



Students' Cab System

Anshuman Singh Panwar(Author)

Student at Birla Institute of Technology, Mesra off-campus, Noida

Computer Science and Technology(BIT Noida)

Birla Institute of Technology (Noida Campus), Mesra, Ranchi, India, 201301

Abstract : The Students' Cab System Project is an online transportation system designed for schools to manage their student transportation needs. It offers a convenient and secure platform for students and staff to book and track their rides. The system aims to improve the safety, efficiency, and accountability of school transportation by providing a seamless and transparent transportation experience.

The project's design involves a user-friendly interface, which enables students and staff to book their rides and track their rides in real-time. The system also incorporates a database to store student and staff information, including their transportation history and pick-up and drop-off locations.

The development of the Students' Cab System Project involves several steps, including requirement gathering, analysis etc. The development team must ensure that the system is scalable, secure, and integrates seamlessly with other school systems.

The project faces several challenges, such as data security, user adoption, technical challenges, scalability, integration, and cost. However, these challenges can be addressed through proper planning, implementation, and maintenance.

In conclusion, the Students' Cab System Project is a significant innovation in school transportation management, offering an efficient, safe, and reliable transportation system. Its implementation can significantly improve the school's transportation operations and enhance the students' overall experience.

I. INTRODUCTION

1.1 PROLOGUE

Transportation is integral to the functioning of educational institutions, ensuring safe and efficient commuting for students and staff. Leveraging technological advancements, the Students' Cab System Project aims to revolutionize school transportation management by offering a secure, user-friendly platform for ride booking and tracking. This report provides an overview of the project, detailing its design, development, challenges, and benefits.

1.2 MOTIVATION

The motivation behind this report stems from the critical importance of transportation in school operations. With technology reshaping various industries, innovative solutions like the Students' Cab System Project offer avenues to address transportation challenges efficiently. This report seeks to elucidate the project's significance and inspire schools to adopt modern transportation solutions.

1.3 OBJECTIVE

This report aims to comprehensively elucidate the Students' Cab System Project, including its design, challenges, and benefits. It seeks to:

Provide insights into the project's design and implementation methodology.

Highlight encountered challenges and their solutions.

Emphasize the project's benefits in enhancing safety, efficiency, and accountability.

Offer recommendations for schools considering transportation management solutions.

Inspire schools to embrace innovative transportation solutions.

1.4 PROBLEM DEFINITION

The report addresses the inefficiencies and safety concerns prevalent in traditional school transportation management systems. Manual processes lead to inaccuracies, delays, and security risks. The Students' Cab System Project emerges as a solution to modernize transportation management, ensuring efficiency and safety.

2. Software Requirement

2.1 Front-end technology used

HTML

CSS

JavaScript

2.2 Back-end technology used

jQuery

MySQL

JSP

2.3 Environment

Operating system: Windows 11

3. Need for the New System

Traditional methods of arranging school transportation are cumbersome and lack reliability and safety assurances. Both parents and drivers face challenges in finding matches, ensuring safety, and managing payments.

3.1 New System Work

The Students' Cab System Project simplifies the process by facilitating easy cab searches for parents, providing driver credentials for security, streamlining new parent onboarding for drivers, and enabling hassle-free payments through a subscription model.

4. Functional Specification

4.1 User Specification

Admin:

- Add and manage cab drivers.
- Monitor existing cab operations.
- Manage subscriptions and view history.

Parents:

- Search and subscribe to local drivers.
- Verify driver documents for safety.

Cab Driver:

- Find new parent customers.
- Manage existing subscriptions.

4.2 Module Specification

- Check for Cab
- Subscribe to Cab
- Give Feedback
- Inquiry
- Add Cab
- Manage Cab Region
- Manage Subscription Charges
- View Feedback
- Check for New Subscriptions

5. Approach

5.1 General Approach

The project follows an agile development methodology, encompassing requirement gathering, development, and ongoing maintenance. Collaboration between the project team and school administration ensures alignment with transportation needs.

6. Limitations

- Lack of direct notification for drivers regarding new student additions.
- Manual sharing of driver details with parents by admins.
- Manual addition of new student details to driver-accessible database by admins.
- Manual input of payment ID by users in the booking form.
- Manual matching of payment IDs by admins.