

BUS TICKET RESERVATION SYSTEM

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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.

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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:

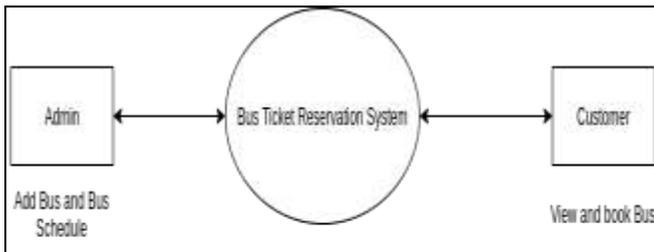
To provide a web based buying bus ticket function. Customers can buy bus tickets through the online system and no need to queue up to buy bus tickets at the counter. To provide anytime anyplace service for the customer. Customers can buy bus tickets 24 hours a day, 7 days a week over the internet. To 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:

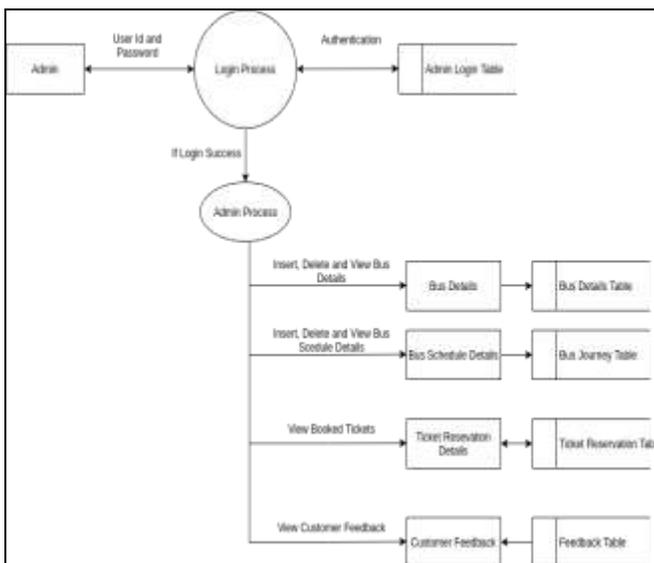
1. Users search buses and book tickets online.
2. Can book and cancel any time.
3. Customers no need to go to the ticket counter

III. PROPOSED WORK

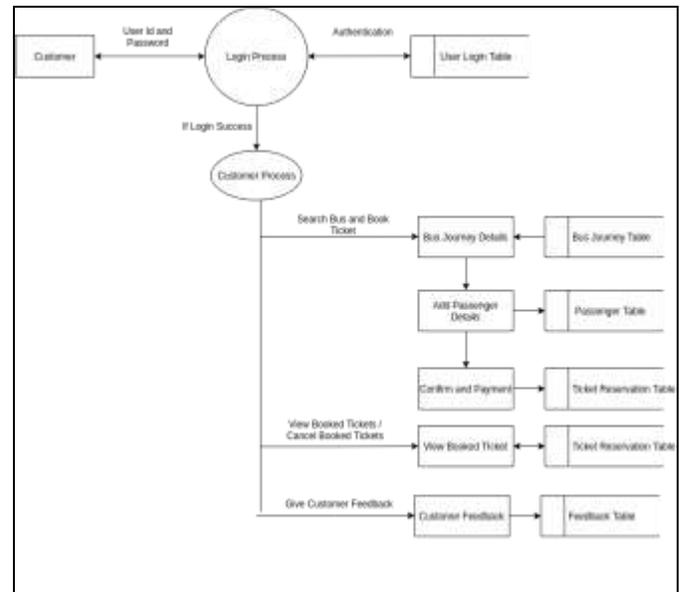
Level-0:



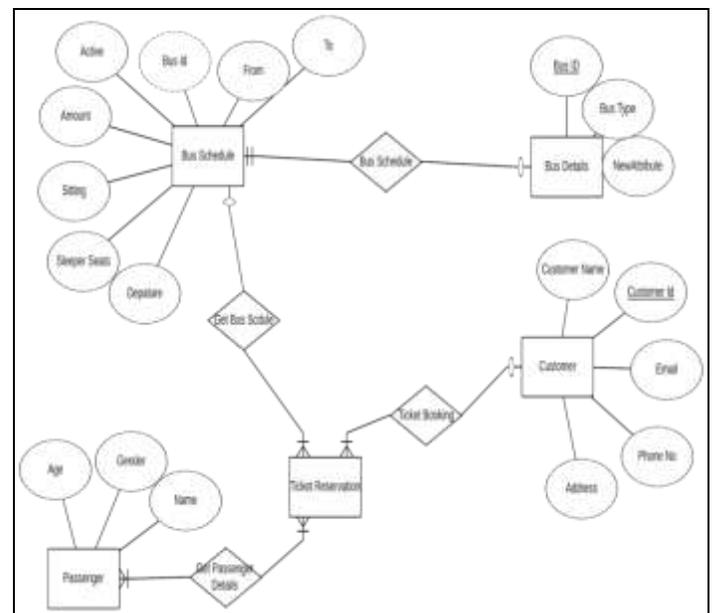
Level-1:



Level-2:



ER Diagram:



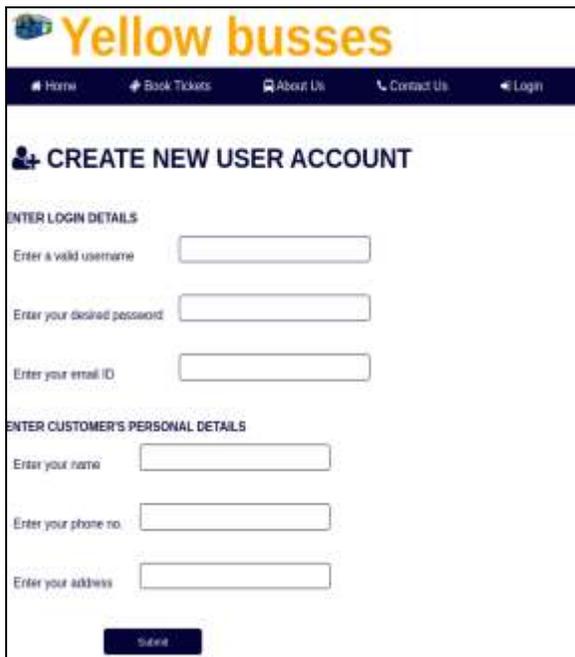
IV. EXPERIMENTAL RESULTS

Login Form:



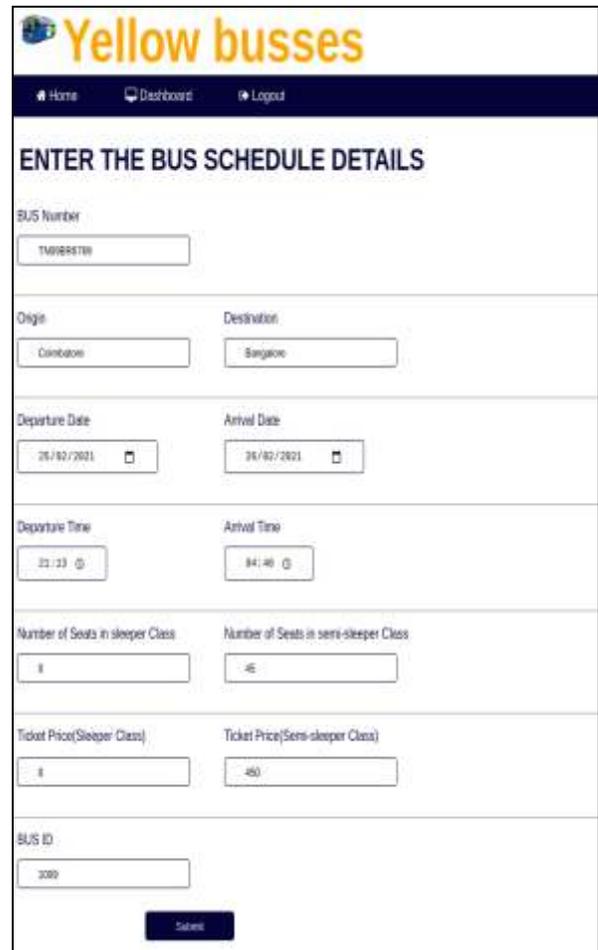
The screenshot shows the login page for 'Yellow buses'. The header includes the logo and navigation links: Home, Book Tickets, About Us, Contact Us, and Login. The main content area is titled 'Login Details:' and contains a form with the following fields: 'Username:' with a text input field containing 'Enter your username', 'Password:' with a text input field containing 'Enter your password', and 'User Type:' with radio buttons for 'Customer' and 'administrator'. A 'Login' button is positioned below the form. At the bottom, there is a link for 'Create New User Account?'.

New User Account:



The screenshot shows the 'CREATE NEW USER ACCOUNT' page. The header is identical to the login page. The main content area is titled 'CREATE NEW USER ACCOUNT' and contains two sections: 'ENTER LOGIN DETAILS' with three input fields for 'Enter a valid username', 'Enter your desired password', and 'Enter your email ID'; and 'ENTER CUSTOMER'S PERSONAL DETAILS' with three input fields for '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. The header includes the logo and navigation links: Home, Dashboard, and Logout. The form contains the following fields: 'BUS Number' (text input with 'TMV85789'), 'Origin' (text input with 'Coimbatore') and 'Destination' (text input with 'Bangalore'), 'Departure Date' (date picker with '26/02/2021') and 'Arrival Date' (date picker with '26/02/2021'), 'Departure Time' (time picker with '22:23') and 'Arrival Time' (time picker with '04:40'), 'Number of Seats in sleeper Class' (text input with '8') and 'Number of Seats in semi-sleeper Class' (text input with '45'), 'Ticket Price(Sleeper Class)' (text input with '8') and 'Ticket Price(Semi-sleeper Class)' (text input with '450'), and 'BUS ID' (text input with '3090'). A 'Submit' button is at the bottom.

Bus Entry Details:



The screenshot shows the 'ENTER THE BUS TO BE ACTIVATED' page. The header includes the logo and navigation links: Home, Dashboard, and Logout. The form contains a single text input field for 'Enter a valid BUS ID' and an 'Activate' button below it.

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 | T169PNS707 | 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.

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