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Online Bus Booking and Tracking System

Mr. Varad Ravindra Gorwadkar[1], Ms. Sayali Vijay Kharote[2],

Ms. Rasika Santosh Thakur[3], Mrs. Madhavi Pandurang Nawarkar[4]

Diploma - Information Technology, K. K. Wagh Polytechnic, Nashik, Maharashtra, India[1-3]

Project Guide - Information Technology, K. K. Wagh Polytechnic, Nashik, Maharashtra, India[4]

Abstract: The Online Bus Booking and tracking system is a web-based application designed to streamline the Bus Booking Process and Provide a bassle-free travel experience for users. The system features a user-friendly interface, secure payment gateway, and a real-time bus Tracking system powered by GPS technology. Overall, the Online Bus Booking and Tracking System aims to provide a seamless and convenient travel experience for users, leveraging modern technologies to simplify the booking process and ensure a safe and comfortable journey.

Keywords: Convenience, Efficiency, Real-time tracking, Security, Scalability

I. INTRODUCTION

The system is designed to provide a convenient and hassle-free experience for travelers, enabling them to book tickets from the comfort of their homes and keep track of the bus's location during their journey.
In recent years, the demand for bus transportation has increased significantly, leading to a surge in the number of bus operators and a rise in competition. This has resulted in an urgent need for a system that simplifies the booking process and enhances the overall travel experience for passengers.

The Bus Booking and Tracking System is a web-based application that is accessible to users from anywhere, making it easier to book tickets and track bus locations. The system features a user-friendly interface that enables users to search for available buses, view seat availability, and book tickets easily. Additionally, the application has a secure payment gateway that facilitates online transactions.
One of the system's most significant features is its real-time bus tracking system, which enables users to track the location of the bus during their journey. The tracking system is powered by GPS technology and provides accurate information about the bus's location, estimated arrival times, and any delays.
The Bus Booking and Tracking System is developed using modern web development technologies such as HTML, CSS, JavaScript, and PHP, making it scalable and flexible.

II. LITERATURE REVIEW

Bus transportation has become increasingly popular in recent years, leading to a surge in the number of bus operators and passengers. With the rise in competition, there is a growing need for innovative technologies that simplify the bus booking process and enhance the overall travel experience for passengers
Several studies have explored the use of technology in the transportation industry, with a particular focus on online booking systems and real-time tracking. For example, a study by Kshetri and Dholakia (2010) found that online booking systems can significantly increase customer satisfaction and reduce operating costs for transportation companies. Similarly, a study by Song and Li (2015) found that real-time tracking technology can improve the safety and reliability of bus transportation.

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III. SYSTEM ARCHITECTURE

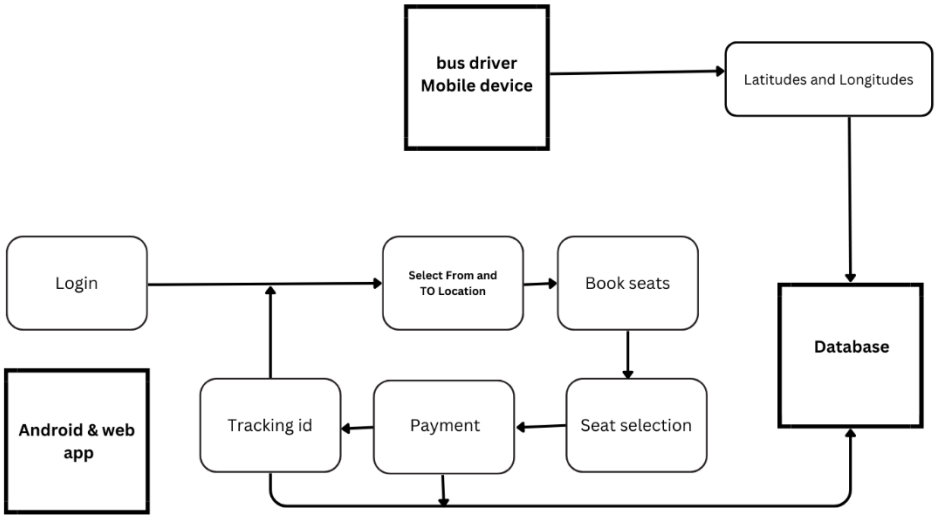

Fig.1.Modules Imported.

