Course Project Documentation

CS Project

BUS RESERVATION SYSTEM

TEAM 475

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1. **Introduction**:

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The project introduces bus reservation system.it explains how reservation is being done in bus agencies. The project it developed in “c++” language. Proper comments have been used in this project to make it user friendly . Classes re used to make a complete use of this language and also to make the project more organized .

Our program deals with the reservation of tickets of a bus system. This program is consist of several features which can be used in all bus services like reservation of current and advance tickets, cancellation of already reserved ticket, enquiry about the route and the status of the booked tickets. Passenger list and rules of the bus service are some of the additional features. Our program shows the complete details of the route between the two stations, their arrival and departure time.

We are using 4 buses in our service. The origination of journey is Mumbai and they will go to four destinations namely Bangalore, Ahemdabad, Bhopal and Goa. We have associated four files, one for each bus, Bus1.txt, Bus2.txt, Bus3.txt and Bus4.txt respectively. Every passenger details are stored in corresponding file regardless of date. When needed, information can be read from or written into these files and displayed on the output screen.

2. Problem Statement:

Our system is operated by user or admin.
User functionality:
1) Reservation of ticket.
2) Cancellation of ticket.
3) Enquiry about seat availability , ticket , bus.
Admin functionality:
1)Search the details of passenger by date, month and destination.
2)Search by ticket no.
3)Search by name.
4) Termination of the system.

3. Requirements:

A) Hardware Requirements

Monitor screen – The software shall display information to the user via the monitor screen.

Keypad - The software shall interact with the keypad. the user may input his choice by typing keys.

Printer –for printing tickets.

B) Software Requirements

Although The code is designed to run effectively on Ubuntu 14.04 LTS & windows operating system but An operating system which is capable of running the Software can be used.
The compiler executing the software should be embedded with strings and libraries such as simplecpp , cstring , fstream , etc.

4. Implementation:

In the starting The system wants to know whether the
user is a **customer** or an **admin.**
if he is admin the process given below will happen.

>> a password is asked. If the password matches then the flow of the program goes to the admin. For the admin a list of options for operation is displayed and according to the choice the flow of the program proceeds.

>>The admin can display the details of the customers based on any specified criteria. It searches for the criteria, if it matches it displays other details of the customer. The admin can search for any customer based on his name or ticket no. . It runs through all the tickets or name and search for the desired one and displays the details of the same.

>> admin can terminate the whole system as well.

>>If he is a customer then the process given below will happen.

1)Under the bus reservation system shows the four destination service, user needs to input his choice of destination then user needs to enter his name, age, sex, date of journey.

2)Under ticket cancellation user inputs his destination choice and his ticket no. we will start searching his details we will display his ticket details with a message ‘THE TICKET HAS BEEN CANCELLED’ if his record is not found, the message displays ‘THE SEAT IS EMPTY’.

3)Under enquiry user needs to enter a choice among sub-enquiries. The sub-enquiries are Ticket Status, Seat availability, Bus Running Information, and Rules of Bus Service.

4) Under Ticket Status user needs to enter his destination choice and ticket number,When ticket entered by the user is found valid system will show his details of the journey. If no match found, a message saying “YOUR SEAT IS NOT RESERVED” is displayed

