

BUS TICKET RESERVATION SYSTEM

MATHAN T, Dr. T. VELUMANI

Abstract—Bus Ticket Reservation System enables the bus company's customers to buy bus tickets online; this is an easy method which saves a lot of time, it will enable customers in their comfort zone, to search for available tickets and get their data easily without any prior experience with queuing at the counter. With the Internet now routinely being used as a resource for Bus Ticket Reservation, customers can buy bus tickets, make payment, and ask for information online easily. Initially, customers used to book tickets manually by queuing in lines at bus stations or go to travel agents who in turn used to book tickets for them. This was actually a tedious process and was leading to wastage of time. It also had issues like having incorrect names or other information used to book tickets. We can eliminate the drawbacks by developing an application which will allow customers to register themselves and book tickets, cancel tickets and travel dates with feasibility. This actually is a welcome step for customers as they can access the application from anywhere and will also avoid wastage of time that was caused due to the drawbacks in the previous way of booking tickets manually. PHP Hypertext Preprocessor (PHP) language was used for the front-end with HTML and JavaScript of the software while the back end was designed using PHP and MySQL as database. It is recommended that despite the present functionality of the designed software, an additional functionality such as the use of Email to send tickets and notifications to the customer and an online payment using credit cards/debit cards should be implemented into the system.

Keywords—Bus Ticket Reservation, Hypertext Preprocessor (PHP), MySQL.

I. INTRODUCTION

Customers can buy bus tickets through the online system and no need to queue up to buy bus tickets at the counter. To provide anytime anyplace service for the customer. Customers can buy bus tickets 24 hours a day, 7 days a week over the internet. To enable customers to check the availability of the bus ticket online. Customers can check the time departure and know if the ticket is fully booked. To ease the bus ticket payment online.

Mathan T, Student, M.Sc Computer Science, Rathinam College of Arts and Science, Coimbatore, Tamil Nadu, India – 641021, (e-mail: mathan2799@gmail.com).

Dr. T. Velumani, Assistant Professor, Department of Computer Science, Rathinam College of Arts and Science, Coimbatore, Tamil Nadu, India – 641021, (e-mail: velumani.cs@rathinam.in).

Customers can pay the bus ticket by online banking. The application which will allow customers to register themselves and book tickets, cancel tickets and travel dates with feasibility. This actually is a welcome step for customers as they can access the application from anywhere and will also avoid wastage of time that was caused due to the drawbacks in the previous way of booking tickets manually. PHP Hypertext Preprocessor (PHP) language was used for the front-end with HTML and JavaScript of the software while the back end was designed using PHP and MySQL as database.

II. SYSTEM STUDY

It involves studying a procedure or business in order to identify its goals and purposes and create systems and procedures that will achieve them in an efficient way. Use cases are a widely used systems analysis modeling tool for identifying and expressing the functional requirements of a system.

A. Existing System:

In the existing system there are more drawbacks available in the system that are used by the staff at the counter currently is an internal system and just used to sell the bus ticket at the counter. Customers have to go to the counter to buy bus tickets or ask for a bus schedule. Furthermore, customers need to pay cash when they buy the bus ticket and sometimes need to queue up a long time to get the bus ticket. Besides that, customers are also not allowed to buy bus tickets through telephone and the bus company's telephone always-busy line.

Drawbacks of Existing System:

1. Time Delay to getting Ticket
2. Cancellation and refund is delay
3. Managing records of customers, tickets takes a lot of work and staff.
4. Searching and tracking reservation is manual process.

B. Proposed System:

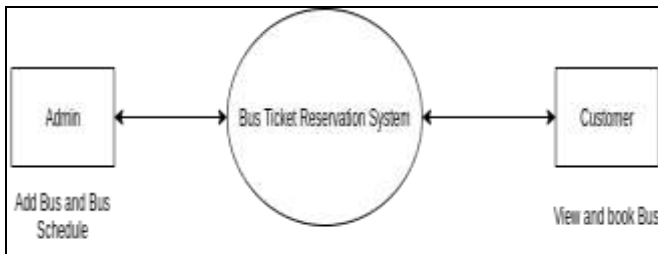
To provide a web based buying bus ticket function. Customers can buy bus tickets through the online system and no need to queue up to buy bus tickets at the counter. To provide anytime anyplace service for the customer. Customers can buy bus tickets 24 hours a day, 7 days a week over the internet. To enable customers to check the availability of the bus ticket online. Customers can check the time departure and know if the ticket is fully booked. To ease the bus ticket payment online. Customers can pay the bus ticket by online banking.

