



BUS RESERVATION MANGEMENT SYSTEM

A MINI-PROJECT REPORT

Submitted By:

ARVIN PRADHAN - ENG17CS0038

AKHILESH S BHAT - ENG18CS0025

A. K. ARVIND - ENG18CS0003

of

BACHELOR OF TECHNOLOGY

in

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

at

DAYANANDA SAGAR UNIVERSITY

SCHOOL OF ENGINEERING, BANGALORE-560068

Under the supervision of

Prof. Gousia T.

5TH SEMESTER

(Course Code: 16CS305)

OBJECT ORIENTED PROGRAMMING

DAYANANDA SAGAR UNIVERSITY



CERTIFICATE

This is to certify that the Object Oriented Programming Mini-Project report entitled **“BUS RESERVATION MANAGEMENT SYSTEM”** being submitted by Akhilesh S Bhat, Arvin Pradhan, and A K Aravind to Department of Computer Science and Engineering, School of Engineering, Dayananda Sagar University, Bangalore, for the 5th semester B.Tech C.S.E of this university during the academic year 2020-2021.

*Date:*_____

Signature of the Faculty in Charge

Signature of the Chairman

Abstract

Traveling is a large growing business in India and other countries. Travel industry is evolving day to day. As the industry evolves the need to digitalize all the transactions becomes need of the hour. Bus reservation system deals with maintenance of records of details of each passenger who had reserved a seat for a journey. It also includes maintenance of information like schedule and details of each bus.

This project which is implemented on C++ platform helps to manage bus scheduling and bookings. This Bus Booking System is a easily implemented, integrated end-to-end system starting from searching bus routes to book them.

TABLE OF CONTENTS

Chapter No.	TITLE	Page No
1.	Introduction	5
1.1	Problem Statement	
1.2	Objectives of the project	
2.	Literature Survey	6
2.1	Existing System	
2.2	Proposed Solution	7
3.	System Requirements	8
3.1	Functional Requirements	
3.2	Software and Hardware Requirements	
4.	System Design	
4.1	Architecture/Data Flow Diagrams	9
4.2	Modules – Class Diagrams	10
5.	Results - Screen Shots	11-12
6.	Conclusion	13
7.	Future Scope	14
8.	Reference	15

1. INTRODUCTION

1.1 PROBLEM STATEMENT

This is a simple Bus Reservation Management System programmed using C++ . This program allows you to add bus details, then you can reserve a bus seat according to vacant seat available.

One can check for list for vacant seats in a bus. It also allows you to see the available bus for now. This is a simple implementation of c++ code using class and structure.

1.2 OBJECTIVES OF THE PROJECT

The main objectives of Bus Reservation Management System is to manage the details of the bus reservations, available seats, destination, customer details.

This project provides the better work efficiency, security, accuracy, reliability, feasibility. The error occurred could be reduced to nil and working conditions can be improved.

2. LITERATURE SURVEY

2.1 EXISTING SYSTEM

✓Existing system is totally on book and thus a great amount of manual work has to be done. The amount of manual work increases exponentially with increase in services.

✓Needs a lot of working staff and extra attention on all the records.

✓In existing system, there are various problems like keeping records of items, seats available, prices of per/seat and fixing bill generation on each bill.

✓Finding out details regarding any information is very difficult, as the user has to go through all the books manually.

2.2 PROPOSED SYSTEM

The system is very simple in design and to implement. The system requires very low system resources and the system will work in almost all configurations. It has got following features:

- ✓Needs a lot of working staff and extra attention on all the records.
- ✓Ensure data accuracy and Better Service
- ✓Availability of seats can be enquired very easily.
- ✓Minimum time needed for the various processing
- ✓This would help the corporation prepare and organize its schedules more efficiently on the basis of traffic demand.

3. SYSTEM REQUIREMENTS

3.1 FUNCTIONAL REQUIREMENTS

The functional requirements of the bus management system are those requirements which are necessary to the eye of user and the client. Here we try to make the C++ code possible to accomplish the need of the desired function .

3.2 SOFTWARE AND HARDWARE REQUIREMENTS

HARDWARE CONFIGURATION:

RAM: 4 Gb (available) or 514 Mb (min)

SOFTWARE SPECIFICATION:

