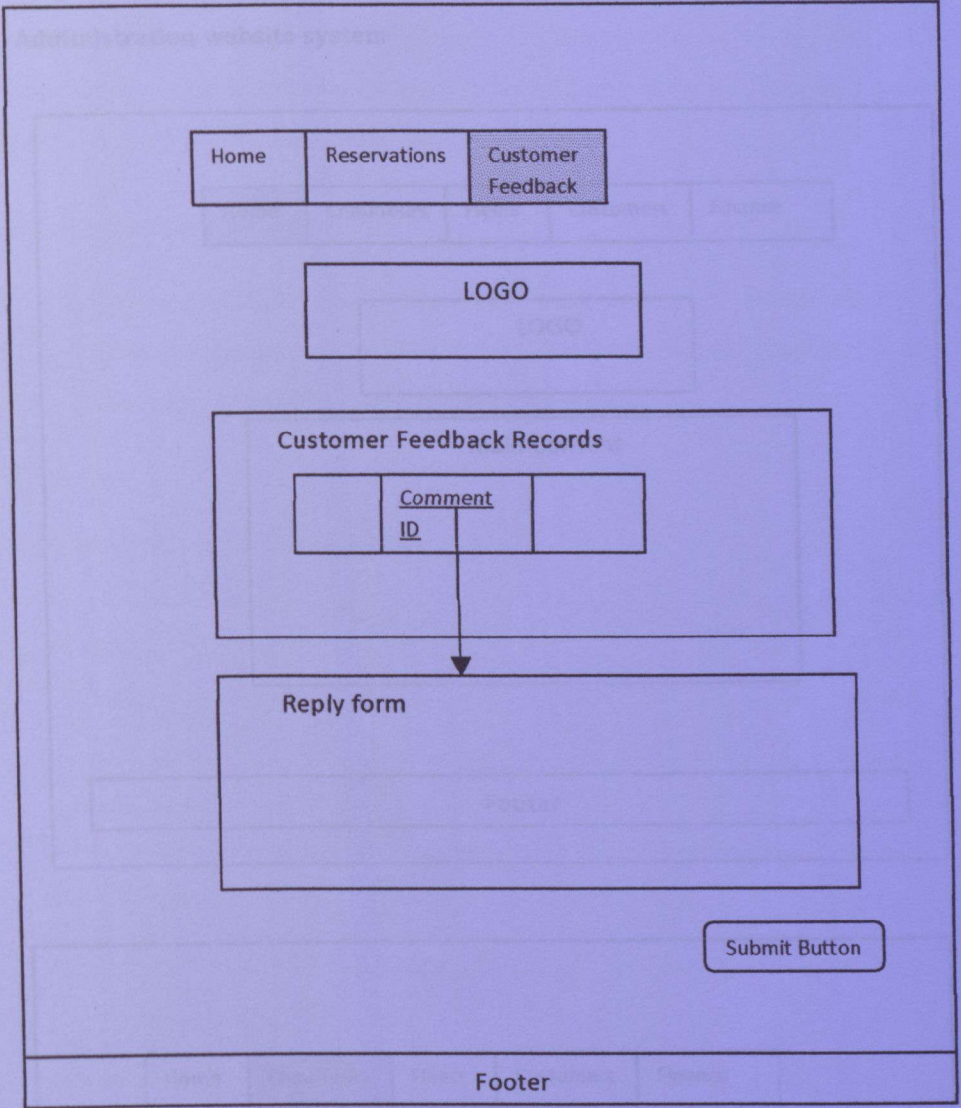


3.3.1.3.2 Customer Service Website system



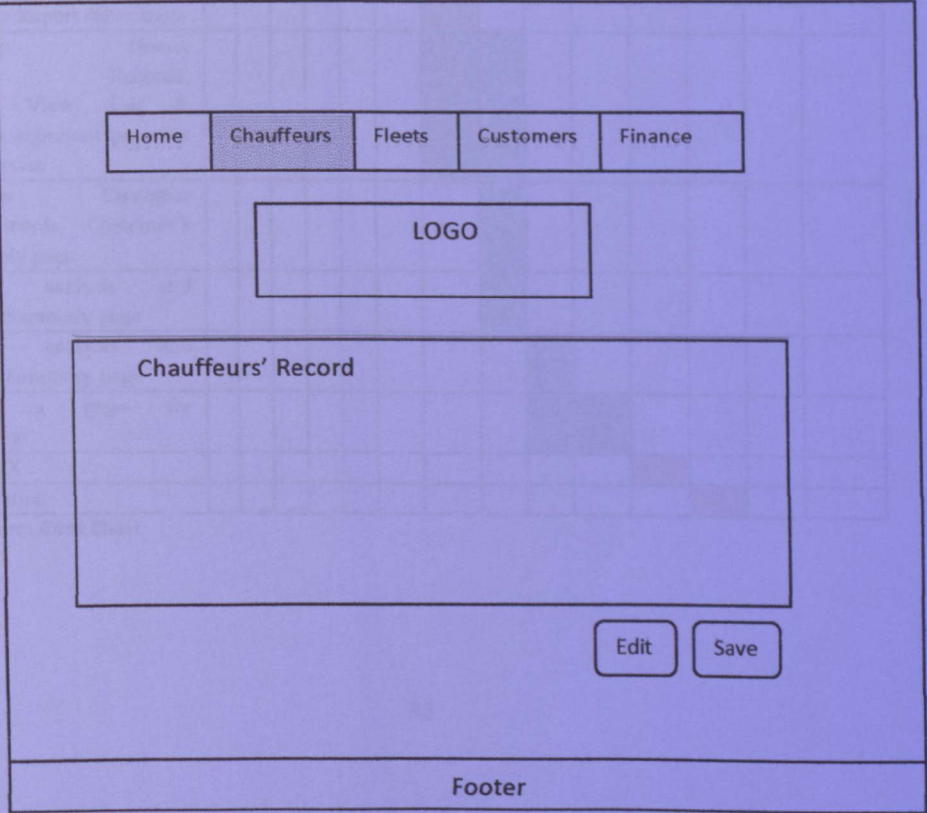
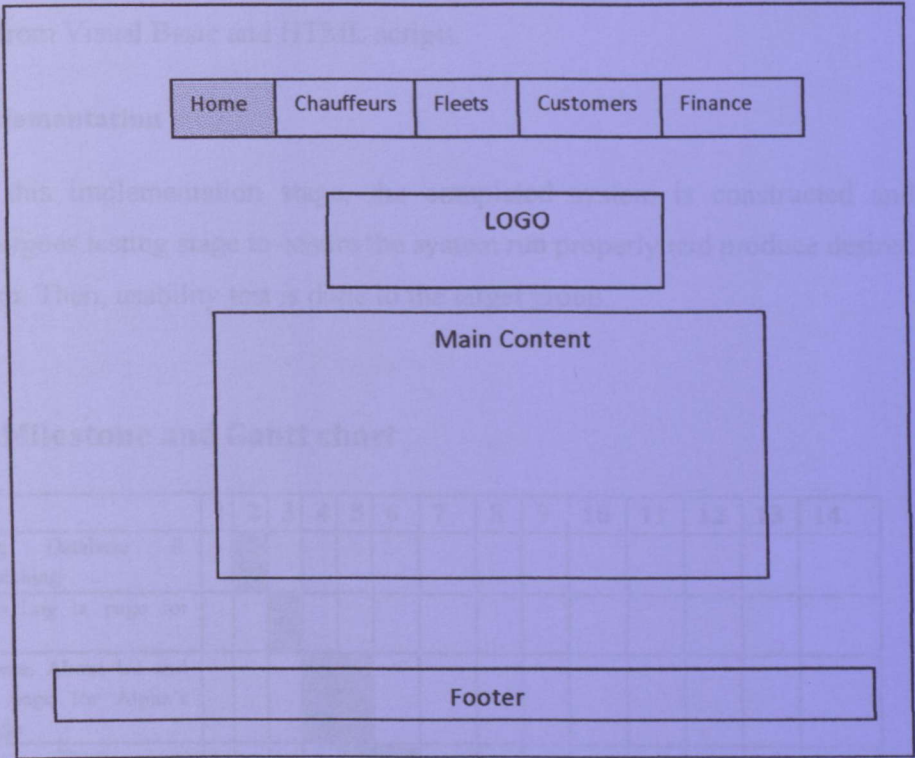


