Bus Management System

Progress report

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by

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ABSTRACT

The project titled Bus Reservation System is a bus reservation management console application. It is developed in C++ and the user can perform tasks like install bus information, reserve bus seat, show reservation information and show information regarding the buses available.

Bus Reservation System is designed to help users maintain and organize bus reservation using highly user friendly interface. The bus availability functionality will help user to see all available options in single view.

Contents

1 Introduction

Bus Reservation System is predicated on the thought of reserving bus seats for the passengers. There's no login system obtainable for this method, the user will freely use its feature. This mini project contains restricted options, however the essential one.

Bus reservation system is a very simple project showing the implementation of class along with the object of C++ language. Here, the user can perform tasks like adding bus information, reserve bus seat, show reservation information and show information regarding the buses available.

2 Aim For Application

The purpose of the project is to build an application program to reduce the manual work for managing the Bus, Ticket Booking etc. It is a simple console application developed in C++ platform. The project is totally built at administrative end and thus only the administrator is guaranteed the access.

It tracks all the details about the Buses, Booking, Seats availability ,Buses availability etc. The system is to reserve the bus from the bus information and it includes the bus no, seat number with the passenger's name. The seat number of the particular bus is reserved under the passenger's name.

3 Features

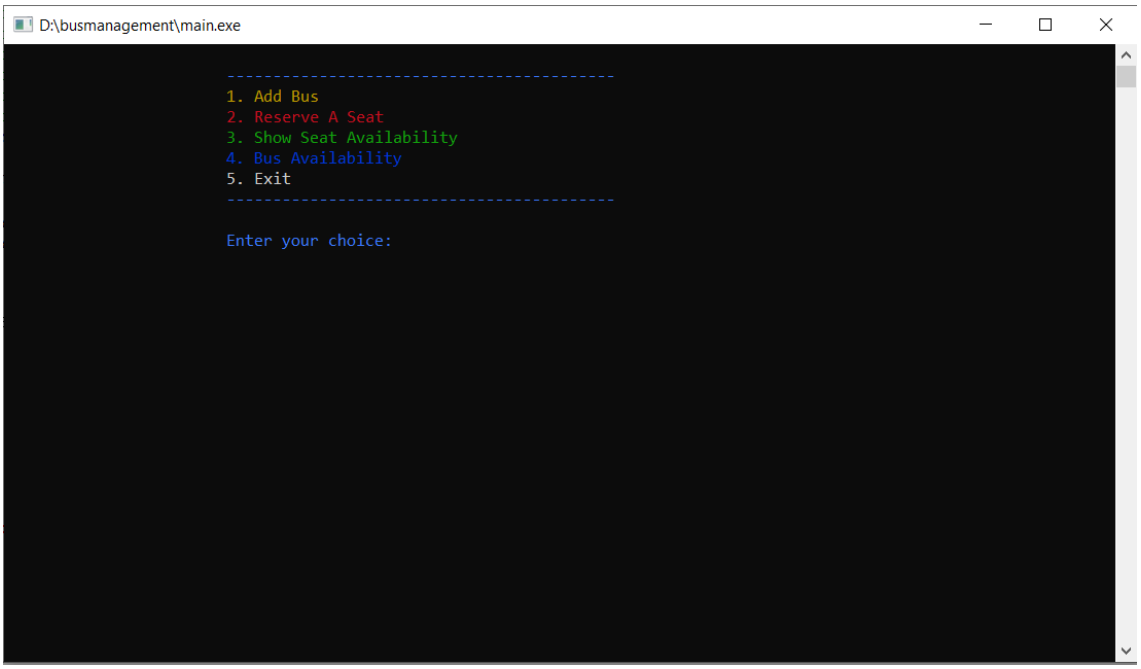
- Provides the searching facilities based on various factors such as buses and seats.
- Easy to operate and understandable.
- People can install bus information which includes bus no, driver's name, etc.
- People can book available seats.
- People can view all available buses with their arrival time, departure time, destinations, bus number etc.
- People can see available seats, driver's name etc.
- Fast Performance