Advantages of Proposed System:

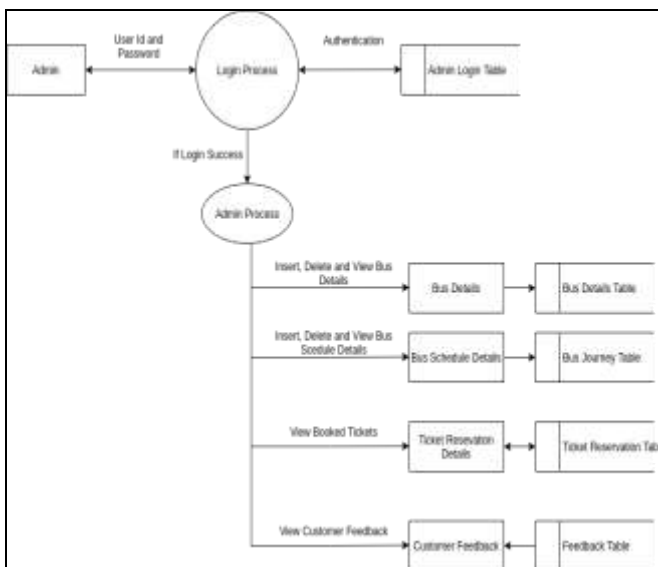
1. Users search buses and book tickets online.
2. Can book and cancel any time.
3. Customers no need to go to the ticket counter

III. PROPOSED WORK

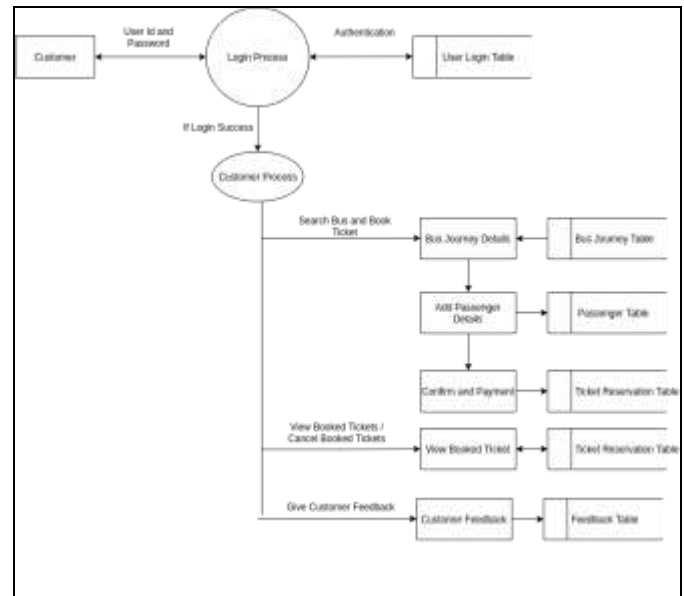
Level-0:



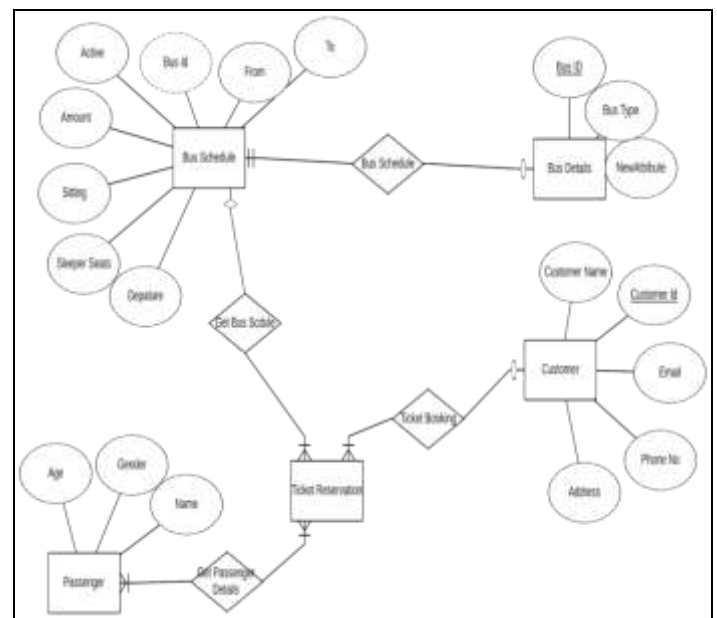
Level-1:



Level-2:



ER Diagram:



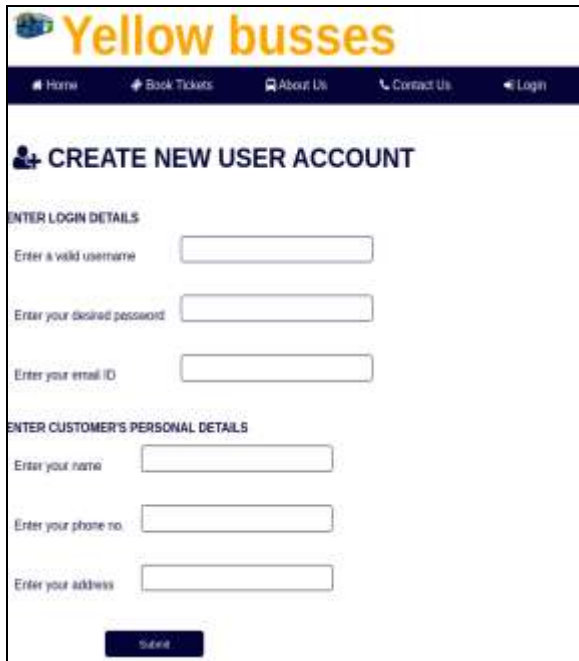
IV. EXPERIMENTAL RESULTS

Login Form:



The screenshot shows the login page of the Yellow Buses application. At the top, there is a navigation bar with links for Home, Book Tickets, About Us, Contact Us, and Login. The main heading is "Yellow buses". Below the heading, there is a "Login Details" section with the following fields: Username (with a placeholder "Enter your username"), Password (with a placeholder "Enter your password"), and User Type (with radio buttons for "Customer" and "administrator"). A "Login" button is located below these fields. At the bottom of the form, there is a link that says "Create New User Account?".

New User Account:



The screenshot shows the "CREATE NEW USER ACCOUNT" page of the Yellow Buses application. The page has a navigation bar with links for Home, Book Tickets, About Us, Contact Us, and Login. The main heading is "CREATE NEW USER ACCOUNT". Below the heading, there are two sections: "ENTER LOGIN DETAILS" and "ENTER CUSTOMER'S PERSONAL DETAILS". The "ENTER LOGIN DETAILS" section has three input fields: "Enter a valid username", "Enter your desired password", and "Enter your email ID". The "ENTER CUSTOMER'S PERSONAL DETAILS" section has three input fields: "Enter your name", "Enter your phone no.", and "Enter your address". A "Submit" button is located at the bottom of the form.

Bus Schedule:



The screenshot shows the "ENTER THE BUS SCHEDULE DETAILS" page of the Yellow Buses application. The page has a navigation bar with links for Home, Dashboard, and Logout. The main heading is "ENTER THE BUS SCHEDULE DETAILS". Below the heading, there are several input fields: "BUS Number" (with a placeholder "TMVRS789"), "Origin" (with a placeholder "Coimbatore") and "Destination" (with a placeholder "Bangalore"), "Departure Date" (with a placeholder "26/02/2021") and "Arrival Date" (with a placeholder "26/02/2021"), "Departure Time" (with a placeholder "22:23") and "Arrival Time" (with a placeholder "04:40"), "Number of Seats in sleeper Class" (with a placeholder "8") and "Number of Seats in semi-sleeper Class" (with a placeholder "45"), "Ticket Price(Sleeper Class)" (with a placeholder "8") and "Ticket Price(Semi-sleeper Class)" (with a placeholder "450"), and "BUS ID" (with a placeholder "3090"). A "Submit" button is located at the bottom of the form.

