Bus Reservation System

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Abstract*: The travel sector is experiencing a substantial expansion worldwide. The bus reservation system is dedicated to upholding thorough passenger records, encompassing schedules and bus particulars. After a meticulous evaluation of the Bus reservation system, it has come to light that a multitude of tasks are presently conducted manually, culminating in time-intensive processes and inaccuracies in data input. This manual methodology has consequently given rise to an array of difficulties and customer conflicts. To tackle these issues and bolster the management of passenger records, seat availability, pricing, bill generation, and other facets, we introduce the concept of an advanced computerized reservation system.*

Keywords: Bus Reservation, Queue, Efficient

I. INTRODUCTION

Project Objective: Develop and implement a mobile application for a Bus Reservation System. The primary objective of this project is to modernize a travel company's operations by digitizing data management processes. This transition aims to ensure fast and error-free transactions, eliminating issues such as calculation errors and bill generation discrepancies, while also eliminating the need for paper documentation. It will also maintain comprehensive records of all transactions, guaranteeing a 100% successful implementation of the computerized Bus Reservation System.

Project Goals:
- Create a user-friendly model.
- Provide easy access to data privileges.
- Simplify data management for administrators

This reservation system comprises three modules:
- The first module allows customers to check seat availability for a specific bus on a particular date.
- The second module facilitates ticket reservations by inserting relevant data into the system.
- The third module enables the cancellation of reserved tickets
- by deleting corresponding records from the system.

II. METHODOLOGY

Existing System:
In the bus reservation system that is currently in operation, the allocation of journeys is inconvenient and if we have to add important issues, most of all, information about how many passengers is currently traveling in a bus is often not available, sometimes there is also a disturbance in the ticketing of the set of passengers. So sometimes people travel without taking a ticket which is highly illegal and often there are bottlenecks even during bill generation and hence considering all these issues these systems are mostly not secure

Proposed System:
This bus reservation system is very easy to handle and useful in this system the passengers will be well taken care of i.e., complete record of the seat allotted to the passengers even if there is any cancellation the data integrity will be
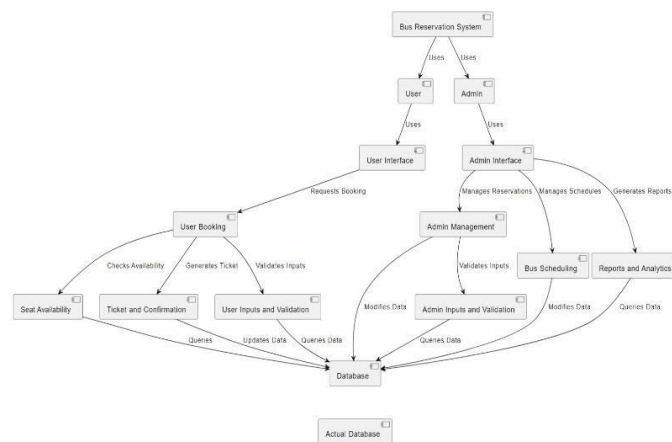
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maintained so that the new passenger can enjoy his journey too. In this bus system Passengers will not have any problems as even the passenger can see their seat in App where he or she want to get very soon in the bus that means they can choose by their own and we can handle it well through internet to any corner of the world.