3.2.1.3.3 Administration website system



3.3.2 Development

3.3.1.3.3 Administration website system



3.3.2 Development

3.3.2 Development

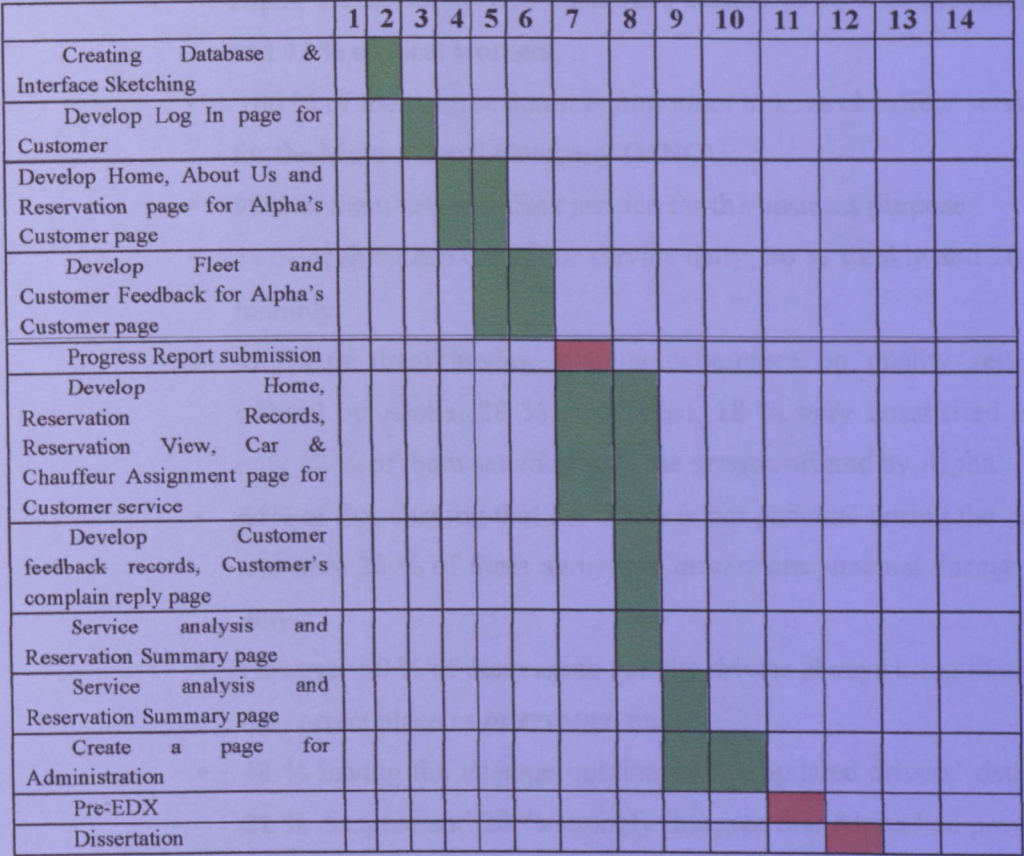
Chauffeur Service Management System had been developed using ASP.NET Visual Studio. The interfaces created using add and drop toolbars and codes are from Visual Basic and HTML scripts.

3.3.3 Implementation

3.3.3 Implementation

On this implementation stage, the completed system is constructed and undergoes testing stage to ensure the system run properly and produce desired result. Then, usability test is done to the target group.

3.4 Key Milestone and Gantt chart



3-2 figure: Gantt Chart

3.5 Tool Equipment

Chauffeur Service Management System develop by using ASP.NET and Microsoft Access as the database.

CHAPTER 4

4 Result and Discussions

4.1 User Acceptance research results

Based on my questionnaire results, I found out that

- Alpha Chauffeur service customers consist of 58% of expatriates and 42 % of local workers.
- 100 % of them agree that it is important to have chauffeur service for the Multinational Company (MNC).
- 98% of them use chauffeur service for the business purpose
- 44 % of them use chauffeur service daily, 30 % weekly and 26 % monthly.
- 42 % of them having average experience on quality service offered by Alpha, 28 % unsatisfied, 18 % very unsatisfied and only 12 % of them satisfied with the service offered by Alpha.
- 44% of them saying that the driver is not punctual during the duty and only 22 % of them agree that drivers are punctual during the duty.
- However 50 % of them agree that the drivers always bring them to the correct place as reservation made
- 48 % having the average opinion on the updated drivers' details, 22 % disagree and 20 % strongly disagree that Alpha had provide them with the updated details of the drivers.
- Only 38 % agree that Alpha had provide them with them good condition of cars

4.1.1 Graphs

- 56 % strongly disagree that the current reservation process is efficient
- 62 % of them made a complaints that they have via email
- 34 % of them stated that Alpha only made a prompt reply within 1 to 3 weeks after complaints were made.
- 100% of them agree that the conventional reservation process that Alpha has right now should be replace with the reservation through website.
- 66 % of them strongly agree and 20 % of them agree that reservation through website is efficient than conventional reservation process that Alpha has right now.
- 46 % strongly agree and 44 % of them agree that informative website will keep them updated.
- 42 % strongly agree, and 28 % agree that complaints made through website are more efficient.
- They will have 52 % high satisfaction and 42 % satisfaction level if the Chauffeur Service Management system can auto notified them with the driver details within one hour via email.
- 98 % of them think that Alpha Stella Company should improve their system using Management Information System (MIS) and Customer relationship Management (CRM) concept.
- 98 % of them stated that the improvement will give the benefits in terms of increase in business performance and customer satisfaction.

