RAILWAY TICKET BOOKING SYSTEM

JOURNEYBOOKER

A PROJECT REPORT SUBMITTED IN PARTIAL

FULFILMENT OF REQUIREMENT

FOR THE AWARD OF THE DEGREE

MASTER OF COMPUTER APPLICATION(MCA)

OF

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

BY

MEREENA JOY

Reg No : 22PMC137

MARIAN COLLEGE
KUTTIKKANAM
(AUTONOMOUS)

MAKING COMPLETE

Marian College Kuttikanam Autonomous

Peermade, Kerala – 685 531

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Under the guidance of

Robins A Kattoor

Associate Professor

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Marian College Kuttikkanam Autonomous

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CERTIFICATE

This is to certify that the project work entitled

RAILWAY TICKET BOOKING SYSTEM

is a bonafide record of work done by

MEREENA JOY

Reg. No 22PMC137

In partial fulfilment of the requirements for the award of Degree of

MASTER OF COMPUTER APPLICATIONS [MCA]

During the academic year 2022-2023

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MEREENA JOY

ABSTRACT

JourneyBooker provides customers with an easy-to-use platform for booking and managing rail tickets. To manage the online Train ticket booking. It helps passengers to book train tickets from anywhere. Also, make payment online for it. It helps people to reserve seats at their preferred time. The railway ticket booking system aims to provide an efficient and user-centric solution for booking and managing train tickets.

OBJECTIVE AND SCOPE OF THE PROJECT

The main objective of developing the Railway ticket system is to provide a user-friendly environment to search for trains in an easy and efficient way.

There are many objectives of DOCTOR BOOKING

- It's cost-effective and saves time - By reducing the time taken for waiting in a queuefor booking the tickets.
- 24/7 accessibility from, anywhere
- The ability to provide a review
- Easy to book the train tickets

METHODOLOGY OF THE PROJECT

JourneyBooker provides customers with an easy-to-use platform for booking and managing rail tickets. To manage the online Train ticket booking. It helps passengers to book train tickets from anywhere. Also, make payment online for it. It helps people to reserve seats at their preferred time. The railway ticket booking system aims to provide an efficient and user-centric solution for booking and managing train tickets.

It has two main modules: Admin and User.

It has done using python as frond end and sqlite3 as backend. And Django-Jazzmin to customize django-admin.

HARDWARE SPECIFICATION:

- Processor: Intel Core i5
- Hard Disk:1TB
- Ram:8GB

SOFTWARE SPECIFICATION:

- Database server:
- Sqlite3
- Client: Microsoft Internet Explorer or any browser
- Development Tools: Pycharm. Microsoft visual studio code
- Programming Language: Python

CONCLUSION

In conclusion, JourneyBook's primary objective is to simplify and streamline the ticket reservation process for railway travel. Through the utilization of technology and automation, the project offers various advantages to both users and railway authorities. The website features a user-friendly interface that allows individuals to effortlessly search for train availability based on keywords such as places, dates, and train names. This convenient functionality empowers users to efficiently book their desired train and proceed with secure payment transactions.

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1. INTRODUCTION

1.1 PROBLEM STATEMENTS

The current manual ticket booking process for railways is inefficient, time-consuming, and prone to errors. Customers face various challenges, such as long queues, limited booking windows, and difficulty in accessing real-time information. The railway authorities also struggle with manual record-keeping, ticket cancellations, and managing seat availability. To address these issues, there is a need for a robust and user-friendly Railway Ticket Booking System.

The objective of this project is to develop an online platform that streamlines the process of booking, managing, and canceling train tickets for customers while providing efficient seat allocation and availability management for railway authorities.

1.2 PROPOSED PROJECT

The proposed project is an Online Railway Ticket Booking System that aims to provide a convenient and user-friendly platform for customers to book train tickets online. The system will streamline the ticket booking process, eliminate manual efforts, and provide real-time information on train schedules, seat availability, and fares. It will enhance the overall customer experience and simplify ticket management for railway authorities.

1.3 FEATURES OF THE PROPOSED SYSTEM

- User Registration and Authentication
- Train Search and Selection
- Seat Reservation
- Secure Payment Gateway
- Ticket cancellation and confirmation
- Ticket generation
- User Account Management
- Admin Dashboard
- Customer support and feedback

2. FUNCTIONAL REQUIREMENTS

1. **User Registration and Authentication**:

- Allow users to register an account with required information.
- Authenticate users securely for accessing the booking system.

