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Jitney Locality Finder App

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ABSTRACT: The global adoption of Android applications is astounding. People turn to technology to make their lives more innovative and to solve their daily problems. When it comes to avoiding manual work or managing good perspective, the online system will assist the people. We created an Android application that can be used in smart apps to solve these problems and provide a better experience. Our smart app focuses on bus navigation.
This app can assist drivers in taking attendance and updating the location of the bus, and it can also assist parents in viewing the location of the bus and learning more about their child.
The app's development environment is open source software called Android Studio. This system is implemented on the Internet so that users can access the information via Internet access devices. The prototype development model was used in this project's methodology. The system developed in this project is not composed of modules that can be used independently; all modules must be integrated to form a functional system. As a result, a prototype is created and used for system evaluations, testing, and improvements. After all modules have been integrated, the system can provide a more accurate system.

KEYWORDS: android, app, mobile navigation**.**

I. INTRODUCTION

Mobile phones are extremely important in our daily lives. The result of mobile phones in our daily lives and activities is constant mobile An application is a computer programme that runs on smart phones, computers, and other devices[4]. Android is there when a device goes from just working to actually making life easier.
This Android application focuses primarily on the concept of attendance and GPS tracking of the bus while taking student attendance. Parents are concerned about their children while sending them to college/schools; therefore, the developed Android app can assist in locating the location and filing complaints against the bus driver in the event of an emergency.
This app consisting of three modules called admin, drivers, parents/students. The supervisor of this application named has admin and contain web part. Admin has the person to add, edit and delete the driver details, bus details and students details by using the web part. He can have the option to allot the bus for students and can view the reports by using the web portal. Drivers can get the user name password via SMS, once they get registered by the admin, they can login to the application and can update the students attendance, while doing this the location of the bus can be updated in the app. Drivers can view the list of students who assign to the particular bus. Parents or students can login to the app by using the user name password send via SMS. They can view the location of the bus and can view the profile. Can have the option to raise the complaint against driver.
GSM and GPS modules are used to track the system and display the current location of the bus on Google Maps. The GPS-GSM tracking system will tell you where the vehicle is and where it has been, as well as how long it has been there. The system will obtain geographic location and time information from Global Positioning Satellites. The system makes use of wireless technology to provide a better vehicle tracking system. It is the technology used to determine a vehicle's location. It is a system mostly used to keep an eye on the moving objects and using surveillance systems such as Global Positioning System is the best way to finding the position of the object. This survey found GPS system can observe the vehicle.

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II. LITERATURE REVIEW

In this paper, we track a vehicle for an organisation in order to find addresses and positions of their vehicles. This is an Android application with GSM and GPS capabilities. They used GNSS, GLONASS, and GALILEO services to provide location data on Google Maps. They used 32 satellites and a CDMA scheme. This system made use of modulation schemes like BPSK, BOCs in, and TMBOC. It can be used in security, police, and military departments, as well as for bus tracking. [1].

The paper describes a model for vehicle tracking and routing over a large area. It is GPS and GSM-based. It only works when the vehicle is moving. The GSM module should be installed in both the Transmitter and Receiver sections. They used a 32-bit ARM7 LPC2148 microcontroller in this project. The primary motivation for this system is car theft. This includes a car alarm system. When the alarm goes off, it detects and sends an SMS to the person. We used two pieces of software: an Arm processor and Visual Basic software. [2].

Each student is given an RFID tag in this system. This tag detects each student's presence on the bus and sends an alert notification to parents. In the event of an emergency, the speed is detected and an alert message is sent to the parents. They used various sensors such as a fire sensor, an infrared sensor, and so on. A fire sensor is used to detect any fire accidents that occur while driving. An infrared sensor is used to detect whether or not a student is present inside the bus after it has arrived at its destination. They used the PICI67 Microcontroller, to which all of the input devices were connected. [3].

This system aids in the location of the vehicle. The owner must send a message to the vehicle tracking system in this system. When a request is sent to the GSM modem, the system processes it and sends a response to the mobile. It will display the vehicle's position in terms of latitude and longitude. It will complete in a very short period of time. They employed an RF transmitter, a receiver, a push-pull button, and an RS232 cable. It is used for both commercial and personal purposes. [4]

The primary function of this application is to provide the exact location of the college bus using Google Maps. Indicate the time required to reach a specific stop along its route. This is client-server technology, and the process is carried out using a Java virtual machine. This system only includes information about the driver. Driver details include the Name, Bus ID, and Driver ID. We can only find driver details using this system. In the event of an emergency, it is unable to send the alert notification message. It will only monitor the driver's information. [5].