4.1.1 Graphs

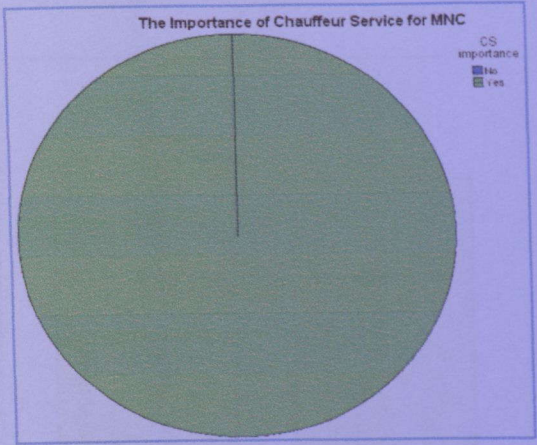
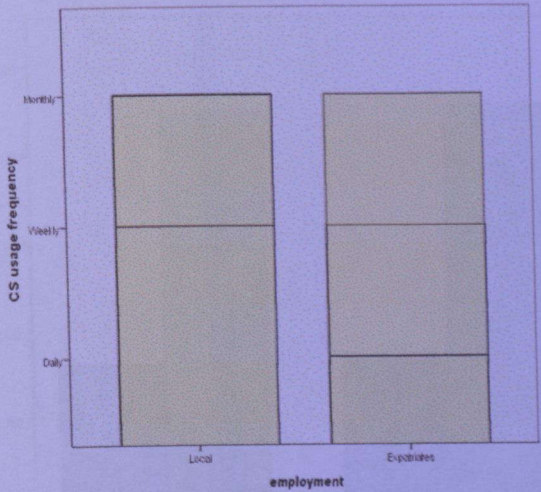


Figure 4-1 The Importance of Chauffeur Service for MNC



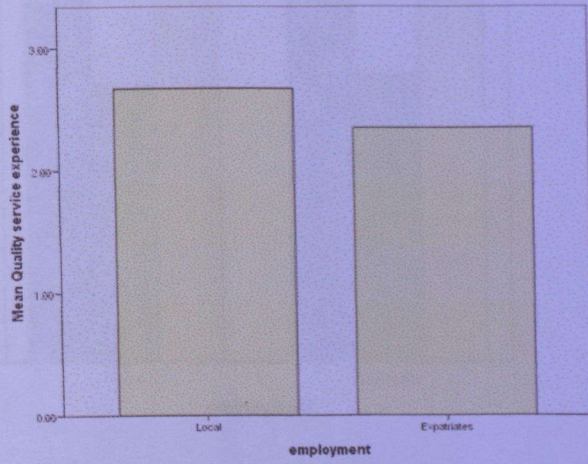
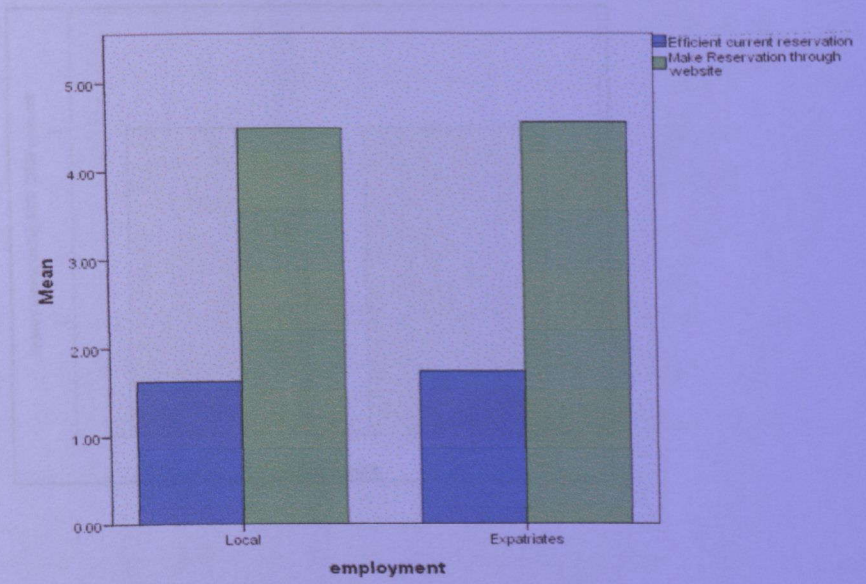


Figure 4-5 Level of satisfaction of the condition of current website are poor that the other website



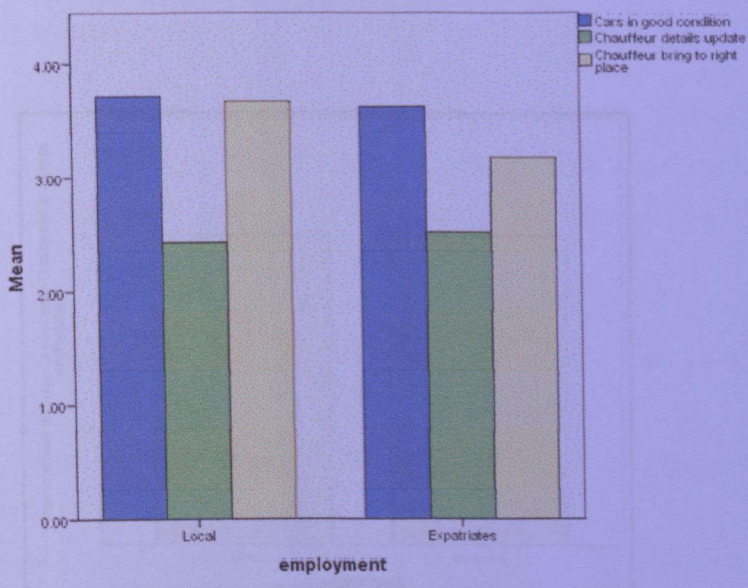
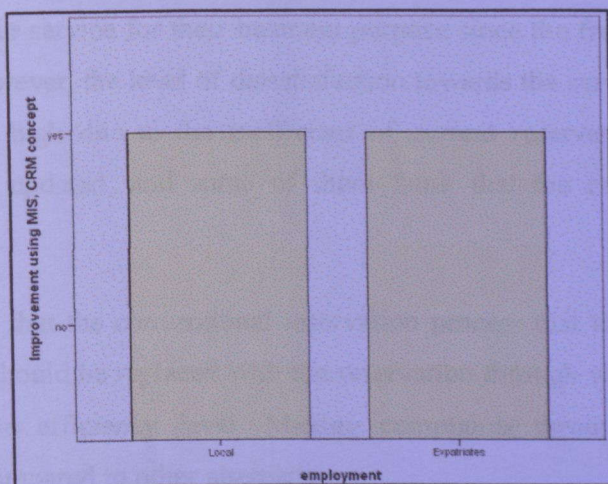