2. **Train Search and Selection**:

- Provide a search functionality to find trains based on source, destination, date, and time.
- Display a list of available trains with relevant details such as schedules, routes, and fares.

3. **Seat Reservation:**

- Show the seat layout of selected trains and indicate seat availability in real-time.
- Allow users to select and reserve seats for their journey.
- Prevent overbooking by updating seat availability upon successful reservation.

4. **Payment Processing:**

- Integrate a secure payment gateway to facilitate online transactions.
- Support multiple payment methods such as credit cards, debit cards, or digital wallets.
- Ensure the security and reliability of payment transactions

5. **User Account Management:**

- Enable users to manage their account information, including personal details, contact information, and saved payment methods.
- Provide functionality for viewing booking history, upcoming journeys, and canceled tickets.
- Allow users to modify or reschedule their existing bookings within defined constraints.

3.NON FUNCTIONAL REQUIREMENTS

3.1 RELIABILITY

Reliability is an essential non-functional requirement for the doctor booking system, ensuring that the system performs consistently and reliably under various conditions. The reliability of the system contributes to building trust among users, preventing data loss or corruption, and minimizing system failures. Also the system will be functioning inside a container. Thus, the overall stability of the system depends on the stability of container and its underlying operating system.

3.2 AVAILABLITY

Availability is a crucial non-functional requirement for the doctor booking system, ensuring that the system remains accessible and operational for users whenever they need it. High availability minimizes downtime, ensures uninterrupted service, and contributes to user satisfaction. It means 24 X 7 availability.

3.3 MAINTAINABLITY

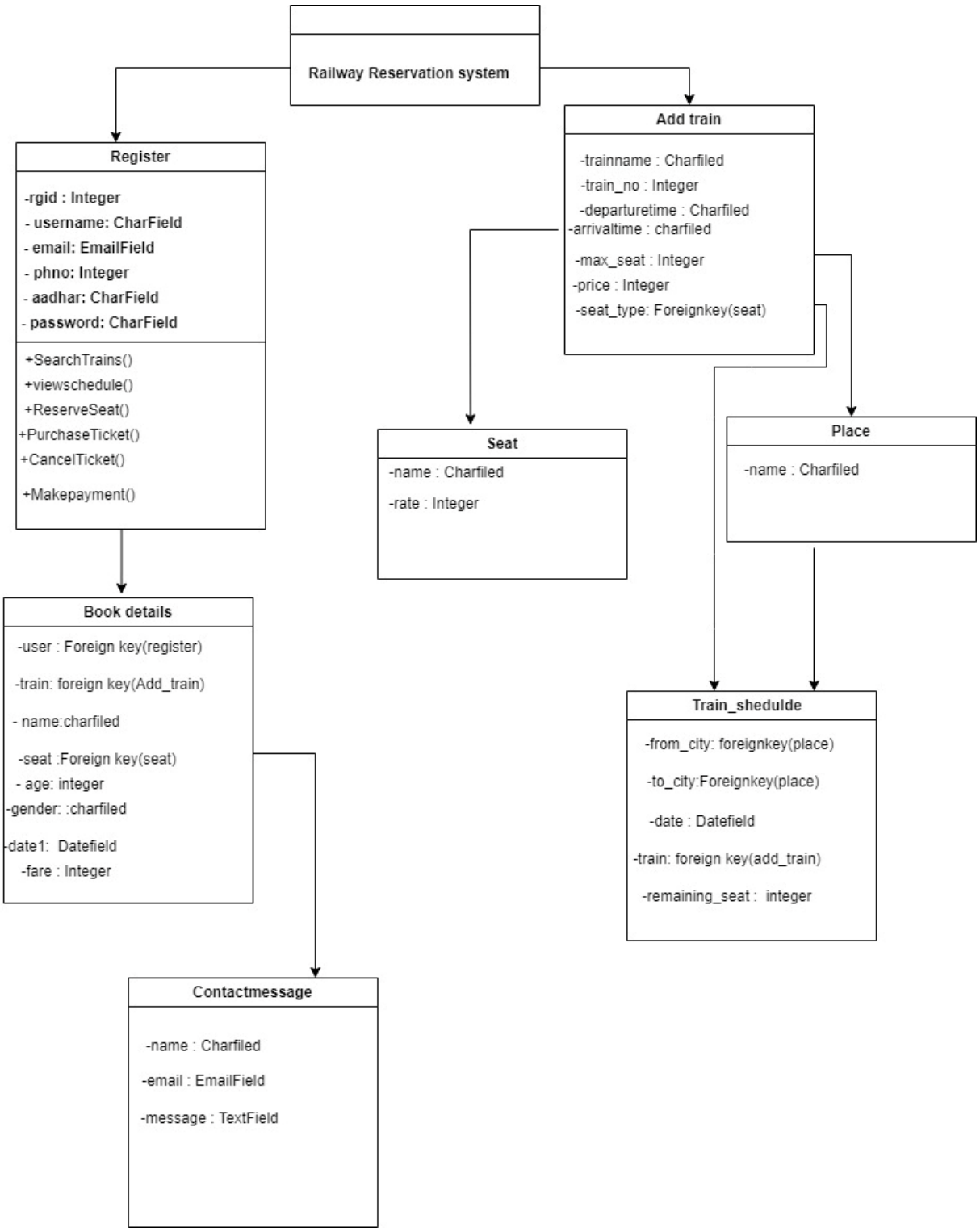
It ensuring that the system can be easily maintained, updated, and enhanced over time. A maintainable system is cost-effective to manage, allows for efficient bug fixes and updates, and supports future enhancements.

