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BUS RESERVATION SYSTEM

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ABSTRACT

Travellers are a large growing business across all countries. Bus reservation system deals with the maintainance of records of details of each bus. We observed the working of the bus reservation system and after going through it, we got to know that there are many operations, which they have to do manually. It takes a lot of time and causing many errors while data entry. Due to this, sometimes a lot of problems occur and they were facing many problems with the costumers. To solve the above problem, and further maintaining records of passenger details, seat number etc., by this software we can book tickets very easily and we can know easily that how many seats are still available.

Keywords: *Bus reservation system, Tickets, Passengers, Data entry, passenger details, Record.*

I. INTRODUCTION

The focus of project is to computerize traveling company to manage data so that all the transactions become fast and there should not be any error in the transaction like calculation mistakes and the bill generation and other things. It replaces all the paper. It keeps records of all bills also giving to ensure 100% successful implementation of computerized Bus reservation system.

It has three modules. First module helps the customer to enquire the availability of seats in particular bus on particular date. Second module is to reserve the ticket and third module is to cancel the ticket.

- First module retrieves the data for require.
- Second module inserts the value in to the table and reservation.
- Third module delete the values from the table on the cancellation.

As we are doing bus reservation system using C++ programming language helpful to each and every person and very easy to know about the availability of seats and easy to book the seat of your choice. The bus reservation system has been developed to override the problem prevailing. in practising manual system. This software is supported to eliminate and in some cases to reduce the hardships faced by this existing. Moreover this system is designed for particular needs of company to carry auto operation in a smooth and efficient and proper manner.

The development of Information Technology is very rapid at this time, triggering developments in other fields, one of them in the field of education. Currently, Information Technology is not only seen as a field of education, but more than that Information Technology began to be developed in order to assist the development of the field of education itself. This is because the development of Information Technology in support of the progress of information exchange is increasingly dominant in today's society. Information Technology is expected not only to support the development of education alone, but more than that Information Technology is expected to provide solutions to existing educational and information problems. Utilization of IT has now entered a very developing stage. With the utilization of IT positively will give birth to the image of a qualified user and can work well in an organization or company and utilization of IT is also used in transportation companies such as PT. Bus XYZ. Transportation has now become a basic thing in human life, it is based on human activities that require to move from one place to another. Humans prefer to use transportation for these needs in order to utilize more efficient time.

Contemporary approach involves using the state-of-the art means of transportation to overcome those inherent problems of the ancient road transport system. This modern means of transportation incorporates Internet facilities to provide access to the users at the remote areas. Transportation could simply be defined as the movement of people and goods from one location to another.

Throughout history, the economic wealth and military power of people or nation have been closely tied to efficient methods of transportation. Transportation provides access to natural resources and promotes trade, allowing a nation to accumulate wealth and power. Transportation system and the routes they use have greatly influenced both how and where people live. Reliable transportation allows a population to expand throughout a country's territory and to live comfortably in remote areas far from factories and farms. Transportation is vital to a nation's economy so reducing the cost of transporting natural resources to production sites and moving finished goods to the market is one of the key factors in economic competition. Transportation is usually classified by the medium in which the movement occurs, such as land, air, water or pipeline. Within each of the three media, many different methods are used to move people and goods from place to place. Pipelines are used mainly for transportation of liquids or gases over long distances.

Public transportation has been classified as an essential mode of travelling. In older days, human travels from one location to another takes months and years, with less support of technology and communication tools. Currently, with the effective and efficient mode of transportation, one could travel thousands of miles with hours and days and communicate across the globe within split of seconds. Public in many countries, especially in the third world, prefer to use buses and train services to travel from one location to another. "Electronic ticketing system is the ticketing system which uses self-service technology as a base of application helping the user to book a ticket by themselves" (Ferreira, Porffrio, Cunha, & Silva, 2013). Recently, with the introduction and evolution of smart phones applications, the consumers 'behavioral habits have changed in the goods and services purchasing power. Consumers 'on-line purchases using mobile application had increasing globally, without boundaries. or the public population, in current age, can purchase their transport ticket through mobile phone and pay on-line to book, validate and retrieve tickets using simple mobile applications (Ceipidor et al., 2013). The consumer's application and usage of mobile phones have expended tremendously from a single purpose usage, namely communication purposes, to multiple usage such as gaming, music, navigating and many more. Approximately, there are around 370 thousand mobile phone application that can be utilized by consumers' and 425 thousand Android platform application available for Apple customer (Buhner, Hecht, Schoning, Kruger, & Bauer, 2011). The following figure gives the clear introduction to the bus reservation system. It clearly gives the better explanation for booking the bus tickets online. This is the best example figure for the reserving the bus seat online.