Figure 4-5 Level of satisfaction of cars condition, chauffeur details and place that chauffeur brought



4.2 Qualitative Analysis

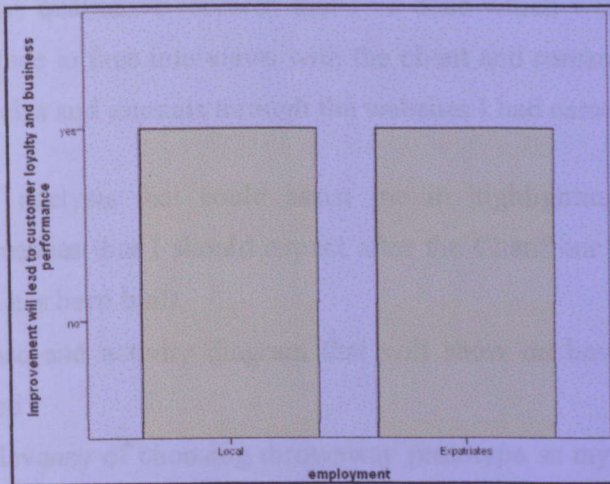


Figure 4-7 MIS and CRM concept usage lead towards customer loyalty and business performance

Based on my findings, I found out that Alpha Stella's client are really depends on the chauffeur service for their business purpose since the frequency of the usage is high. However, the level of dissatisfaction towards the service quality that they received is high due to the inefficient of current reservation process, drivers details not updated, and some of them think that the car is not in a good condition.

They agree that the conventional reservation process that the Alpha Stella have right now should be replaced with the reservation through website since it is will increase the efficiency level. Making complaints through website is more effective compared to other alternative.

According to them, the satisfaction level will be increased if the system can auto notified them via email with the driver's and the cars details after one hour the reservation was made.

They also agree that the Alpha Stella should replace the conventional business process with the system that use Management Information System (MIS) and Customer Relationship Management (CRM) concept as it will increase the business performance which lead to increase in customer loyalty.

4.2 Qualitative Analysis

Based on the qualitative research that I've done which were through the phone interview, face to face interviews with the client and research on secondary data such as articles and journals through the websites I had came out with the:

- SWOT analysis that could assist me in highlighting the relevance and consequences that I should expect after the Chauffeur Service Management system has been built.
- Use case and activity diagram that will show on how my system will be operated
- The relevancy of choosing throwaway prototype as my system development methodology.

4.2.1 SWOT Analysis

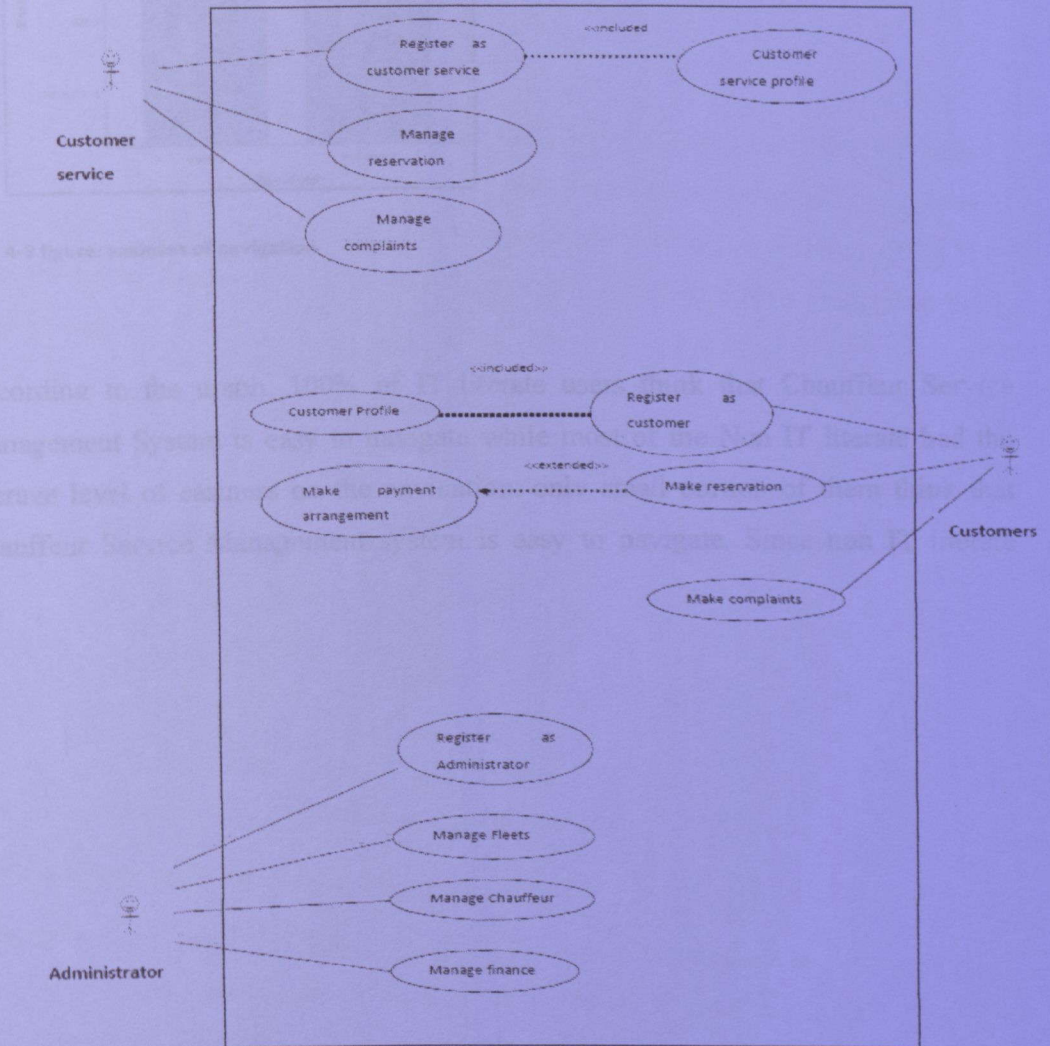
Strength	Weaknesses
<ul style="list-style-type: none">- High customer satisfaction- Cost Efficiency in terms of business operations- High business performance- Effective business operations- Additional hospitality service compared to other public transportation	<ul style="list-style-type: none">- User not IT literate
Opportunities	Threats
<ul style="list-style-type: none">- Can have another client that doing chauffeur service to enhance their business performance if this system succeed (potential client)- Increase in MNC number- Can be link to Malaysian travel agencies	<ul style="list-style-type: none">- Other Chauffeur service system- Public transportation system

