Child Location Monitoring App
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Abstract:
The Child Location Monitoring Application is designed for School and Parent to track the children while they are travelling through School Vehicle. The days are Gone when one of the two parents will sit at home to take care of the children and one earns. Now time has come for both the parents to work; in such scenario, the security of children is very important. The numbers of users have Android phone equipped with Global Positioning System, which can be used efficiently for security and protection purpose. This Application is mainly developed for children going to school to make sure that at what exact time child has reached school and at what time he/she left school. Also gives the vehicle location and information about van drivers. This also gives the expected time of the vehicle while pick up and drop. This Child Location Monitoring Application is a multipurpose children safety application, which will work on android platform.

Keywords: Global Positioning System, Android, Security.

I. INTRODUCTION
As android operating System is used in mobile phones, tablets and laptops, it has covered more than 80% of the market. Now everyone is using android phone. As android is an open source operating system many developers are developing various applications every day, Millions of applications are available for use free of cost. These applications are helpful for Ticket booking, banking services, Online shopping, Tracking our family members etc. The child location monitoring Application is to give assurance to the parent that child is reached school or left school safely. Most of school provides cameras in school campus to monitor all the activities inside campus but while going to the school and coming back from school the responsibility is on the Vehicle Driver, so to track them is also important. There may be chances of stolen School vehicle came to pick child and parent will never understand that the Drivers are fake and parent will hand over their children to them. So there is a need to overcome this problem and to communicate with parent regarding Status of Vehicle and Change in Driver. By this application parent will get Assurance that Driver is well trained and they will know his credentials to drivers and parents. The parents will also get alerts when the bus arrives near their respective stops and they will not miss the bus.

II. LITERATURE SURVEY
The purpose of literature review was to establish the potential topics and suggest ideas for another research, reporting published materials on existing conceptual framework, theories, techniques, processes, styles and instruments of other researchers related to the topic under investigation. It helped align our scope of study and in determining the various variables to be included. As for this research, the main purpose of literature review was to grasp comprehensive ideas on the extent of digital library initiatives and projects that had taken place worldwide and the factors and conditions that had influenced and contributed to their success.

Paper 1:
AUTHORS: Kantilal P. Rane, Dattatray A. Patil, Sumit S. Dukare.
This paper contains the past work of vehicle monitoring, tracking and alerting system, to classify the different methodologies and identifies the new techniques. There are some challenges to face the vehicle tracking, monitoring and alerting because the lack of proper real time vehicle particular location and problem solving for the alerting system. GPS (Global Positioning System) is the most important technology used for vehicle tracking and it can monitoring the vehicle. The purpose of tracking system is to manage the transport using GPS and to control transportation to know about the current location of vehicle. The RFID (Radio Frequency Identification) is one of the technology and it is used for vehicle monitoring system. GSM (Global System for Mobile Communication) is mainly used for the vehicle to alert the system. In addition, this system is mostly essential for providing the information and location about vehicle to the user, passenger or owner.

Paper 2:
AUTHOR: R. Bala Krishnan, G. Jemilda. Linga Sangeeth, B. Johnson.
This paper contains an Android mobile phone application and it gives information about buses, and bus routes as well as bus numbers with both online and offline mode. The reason for Android platform is requires an open source development and it is probably the most feasible and user-friendly approach. In addition, it deals with Location Based Services, which are based on to track the exact location of the bus as well as it gives a particular remaining time for the tracked bus to reach its destination by using the different technologies. It displays the required location in the maps with the help of GPS technology.

III. PROPOSED SYSTEM
Child Location Monitoring Application is developed in Android platform and database is created using SQLite which is the light version of SQL and works exactly same as SQL only difference is it takes very low space so best suitable for mobile apps. The centralized application helps parents to track the location of the school vehicle in which their children are travelling. The admin has the authority to provide all the login credentials to drivers and parents. The parents will also get alerts when the bus arrives near their respective stops and they
can monitor until they reach school and when they leave from school using maps.

**Advantages:**
- Application is user friendly and has enhanced user interface.
- Parents do not have to worry about the time when does bus arrives.
- Parents can track the vehicle until it reaches school and when it leaves from school to home.
- Parents will be alerted in the application.
- Live location of driver and the vehicle can be traced.

![Child Location Monitoring app Architecture](image)

**VI. MODULE DESCRIPTION**

The system “Child Location Monitoring app” consists of four modules:

1. **Admin**
2. **Driver**
3. **Parent**

**Admin:** In this module, the admin registers parents as well drivers to the application and give the parents and drivers their username and passwords.

**Driver:** In this module, the driver logs in to the application using username and password given by the principle. Once logged in they will start the application and press the start button, from which the tracking begins.

**Parent:** In this Module, the parent logs in to the application using username and password. Once logged in they can view whether the driver has left the school where he is, and once the vehicle are nearer to the respective stops the parents get alerts. Once the child boards the vehicle until they reach school the parents will be getting alerts in the application and trace their location in maps.

**IV. CONCLUSION**

The development of this system is based on android open source platform. This application is developed to bring convenience to the users. The applications is very flexible, versatile and user friendly. Parents can track the location of the school vehicle in which their child is travelling. Once the driver starts the trip, parents will alerted once the vehicles reaches their kid’s stop, and then the parents can monitor the location of vehicles until it reaches school. The authority can add vehicles, drivers and parents to use the application. In addition, the application is effective and accurate. It describes a method to track school vehicles and provide interaction in more efficient and effective way resulting in greater reliability and security. We use simple and it makes easy to use. Since, we are making use of an android application; no additional hardware is required for implementation.

**V. REFERENCES**


[7]. Software Engineering by Roger Pressman and David Lowe