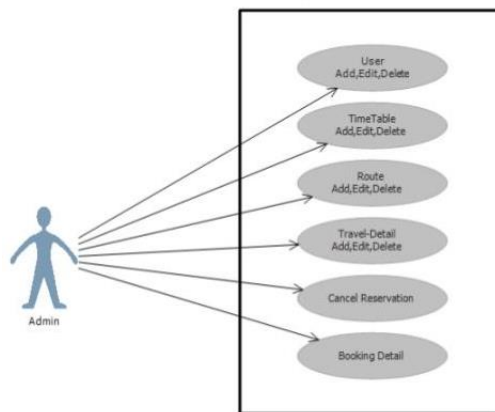


Fig.1.0. Bus Reservation System

II. LITERATURE REVIEW

This is an evaluation report of information forward in the field related to the selected area of study. It describes the field related to selected area of study .It describes the kind of system that is to be developed. Unfortunately ,I have no idea whether there have been attempts to implement new and more efficient IT solutions for developing a bus booking management system to be able to improve on the current systems being used in transport industry. This is an evaluation report of information found in the field related to the selected area of study.

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Tourism has demonstrated as one of the most successful sector in optimizing the mobile application. According to Buell, Campbell, & Frei, (2010) about 50% of existing tourism recommender systems is designed for mobile devices. The Mobile application grouping accessible in the tourism industry as mentioned, there are four main mobile travel application categories “Online Booking”, Information Resource”, “Location Based Services”, and “Trip Journals”. The “Online Bookings” category (Smirnov, Kashevnik, Shilov, Teslya, & Shabaev, 2014). These applications allow a tourist to make online reservations for different services (e.g., Bus travel, car rental, hotel, airplane ticket booking). Usually the tourists demand applications from this category before the trip. According to (Gunduz & Pathan, 2013), online purchases of flight tickets represented 32 percent of overall online purchase business, Hotel and Tours represent 26 percent and event management tickets sold represent 20 percent of global online purchases. Approximately 79 percent of United State mobile phone uses the device for online shopping convinces and needs. Consumers depend on their applications for more commercial dealings, social corresponding and community interaction. Results derived from these surveys show that airline, bus liners and travel agents, being the goods and service provider, should expand the ticketing services through mobile shopping. In addition, when the customer deliver the service independently through the use of technology will simplify and increase efficiency of service delivery, this technology called self-service technology (SST).Self-service technology replacing the traditional service encounter which in the process, there is a communication between customer and employee become the customer deliver the service by themselves (Wang, Harris, & Patterson, 2012). Moreover, the customer unnecessary to visit a firm office to ask about banking transaction, tickets information and bill payment, through this service firms give simplicity for the customer to fulfill their needs, and customer can reduce money, time, and effort to fulfill their needs. Second purpose of providing self-service technologies is transacted, this technology enables the customer to make a transaction buy, pay, or order stuff from the internet without direct interaction with an employee. The third purpose of self-service technologies is to self-help. Through these SSTs, enable the customer to learn, receive information, train them, and provide their own service. Further more, Self-service technologies indeed have a benefit for both companies and consumer. SSTs are cost effective to escalation the benefit of accessibility, pervasive obtainability, and time and money savings and reduce anxiety. This is the literature review of bus reservation system.

III. ALGORITHM

1. Taking a class named ‘a’
2. Declaring variables and arrays as bus n [5],driver [12],arrival[5],depart[5],from[10],to[10],seat [5][4][10].
3. And in public Class we are giving members functions.
 - Void install ()
 - Void allotment()
 - Void empty()
 - Void now()
 - Void avail()
 - Void position (int I)
4. And given that maximum number of buses available 10.
5. And now with respect to installing function we have few options to enter in the run time which will gives to enter the bus details from the backend of system like bus no, driver name, arrival time, departure time and from and to.
6. Find now with respect to the allotment. Function we can allot seats for customer according to their preferable seat numbers.
7. And the empty function shows the seats are empty.
8. Show function shows the seats available in a given bus and which seats are already reserved in bus

IV. ADVANTAGES AND DISADVANTAGES

4.1. Advantages

- The system having online payment functions. So that it will be easier for customers to pay online rather than going to the counter and pay by cash.
- The system will generate a voucher code for registered costumers every 15 days. So, using this voucher costumers will have some discount while purchasing ticket online.
- Costumers will be able to see the available bus depending on the schedule they select along with the price.
- To make the seat reservation clearer the system having the picture of available and reserved bus seats so that so that costumers will know which seats they can reserve before they go for purchasing tickets.
- If there is any upcoming or ongoing promotions then the system will show it for customers whoever accessing.
- As the system having online transaction it will not save the coustmers credit or debit card details like card number expiry date, CVV code for security issues while purchasing or reserving seats.
- If the registered customers want to add their credit or debit card as a default payment methods then the system have the sanction where it will encrypt the card details .
- If the users forget their password the system will have the panel where they can apply for the new password for logging to the system thus the new password will be sent to their email address properly.
- For the last not for least, every data provided by the user will be encrypted by 128 bits.
- Users data is fully protected.