3.4 SUPPORTABLITY

The code and supporting modules of the system will be well documented and easy to understand. Online documentation and help system requirements.

4. UML DIAGRAMS

4.1 CLASS DIAGRAM



5.INPUT DESIGN AND OUTPUT DESIGN

INPUT DESIGN

Input design is one of the most important phase of the system design. Input design is the process where the input received in the system are planned and designed, so as to get necessary information from the user, eliminating the information that is not required. The aim of the input design is to ensure the maximum possible levels of accuracy and also ensures that the input is accessible that understood by the user.

OUTPUT DESIGN

Output design is very important concept in the computerized system, without reliable output the user may feel the entire system is unnecessary and avoids using it. The proper output design is important in any system and facilitates effective decision-making.

6.FUTURE ENHANCEMENT

6.FUTURE ENHANCEMENT

- **Adding Route:** Adding routes in-between stations can be added in the future.
- **Live tracking**: The user should be able to track the route there are traveling.
- **Mobile application**: The introduction of a mobile application can also be done so that this system becomes more user-friendly.
- **OTP verification**: For verifying the user, a unique verification code is to the user-provided email or phone number.

9. CONCLUSION

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Online Railway Ticket Booking System offers a modern and convenient solution to streamline the process of booking train tickets. By providing users with a user-friendly platform, real-time information, and secure payment options, the system enhances the overall customer experience. It simplifies ticket management for railway authorities by automating seat allocation, generating tickets, and facilitating cancellations and refunds. The system's features, such as user registration, train search, seat reservation, and account management, cater to the specific needs of customers, making ticket booking efficient and hassle-free. With the integration of customer support channels, notifications, and multilingual support, the system ensures effective communication and assistance throughout the booking journey. Overall, an Online Railway Ticket Booking System revolutionizes the ticketing process, improves operational efficiency, and provides a seamless and convenient experience for both customers and railway authorities.

10. REFERENCES

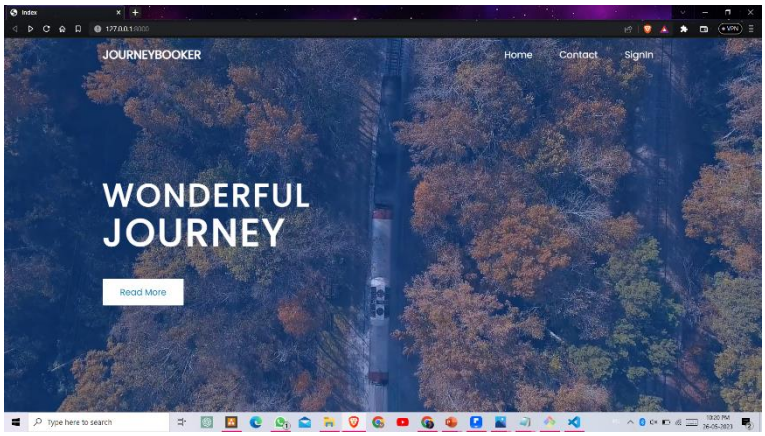
REFERENCES

- Stack Overflow: https://stackoverflow.com/
- ChatGPT
- Django Jazzmin Documentation
- https://stripe.com/docs

