

# STREAM LINE TRANSPORTATION MANAGEMENT WITH VIGNAN'S WEB BASED PORTAL

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## Abstract

This article describes how administrators can examine user and administrator transportation details using an easy interface made with JavaScript, CSS, PHP, HTML and how to leverage Vignan's web-based portal to automate the management of transportation. For data administration and storage, the MySQL database and XAMPP server offer a solid basis. Use pictures, films, and first-person narratives that showcase student successes to emphasize the advantages of taking college buses. To help students relate to and gain faith in the form of transportation, present driver profiles featuring images and brief biographies. Establish an assessment mechanism to gather opinions about the bus service from final consumers. install a location map with details on the start and end points and enhance operations continuously. People who use the bus network should be able to quickly access safety instructions and guidelines. Reports that include analyses of various components of the road network and incorporate feedback patterns should be given. By implementing these recommendations, Vignan's web-based transportation management system can increase staff and student mobility by becoming more feature-rich and user-friendly, hence improving bus usage and passenger numbers.

**Keywords:** HTML, CSS, Java Script, XAMPP, MYSQL.

## 1. INTRODUCTION

The educational entities' transportation management portal, or tmp This web-based solution aims to completely transform the way transportation departments are run in colleges and universities. By providing an affordable, user-friendly alternative to the antiquated paper-based processes, it removes their inefficiencies and annoyances. Paper-based technology is labor-intensive and prone to error; automation reduces overhead, saves time and money, improves data quality and visibility, and gives administrators a single point of contact for all transportation-related tasks. Examples of automated procedures include bus permit issuance, bus detail management, and user registration. removes the need for storage and printed documents minimizes the expense of data entry and processing and efficiently allocates resources to transportation services allows administrators to use an intuitive online interface and is reliant Staff and kids may potentially benefit depending on how it is done. provides If implemented, real-time bus location tracking facilitates user address updates for ease and streamlines overall transportation administration [1]. Traditional paper-based transportation management at educational institutions has a number of drawbacks. Manual processes are laborious and inefficient. Data entering done by hand is more prone to errors. Paper forms and storage result in unnecessary expenses. The administration finds it difficult to assess data that is scattered [2]. The TMP tackles these problems by providing a unified platform for all transportation-related data, improving data quality, and optimizing operations. When everything is taken into account, the TMP offers educational institutions a comprehensive and user-friendly solution, transforming transportation management from a tiresome task into a simplified and efficient process [3].

## 2. EXISTING SYSTEM

There are a number of issues with the current college transport oversight record-keeping system, such as the difficulty of easily changing data, the confusing interface, security concerns, a lot of paperwork, manual operator control, laborious search procedures, a high mistake rate, and the potential for data loss. These restrictions derive from the inefficiency and unreliability of the system brought about by the manual registration and data collection processes. The department of mobility can be advantageous to the personnel, students, and administration. It was intended to serve as a gateway, making transportation administration easier with features like bus expense tracking. It is easy to manage bus data and get relevant information quickly. It should offer teachers, staff, and other members of the college community dependable, safe, and effective transportation options.

## 3. PROPOSED SYSTEM

The innovative, user-centric transportation management system that is being proposed will completely transform Vignan's operations. It will integrate a page specifically for college bus transportation regulations and make use of HTML, CSS, JavaScript, and PHP to create an efficient transportation management system by providing some suggested solutions, such as a page with guidelines for choosing college bus transportation and updating the bus pickup area. Add captivating

along with student experiences and success stories. You can also humanize the bus transportation experience by introducing driver profiles with photos and brief bios, offering safety advice and guidelines, and giving the location of the bus stop, start point, feedback system, and reportgeneration. The objectives of the system are to boost output and simplify the transportation system.

