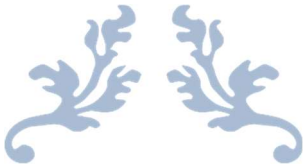

BUS RESERVATION SYSTEM

Project Report

JULY 29, 2021

APEX INSTITUE OF TECHNOLOGY

BUS RESERVATION SYSTEM

A Project Work

Submitted in the partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

CSE(H) BIG DATA ANALYTICS

Submitted by:

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JULY & 2021

DECLARATION

I, **'Yash Srivastava'**, student of **'Bachelor of Engineering in CSE(H) Big Data Analytics'**, **session:2021-2022**, Department of Computer Science and Engineering, Apex Institute of Technology, Chandigarh University, Punjab, hereby declare that the work presented in this Project Work entitled '**Bus Reservation System'** is the outcome of our own bona fide work and is correct to the best of our knowledge and this work has been undertaken taking care of Engineering Ethics. It contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgment has been made in the text.

Yash Srivastava
Candidate UID: 20BCS4443

Date: 29/07/2021

Place: Chandigarh University

ABSTRACT

Traveling is a large growing business across all countries. 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.

I observed the working of the Bus reservation system and after going through it, I get to know that there are many operations, which they have to do manually. It takes a lot of time and causes many errors. Due to this, sometimes a lot of problems occur and they were facing many disputes with customers.

To solve the above problem, and further maintaining records of items, seat availability for customers, price of per seat, bill generation and other things, I am offering this proposal of reservation system. By using this software, I can reserve tickets from any part of the world, through telephone lines, via internet.

Customer can check availability of bus and reserve selective seats. The project provides and checks all sorts of constraints so that user does give only useful data and thus validation is done in an effective way.

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ACKNOWLEDGEMENT

A project like this takes quite a lot of time to do properly. As is often the case, this project owes its existence and certainly its quality to a number of people, whose name does not appear on the cover.

I thank to Dr Vipin Tiwari who deserves credit for helping me done the project and taking care of all the details that most programmers really don't think about. Errors and confusions are my responsibility, but the quality of the project is to their credit and we can only thank them.

I owe my obligation to my friends and other colleagues in the computer field for their co-operation and support.

I thank God for being on my side.

GANTT CHART

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Weeks activity	1	2	3	4	5	6	7
Problem Definition							
Requirement Identification							
Analysis							
Design							
Implementation Testing Documenting							

Table of Contents

INTRODUCTION

The focus of the project is to computerize traveling company to manage data, so that all the transactions become fast and there should not be any error in transaction like calculation mistake, bill generation and other things. It replaces all the paper work. It keeps records of all bills also, giving to ensure 100% successful implementation of the computerized Bus reservation system.

This reservation system has three modules.

i. First module helps the customer to enquire the availability of seats in a particular bus at particular date.
ii. Second module helps him to reserve a ticket.
iii. Using third module he can log out from the console.

1.2 PROBLEM SPECIFICATION

Bus Reservation Systems that were suggested till now, are not up to the desired level. There is no single system which automates all the process.

In order to build the system, all the processes in the business should be studied, System study helps us under the problem and needs of the application. System study aims at establishing requests for the system to be acquired, development and installed. It involves studying and analyzing the ways of an organization currently processing the data to produce information. Analyzing the problem thoroughly forms the vital part of the system study. In system analysis, prevailing situation of problem is carefully examined by breaking them into sub problems. Problematic areas are identified and information is collected.

Data gathering is essential to any analysis of requests. It is necessary that this analysis familiarizes the designer with objectives, activities and the function of the organization in which the system is to be implemented.

1.3 HARDWARE SPECIFICATION

a. PC with core 2 duo or more processor.

b. 512 MB RAM or above.

c. 180 GB Hard Disk or above.

1.4 SOFTWARE REQUIREMENTS

a. Operating system : Windows XP (or) 10.

b. Dev C++ & Code blocks compilers.

c. Microsoft word and PowerPoint.

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 bus 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.

- Major problem was lack of security.

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:

- Ensure data accuracy.
- Any person across the world, having internet can access this service.
- Availability of seats can be enquired very easily.
- Passengers can also cancel their tickets easily.
- Minimum time needed for the various processing.
- Better Service.
- Minimum time required.
- This would help the corporation prepare and organize its schedules more efficiently on the basis of traffic demand.

2.3 FEASIBILITY STUDY

The assessment focused on gaining an understanding of the present technical resources of ticket booking sector and their applicability in the proposed system. This was aimed at evaluating both hardware and software required for the new system. It also determined whether the current facilities were adequate for the new system implementation.

