Mini Project-Initial Report

**Topic: Yellow Ride Safety**

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**Introduction**

Even though the law of Physics proves that ‘Travelling by bus is safer than travelling by car’, we are hearing lots of news about various school bus accidents, missing of students, re-routing of bus. In this current situation, Tracking of school buses thereby protecting students is a necessity.

**Objective**

This project allows parents and school authority to track their children in the school bus.

**Actors & Roles**

Users: Admin, Parents, Drivers

* Admin:

Add Bus: The admin is allowed to add and modify the details of buses.

Add Drivers: They can assign drivers based on their eligibility.

Add Students: They can add the details of students and generate id cards with QR code.

View tracking details: The location of bus can be tracked.

View Students and Parents details: The QR code on students ID card is used to read them.

View Feedback: The admin can read the feedback given by parents.

Email: The username and password for the parents and drivers are sending by admin.

* Parents:

Login: The parent is allowed to login into application using their username and password.(/Forget password )

Tracking: They can locate the school bus and their children journey details.

Feedbacks: The parents can give feedback regarding the service or complaints or suggestions.

Change and forget password: The parent can change the password initially given by system. The parents can provide their email address and reset the password if forgot.

* Driver:

Login: The driver has to login into app, thereby location of bus can be tracked.

Driver or helper in the bus can send notifications about timing of bus. They can also send safety tips for students.

**Modules**

* Registration: The parents and drivers have a registration page. The student details are provided by school authority. The admin will verify the registration and give approval .//The parents and drivers need to login into the application.
* Tracking : The location of bus can be tracked by the driver’s login. This application will find the exact longitude and latitudes.
* QR Code Reading: The student’s details and time of pickup and dropped down are specified. The exact date and time details can be stored for future results.
* Notifications: The timing of bus and safety tips. Situations like bus is late because of any traffic jam are considered. . Also about the absents of students.
* Feedback & complaints: They are send by parents and visible to admin

**Existing System**

In Kerala, there is no existing system or application for automating the fitness details of school bus, assigning drivers based on their eligibility and most important tracking of students in school bus. The parents need to make call the school authority frequently for knowing about their child.

**Proposed System**

This system is a combination of web as well as the android application, where the driver and parent will be using android application whereas admin will be using web application.

Advantages:

* Parents can keep track of their children in school bus.
* Drivers will not re-route without the knowledge of authority.
* School bus safety tips and timing of bus notifications are viewed by parents.
* Parent’s feedback will help to improve the system.

Disadvantages:

* All drivers, parents must have an android phone to use this application.
* Requires active internet connection.
* Situation of accidents handled as future enhancement.

**Feasibility Study**

The main objective of this study is to determine whether the proposed system is feasible or not. There are various types of feasibility to be determined. They are,

* **Technical feasibility**

Proposed system is technically feasible, because parents and the drivers can easily understand the usage of the system. There is no need for an extra training for using the proposed system. The school authority can easily work with web side.

* **Operational Feasibility**

In existing system, the parents need to make call the school authority frequently for knowing about their child. This is very time consuming process. So, proposed system is very feasible with its use of applications. The parents can track the place of school bus within seconds.

* **Economic feasibility**

The proposed system is cost effective after installing it. Need internet connection. Android phone is necessary to run these applications. The QR codes and their readers can be implemented by program itself.

**Development Tools**

Web Side:

Front end: JSP(Net beans8.0) , Back end: MySQL 5.0

Designing: HTML 5, CSS 3.0 , Scripting: Java Script

Android Side: Front end: Android Studio 3.0.1

Back end: MySQL 5.0