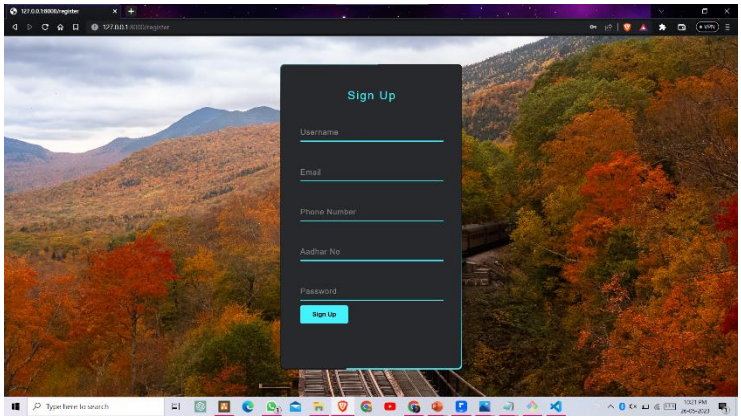
11. ANNEXURE

11.ANNEXURE

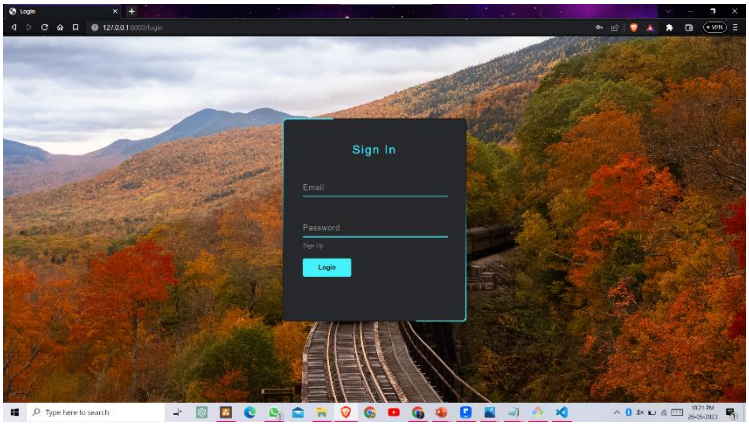
Project Homepage



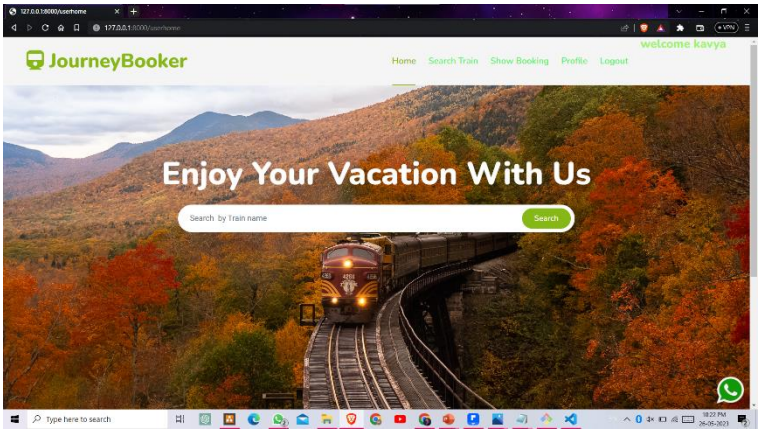
Registration Page



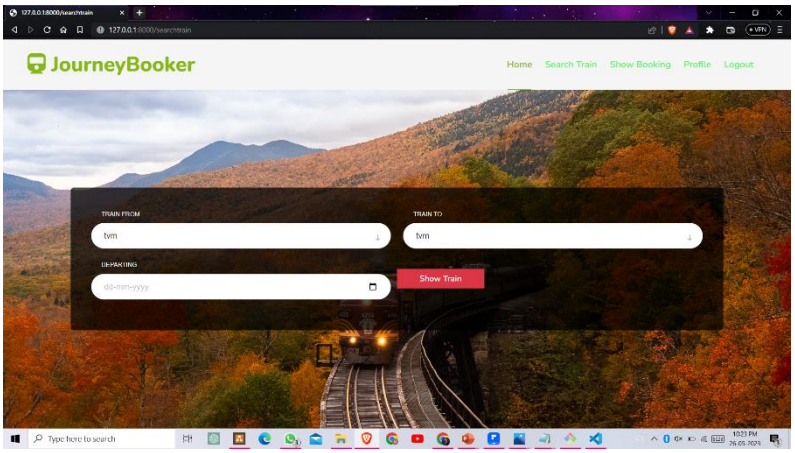