PROBLEM FORMULATION

If we observe the working of the bus reservation system, we get to know that there are many operations, which they have to do manually. It takes a lot of time and causes many errors. Due to this, sometimes a lot of problems occur and they face many disputes with customers. Bus scheduling, driver's assignment, ticketing, seat allocation, daily income calculation etc are very tedious job with manual bus reservation system.

To solve the above problem, and further maintaining records of items, bus scheduling, seat availability for customers, price of per seat, bill generation and other things, there required computerized system for bus scheduling and ticketing.

By using this software, we can schedule the bus timing, sell tickets, and generate different reports with single click from different counters into centralized database server.

OBJECTIVES

The main objective of the Project on Bus Ticket Booking System is to manage the details of Bus, Tickets, Booking, Customer, Seats. It manages all the information about Bus, Seats, Bus. The project is totally built at administrative end and thus only the administrator is guaranteed the access. The purpose of the project is to build an application program to reduce the manual work for managing the Bus, Tickets, Booking. It tracks all the details about the Booking, Customer, Seats.

- Provide software solution for effective schedule of bus and crew members.
- Provide solution for effective ticket sales procedure.
- Generate and calculate daily sales income.
- Generate required report output for the purpose of providing information to employee and administration.
- Provide fast, user friendly and error free computerized system.

METHODOLOGY

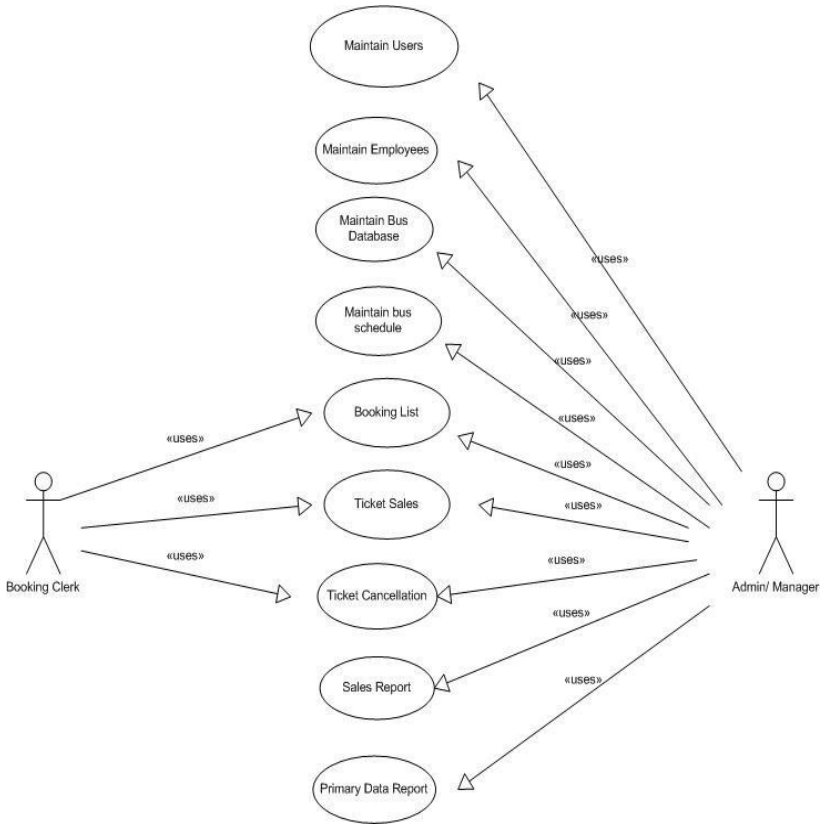
❖ Data Collection Method

Interviewing will be used to find out the facts, verifying facts, identifying requirements and gathering ideas and opinions. With this technique, the problem that occurred will be easy to solve.

❖ Waterfall Model for system development

The project methodology that used in the development of the system is the System Development Life Cycle (SDLC). The SDLC is composing of four phases: System Analysis, Design, Coding and Testing. The approach that used in the system development methodology is the Waterfall Model. This is the implementation of SDLC step by step into the system development methodology.

❖ Use Case Diagram



CONCLUSIONS AND DISCUSSION

This facility is helpful for the users and the organization as well. This is a simple yet effective technology which helps the users to access the service concurrently from different places.

- Advantages:

  a) It reduces the burden of the administrator to maintain numerous data of passengers.

  b) It reduces wastage of time as it is fast and simple.

  c) It is low cost.

  d) Improves the efficiency of the organization.

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