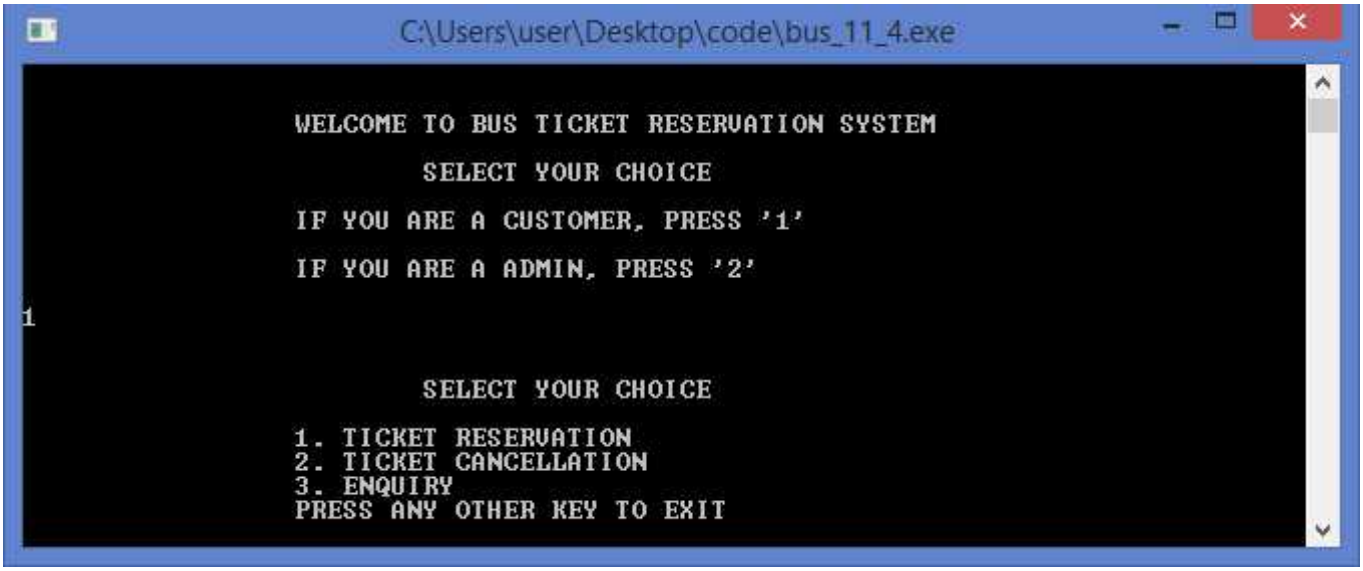
5) Under seat availability user is helped in a way if he wants to enquire the available seat on a particular dates. So, he needs to enter the dates and month on which he wants to check the availability as well as his destination choice then system display the availability details.

6) Under Bus running information user needs to enter his choice of destination then system displays the complete route of that bus (total stoppage between source and destination, duration of stoppage, arrival and departure time).

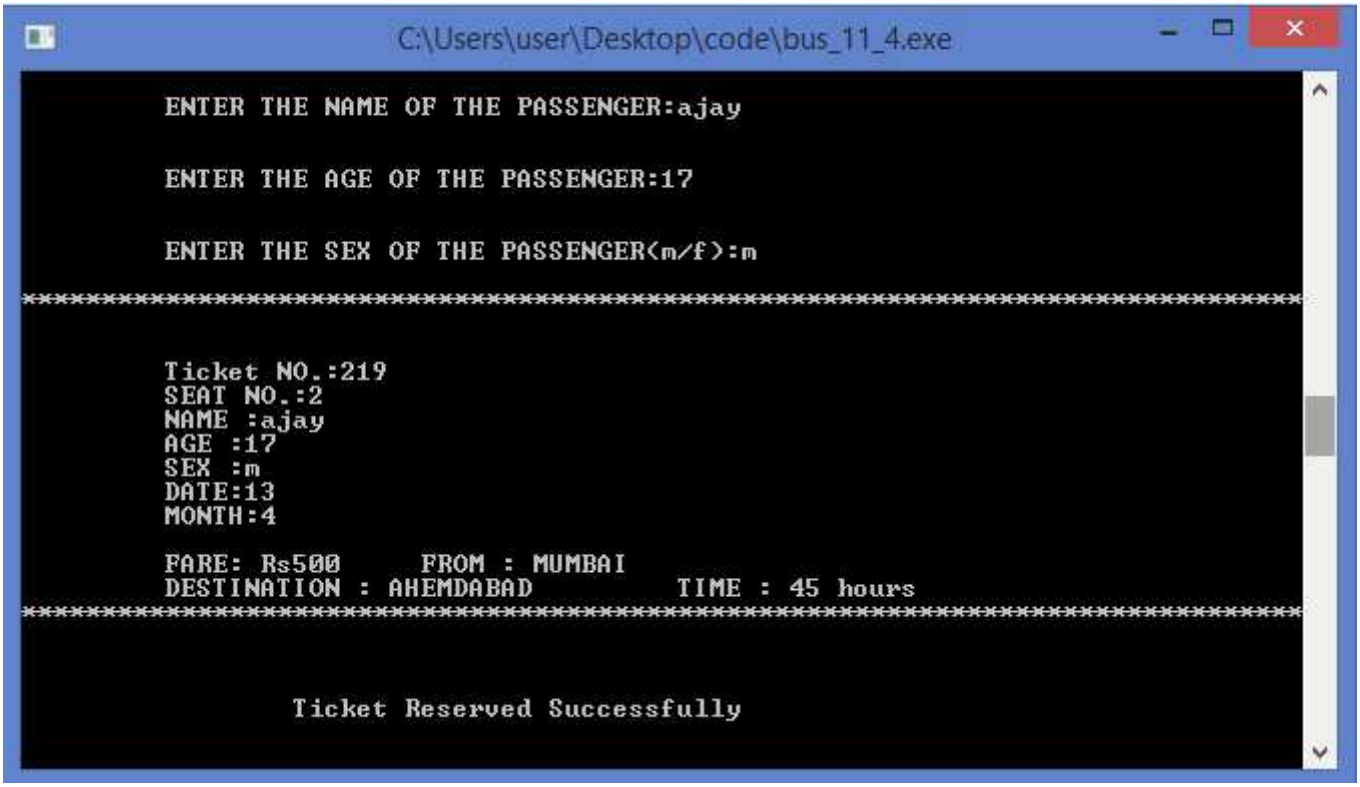
7) Under Rules of bus service system display a set of rules which are to be followed by the passenger during the course of journey.