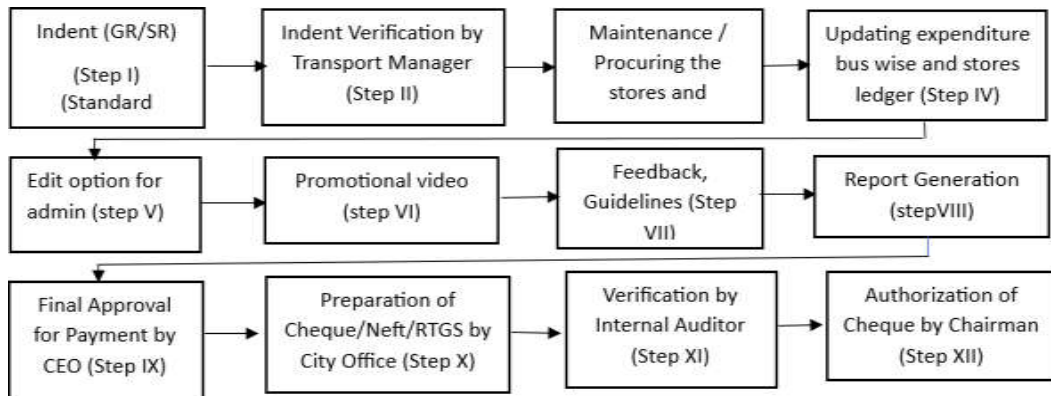


Fig-1 Flow Diagram

4. MODULES

Transport (Admin): The admin module's main purpose was to provide administrators total command over the college bus system. Through this module, administrators can access user facts like preferred modes of transportation and personal information. They can also create new users and remove existing ones from the system as needed. Administrators can also monitor revenue and expenses by using the module, which also allows them to control the transportation system's revenue and expenses.

User: Staff members and students have the ability to sign up for the transportation system via the user module. The bus driver will check that the students' printed bus permits are legitimate before allowing them to board. Together, the two elements form an effective and meticulously organized transportation system for the entire organization.

5. USE CASE DIAGRAM

A behavioral diagram that illustrates the relationships between a group of things.

Administrator module: The administrator is represented by the actor. The actor must carry out the tasks outlined in each use case related to the use case subject. The actor must add busses, submit information about student and staff details. The actor must log in to complete all of these use cases; once logged in, the actor can log out.

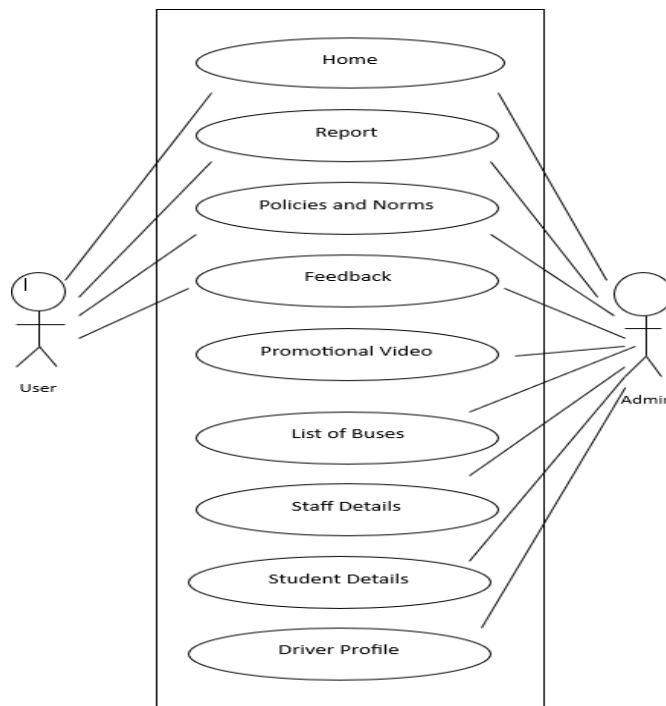


Fig-2 Use Case Diagram For Admin Module

Use Module:

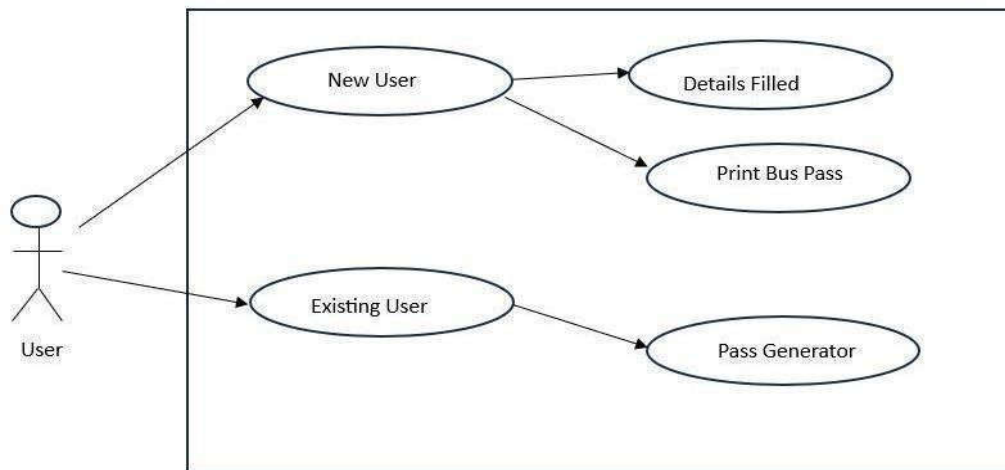


Fig-3 Use Case Diagram for User Module

6. CLASS DIAGRAM

Class Diagram: The most common type of UML diagram is a class diagram. Both the learner and the administrator need to fulfill specific requirements and have specific attributes. The explanation is divided into two portions in the class diagram below: the first section addresses the characteristics that must be supplied, and the second section addresses the required operations.

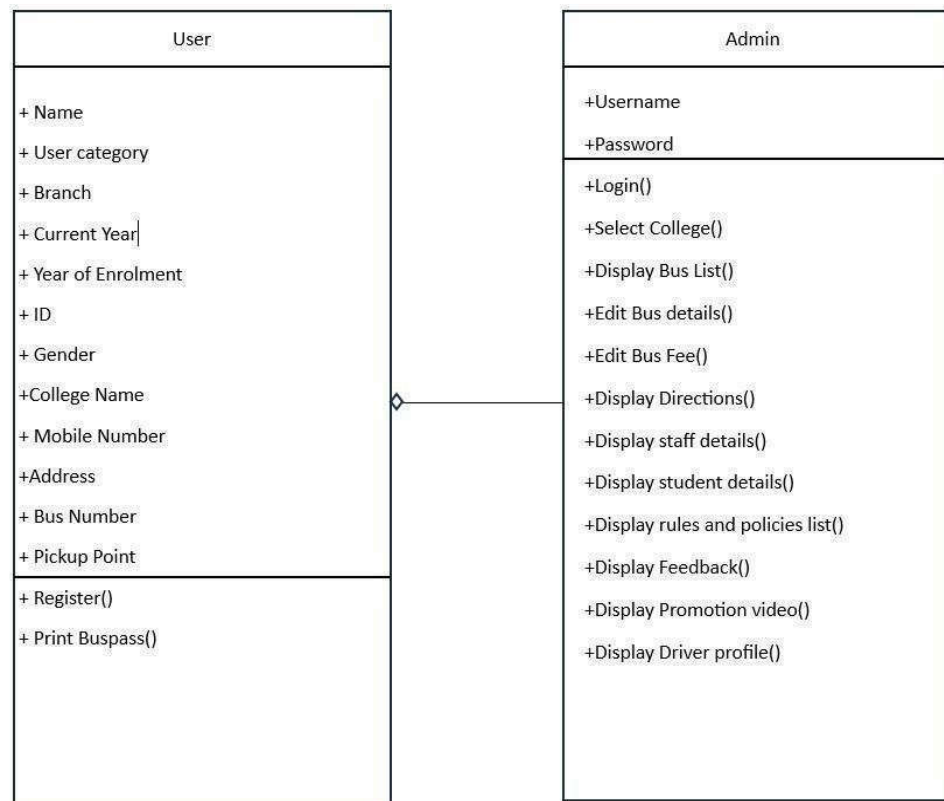


Fig-4 Class Diagram for User and Admin

7. PROBLEM ARCHITECTURE

User Registration: Making an account is the first action a user takes within the system. When enrolling for the transit system, users are required to provide their personal information, their preferred mode of transportation, and any other relevant data.

Admin Dashboard: Network administrator can manage the transportation system from this

single location. Administrators can control the transportation system's revenue and expenses, add or delete users, and keep an eye on user information through the dashboard.

Verification of Bus Pass: In order to confirm the specifics of the fees, students must provide their printed bus passes to the accountant who is boarding the bus.