4.2. Disadvantages

- The system will not be available for 24*7(every Sunday). for that customers need to go to the counter and purchase tickets by each.
- The system will not allow customers to refund.
- The system is accessible only for limited hours.
- System will not support any offline data accessibility.
- System will not allow(or) support paypal transfer.
- All the data need to backup manually at the end of the day.

V. CONCLUSIONS

can be observed that the computer applications are very important in every field of human endeavor. Here all the information about the customer that made reservation can be gotten just by clicking a button with this new system, some of the difficulties encountered with the manual system are overcome. It will also reduce the workload of the staff, reduce the time used for making reservation at the bus terminal and also increase efficiency. The application also has the ability to update records in various files automatically there by relieving the companies the stress of working from file security of data. This project as a whole will give a new way in bus reservation and ticketing process. The automation and the management of seats and reservations will be done online. However this project does not limit the walk-in passengers that is passengers who visits the companies counter because it also caters for them. This also lessens the use of papers like in the traditional way of ticketing.

These days, bus agencies are taking essential role in transportation, and to make reservation reliable they require a strong solid system that they will make reservation less demanding, speedier and more secure. This undertaking intended to meet requirements of a bus reservation system. Several steps have been performed to construct the software; the work mainly consisted of using ready-made libraries, modifying existing open source projects and writing codes from scratch. Development platform that was used is XAMP. It has been developed in XHTML, PHP, CSS, and database has been built in MySQL. By using this application, the organization can give reservation administrations and data to their clients without the limitation of office hours or manpower. Not just does it let clients book trips around the clock from any location with an internet connection. yet it is additionally designed for use by the company to internally manage their business processes; minimizing human errors and overcoming difficulties and problems that arose in the previous system. The web site was developed, without the payment process by EBS.

Mobile-based Bus Ticketing Services (MBTS) prototype was developed to help passenger to book their ticket via mobile devices and to help Admin and driver for their daily work. The prototype was evaluated through Iraqis and the results confirm that it is useful to use in Iraq and it is capable to help them to make their transactions easy, direct and successful regardless of location and time. It is hoped that the findings of this study will encourage bus companies to incorporate MBTS into the existing bus services in order to improve and enhance the transportation services so that it is available to users at any place, anytime and any devices.

The paper summarizes the current issues in bus ticketing system. to overcome from this we are working towards android platform. We have identified the current gaps and open research areas. Our research will focus on these open problems and propose effective solutions for the same. This paper introduces on how to secure passenger information. To overcome the drawbacks of manual ticketing system we are using QR-Code for security purpose of passengers information in the propose system.

Based on the description that has been explained, that the ticket booking system is based online, with the aim of facilitating consumers in the process of purchasing bus tickets. The system can also easily view reports, both ticket sales reports, the number of seats on the bus and the reservation report. For the future booking bus tickets based on this seat will be based on mobile applications such as android and also iOS, because now many consumers are already using mobile based android and also iOS.

Finally, in Online Bus Booking System, we have developed a secure, user-friendly Bus Reservation System. This Project basically provides a Bus information and regarding bus information. First of all, in our website any user or visitors view our system and search the bus and how many seats are available in our buses.

The user can also register its own seats in the bus this website. The user can post a comment on different Bus Services. But user can compulsory registered first in the system. Search Bus category wise. This system has automated process to alert employee as well as customers who have booked their seats with the system. This is the cloud based online system. Therefore, to access this system you only need a web browser, internet connection. This is the 24X7 available system. We observed the working of the Bus reservation system and after going through it, we get to know that there are many operations, which they have to do manually.

It takes a lot of time and causing many errors while data entry. Due to this, sometimes a lot of problems occur and they were facing many disputes with customers. To solve the above problem, and further maintaining records of passenger details, seat availability, price per seat, bill generation and other things, we are developed computerized reservation system. By using this software, we can reserve tickets, through telephone lines, via the internet. The customer can check the availability of bus and reserve selective seats. The project provides and reviews all sorts of constraints so that user does give only user data and thus validation is done in an efficient manner.

Nowadays, bus agencies are taking important role in transportation, and to make reservation reliable they need a strong system that they will make reservation easier, faster and safer. This project designed to meet requirements of a bus reservation system. It has been developed in XHTML, PHP, CSS, JAVASCRIPT and database has been built in MySQL. By using this application, the company can provide reservation services and information to their customers without the limitation of office hours or manpower. Not only does it let customers book trips around the clock from any location with an internet connection but it is also designed for use by the company to internally manage their business processes; minimizing human errors and overcoming difficulties and problems that arose in the previous system. Our project online bus reservation system provides an easy way for booking the bus tickets. Our project has succeeded in managing the data and providing the best service.

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