

# BOOK BUS TICKET ONLINE

SAVE TIME & MONEY



# CAPSTONE PROJECT

## BUS RESERVATION APPLICATION



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# INTRODUCTION

- ☀ The project aims to design a **Bus Reservation Application** that enables customers to search and book bus tickets. The Bus Reservation System includes fare tariffs, passenger reservations, and ticket records.
- ☀ **BookMyBus** is a web application that provides a user-friendly interface and an efficient way to search and book bus tickets.
- ☀ This project entitled "Design and Implement a Bus Ticket Reservation System" can be applicable to any bus service.
- ☀ The features of this system will be similar to a common ticketing system. As a user:
  - You can view the bus schedule.
  - You can book a bus ticket.
  - You can cancel your reservation.
  - You can print your ticket.
- ☀ The purpose of this project is to develop an easy-to-use bus reservation system.

# AIM OF THE PROJECT

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- ❑ Identify, analyze, and implement the latest procedures and techniques to enhance a **Computerized Bus Reservation and Ticketing System**. By implementing the newest techniques and technology in the proposed project.
- ❑ Users should have access to search for buses and apply for tickets. They can register on the website to book tickets, and with their ticket number, users can track their bus details.



# OBJECTIVE OF THE PROJECT

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- The main objective of our project is to book. Bus tickets and manage Bus database as admin.
- This has two parts first is user part and the administrator part.
- User part is used as a front end and administrator is the back end. Administrator allows the customers to access database and allow new customers to sign up.

# SYSTEM REQUIREMENTS

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## SOFTWARE

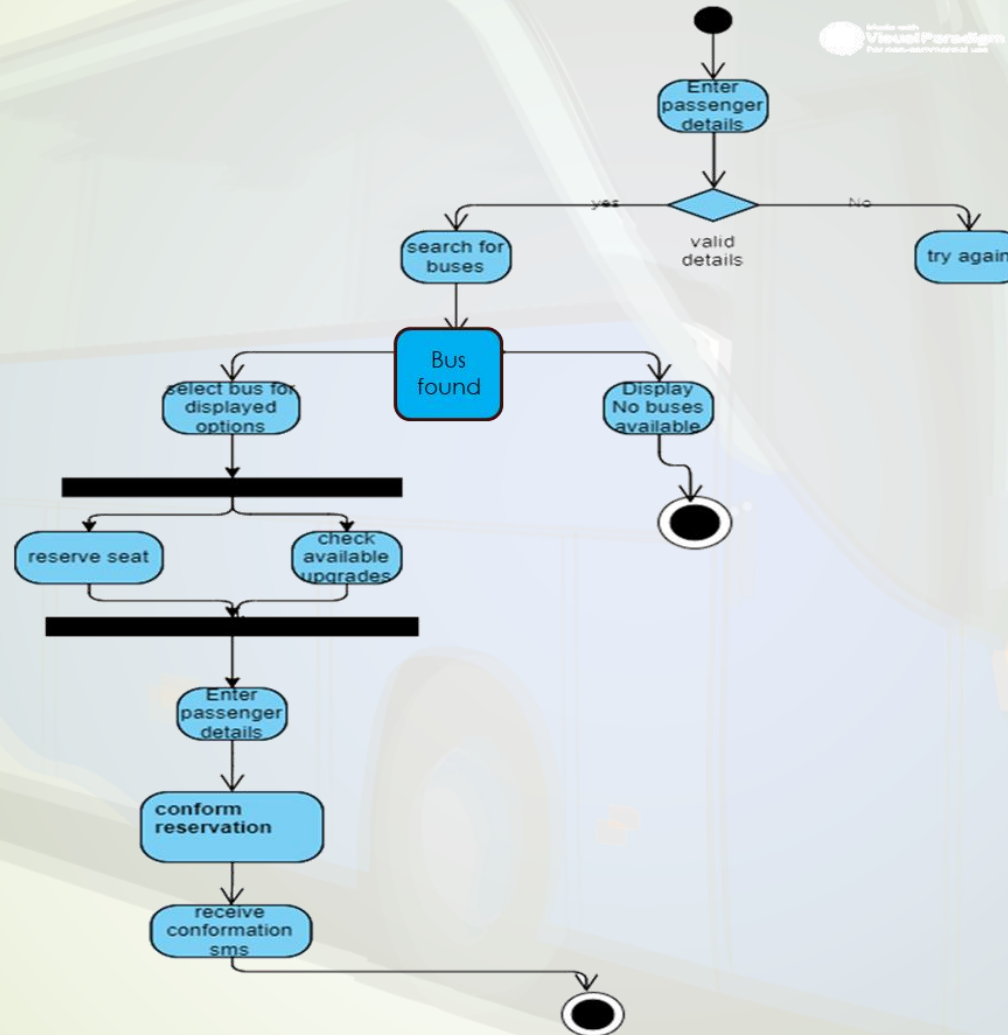
JDK 1.17 or Above  
VS Code editor  
MySQL DB  
SpringSuitServer IDE  
Postman

## HARDWARE

RAM: 2 GB  
or above.  
Disk Space: 1GB  
or above.