4.3 Usability Test Result

4.3.1 General View questions feedback from ITiterate and Non ITiterate respondents

4.2.2 Use case Diagram

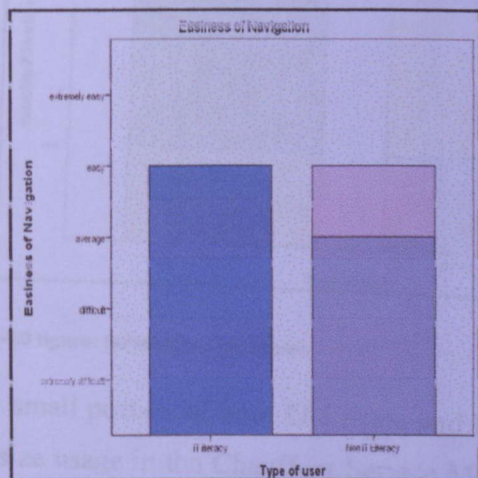
Base on my findings, I had identified the users of Chauffeur Service Management System. The roles of the users can be described in the use case diagram.



4-8 figure: use case diagram

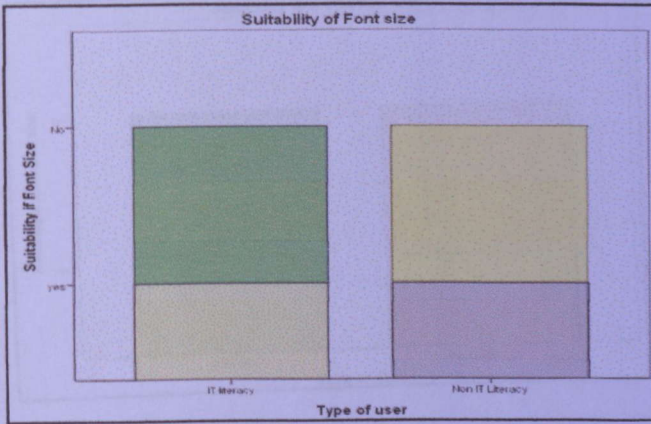
4.3 Usability Test Result

4.3.1 General View questions feedback from IT literate and Non IT literate respondents



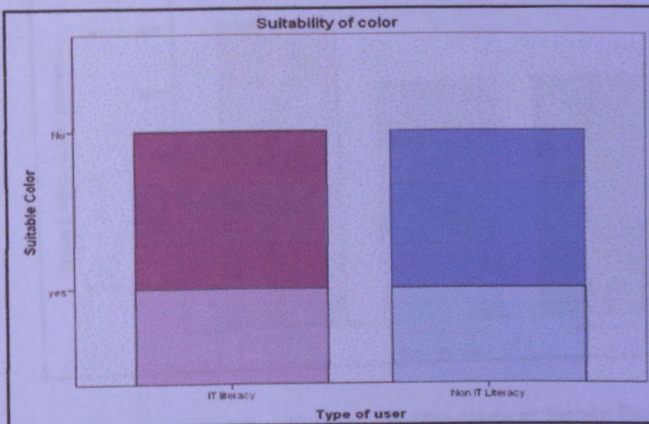
4-9 figure: easiness of navigation

According to the graph, 100% of IT literate users think that Chauffeur Service Management System is easy to navigate while most of the Non IT literate had the average level of easiness on the navigation, only small portion of them think that Chauffeur Service Management system is easy to navigate. Since non IT literate



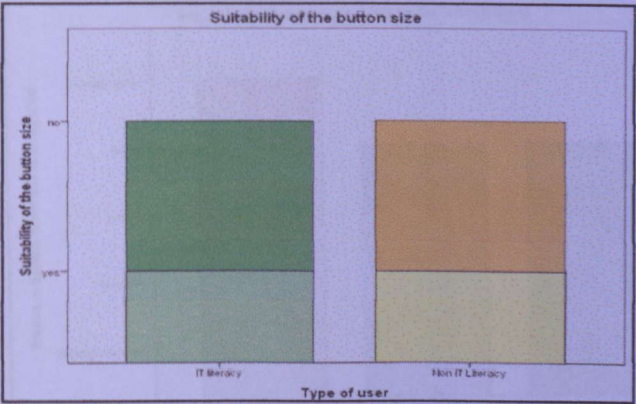
4-10 figure: Suitability of font size

Only small portion of both IT literate and Non IT literate respondents think that the font size usage in the Chauffeur Service Management System is suitable. According to the IT literate respondent, the fonts use is not neat and attractive, while the Non IT literate think that the current font made them had the difficulties to read since the font is not clear.



4-11 figure: Suitability of color

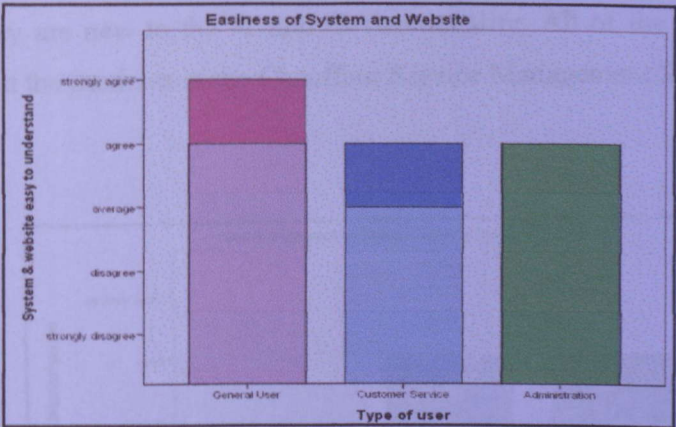
Only small portion of both IT literate and Non IT literate respondents think that the usage of the colour in the Chauffeur Service Management System is suitable. They think dark red that had been used before for the Chauffeur Service Management System is not attractive enough.