4 Algorithm And Functions

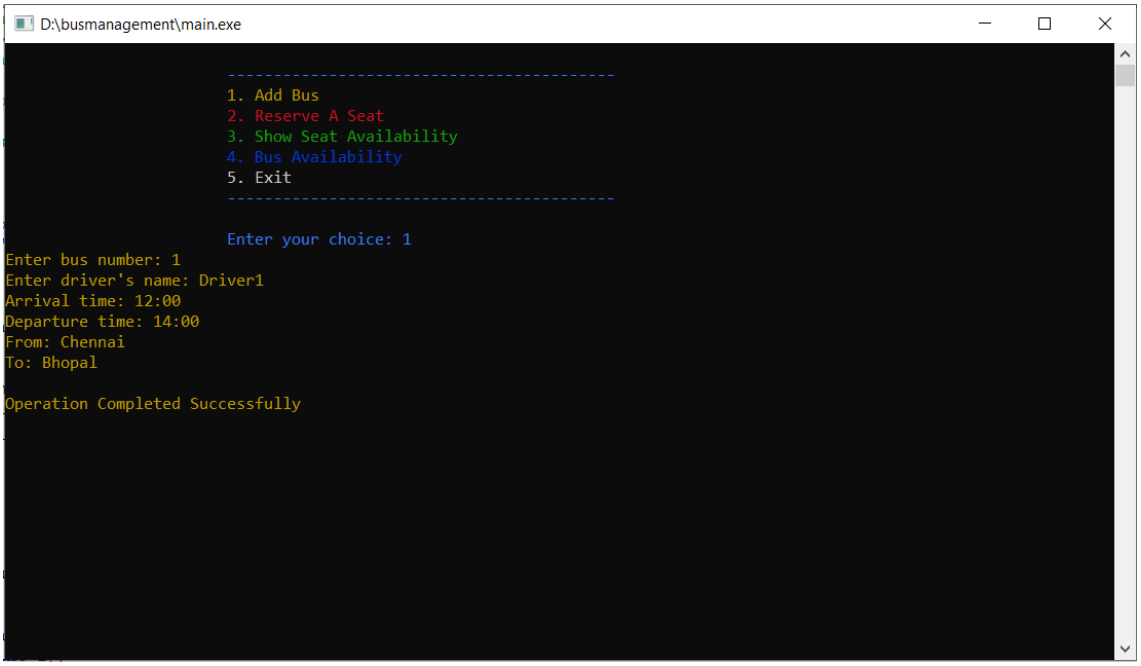
1. Taking a class, name as **Bus_Reservation**.
2. Declaring the variables and character arrays as
   - bus_no[5]
   - driver_name[10]
   - arrival_time[10]
   - departure_time[10]
   - from[20]
   - to[20]
   - seat[8][4][10]
3. And the public member function of the class **Bus_Reservation** are:-
   - void add_bus();
   - void reserve_bus();
   - void empty();
   - void show_bus();
   - void is_bus_available();
   - void position(int i);
4. And giving the maximum buses available as 15.
5. And now with respect to **add_bus** function we gave few options to enter in the run time which will ask the user to enter the bus details from back end of the system like Bus number,Driver's name,Arrival time,Departure time,and from and to i.e starting location and destination.
6. And from the **reserve_bus** function we can reserve seats for the travellers according to their preferable seat numbers.
7. And the **empty** function shows that the seats are empty in the bus.
8. And the **show_bus** function shows the the details about bus like the driver's name,destination,time of arrival and departure along with the number of seats that are empty and reserved in the bus.
9. And the **is_bus_available** function gives the information about total number of buses available the information contains bus number,driver's name,arrival and departure time,arrival and destination location.
10. And the **position** function gives the total number of empty seats in the bus along with a table with seat no and whether the seats are empty .