Data security: The system must encrypt user data, limit access to sensitive data, and follow industry guidelines for data management and storage in order to safeguard user information. Systems for ratings and comments are part of the Through the web application, students may discuss their bus experiences, rate drivers, and make comments for changes. This

provides crucial information to college administrators that they can utilize to raise the caliber of transportation services.

Profiles of Drivers: Introducing driver profiles with photos and short biographies will humanize the bus transit experience and foster a feeling of community. Provide rules and advice on riding safely, including emergency protocols and precautions.

### 8. DESIGN IMPLEMENTATION

Home.html:

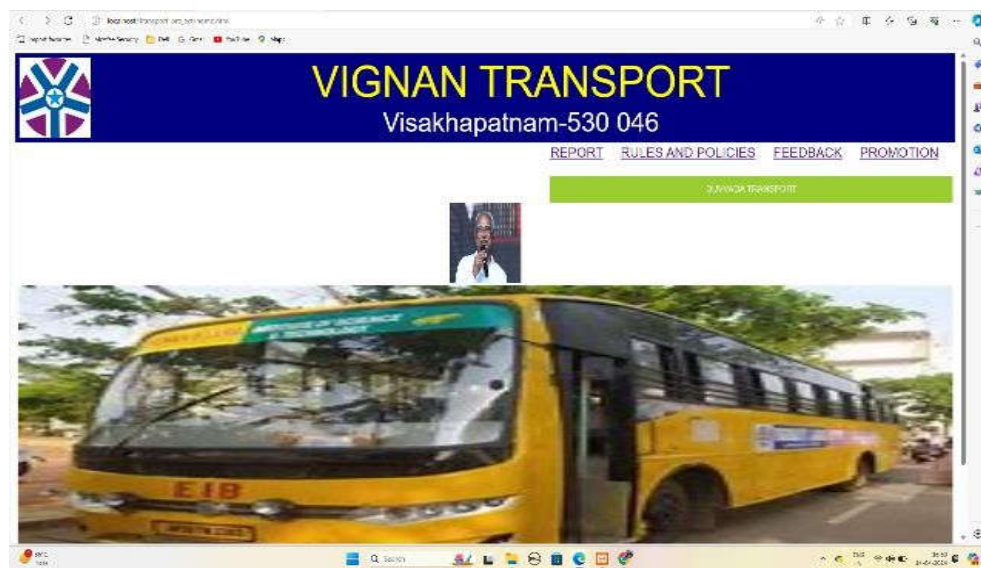


Fig-5 Home.html

User Registration form:

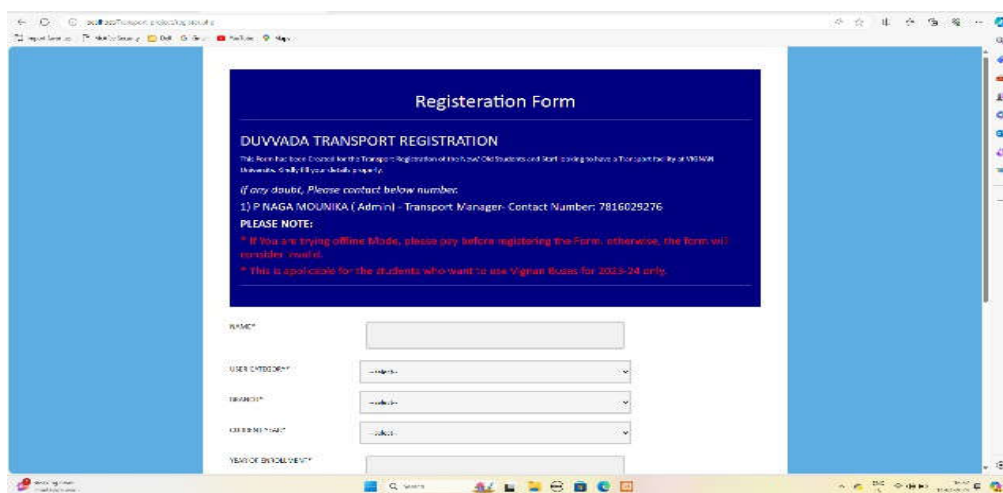


Fig-6 User Registration Form

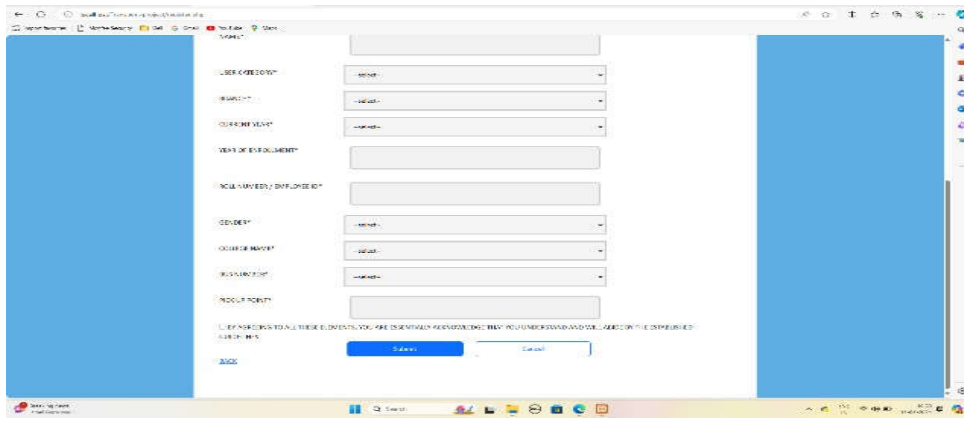
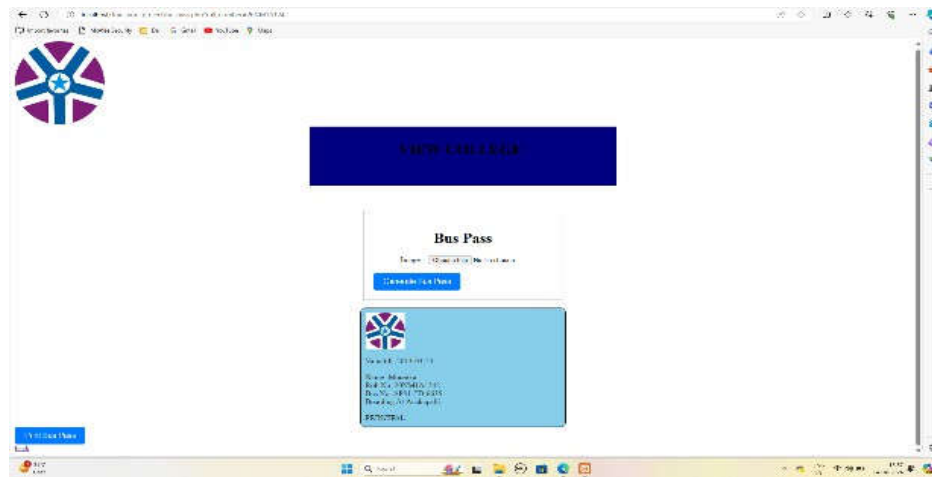


Fig-6.1 User Registration Form

From a new user to register they need to fill these data as shown in the below picture. Pass Generation:

Fig-7 Pass Generation



Report Generation:

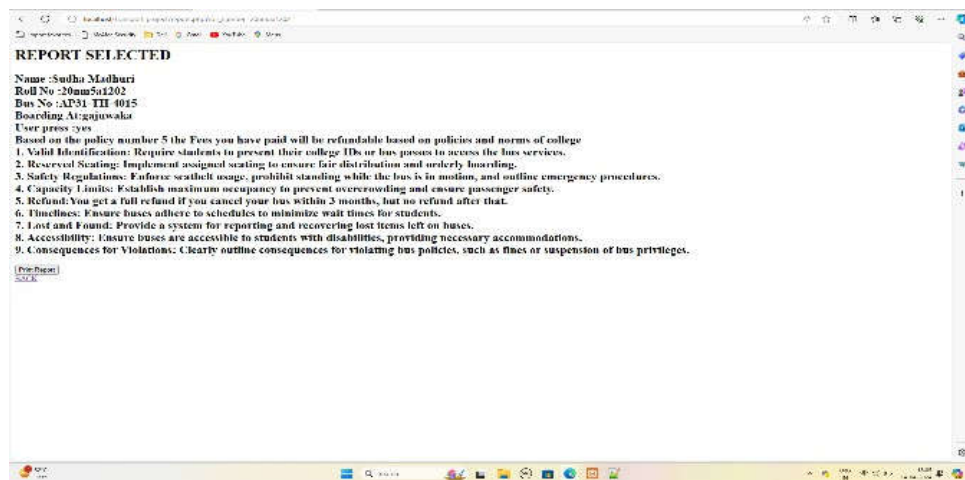


Fig-8 Report Generation

Rules and Policies:

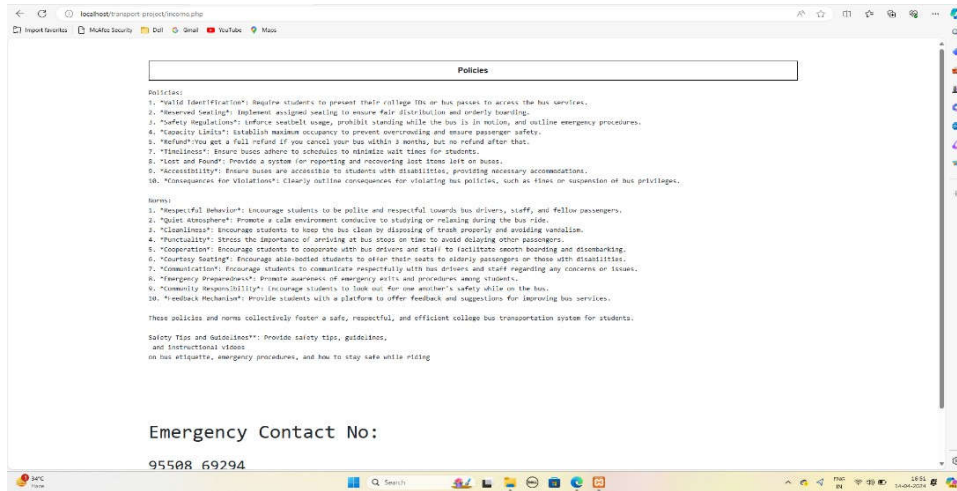


Fig-9 Rules and Policies

Feed back:

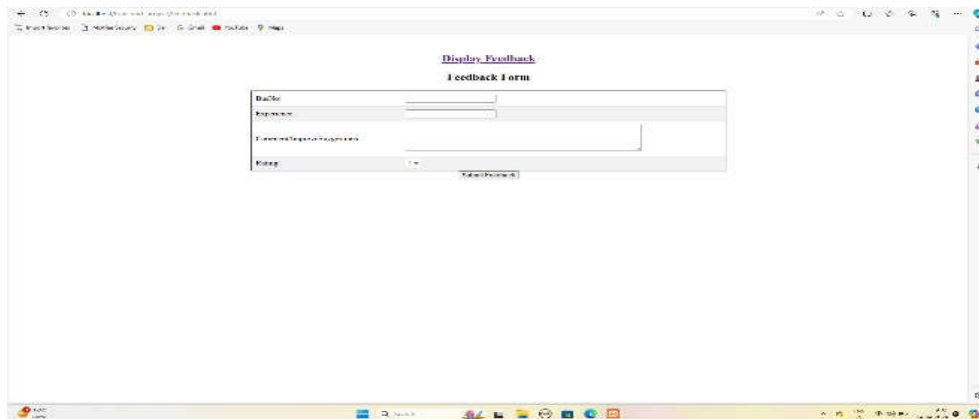


Fig-10 Feed back

Promotional Video:

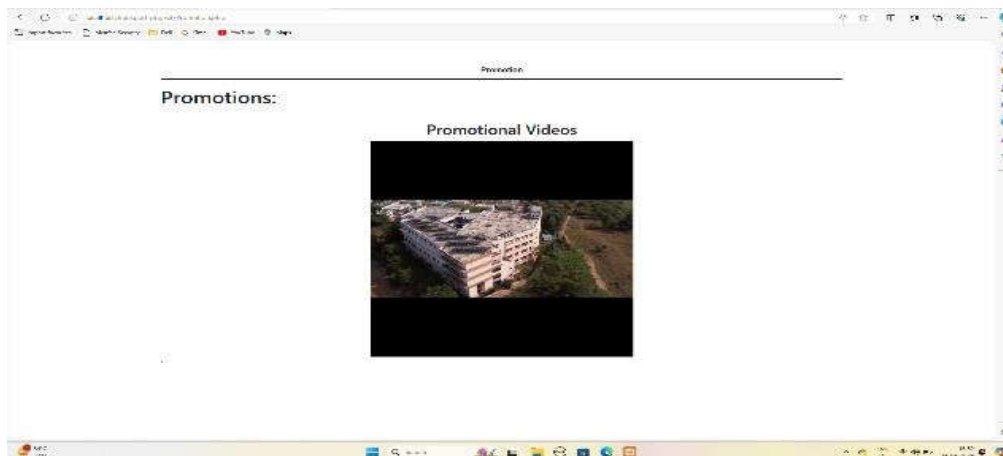


Fig-11 Promotional Video

Admin Login:

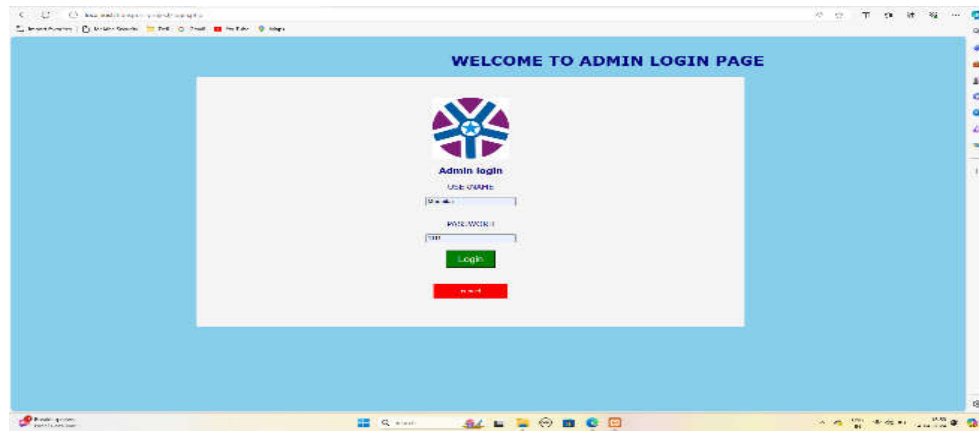


Fig-12 Admin Login

Foradminlogin,itshouldbegiventheproperusernameandpasswordforasuccessfullogin.

List of Buses:

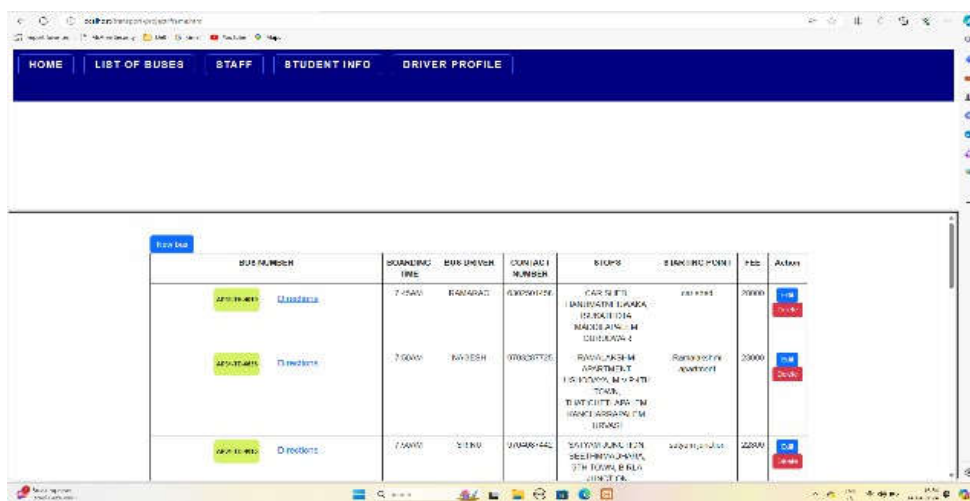


Fig-13 List of Buses

Directions:



Fig-14Directions

Staff Details:

NAME	EMPLOYEE ID	BRANCH	GENDER	COLLEGE NAME	YEAR OF ENROLLMENT	MOBILE NUMBER	CURRENT YEAR	BUS NUMBER	ADDRESS	PICKUP POINT	FEE
S. Siva Sathish	10311	IT	Male	VITW		951929988		AP04 TE 2024	Mamburaj	Mamburaj	1100
K. Laksh Shrikar	10315	IT	Male	VITW				AP04 TE 2024	Changanur	Changanur	0
R. Sathish Sathish	10303	IT	Male	VITW		951945500		AP04 TE 2024	Sekhar	Sekhar	1100
R. Dhanraj	10397	IT	Female	VITW				AP03-2023	Mamburaj	Mamburaj	0

Fig-15 Staff Details

This page consists the staff details such as ID, Gender, College Name, Year of Enrollment, Mobile Number, Current Year, Bus Number, Address, Pickup Point and Fee details.

Student Details:

NAME	ROLL NUMBER	BRANCH	GENDER	COLLEGE NAME	YEAR OF ENROLLMENT	CURRENT YEAR	BUS NUMBER	ADDRESS	PICKUP POINT	FEE
C. Manoj	200M103212	IT	Female	VITW	2022	4 TH YEAR	AP21-2000	BK Road	BK Road	10220
C. L. Bharathi	200M103213	IT	Female	VITW	2022	4 TH YEAR	AP 21-2000	BK Road	BK Road	10220
S. K. Srinivas	200M103215	IT	Female	VITW	2022	4 TH YEAR	AP 21-2000	BK Road	BK Road	10220
K. N. S. Srinivas	200M103214	IT	Female	VITW	2022	4 TH YEAR	AP03 TE 2023	Changanur	Changanur	11000
K. Vignesh Lakshmi	200M103225	IT	Female	VITW	2022	4 TH YEAR	AP03 TE 2023	Sekhar	Sekhar	11000

Fig-16 Student Details

This page consists the student details such as ID, Gender, College Name, Year of Enrollment, Mobile Number, Current Year, Bus Number, Address, Pickup Point and Fee details.

Driver Details:

Bus Number	Driver ID	Driver Name	Driver Age	Location
AP11 TE 2024 72 4	15331	T. S. S. S. S.	15331	Changanur
AP11 TE 2024 72 4	15331	T. S. S. S. S.	15331	Changanur
AP11 TE 2024 72 4	15331	T. S. S. S. S.	15331	Changanur
AP11 TE 2024 72 4	15331	T. S. S. S. S.	15331	Changanur
AP11 TE 2024 72 4	15331	T. S. S. S. S.	15331	Changanur
AP11 TE 2024 72 4	15331	T. S. S. S. S.	15331	Changanur

Fig-17 Driver Details



## 9. FUTURE SCOPE

Since there are numerous methods to enhance a college transportation management system, there are numerous options available. It might become more efficient and effective.

1. Real-time tracking: Provide a feature that makes it possible to track buses in real-time. This will allow staff and kids to keep track of the bus's whereabouts and predict when it will arrive.
2. Mobile app: Develop a mobile application that provides workers and learners with access to transportation information, including bus routes, timetables, and fare details. This will enable them to obtain information while traveling in a more sensible manner.
3. Parental access: Permit parents to utilize the transportation management system. Parents can verify the safety measures put in place for their child, as well as the bus schedule and route.
4. Particular Routes and Schedules: Give students the freedom to change the routes and timings to suit their own requirements and preferences. They could choose their starting point, destination, and preferred departure time.
5. People estimation and population tracking: Make use of machine learning algorithms and data analytics to forecast bus crowd sizes and measure capacity in real-time. Students can utilize this information to plan their excursions during off-peak hours or select buses that are less crowded by using the web application.

## CONCLUSION

Through eliminating the need for manual record-keeping, the vignan's internet-based interface offers a comprehensive platform for managing learner transportation. This automated method boosts convenience and efficiency and serves as a model for other organizations seeking to streamline their operations. In addition to offering safety advice and a feedback system for continuous development, the portal may include a page with instructions for choosing college bus services and changing pickup locations. It may also contain engaging content like pictures, videos, and student testimonials that highlight the benefits of using the college bus service. Driver bios with bios can further personalize the experience. This will solidify Vignan's web-based interface for administrative streamlining as a user-friendly and efficient student transportation system.

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