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# **BUS RESERVATION**

## System

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# PROJECT PROPOSAL

## INTRODUCTION

The **Bus Reservation System** is a software application designed to automate the process of booking and managing bus reservations. The system will be designed to provide a user-friendly interface that will help in managing the system more efficiently. The Bus Reservation System will have features to manage the buses, routes, schedules, drivers, and passengers more efficiently. This project proposal outlines the objectives, features, and functionalities of the Bus Reservation System.

Managing and maintaining a Bus Reservation System manually is not an easy task. Performing these tasks manually can be very difficult. This has given rise to the demand for automated database management system software that can facilitate managing the system. For this purpose, the Bus Reservation System came into occurrence. The tasks performed by the system include the management of buses, drivers, routes, passengers, schedules, tickets mainly. The purpose of Bus Reservation System software is to provide easy to use approach to handle all the system's functionality and efficiently manage the reservation system of buses.

## OBJECTIVES

The main objectives of the Bus Reservation System are as following:

- Automate all the processes of management of the system including buses, drivers, routes, passengers, schedules, tickets mainly.
- Implement the manually done work as an automated system to reduce the level of difficulty.
- Managing and maintaining the system to have an organized structure for storing the records of different entities in the database.
- Providing an easy-to-use interface for the bus reservation management company to easily use the system.
- Improve efficiency of the system and add accuracy to it, thus the data is stored without any ambiguity.

## PROJECT DETAILS

To develop this system, we need to use database and programming tools to develop a user-friendly and effective system:

- **Hardware Requirements:**

**Processor:** Intel Pentium 4 or above.

**Hard Disk:** 20 GB

**RAM:** 1 GB

- **Software Requirements:**

**Operating Systems:** Windows XP, Windows Vista, Windows 7, Windows 8, or Windows 10

**Programming Language:** Java or C#

**Integrated Development Environment:** IntelliJ Idea or Visual Studio **Database Management System:** MS SQL Server

○ **Tools:**



GitHub



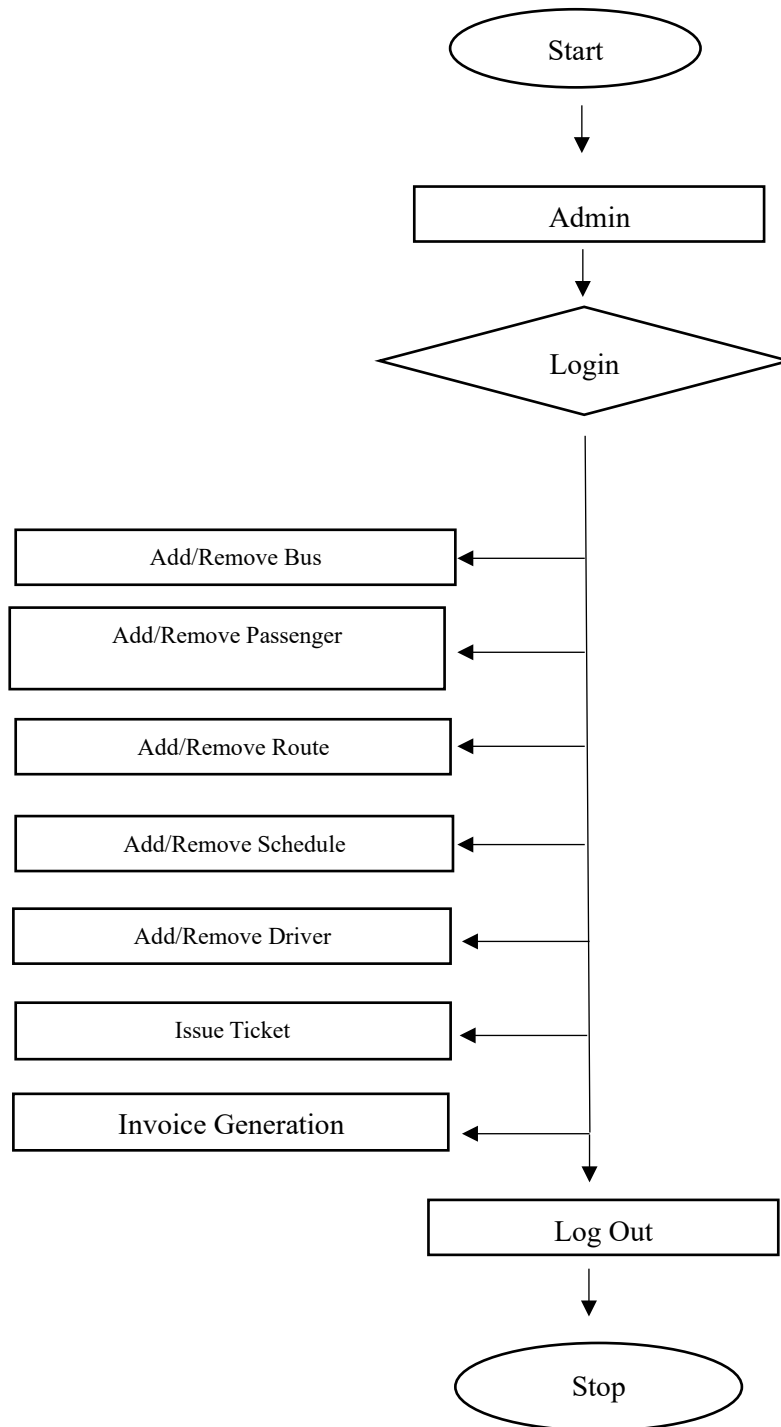
SQL Server

## FEATURES

The Bus Reservation System will include the following features:

- **Bus and Driver Information Management:** The system will allow the bus company to manage the information of the buses they have and drivers who are currently under them, and then assign them the bus routes with schedules.
- **Route Management:** The system will allow the bus company to manage their bus routes, update them based on demand, and plan new routes based on passenger demands.
- **Bus Schedule Management:** The system will allow the bus company to manage their bus schedules and update them, based on factors such as traffic, weather conditions, and passenger demand.
- **Ticket Booking:** The system will allow the company to book tickets for the passengers and manage the reserved seats on the bus.
- **Passenger Information Management:** The system will store passenger data securely, including personal information, and ticket booking history. It will provide reports on passenger booking trends and preferences.
- **Analytics and Reporting:** The system will provide analytics and reports on bus routes, passengers, revenue, and generate the invoice with the details of the booked ticket for the passenger.

## FLOWCHART



**Representation of the Bus Reservation System**

## **CONCLUSION**

The Bus Reservation System facilitates by providing with a software-based environment which makes the system more efficient than the manual system as the manual system may contain error and it is time consuming whereas this system very easily and quickly manages and maintains the Bus Reservation System. This approach provides a safe environment for the data. The data processing, storage, and retrieval is quite easier. Thus, the software-based system using database is very beneficial.