This system is used to locate the bus's current location and to provide the distance between the bus and the student in order to alert where the bus is. Google Maps is used to display the distance and location. As a result, the bus's movement is always visible. The GSM module is only used to determine the location. The main disadvantage of this system is that no emergency alert notification is sent. There is no guarantee that students boarded the correct bus. [6].

We have four applications in this system. They do, It displays the bus's current location and sends a group message to those who are waiting at the next bus stop. It offers an e-bus pass. It sends alert notifications in the event of an emergency, such as an accident. This system makes use of sensors such as an accident detection sensor. It connects the input device via a microcontroller. It is built on an embedded system. The GPS module is used to find the bus. Because this is an embedded system, the cost is very high. [7].

Vehicle tracking, alerting, and monitoring is a difficult problem nowadays. RFID is used to monitor the system in this system. GSM is used in an alert system. It will compute the vehicle's arrival and delay times. It will keep track of a large number of buses. It will notify vehicles such as a car, truck, cargo, bike, and bus. A vehicle monitoring system combines RFID technology and a tracking system. The proposed system to address the issue of public transportation. A wireless sensor network is used to monitor the bus transportation system and keep track of the arrival times of buses at bus stops. [8].

In this paper, we will present a vehicle tracking system that locates a vehicle using a GPS module and GSM. The goal of this project is to remotely track the location of a vehicle, remotely turn on and off the vehicle's ignition system, and remotely lock and unlock the vehicle's doors. The tracking system receives an SMS message, and the system responds to the user's request by taking appropriate actions. Google Maps is used to track the vehicle's location. To control the vehicle's features, they used a relay-based control concept. [9]

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III. PROBLEM STATEMENT

However, this system has limitations. The timetable provided by this system remains the scheduled departure time for each bus stop. This system is still unable to provide the exact arrival time for each bus based on its precise position. However, based on the movement of a bus, students can confirm that a bus is approaching a bus stop. Taking attendance of students while they are in the bus and assigning drivers to specific buses are not easy tasks to accomplish manually.

IV. METHODOLOGY OF PROPOSED SURVEY

To avoid the problems that students are experiencing, an interactive mobile application was developed. Existing issues can be resolved by developing an Android application that assigns drivers to buses and tracks students' attendance on their way to college. This system is responsible for resolving these issues. This Android application is adaptable, allowing us to add features as they become available. In the previous system, the details about the bus were kept in a file, which consumed more time.

The application shows the user the bus's current location. The location information is obtained from an online database, which receives data about the location from a separate application used by bus drivers/conductors. This contributes to the bus's uniqueness while displaying its location on a map.

The application will be created with Android Studio, which has a very simple user interface. The core component that will be used in it is Google Maps API, which is very easy to use and explore maps with simple gestures such as pinch to zoom, tap to point, and so on. It will make it very easy for the user to track the bus.

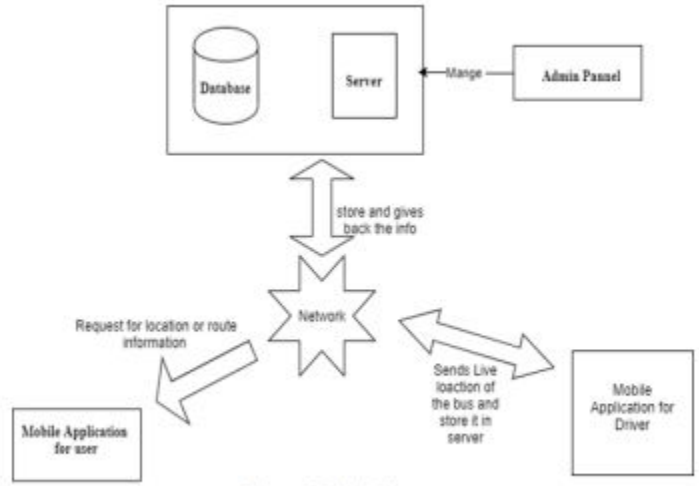

Figure I. Block Diagram

V.CONCLUSION

It can be concluded that the primary reasons for the use of a college bus system are time savings, reduced paper work, convenience, ease of transportation, and affordability. Where is my bus generation project, which is helpful for students/patients who are frustrated with the current system, such as knowing the location of their college or school bus. Parents, in particular, were concerned about the students' attendance or presence on the college bus. As a result, we created a user-friendly and adaptable application for students. The first step is for students/patients to register for the application by providing the necessary information.

The bus tracking system provided a real-time platform for bus users to check on the status of bus traffic at any time and from any location. It also provided a platform for bus service providers to monitor bus status and provide users with the most up-to-date information.

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