4-12 figure: suitability of button size

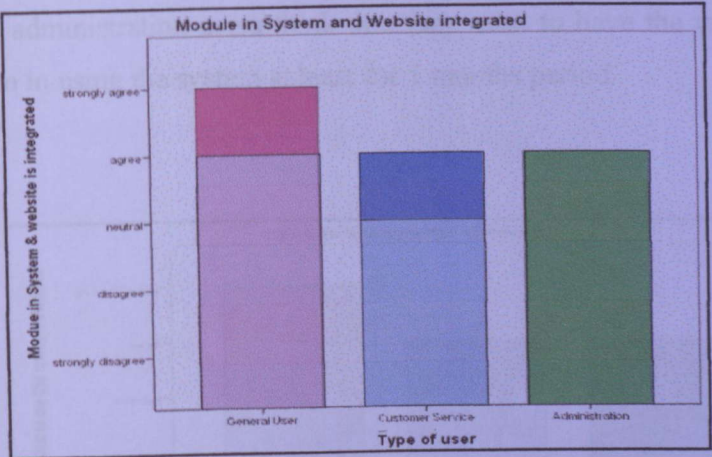
Only small portion of both IT literate and Non IT literate respondents think that the usage of the button size in the Chauffeur Service Management System is suitable. The rest think that the button size is too big and not properly located.

4.3.2 Feedback from the user of Chauffeur Service Management System



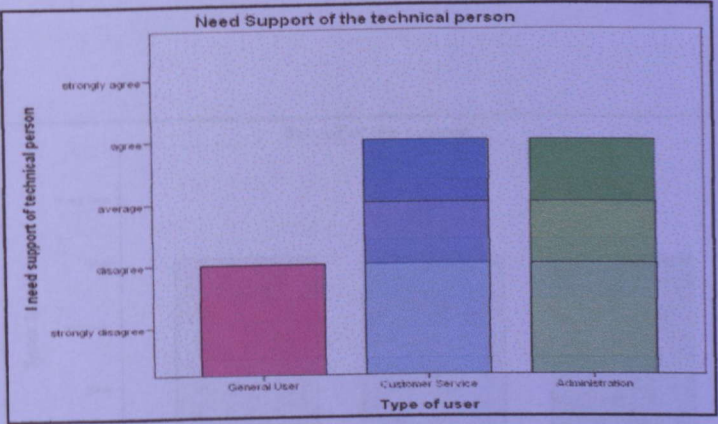
4-13 figure: Level of Chauffeur Service Management System Easiness

Most of the general users of the website think that the Alpha Stella Website is easy to use. Most of the customer service users think that the level of easiness of the Chauffeur Service Management System is average since they are not familiar of IT and IS usage, 3 of them are not IT literate. All of the administration users agreed that the Chauffeur Service Management System is easy to use since most of them have background of IT and IS usage.



4-14 figure: Integration of module in Chauffeur Service Management System

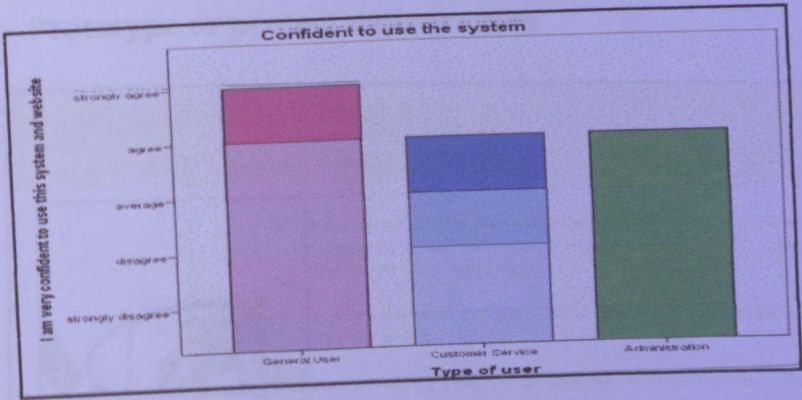
Most of the general users of the website think that the modules in the Alpha Stella Website are all integrated. Most of the customer service users had indifference answers to integrated modules in the Chauffeur Service Management Systems since they are new to the IT and IS functionality. All of the administration users agreed that the modules in the Chauffeur Service Management System are well integrated.



4-15 figure: Technical person needed

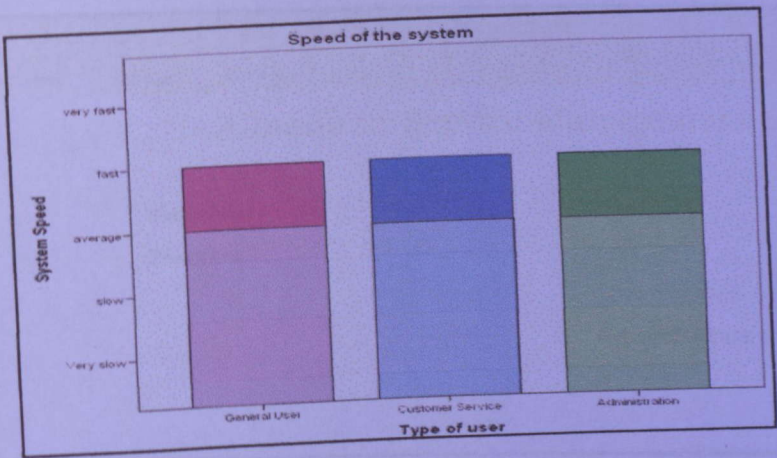
All of the users for the Alpha Stella Website think that they don't need the technical person to guide them in the using the website, while some of the customer service

and administration users think that they need to have the technical person to guide them in using the system at least for 1 months period.



