

Team Elite

Innovatio et ingenium

The background image shows the interior of a bus, looking towards the front. Yellow vertical poles are visible on both sides, and blue seats with a colorful pattern are arranged in rows. The text "Bus Reservation system" is overlaid in the center in a white serif font. There are also some white geometric line art elements in the bottom right corner.

Bus Reservation system

What is Bus Reservation System?

Bus Reservation System is a software that handles the entire booking data of the Bus. It is fully based on the concept of reserving bus tickets for various destinations. Previously the task of handling the tickets at a time was very difficult, so there is a need for a software that can handle all Bus Reservation systems.



Objectives of the bus reservation system

1. *To reduce the stress and workload of the employee who are in charge of booking*
2. *It was also time-wasting for the travelers to book a Ticket previously. But now it hardly takes 10 to 15 minutes to book a ticket using this software*
3. *To reduce the amount of re-booking of the same seat*
4. *To ensure transparency and accountability from the workers*

Platform of the software

. The main software will only be available on the system of the bus company

Note: A. The main software has all the options available on the original software

B. The other software will be online for passenger and will only contain view options available in the original software

- The online software will be available on the website for passengers .An online version for the manager/administrator in case he/she would like to work from home.

Note: After payment online, a message is sent to the administrator to book the seat for the passenger

Features of Bus Reservation System Project in C++

- The software is present on the computer system so there is any particular user but whoever has access to the computer system
- In this project anyone can add buses and do the reservation.
- All passenger name and seat number are stored in case of error.
- Passengers will be able to check the availability of seats of particular bus, whether seats are reserved or not.
- Passengers are able to see the status of available buses.
- Passengers will also be able to see who is driving a certain bus from what time to what time.

Objectives of the Bus Reservation system

1. To make bus booking easier for passenger
2. To avoid mix-up in the seats allocated to passenger
3. To reduce the stress on the employees when trying to identify/allocate seats for passenger in different buses going to different destination at different time.
4. To be able to keep records of all passengers safe in case of any unwanted complications

Limitations faced in developing the software

1. We had issues in allowing the loops to return the right option once an invalid answer is chosen
2. We had issues in the arrangement/design of the c++ output
3. We had issues in linking each bus with the actual seat passenger
4. We had to fix logical error in which the software was outputting the wrong information(passenger record) for the buses



PROJECT JUSTIFICATION

This is about trying to explain why we need to implement a particular solution to the problem narrated above. We need to explain how the given solution is best for the above problem. Providing passengers with adequate information about schedules and service interruptions is a critical task to fulfill.

1. Provides customers with adequate information about schedules and service interruptions.
2. Helps customers to pay for bus tickets online.
3. Helps to easily capture information of customers and reduce time taken through manual system.
4. Reduces time and complexity of maintaining records.
5. Helps in accurate maintenance of passengers and drivers.
6. Helps to also maintain passengers' details.
7. Schedules routes, sets seat availability and allows customers to select their seats.

SPECIFIC PROBLEM

There may be many issues at Online Bus Booking time. Reason vary from people to people. E

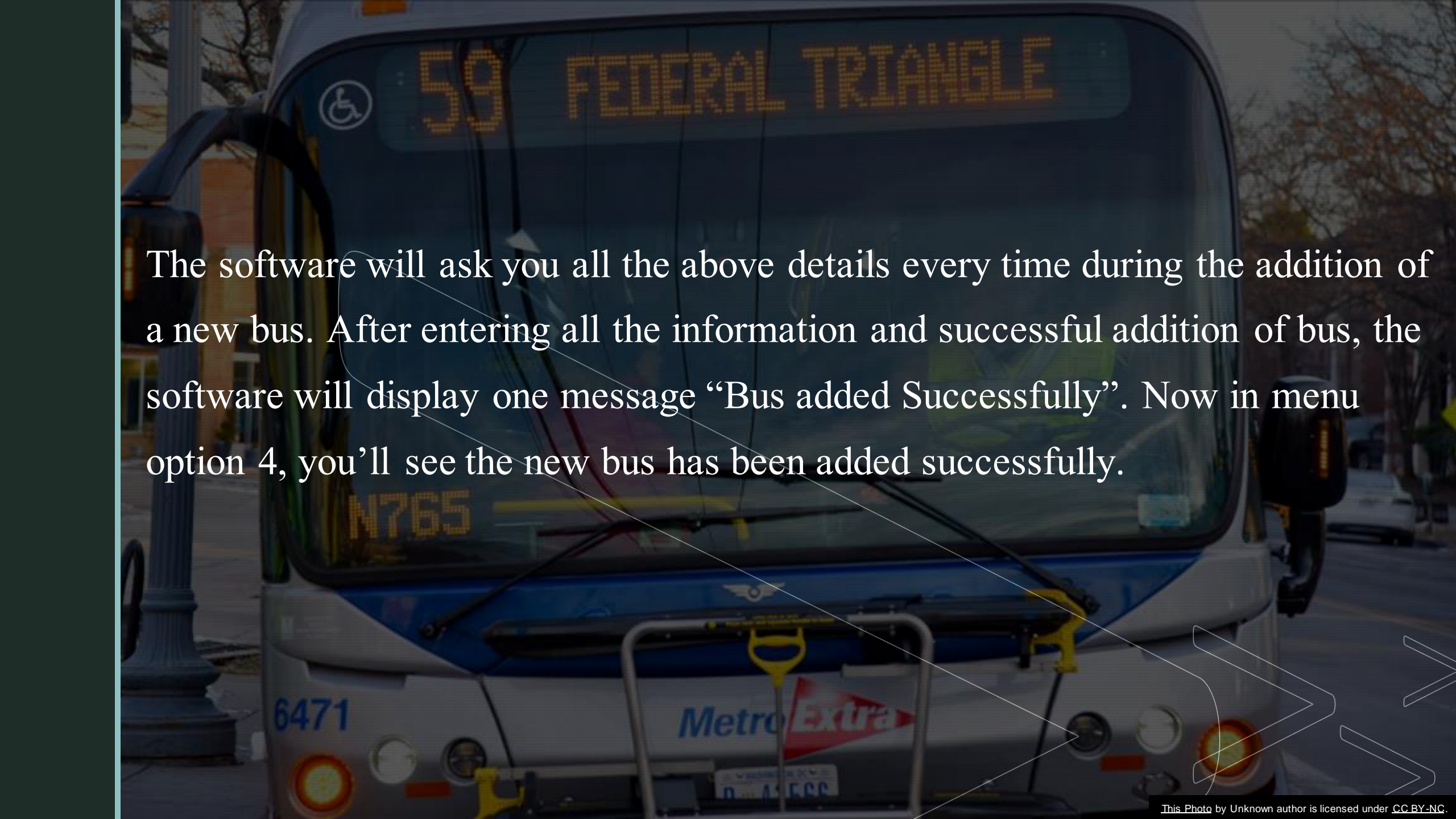
- Seats - as there are a less number of seat some avoid back some front so if not booked soon chances of missing some nice seats are there,
- Online booking - some sites have pretty bad ui and payment problems or booking related problems
- Misinformation sometimes regarding bus details example- super luxury tata buses are known as volvo by some bus owner's don't know what they think