III. LITERATURE SURVEY

In This 21st Century the growth in the development of artificial intelligence or data science or even we can say Machine Learning had made a lot of changes in every systemor in the filed or upgrowing technologies. This Growing technology also made a lot of changes in the traveling Sections as there was very difficult situation for every person who wants to travel from one place to another. Previously there were long lasting tickets line for reserving your seat in the bus for that we have to stand in a queue and waiting till your number come. The people who want to cancel their tickets also needs to face the same issue as well. As soon as the technology get improves the modification in the system give everyone a relaxing chance over this problem. Many Systems came up with the new technologies or a new mindset in order dismiss these useless problems. Even also the development of new versions of this system every system has their own Consequences.
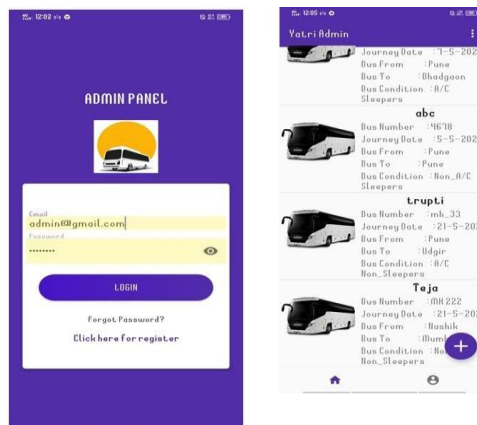
There are many systems Likely to be mentioned are ZingBus in this if a female passenger books a ticket, then its mandatory for that bus that the next seat to that female passenger must be book by Female Only and Male Party can't get access to that Bus seat and these sometimes may create a vacant space problem as a needy Male passenger can't able to get that Seat. Another example we can say RTC app its also did good Job while traveling from one place to another but sometimes people get tired of using it because in this RTC App people can only book Government Buses Only. There are also some buses which needs some modifications like the where to find my bus Current Locations, the proper timing it takes to reach out the destination.
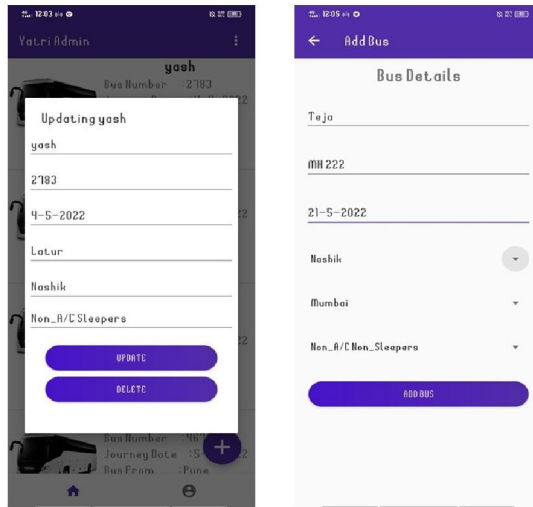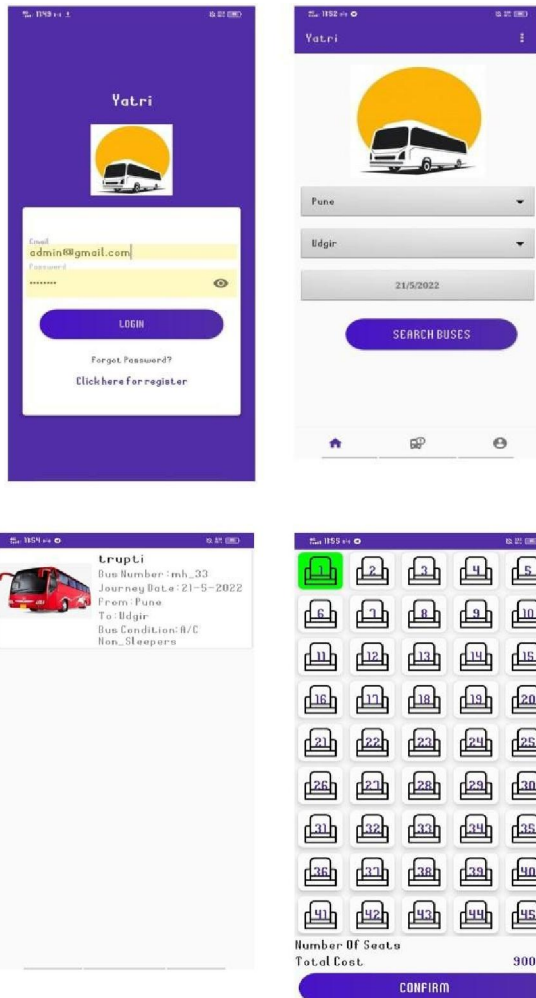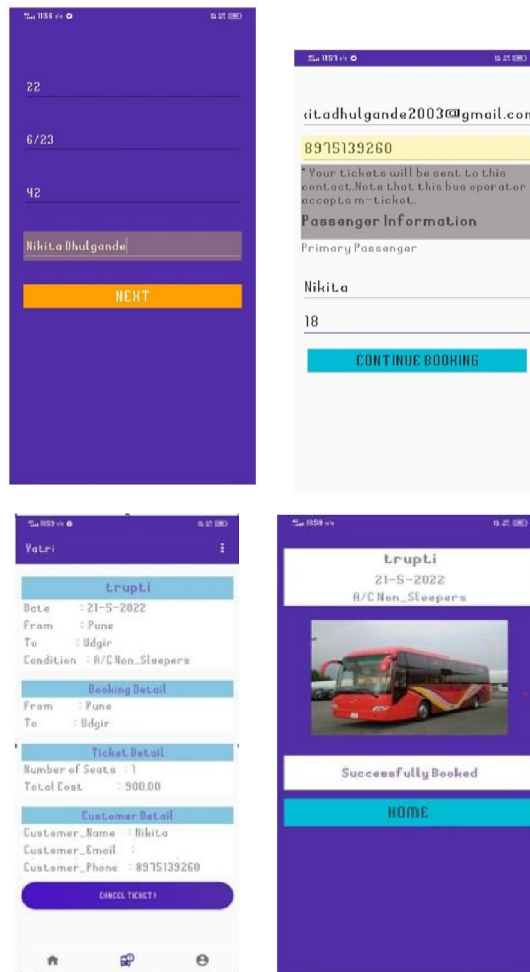
Data Flow Diagram