# ACTIVITY DIAGRAM FOR USER

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# TECHNOLOGIES USED


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- ▮ Spring Boot 3.3
- ▮ Angular 8
- ▮ MySQL
- ▮ BootStrap 3.3
- ▮ Hibernate with JPA 3.0


# PROJECT MODULES

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## ADMIN MODULE

 Update Bus


 Login

 Add Bus


 Delete Bus

## USER MODULE

 Register

 Login


 Bus Search

 Bus Select

 Bus Details

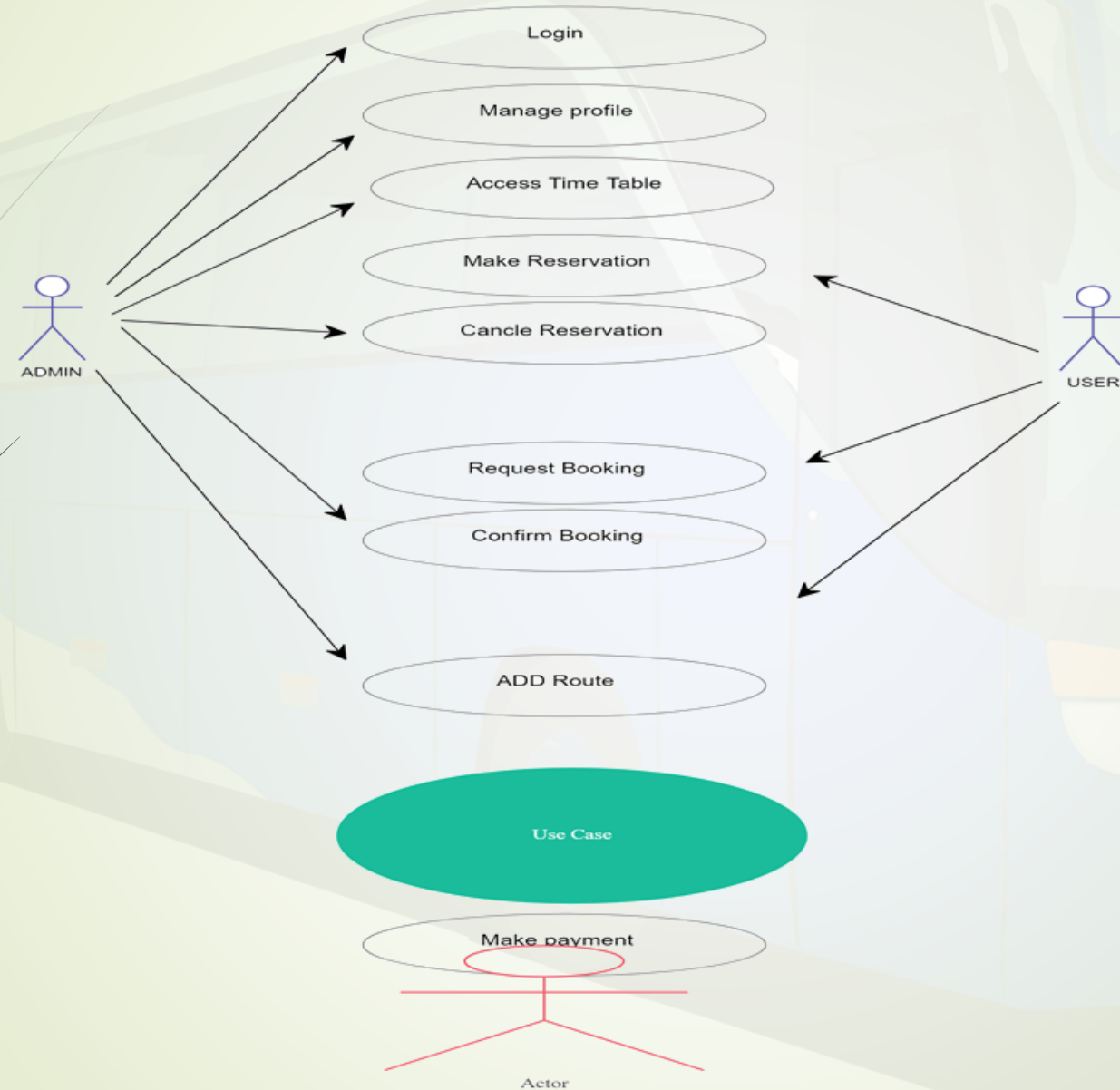
 Book Bus

 Payment

 Cancel Booking

# USE CASE DIAGRAM

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# PROBLEM STATEMENT

- ❑ The traditional bus ticketing and reservation process often involves manual operations, long queues, and errors in booking or tracking reservations. Customers face challenges such as limited access to bus schedules, lack of transparency in seat availability, and inefficient cancellation or ticket modification processes. Additionally, bus operators struggle with managing reservations, updating schedules, and maintaining an organized system for ticket sales and passenger records.