5 Output Screenshots

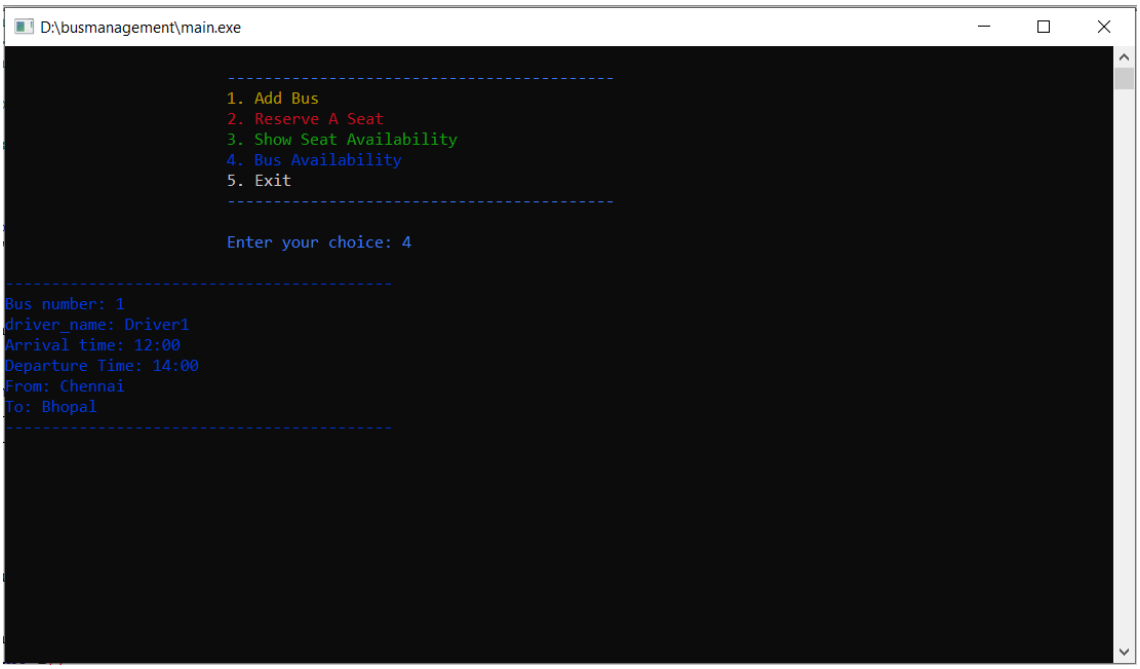
1.Menu



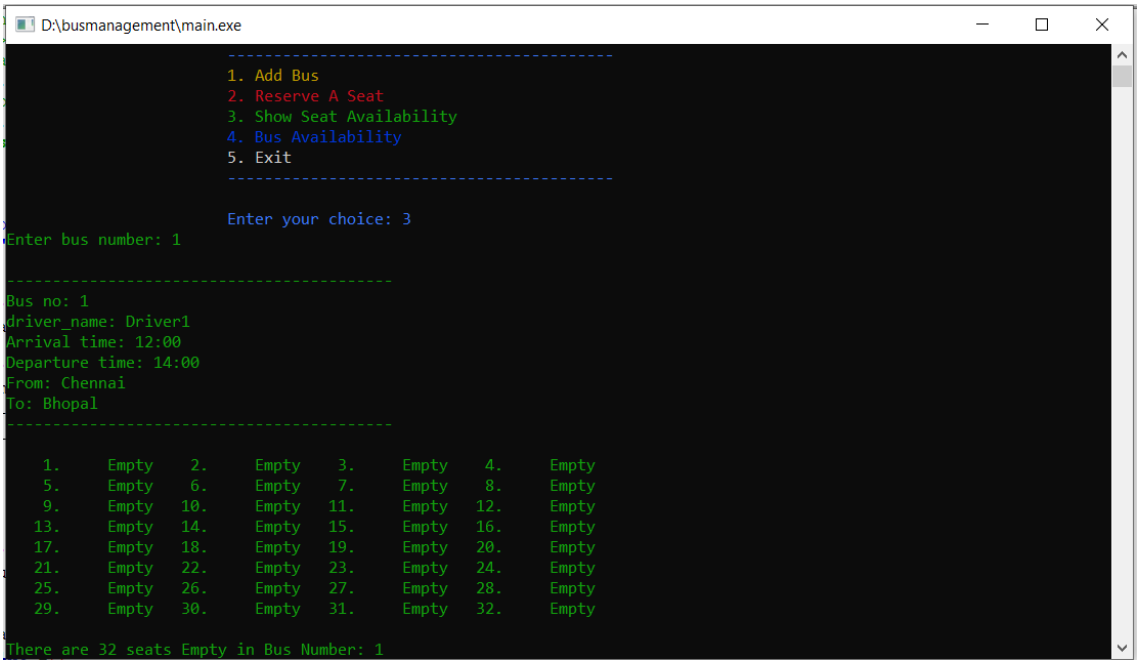
2.Add Bus



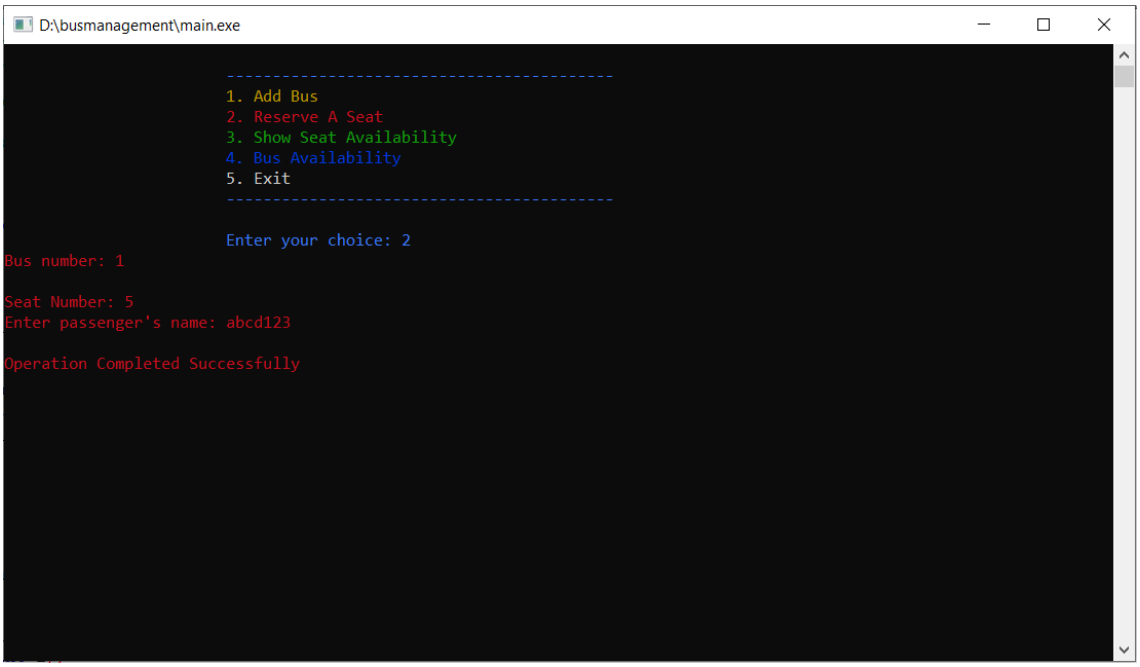
3.Buses Available



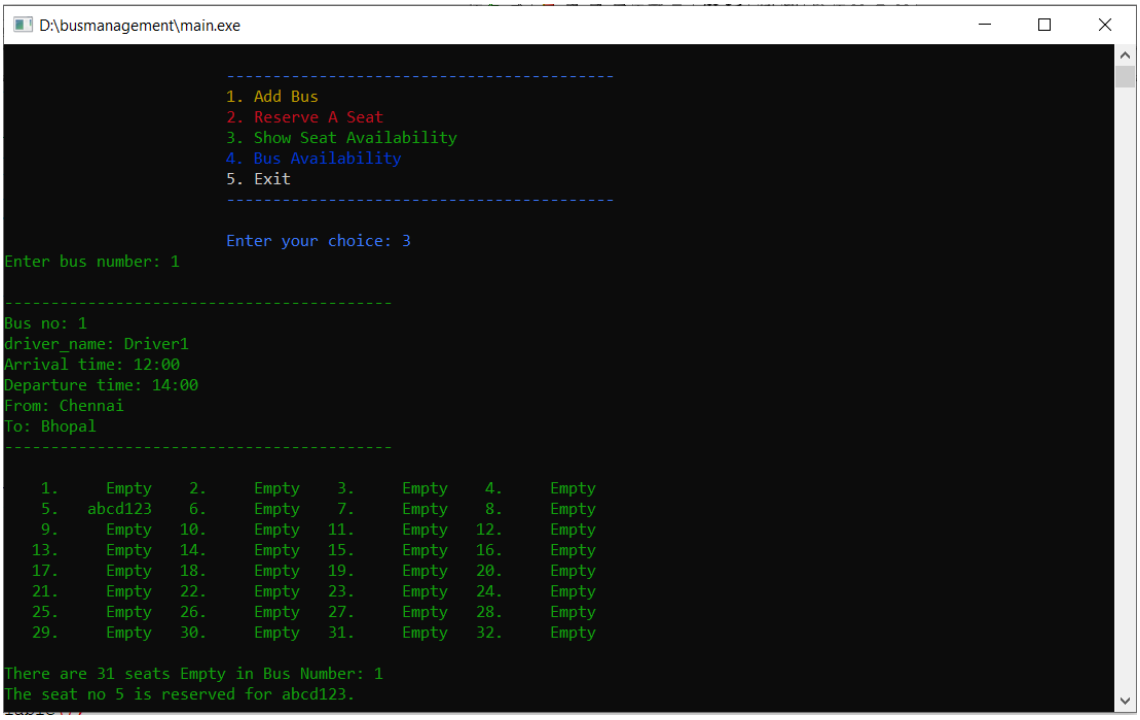
4.Seats Available



5.Book A Seat



6.Show Booked Seats



6 Conclusions

Program Strengths:
There are various advantages of using this program such as:

- It is easily understandable and a user friendly software. It can easily be used by following the instructions which appear on the screen.
- Its various features covers the basic needs of bus reservation system such as finding available buses and seats and reserving a seat.
- User can view all the information such as Bus number, Driver's name, Destination, Departure time etc at a single glance.

Program Weaknesses:
As we know that, no program can be fully reliable and efficient. So there are also some drawbacks in our bus reservation system as follows:

- It cannot perform all the required functions as bus requires, it's simply a record of buses and seats available.
- It is not sharply a graphical user interface. There is just use of some text color.
- It does not supports multi users and multi programming. It can perform only a single task a given time.

7 References

1. **Books**
    - *Thinking in C++ by Bruce Eckel*
2. **Websites**
    - *www.geeksforgeeks.org*
    - *www.youtube.com*
    - *www.tutorialpoint.com*
    - *www.wikipedia.com*