Bus Entry Details:



The screenshot shows the "ENTER THE BUS TO BE ACTIVATED" page of the Yellow Buses application. The page has a navigation bar with links for Home, Dashboard, and Logout. The main heading is "ENTER THE BUS TO BE ACTIVATED". Below the heading, there is one input field: "Enter a valid BUS ID". An "Activate" button is located below the input field.

Bus Search:

Bus Booking Details:

Payment Details:

View Booked Bus Details:

Upcoming Trips

PNR	Date of Reservation	Bus No.	Journey Date	Class	Booking Status	No. of Passengers	Payment ID
3648659	2021-02-15	T166PNS707	2021-02-15	economy	CONFIRMED	4	132806447

Completed Trips

PNR	Date of Reservation	Bus No.	Journey Date	Class	Booking Status	No. of Passengers	Payment ID
NR2002	2021-02-20	123	2021-02-21	economy	CANCELLED	3	677736398

Payment Summary

Base Fare, Fuel and Transaction Charges (Fees & Taxes included):	₹ 3200
Meal Combo Charges:	₹ 0
Discount:	₹ 0
Total:	₹ 3200

Your Payment/Transaction ID is 132806447. Please note it down for future reference.

Enter the Payment Mode:-

Credit Card
 Debit Card
 Net Banking

Pay Now

Feedback Details:



V. CONCLUSION

It can be observed that computer applications are very important in every field of human endeavor. Here all the information about customers that made reservations 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 reservations at the bus terminal and also increase efficiency. The application also has the ability to update records in various files automatically thereby relieving the company's staff the stress of working from file security of data. The application was tested very well and the errors were properly debugged. Testing also concluded that the performance of the system is satisfactory. All the necessary output is generated. This system thus provides an easy way to automate all the functionalities of consumption. If this application is implemented in little consumption, it will be helpful. Further enhancements like send notification via sms or email, multiple cancellation, report generating, online payment gateway integration also need to be added in future development.

SCOPE FOR FUTURE ENHANCEMENT

Every application has its own merits and demerits. The project has covered almost all the requirements. Further requirements and improvements can easily be done since the coding is mainly structured or modular in nature. Changing the existing modules or adding new modules can append improvements. The project has a very vast scope in future. The project can be implemented on intranet in future. Project can be updated in near future as and when requirement for the same arises, as it is very flexible in terms of expansion. With the proposed software of database Space Manager ready and fully functional the client is now able to manage and hence run the entire work in a much better, accurate and error free manner.

REFERENCES

- [1] Jeremy Zawodny, 'High Performance MySQL', 2009 Edition, oreilly Publications.
- [2] Robin Nixon 'Learning PHP, MySQL, JavaScript, CSS & HTML5: A Step-by-Step Guide to Creating Dynamic Websites'.
- [3] Janet Valade, 'PHP & MySQL for Dummies, 2002 Edition, dummies Publications.
- [4] VikramVaswani, 'PHP: A Beginner's Guide', McGraw-Hill Education; Original edition (16 December 2008).
- [5] Mike McGrath, 'PHP and MySQL', McGraw Hill Education; First edition (1 July 2017).
- [6] Charles Aulds, 'Linux Apache Web Server Administration'.
- [7] Steven Holzner, 'Ben Laurie and Peter Laurie', 1997 Edition, O'reilly Publications.
- [8] <https://stackoverflow.com/questions/tagged/php>.
- [9] <https://www.tutorialspoint.com/css/index.htm>.
- [10] www.codeproject.com.
- [11] <https://developer.mozilla.org/en-US/docs/Web/JavaScript>.