Modular Breakdown of the Bus Reservation Software

Function 1: Add new buses

By choosing this menu option you'll be able to add the bus which is going to depart from the particular location. To add a new one you have to choose the menu as 1. After choosing the first menu software ask you to enter some details of the bus which are:

- The Bus number.
- Name of the driver.
- Time of Departure.
- Arrival Time.
- The location from which bus will depart.
- Arrival location.

A photograph of the front of a white and blue Metro Extra bus. The destination sign above the windshield displays "59 FEDERAL TRIANGLE" in orange LED characters. To the left of the sign is a wheelchair accessibility icon. Below the windshield, the vehicle number "6471" is visible on the left. The "Metro Extra" logo is on the front grille. A yellow handrail is visible in the foreground. The background shows a street with trees and a building.

The software will ask you all the above details every time during the addition of a new bus. After entering all the information and successful addition of bus, the software will display one message “Bus added Successfully”. Now in menu option 4, you’ll see the new bus has been added successfully.

Function 2: Make bus reservation

This section is the main section of our project where the passenger will be able to reserve the ticket for the available buses. Before reserving the bus tickets you've to choose the 4th option and check whether the bus is available or not. If it's available then this option comes into the picture.

After choosing this option the software will ask for the following information:

- Bus number.
- The seat number which you want to book.
- Name of the passenger.

After entering the above information correctly the software will show the success message as “Seat Reserved Successfully”.

Note

If the entered seat is reserved by another person already then, the software will show the message as “The seat no is already reserved”. To get rid of this message the next menu comes into the picture. If the seat is already reserved then the software will ask you to enter a different seat, no. If you don't know which seats are available then, let's see the working of the 3rd menu.

Function 3: Show bus reservation

With the help of this option, you'll get a clear picture of the reservation data of a particular bus. After choosing the 3rd option, the software will ask you to enter the bus number for which you want to see the reservation data. Passengers have to enter the bus number in which they want to do the seat reservation.

After entering the bus number the software will show the bus map with the seat numbers. The software will give the information of seats with the name of the person who's already booked the ticket. If the seat is empty then the software will show it as "Empty".

By looking at the seat map passenger will get an idea of which seat he has to book in order to travel on that bus. The software will also give the exact number of seats that are available on the bus.

Function 4 : Show buses available

With the help of this menu, the passenger will be able to check whether the bus is available or not to which passenger wants to travel. To get all the data of available buses the passenger has to choose the option as 4. After choosing the 4th option the software will display all the data of available buses.

The software will show the following data:

- Bus number
- Drivers name
- Arrival time
- Departure time
- Departure location
- Arrival location

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Function 5 : Exit

By choosing the 5th option the bus reservation system project in c++ will be closed.

PROGRAMMING LANGUAGE

The background is a dark blue gradient featuring a faint silhouette of a human head in profile, facing right. Inside the head and scattered throughout the image are various abstract elements: a complex network of white lines and dots, some of which form circular patterns; several small, semi-transparent icons including a group of three people, a lightbulb, and a gear; and a series of parallel dotted lines that curve across the lower half of the image. The overall aesthetic is technological and digital.

THANK YOU!!!