Operating system: Windows XP or above

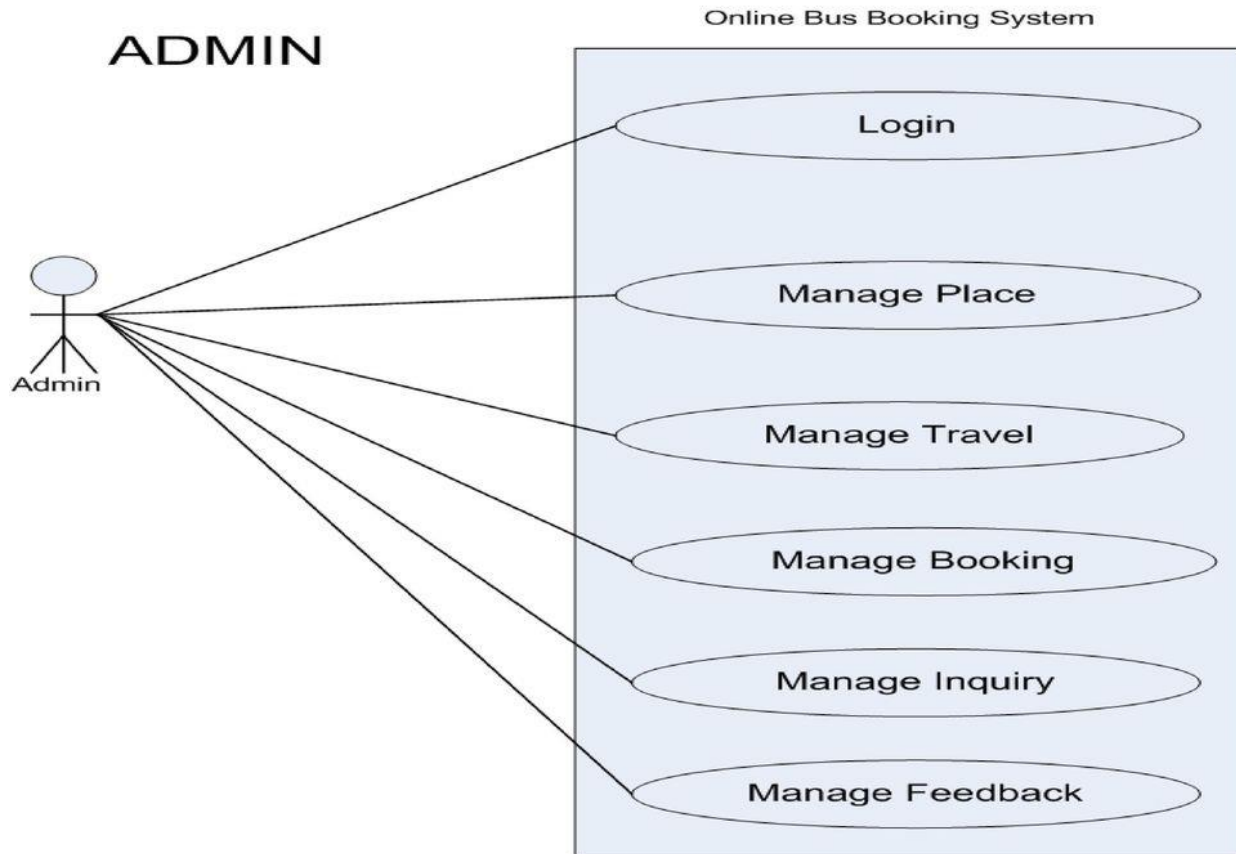
Language used: C++

Database: NA

Server: NA

4. SYSTEM DESIGN

4.1 ARCHITECTURE / DATA FLOW



4. SYSTEM DESIGN

4.2 MODULES

void addnewbus() # Used to add a new bus details

void allotment(); #used to allot a set to an passenger

void empty(); # to check if the buses are empty

void show(); #shows avialble bus seats

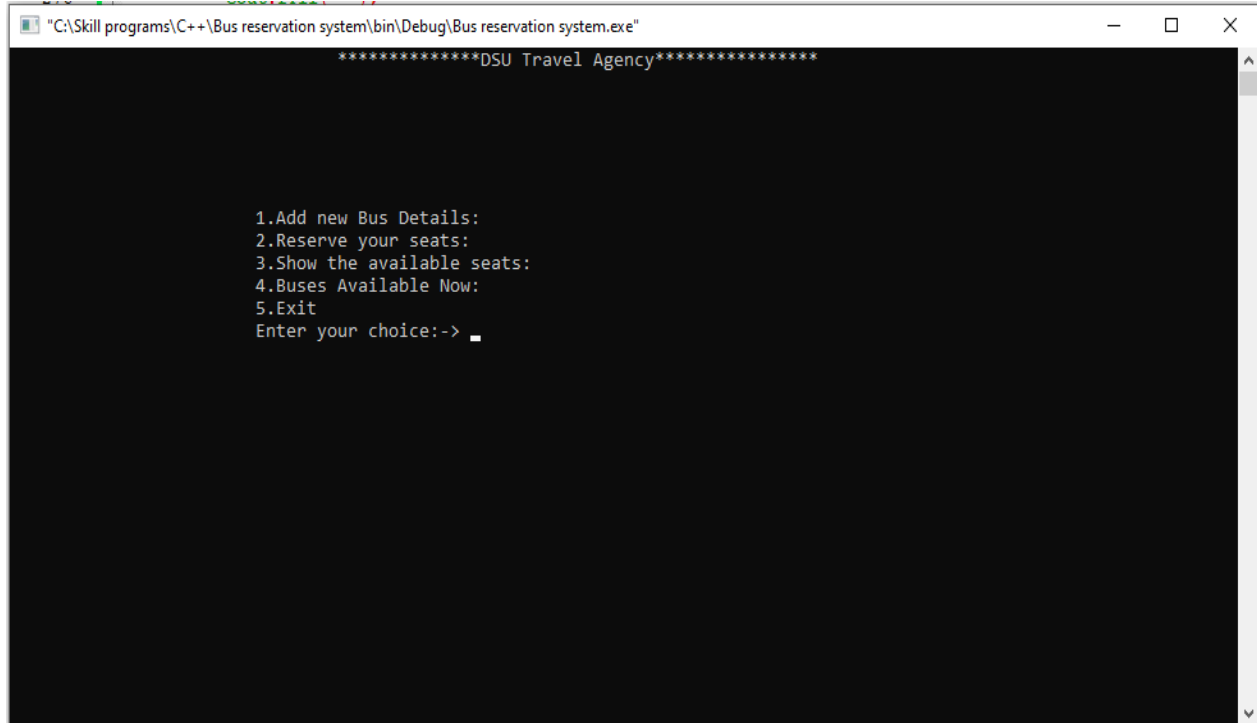
void avail(); #shows all avialable buses

void position(int i); #to get the all reserved bus seats

5. RESULTS

SCREENSHOT

MAIN SCREEN:



```
"C:\Skill programs\C++\Bus reservation system\bin\Debug\Bus reservation system.exe"
*****DSU Travel Agency*****

1.Add new Bus Details:
2.Reserve your seats:
3.Show the available seats:
4.Buses Available Now:
5.Exit
Enter your choice:-> _
```

BUS ENTRY DETAILS:

```
"C:\Skill programs\C++\Bus reservation system\bin\Debug\Bus reservation system.exe"
*****DSU Travel Agency*****

1.Add new Bus Details:
2.Reserve your seats:
3.Show the available seats:
4.Buses Available Now:
5.Exit
Enter your choice:-> 1

Enter bus no: 1234

Enter Driver's name: Aravind

Arrival time : 12:30

Departure: 15:00

From:          blr

To:            del
```

SEAT BOOKING AND SEAT AVAILABILITY:

```
"C:\Skill programs\C++\Bus reservation system\bin\Debug\Bus reservation system.exe"

Seat Number: 32
Enter passanger's name: akh

1.Add new Bus Details:
2.Reserve your seats:
3.Show the available seats:
4.Buses Available Now:
5.Exit
Enter your choice:-> 3

Enter bus no: 1234
*****Bus no: 1234
Driver:      Aravind      Arrival time: 12:3015:00blr      Departure time:15:00blr
From:        blr          To:            del