- ❑ The **Bus Reservation System** aims to address these issues by developing an efficient, user-friendly, and fully computerized solution. The system will allow users to view bus schedules, book tickets, cancel or modify reservations, and track their bus details online.

# SOLUTION

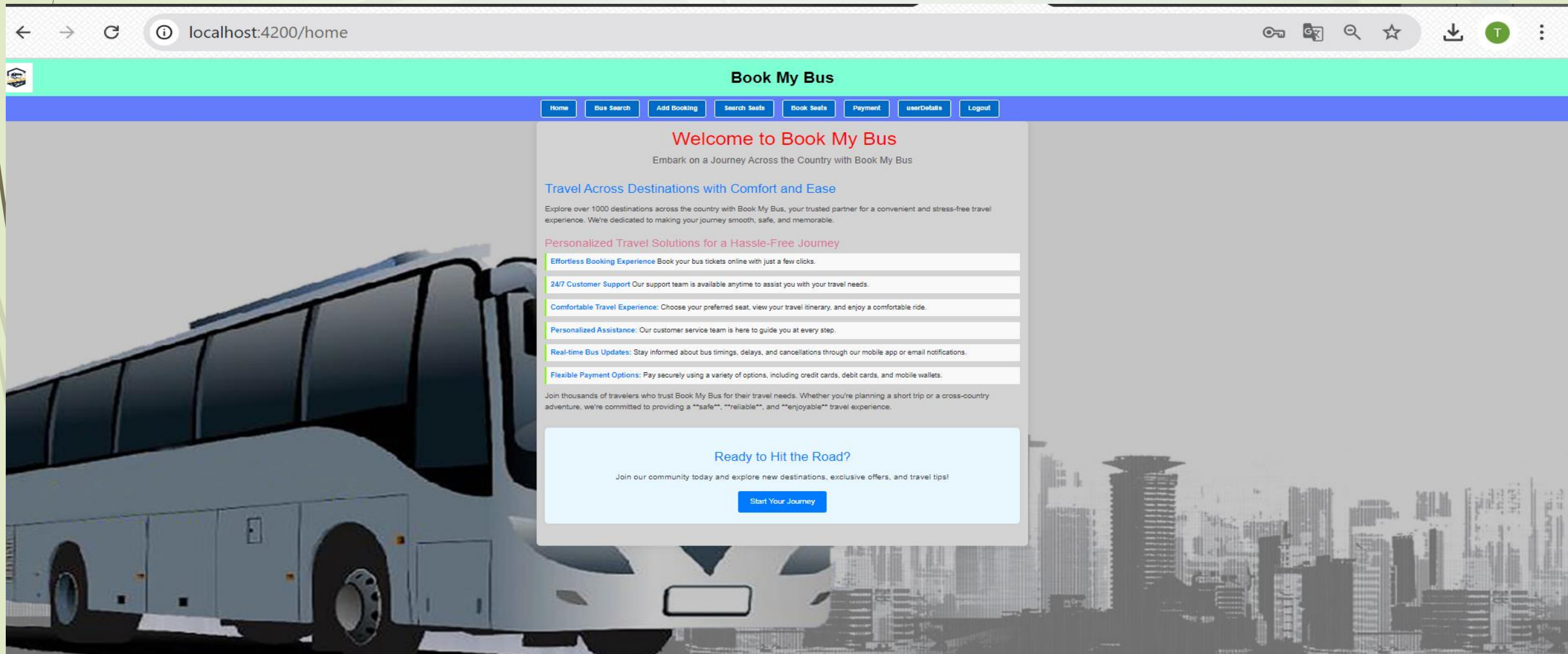
- ❖ The **Bus Reservation System** will be an integrated, web-based application that provides a comprehensive solution for booking and managing bus tickets. The proposed system will have two main interfaces: one for customers and one for administrators (bus operators).
- ❖ This solution will not only improve the user experience for customers but also help bus operators streamline operations and improve profitability. The Bus Reservation System will offer flexibility, efficiency, and transparency, addressing the main pain points in the traditional bus booking process.