- **Imported Modules**

1. Login Module:

The system offers security features through username and password matching, allowing only authorized persons with varying levels of access to the system.

2. Profile Registration:

This makes it possible for users to register.

3. Routing:

This module contains routes selection tab. A user can select location from source to destination.

4. Bus Selection:

Bus selection tab contains arrival and departure location and timing also features provided by service provider. Fare is displayed based on the routes distance.

5. Seat Selection:

This module contains number of seats available in the bus. A user can select and deselect Available seat.

6. Payment:

This module contains payment method which is online payable amount. Payments can be done using debit or credit cards. As the payment gets confirmed tracking id is displayed on the web.

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IV. METHODOLOGY

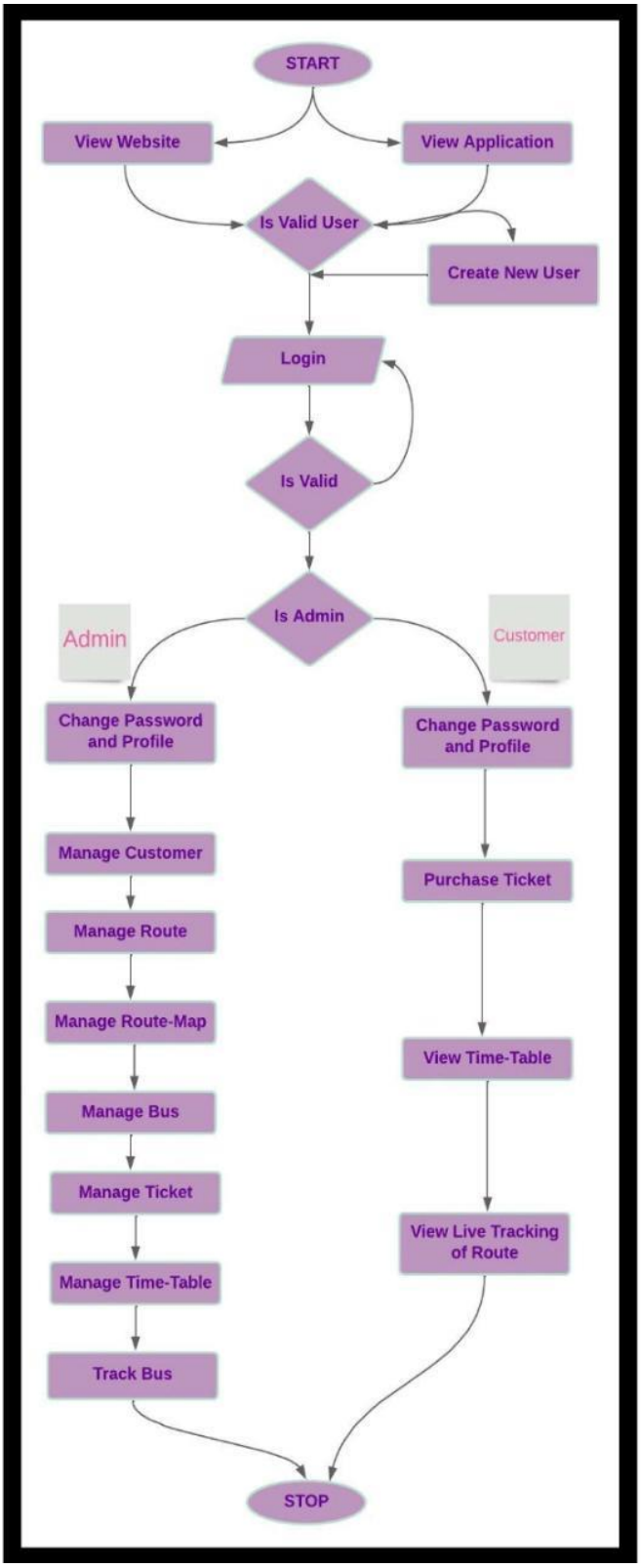

Fig.4 Working of Android App.