4-16 figure: Level of confident to use Chauffeur Service Management System

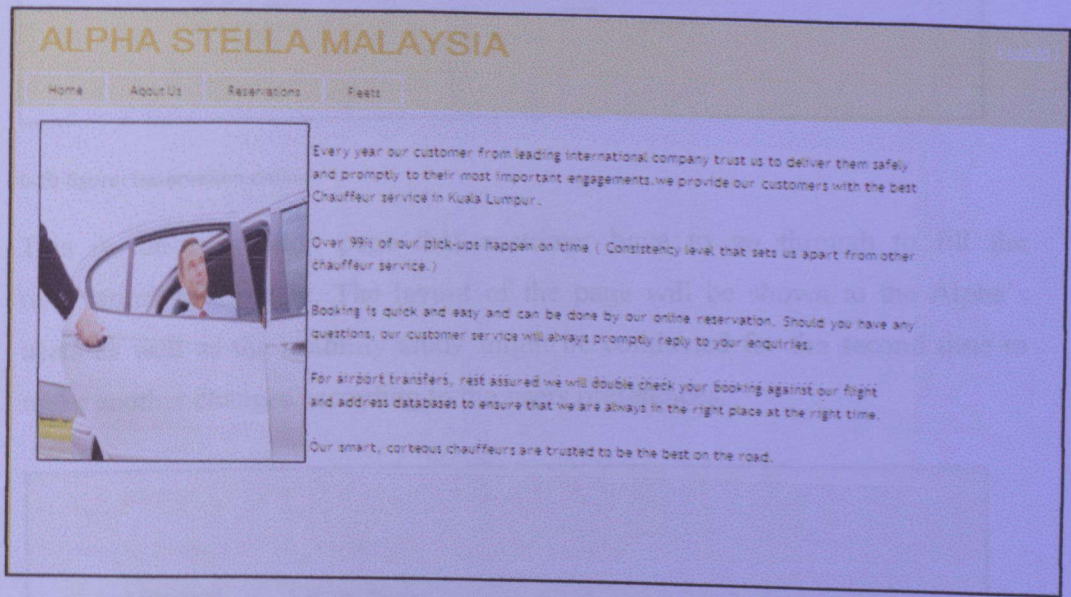
The users of the Alpha Stella agreed that they are confident to use the system since it is easy to use and convenient. While portion of the customer service users who are not confident to use the systems are more than the confidence since they still new and need technical support to guide them to use the system. All of the administration users were agreed that they are confident to use the system since the Chauffeur Service Management System will help them in increasing their work efficiency.



4-17 figure: Speed Level of Chauffeur Service Management System

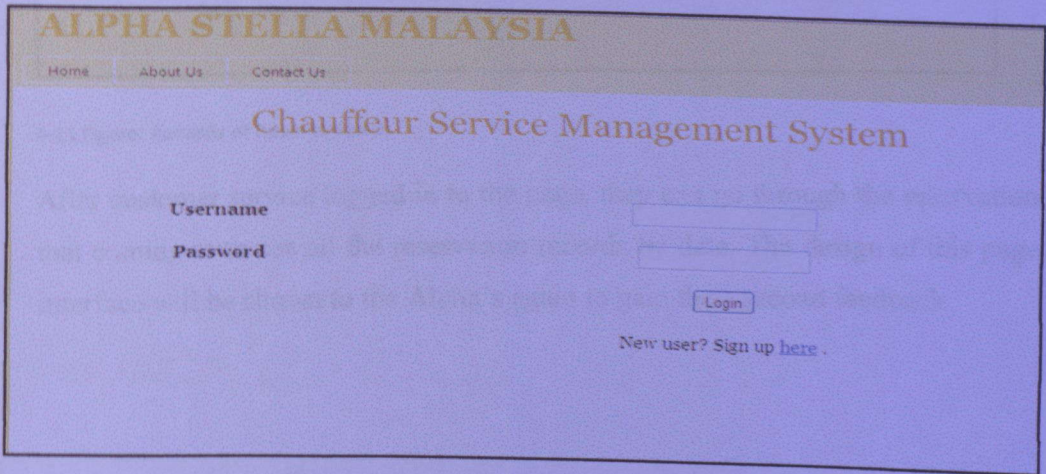
Most of the website users, customer service and administration users think that the speed of the system is average. This was due to the Internet connection and some technical problems occurred during the testing.

4.4 Prototype or project deliverables



4-18 figure: Alpha Stella Malaysia home page

This is the home page that customers can see once they log in to the account. The color and the fonts are done after usability testing.



4-19 Login Page

ALPHA STELLA MALAYSIA

Home | About Us | Contact Us

Reservations | Customer Feedback | Events

Hi. Please make your

NEW RESERVATION

Pick Up & Drop Off Info

Pick Up Date ☐

Pick Up Time
Format: MM/DD/YYYY
e.g. 04/27/2012

Drop Off Time
Format: MM/DD/YYYY
e.g. 04/27/2012

Luggage
e.g. 1 (car number)

4-20 figure: Reservation online

This is the reservation page that customer have to go through to fill the reservation information. The layout of the page will be shown to the Alpha's users as well as the usability study might be conducted for the second time to make another changes according to the users preferences.

ALPHA STELLA MALAYSIA

Home | About Us | Contact Us

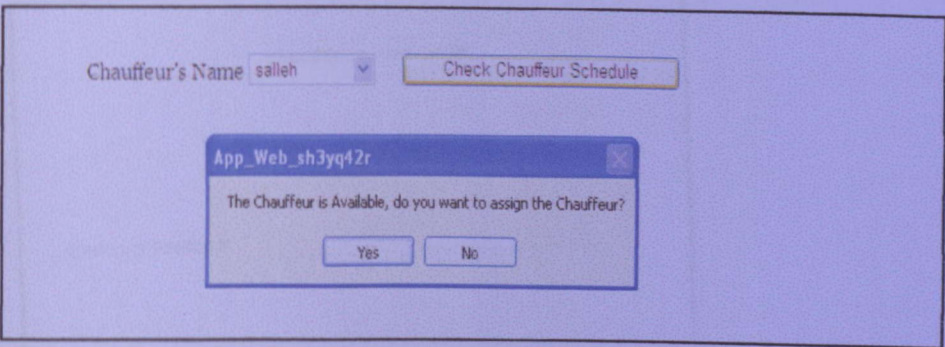
CS Reservation | Customer Service

Reservation ID	Pickup Date
30	4/27/2012 12:00:00 AM

[Reservation In](#)

