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Electronic City Bus System

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Abstract: ***In this project, the system has been built to facilitate and organize trips wild using language PHP system has covered all matters relating to road transport process, such as the aviation system, which includes carriers in most countries of the world. The system has been built to be easy to use by the user, the speed of access to the tools, quite simply you can book, in addition to the function points within the icon makes it easy access and booking, and print a report in which information is easily possible to transform this system to Android. In addition it has been added feature you can choose to sit seats like that and add the report property in the event of any forms. This system was tested on a group of people, so as to ensure the reliability of our program. We used is the PHP is provide a more interactive environment in terms of destinations and tools that can be used. As well as the results were reasonable with them by the user.***

Keywords: e-bus;city

1. Introduction

New information age brings us new technology such as faster computer, internet, WAP …so with the use of these Technologies becoming more of a daily routine for people, there is a growing demand to be able to access every part of a person's daily routines online. This has been the case for many people ranging from daily communications via emails to online banking to many other services. We have decided that another way to improve people's life is to make it more simple and efficient to Managing Bus reservations online. Which allows peoples faster and efficient travelling.

The Internet has changed the way people look at the life and work, so the Internet has become an important part in the world. Online shopping has become common and is helping to reduce the time and effort and cost and easily find what they want, and the ability to do so at any time, any place. The online booking with give us extra details about the company, other than that, customer suffering will rid of by the easy way to save time and save money. The customer can deal easy with the friendly website. No need to go to the company branch and spend money and time in road and standing in a queue to book tickets. Furthermore, It will help the company staff in daily work by make their work more arranged and more connected to the other company branches.

As the transportation buses flourish and bus companies grow, many challenges are incurred terms of management both administration and flows of passengers, therefore those companies are facing difficulties in managing passenger reservations, for these reasons leading companies have needed a systems to allow passengers faster and efficient traveling and easy to managing for the administrators.

2. Theoretical of System

A. Problem Statement

System that is using by the staff at the counter currently is an internal system and just used to sell the bus ticket at the counter. Customer has to go to the counter to buy the bus tickets or ask for bus schedule. Furthermore, customers need to pay cash when they buy the bus ticket and sometimes need to queue up long time to get the bus ticket. Besides that, customer also not allowed to buy bus tickets through telephone and the bus company's telephone always-busy line. The method to solve that problem is to create an online buying bus ticket system. Customer can buy the bus ticket over the Internet, 24 hours a day, seven days a week and the bus ticket can't be lost, stolen or left behind. In addition, the online system lets the customers check the availability of the bus ticket before they buy bus tickets. Furthermore, customers no need to pay cash to buy bus tickets because they can pay the bus ticket by using Credit Card.

B. Objectives of study

This project aims to prepare the best way to book tickets for clients is also the system allows customers to search for the best possible prices easily without the need to stand in line the counter to buy a ticket, as well as allows the customer to purchase the ticket within 24 hours a day, seven days a week, from anywhere and at any time. And in addition enables the client to know the bus available and the time of departure and the time of arrival. The system works to facilitate the process of paying tickets by the customer by credit card. And achieve the economic feasibility of the company to reduce the number of employees in the company.

The goals of our system are:

- To provide an anytime-anyplace service for the customer;
- To minimize the number of staff at the ticket box;
- To increase the profit;
- To facilitate generate report by obtaining statistic information from the booking record. And;
- To provide the refund this is not available in the existing system.

C. Significance of study

Transport companies allow the customer to book a ticket from one city to another city. If the client needs to move to another city, the client must go to the company to buy tickets before the starting time, the employee company connects with the other branches of the company and sees if there are empty spaces go to write the ticket, and these operations were done manually.

This project is to assist the company to book the tickets for customers in a way easier and faster, and can also save time

and money in the booking process. This system allows customers to do all the process such as search and seizure, and learn more about special offers.

D. Scope of Study

Scope of the project makes it easier for customers. How to reserve a ticket using the electronic system is designed using Asp. Net and SQL server 2008 this system is available on the website but does not allow the client to enter the system only after registration. After login into the system the customer can search for necessary information such as bus route and time of departure and the price. This system allows for a company director, to add or delete or change the path, and also can add or delete from the bus and change the times of departure and arrival.

3. Methodology and GUI

This section details how the project was organized. Included in this section is the Project Development Model and Project schedule. we are use methodology project by using OOAD . Object-oriented analysis and design (OOAD) is a popular technical approach for analyzing, designing an application, system, or business by applying the object-oriented paradigm and visual modeling throughout the development life cycles to foster better stakeholder communication and product quality.

We choose the Object-Oriented as design of our project; the project progressed following the Spiral method of software engineering through the following phases: Concept, Analysis, Design, Implementation, and Documentation. And we use UML tools for our Analysis and Design in code phase we use PHP languages with SQL server because we concentrates on WEB application.

About the schedule of our work it is illustrated by the following steps: Preparing list of requirements, Design use case diagram and use case specification ,Activity diagrams and Class Diagram Prototyping interface Editing Final report.

a) Analysis

In this phase, we have analyze considers the current systems and investigates any problems associated with it. Other sources of information about system and the new requirements would also be investigated at this time. The output from determine flow chart for the project and functional requirements ,we explain that in figure 1 for flow chart and table 1 functional requirements.