*****
1.   Empty  2.   Empty  3.   Empty  4.   Empty
5.   Empty  6.   Empty  7.   Empty  8.   Empty
9.   Empty 10.   Empty 11.   Empty 12.   Empty
13.  Empty 14.   Empty 15.   Empty 16.   Empty
17.  Empty 18.   Empty 19.   Empty 20.   Empty
21.  Empty 22.   Empty 23.   Empty 24.   Empty
25.  Empty 26.   Empty 27.   Empty 28.   Empty
29.  Empty 30.   Empty 31.   Empty 32.   akh

There are 31 seats empty in Bus No: 1234
The seat no 32 is reserved for akh.
```

7. CONCLUSION

Our project bus reservation system provides an easy way for booking the bus tickets. Our project has succeeded in managing the data and providing the best service to the users.

- DSU Travels is a bus reservation system which provides Bus Reservation
- This system is user friendly and accurate
- This system is efficient in reservation
- No hidden Cost in fares.

8. FUTURE SCOPE

- File handling not added. A file system can make this block of code more reusable and complete.
- A future application of this system lies in the fact that the proposed system would remain relevant in the future. In case there be any additions or deletion of the services, addition or deletion of any reseller in any type of modification in future can be implemented easily.
- Faster processing of information as compared to the current system with high accuracy and reliability.

9. REFERENCE

[https://www.researchgate.net/publication/326468848 Online Bus Ticket Reservation System](https://www.researchgate.net/publication/326468848)

<https://www.geeksforgeeks.org/>

<https://www.tutorialspoint.com/index.htm>

<https://www.educative.io/blog/how-to-learn-cpp-the-guide-for-beginners>

<https://www.slideshare.net/Arxhman/online-bus-reservation-system>