5)Screenshots of the project

Main-screen 1 / home page

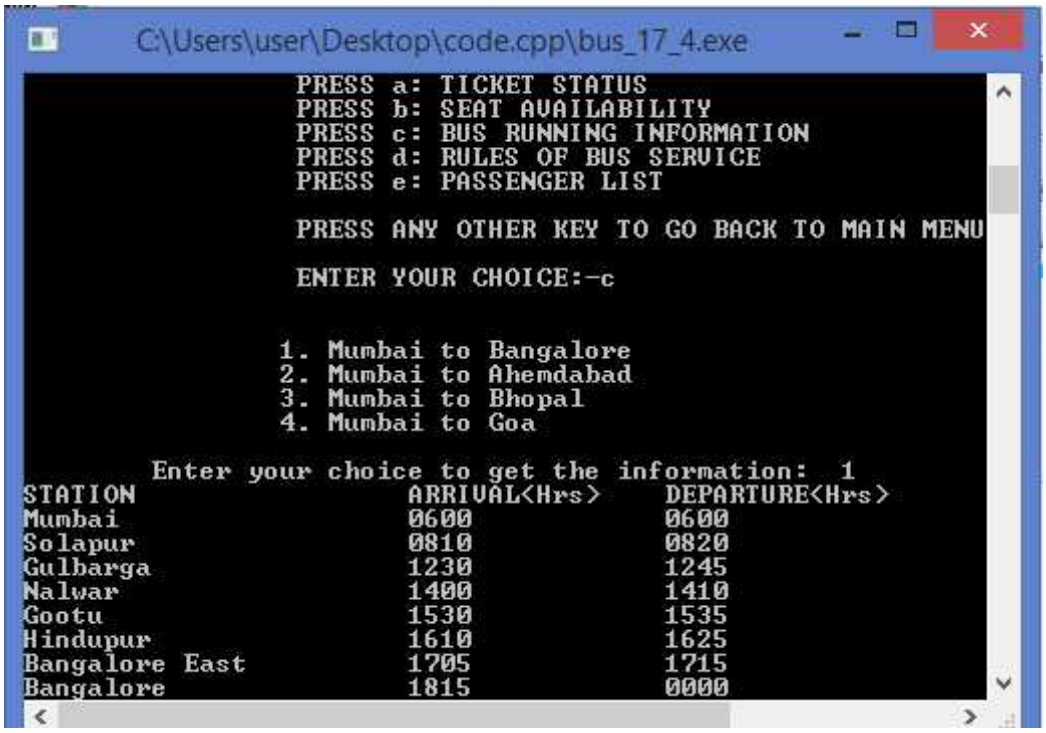


Reserved ticket

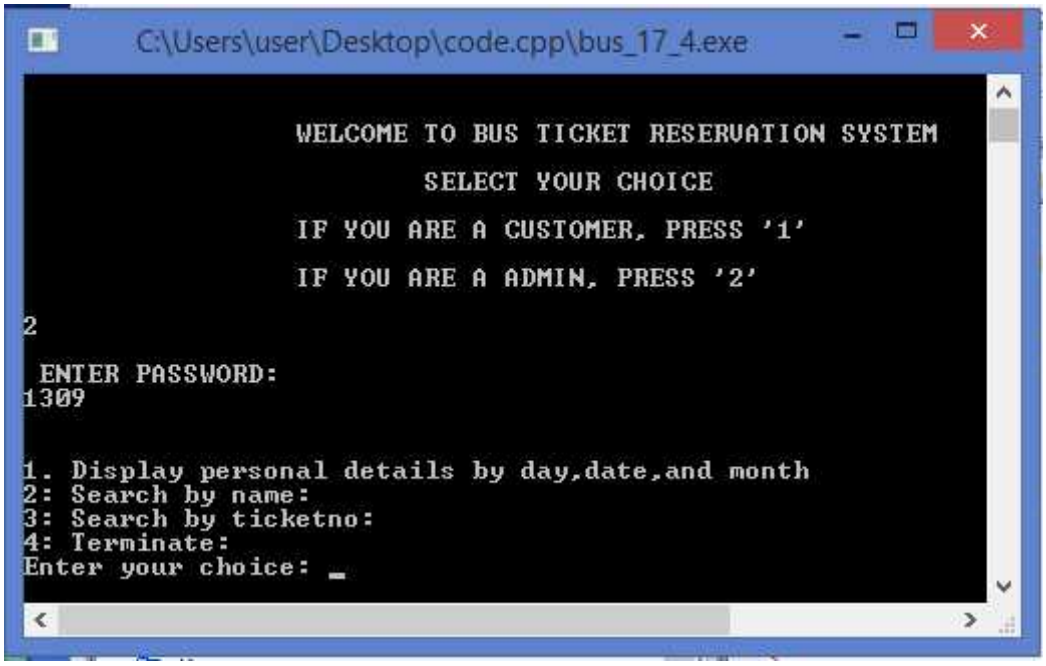


Cancellation of ticket

Information about bus route and timings



Main-screen for admin



6. Discussion of System:

A) What are worked as per plan?

as stated in the srs we have provided two interfaces as admin and costumer. following functionalities are provided as per our earlier plan.

1) COSTUMER is privileged with the following services:

a) Reservation of ticket.
b) Cancellation of ticket.
c) Enquiry about seat availability , ticket , bus.

2) Administrator is privileged with the following services:

a)Search the details of passenger by date, month and destination.
b)Search by ticket no.
c)Search by name.
d) Termination of the syatem

B) Things that are not done as per the plan.

1) We have assumed that there is no waiting list facility in our bus system .
2) we have assumed that the customer is paying fair by cash.
3) we are not able to provide seat map.

(C) Changes made in plan:

1) Limited buses : we are using four buses in our system.
2) We are not providing sign-in and signup option for costumer.
3) We are giving same priority to all the seats i.e. nothing like window or non-window seat.
4) We are charging same fair for all whether he is a child or an aged person

D) our system gives the following benefits :

1) Better storage capability.
2) More efficient operations.
3) This system saves time and manpower.

7. Future Work:

1) Graphics can be used for better user interference.
2) System can be made online.
3) Extrapolation to n-number of buses & n-number of routes.
4) Designing more functions for administrative purpose.
5)Providing the user with the choice to reserve his ticket from any bus-stop in a particular route (as now, reservation is only from Mumbai to destination stop).
6) Project can be further used to implement railway reservation system.

8. Conclusion :

Today one cannot afford to relay on the fallible human beings if he really wants to stand against today's merciless competition where " to err is human " is no longer valid, it's outdated to rationalize your mistake . So, to keep pace with time, to bring about the best result without malfunctioning and greater efficiency one needs to replace the unending heap of files with data management software.as our project is.

In short , All the manual work should be converted into computerized so that the load of employees decrease and also the probability of errors . the data should be stored in computers rather than in register/manually .

the objective of our software is to reduce the manual error in
the bus reservation process and make it convenient for the users to use bus service as per his convinence .

9. References:

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3) https://vinodthebest.wordpress.com/
4) *An Introduction to Programming through C++ by Abhiram G. Ranade*
5) *https://en.wikipedia.org*