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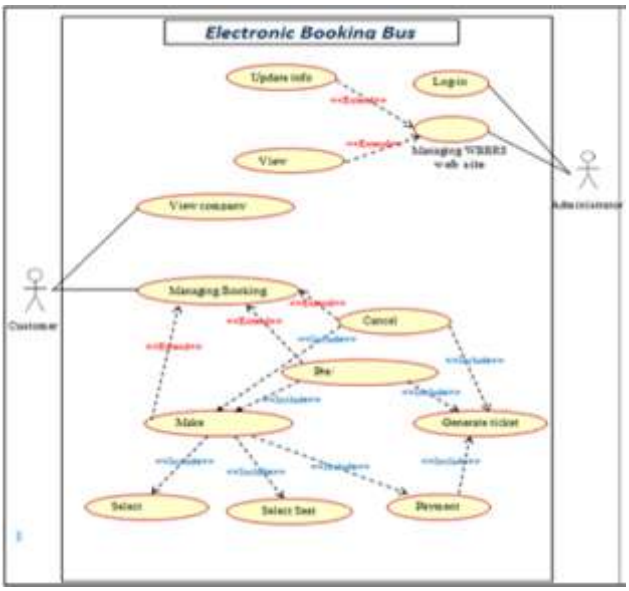
Table 1: Requerment

No.	Requirement ID	Requirement Description
	ECBS_1	Register Member
1.	ECBS_1_1	Customer can register before Log in the system.
2.	ECBS_1_2	Customer must fill all fields in the registration form , otherwise the system will show an error message .
	ECBS_2	Log in
3.	ECBS_2_1	Administrator can log in to enter the system
4.	ECBS_2_2	Customer can log in the system if he/she has registration .
5.	ECBS_2_3	The user must enter the valid user name and password, otherwise the system will show an error message.
	ECBS_3	Search Destination
6.	ECBS_3_1	Administrator and Customer can search a Destination, date , number of passengers and select the trip type (one way or return).
7.	ECBS_3_2	The User must fill all the searching field before press search button , otherwise the system will show an error message .
	ECBS_4	Booking Ticket
8.	ECBS_4_1	Administrator and Customer can select(coach, seat, confirm booking)
	ECBS_5	Print Receipt
9.	ECBS_5_1	Customer can print the ticket
	ECBS_6	Manage ECBS
10.	ECBS_6_1	Manager can create a new coach (include all coach details).
11.	ECBS_6_2	Manager can Edit , Delete the coach (include all coach details),and can update customer profile if he/she has any wrong in it .

b) Design

In this phase, After the requirements have been determined, the necessary specifications for the hardware, software, people, and data resources, and the inform on products that will satisfy the requirements of the proposed system can be determined. The design use case diagram and activate diagram. Use case diagrams describe what a system does from the standpoint of an external observer. The emphasis is on what a system does rather than how.

Use case diagrams are closely connected to scenarios. A scenario is an example of what happens when someone interacts with the system.



c) Implementation

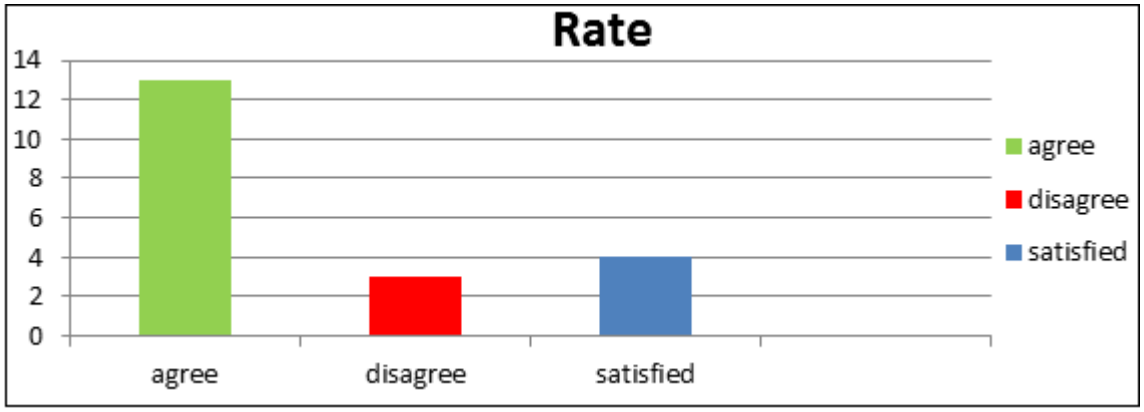
The implementation phase is described as those activities that begin when the system design has been completed. These phases are producing software code using PHP language and

HTML. In this phase ,review of the system graphical interfaces according to the figures (3,4).

The purpose of the establishment of the electronic city buses is to facilitate the method and sharing by and see how people respond to this system we have by giving it to a number of people, students and teachers in order to do experimenting with this system to see its efficiency through a series of questions had been put on them by using the Computer System Usability Questionnaire that you're not mentioned in the in figure 2 after the answer to these questions and the 19 question we have to count the number of answers by Microsoft Access got the chart that shows the responsiveness of the system.Display the project on the number of user that five people there ages between (30-40) and the result of evaluation .The number of agree of system three and the number of satisfied of system one and the number of disagree one .

And display the system to the ten number of student there ages between (22-28) to evaluation the result that the number of agree on the system seven and disagree two and satisfied one .And display the system on five of staff three agree and two satisfied.

Item	People	Student	Staff
Number	5	10	5
Age	30-40	22-28	35-45



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