# PROJECT OUTLOOK

## HOME PAGE

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# ABOUT US PAGE



## Book My Bus

[Register](#)[Login](#)[About Us](#)

### About Book My Bus

At Book My Bus, we are dedicated to providing convenient and reliable bus travel solutions. Our platform connects travelers with a variety of bus services, ensuring a smooth and enjoyable journey from start to finish.



### Our Mission

Our mission is to simplify bus travel for everyone. We aim to offer the best booking experience by providing easy access to bus schedules, real-time availability, and secure payment options.



### Our Values

At Book My Bus, we prioritize safety, customer satisfaction, and innovation. We are committed to delivering high-quality services that exceed our customers' expectations and make travel a pleasurable experience.

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# NEW CUSTOMER REGISTRATION

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localhost:4200/register

## Book My Bus

[Register](#) [Login](#) [About Us](#)

### Register Now

Title  
Select Title

First Name

Last Name

Date of Birth  
dd-mm-yyyy

Phone Number

Email

Password


Register Now

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# USER LOGIN

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Book My Bus

[Register](#) [Login](#) [About Us](#)

[User Login](#) [Admin Login](#)

User Login


Email

Please enter a valid email.

Password

[Login](#)


[Signup](#) | [Forgot Password](#)



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# ADMIN LOGIN

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Book My Bus

[Register](#) [Login](#) [About Us](#)


[User Login](#) [Admin Login](#)

Admin Login

Admin Username

Admin Password

[Login](#)




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# Payment

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← → ↻ ⓘ localhost:4200/payment 🔑 📄 🔍 ☆ ⬇️ T ⋮



## Book My Bus

[Home](#) [Bus Search](#) [Add Booking](#) [Search Seats](#) [Book Seats](#) [Payment](#) [userDetails](#) [Logout](#)

### Payment Form

Payment Type

UPI ID

Amount

[Pay](#)

### Payment Response

Success: true

Message: UPI Payment successful.

Transaction ID: a980c40b-9827-4ef6-9ce8-7500815fd401

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# Swagger

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The screenshot displays the Swagger UI interface in a web browser. The address bar shows the URL `localhost:8080/swagger-ui/index.html#/`. The Swagger logo is in the top left, and the API path `/v3/api-docs` is in the top right with an **Explore** button. The main heading is **OpenAPI definition** with a `v0` version tag and an **OAS3** specification tag. Below this, a **Servers** section shows a dropdown menu with the selected server URL `http://localhost:8080 - Generated server url`. The API endpoints are organized into two sections: **user-controller** and **admin-controller**. Each section contains a list of endpoints with their HTTP methods and paths, each with a dropdown arrow for details.

Controller	Method	Path
user-controller	GET	<code>/api/users/{id}</code>
	PUT	<code>/api/users/{id}</code>
	POST	<code>/api/users/register</code>
	POST	<code>/api/users/login</code>
	GET	<code>/api/users/all</code>
admin-controller	PUT	<code>/api/admin/route/update</code>
	PUT	<code>/api/admin/bus/update</code>
	POST	<code>/api/admin/login</code>

# Swagger

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driver-controller ^

POST /admin/driver/add v

ticket-controller ^

GET /api/ticket/print v

Schemas ^

User >

Bus >

Route >

Wallet >

UserLogin >

Reservation >

PaymentRequest >

PaymentResponse >

AdminLoginRequest >

Admin >

Driver >

# CONCLUSION

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- This project is designed to meet the requirements of a bus reservation system.
- We have designed the project to provide the user with an easy way to search, book tickets and other actions.
- In this project user is provided with a website that can be used for bus reservation.
- To implement this we have used Spring Boot as back end and Angular as front end. This website allows users to view bus details and to reserve, view by logging in or registering with a new account.
- Admin is provided with rights to add bus, delete bus, update bus and other functionalities.

## **Real-Time Bus Tracking:**

- ❖ Integrate a GPS system to allow users to track the location of the bus in real-time. This feature enhances the travel experience and improves safety by keeping passengers informed about the bus's whereabouts.

## **Group Booking Functionality:**

- ❖ Add support for group bookings, where users can book multiple tickets at once for events, family trips, or corporate travel, possibly with discounts for large groups.

## **24/7 Customer Support Chatbot:**

- ❖ Add a chatbot integrated with AI to assist users with booking inquiries, cancellations, or route details without human intervention.
- ❖ This improves user experience by providing instant support.





# Thank you