login Page



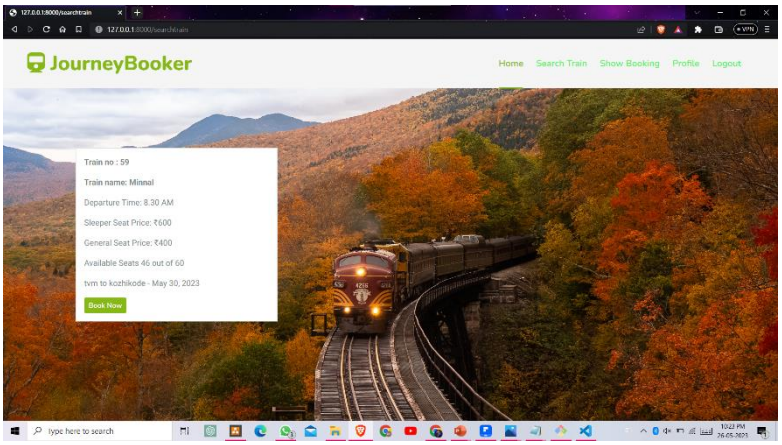
User home Page



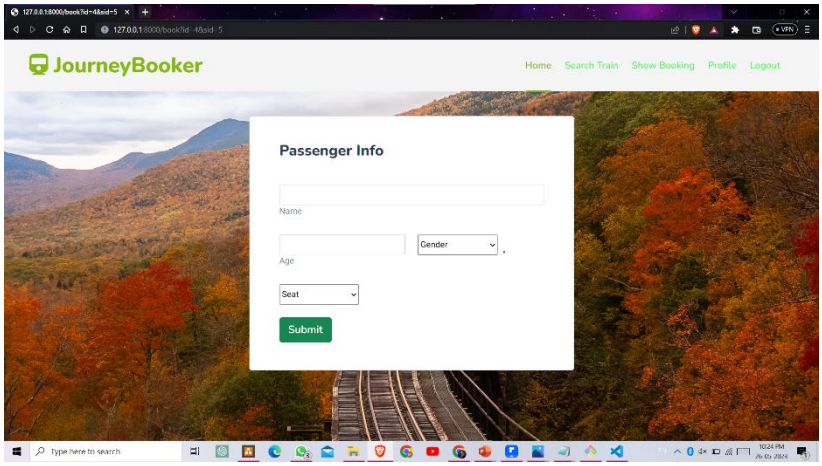
Train search page



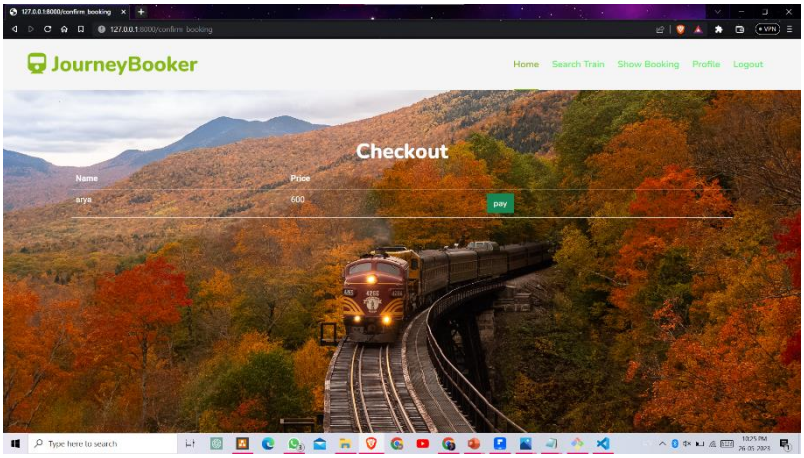
Show train Page



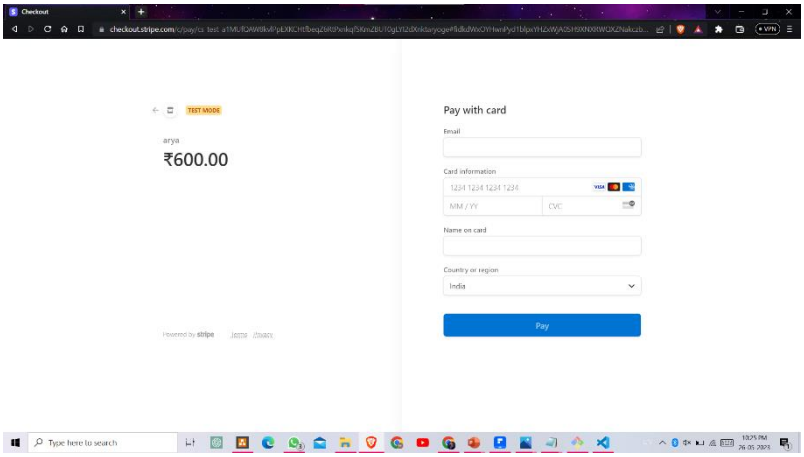
Book info page



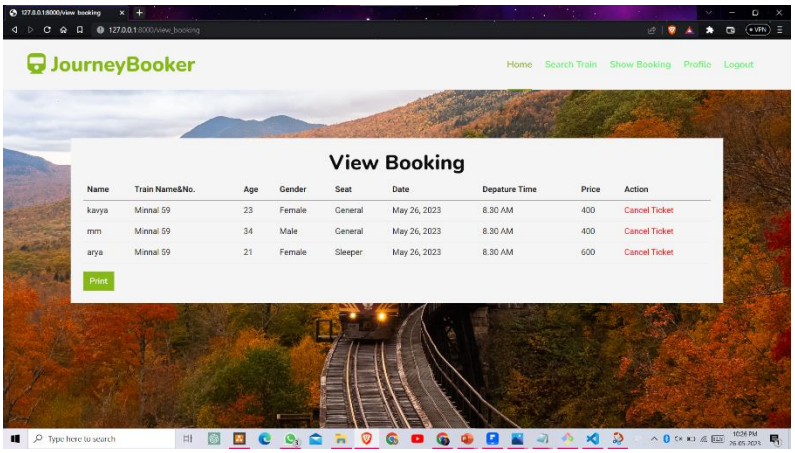
Confirm booking Page



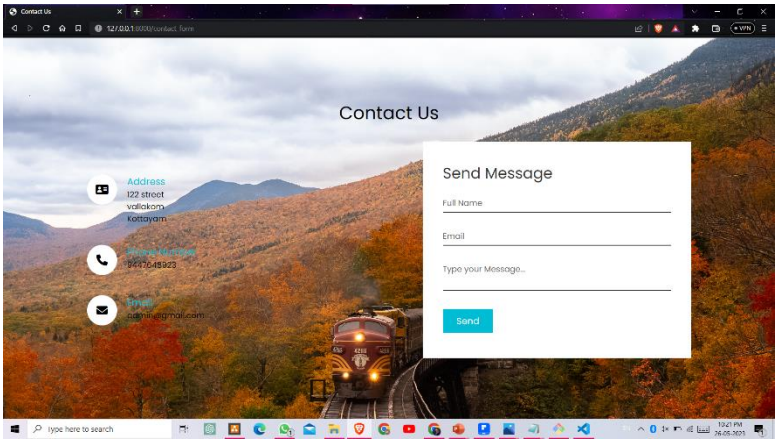
Payment Page



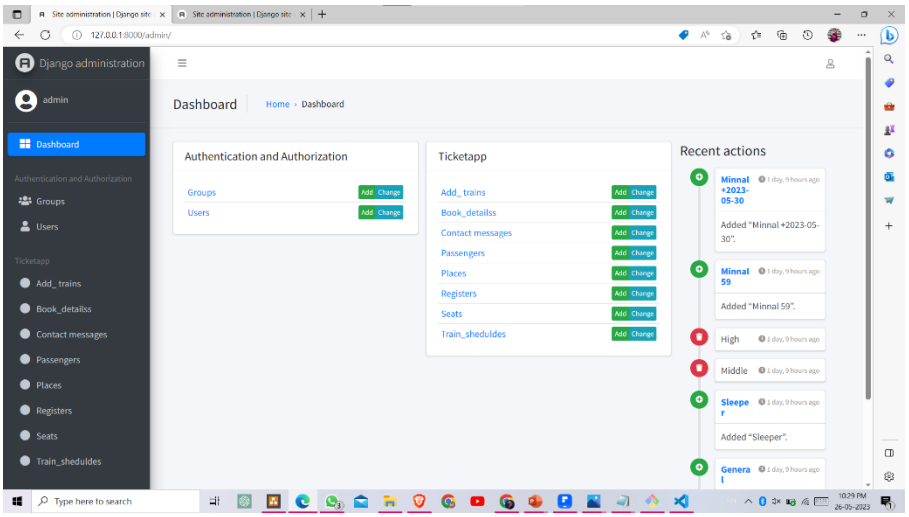
View Booking Page



Contact Page



Admin



User profile