IV. RESULT

A. Admin Panel

B. User Panel :

V. ADVANTAGES

• Time-Saving: No need to stand in long lines, you can quickly book your seats with just a few clicks.

• Seat Selection: Passengers can choose their preferred seats, ensuring comfort during the journey.

• Transparency: It provides clear information about bus schedules, routes, and ticket prices.

• Payment Options: Multiple payment methods make it easy to pay for tickets.

• Reduced Errors: Manual ticketing can lead to mistakes, which are minimized with an automated system.

• Better Customer Service: Passengers can receive updates and notifications about their trips, enhancing their overall experience.

VI. DISADVANTAGES

• you need internet access :A drawback of bus reservation system software is that you must have an internet connection to use it.

• you need to be ready for influxe of new customer: you have to be prepared for an influx of new customers, which can be challenging to handle.

• Not all online booking system are equal: Not all online booking systems are the same or equal in quality or features. In other words, some may not work as well or have as many options as others, which can be a drawback for users.

• Avoid booking system that don't bring you new quality: you should avoid using booking systems that don't improve the quality of your service or bring in new customers. In other words, if a reservation system doesn't make things better for your business, it's not a good choice.

VII. APPLICATIONS

The bus Reservation Application Track a bookings of Bus reservation And Details which is related to it. And you can use history to check what kind of reservation makes the most money, with the help of historical data get a better understanding of what kind of patter most of the customers follows and have accurate insights into your cash flow.

VIII. FUTURE SCOPE

This section Describes the work that will be implemented in the Future version of software.
• This Application Supports Multiple Platforms and it can run on any OS like; Android.
• It takes minimum Time to response.
• If the reserved bus is not available at that time it can gives you another bus and its detail information also.
• Customer can view all the details on website/Application.

IX. CONCLUSION

This system provides a Reliable user interface where everyone can be able to see their Bus seat number or place visually in this application and can even book their seat , He or she can do modifications like updation or cancelation of a seat or chaneges in the seat numbers . It also include all the information from the starting date of jounery to the destiation place. This syetem is finally built for people to resloved all the problems faced by the them and for the one who can travel efficiently and enjoy his or her journey in very reliable manner.

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