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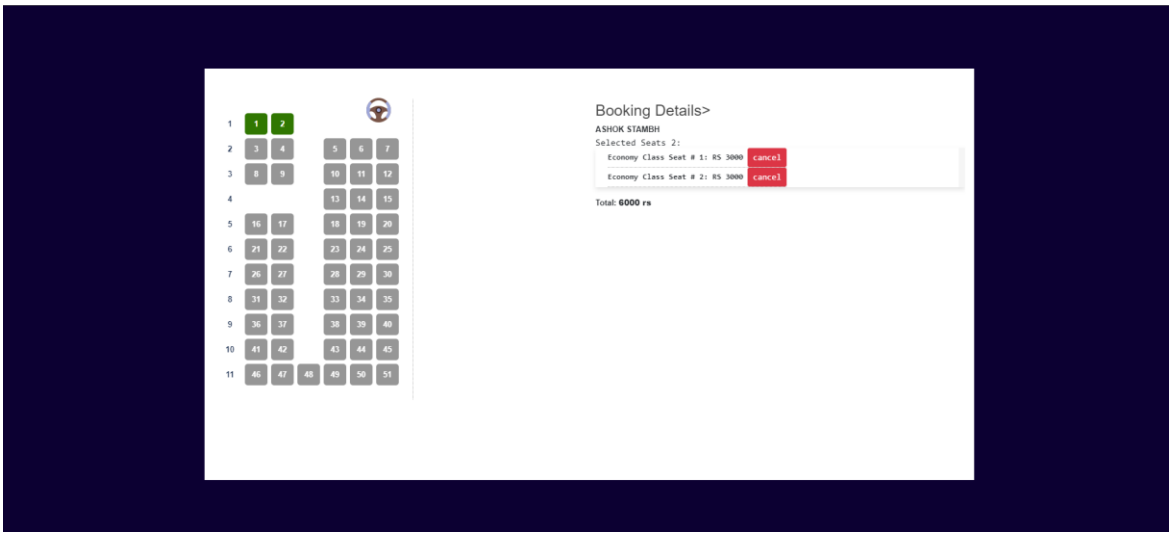

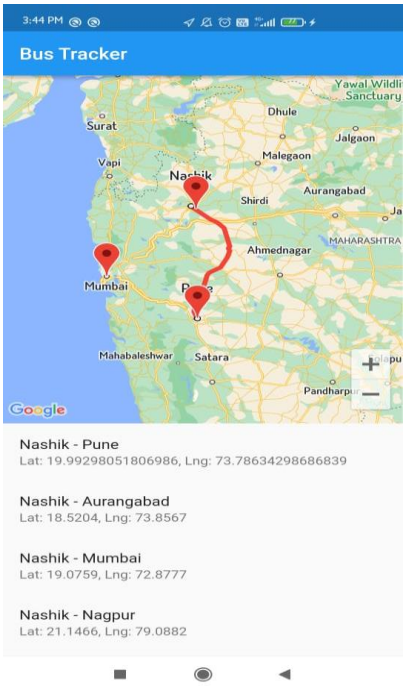

Fig.6 Output Snapshot

V. CONCLUSION

The bus booking and tracking system is a project that is aimed at providing a seamless and efficient experience for bus passengers. This project involves the development of a system that enables passengers to book their bus tickets online, and also track the location of the bus in real-time.

Passengers will be able to book their tickets from the comfort of their homes, eliminating the need to wait in long queues at bus stations. Additionally, passengers will be able to track the location of their bus, reducing the anxiety that comes with uncertainty about the arrival time.

In conclusion, a bus booking and tracking app can be a game-changer for the transportation industry. Such an app can streamline the booking process for passengers while also providing real-time tracking of the buses, which can help reduce wait times and improve overall efficiency. Additionally, such an app can help reduce paper waste, improve environmental sustainability, and provide valuable data insights that can be used to optimize transportation routes and schedules. Overall, a bus booking and tracking app can greatly benefit the transportation industry and make the process of traveling by bus more convenient and efficient for everyone involved.

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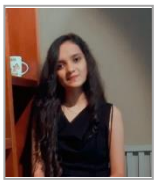
[9] URL address (https://flutter.dev/)

BIOGRAPHY

Name: Mr. Varad Ravindra Gorwadkar
Qualification: Diploma in Information Technology
Interests: Technology, Coding, Cyber Security, IoT, AIML



Name: Ms. Sayali Vijay Kharote
Qualification: Diploma in Information Technology
Interests: Technology, Programming, Software Development

Name: Ms. Rasika Santosh Thakur
Qualification: Diploma in Information Technology
Interests: Technology, Coding, Web Development, App Development

Name: Mrs. Madhavi Pandurang Nawarkar
Qualification: B.E Computer
Interests: Data Science, Web Development