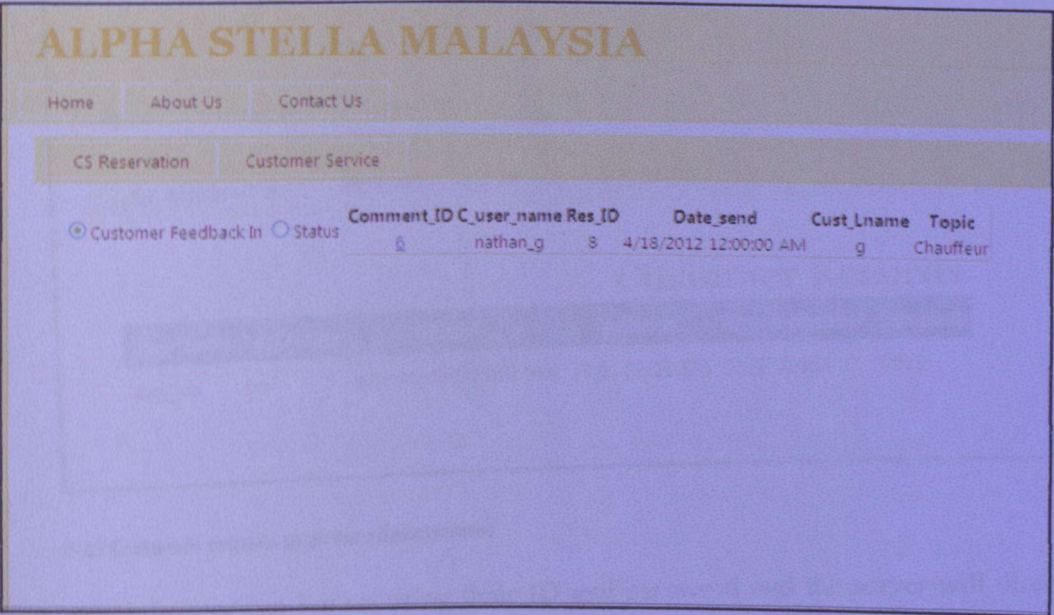
4-21 figure: Records of Reservation in

After customer service logged in to the page, they can go through the reservation that coming in to see all the reservation records by date. The design of this page interface will be shown to the Alpha's again to gain their second feedback.



4-22 figure: Check Chauffeur Schedule and assign to customer

Customer service can assign chauffeur to the customers by viewing the reservation link in the reservation coming in page. Before assigning the Chauffeur to the customers, customer service has to check the chauffeur schedule to ensure the availability of the chauffeur.



4-23 Customer Feedback for Customer Service department

chauffeur was late

Customer Feedback

Please state the chauffeur name and car that had been driven

Reply

4-24 reply customer feedback for customer service

ALPHA STELLA MALAYSIA

Home About Us Contact Us

Car Maintenance Reservation Account Client Records

Customer Records

User Name	Last Name	Email	Address	Phone Number	Company
amy_ixo	ixo	amymdnor@gmail.com	13 jln 22/11 BTS	0129720864	MNC

4-25 Customer records page for administrator

Administrator can log on using their ID and password and the server will direct the administrator to the administrator page. Here admin can view, and edit and save the customer records.

Customer ID	amy_ixo
Discount	20%
Price	80.00
Total Price	64.00

4-26 Finance records for administrator

Administrator can calculate the price for every reservation made by the customer and system will send the receipt to the customers who made the reservation to the customer's email. Administrator can see the records, edit and save and send to the customers.

CHAPTER 5

5 Conclusion and Recommendation

Since Most of the MNCs workers are depending on the chauffeur service for the business purpose or any important business engagement, therefore it can be seen the chauffeur service business are growing in Malaysia industry. This opportunity will lead to increasing in revenue of Alpha Stella business. To compete with other chauffeur service and public transport usage, the improvement of the business process and customer service can be seen as very important element in their business.

Therefore, the implementation of Chauffeur Service Management System will increase Alpha Stella's business performance as well as improve their quality in

service which leads towards retention of the loyal customers and higher chances for them to have potential customers.

Frequent user assessment and attaining user requirement will ensure the improvement of the Chauffeur Service Management in terms of its interface, user friendly and capability of its functionality.

For continuation of the project, some of the functions available could be improved to create attractiveness compared to the basic function available in the Chauffeur Service Management System now.

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APPENDICES

Appendix 1

Objectives:

The objectives of this survey are to help Alpha Stella Malaysia to improve customer service in order to increase customer satisfaction as well as to improve their business process to ensure quality in the business that they are provided. Your answers in this survey will remain confidential.

1) Types of workers: Nominal data

Expatriates ☐ Local ☐

2) Do you think chauffeur service is important for the MNC? (Nominal data)

Yes ☐ No ☐

3) Which one is your purpose of using chauffeur service:

Business ☐ Leisure ☐

Others (Please state) _____

4) How frequent do you require a chauffeur service? Ratio data

Daily ☐ Weekly ☐ Monthly ☐

Quality Service and Customer Satisfaction

Please rate the statement given below. Ordinal data

5) From your most recent experience, the quality service given by the chauffeur service company was:

Very Satisfactory	Satisfactory	Average	Unsatisfactory	Very Poor
5	4	3	2	1

Please rate your preference:

	Strongly Agree	Agree	Disagree	Strongly Disagree
6) Chauffeurs arrive on time according to reservation made	4	3	2	1
7) Chauffeurs always bring you to the right place according to the reservation made	4	3	2	1
8) Chauffeurs' details (phone number, Name and Cars) are always updated	4	3	2	1
9) Cars driven by chauffeurs are in good condition	4	3	2	1
10) Current reservation process (via fax and email) is efficient	4	3	2	1

11) Should be any problem occurred after reservation was made, how do you make the complaints towards the chauffeur service company?

- A. Via email
- B. Phone calls
- C. Never make any

12) How frequent the chauffeur service company responds towards your complaints?

- A. Every time the complaints were made
- B. In 1 to 2 days after complaints were made
- C. Week after complaints were made
- D. 1 to 2 months after complaints were made
- E. Never responds to any of my complaints.

Website usage and Customer Relation Management system

13) Do you think your current chauffeur service company should replace conventional reservation (via email and fax) to reservation of chauffer and pick up through their own website?

Yes ☐ No ☐

Please rate your preference:

	Strongly Agree	Agree	Disagree	Strongly Disagree
14) Reservation through website is more efficient than conventional reservation(via fax and email)	4	3	2	1
15) Informative chauffeur service website will keep customer updated	4	3	2	1
16) Complaints through website more effective than email	4	3	2	1

17) The website will automatically notify you less than hour with the chauffeur's details base on the reservation that you had made. Rate your satisfaction level	Very High	High	Low	Very Low
	4	3	2	1

18) Do you think your current chauffeur service should improve their business process using customer relation management (CRM) system?

Yes ☐

No ☐

19) If yes to the number 18 question, do you think such improvement will retain customer loyalty?

Yes ☐

No ☐

20) If the current chauffeur service company's website is to be made, do you have any suggestion in what kind of information can be put to benefit you as the customer? Please state:
