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Local Bus Transport Tracking using Android Applications

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Abstract: ***Local bus transport tracking is a live monitoring system by this application we can track local buses time to time and users can follow schedule and timings for buses. The proposed tool has potential to assist live monitoring using the current state share of the bus as an alternative to information. The uses of software tools meet the needs of public transport users***
Keywords:Gps, Tracking, Online updating algorithm

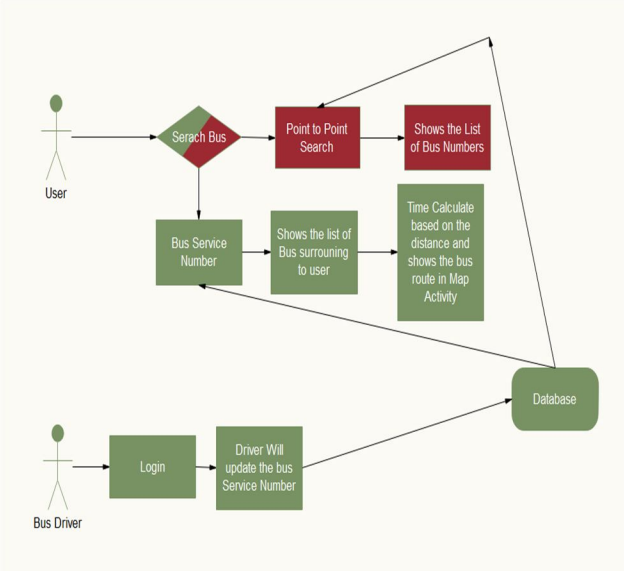
I. INTRODUCTION

The aim of improving the management of the transport service urban to identify the requirements and attributes necessary for the development of bus monitoring equipment that respects the needs and desires of the operators and the managing body whereas, in an information system of schedules for users and administrators of public transport urban. In guidelines are proposed for the development of a system-based application global positioning system (GPS) which aims to assist cyclists in the task of finding information that facilitates their movement in a fast way. Based on the drivers current location users will track where the bus was.

II. PROPOSEDSYSTEM

In this application we are going to propose live tracking on local buses by using their current locations.We are using firebase Technology to save Those current location status. Every 20sec data base will auto update the Location of bus. Every driver has individual login to update the bus service number.

III. SYSTEM DESIGN



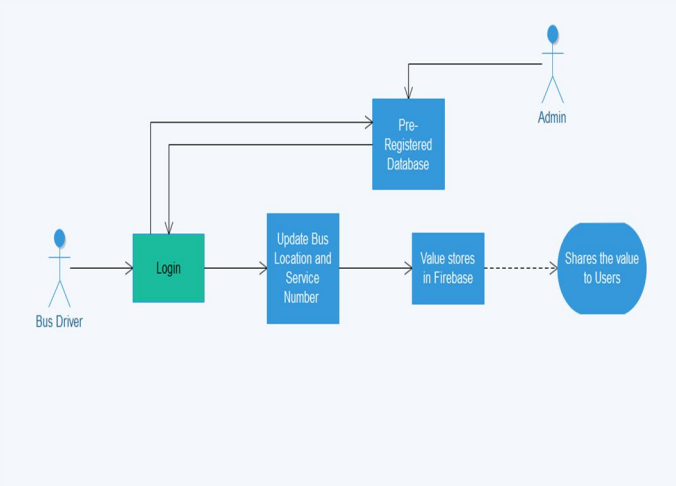
We going to make two different searches.
Point to Point (source to destination).

A. Bus Service Number.
B. Driver View
C. Admin will create a login id for bus driver.
D. By using that login id driver will update which bus he was going to drive.

IV. MODULES

A. *Drivermodule*

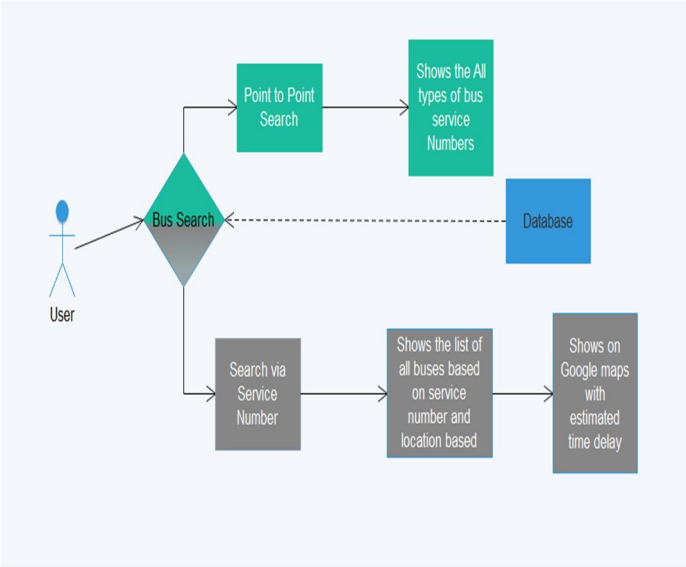
1) In our project having login authentication, Admin will declare email and password to all drivers. Admin only able to add an Drivers in the database.
2) After driver entered here given email and Password , It will validate, by sending data To URL by using an Http POST or GET Method. It will Validate by PHP script.
3) After Validate, if validation Success. Information of drivers send to device by JSON format, that format will get by Devices and format is converted and display the driver details
4) Driver should register the bus details and Current location that details are stored Another database.
5) Bus details are stored in firebase cloud database, because for easy access or update the database.
6) For using Firebase Data base use an google Account to register inwww.firebase.com And add our project package in our console And add library files in android studio

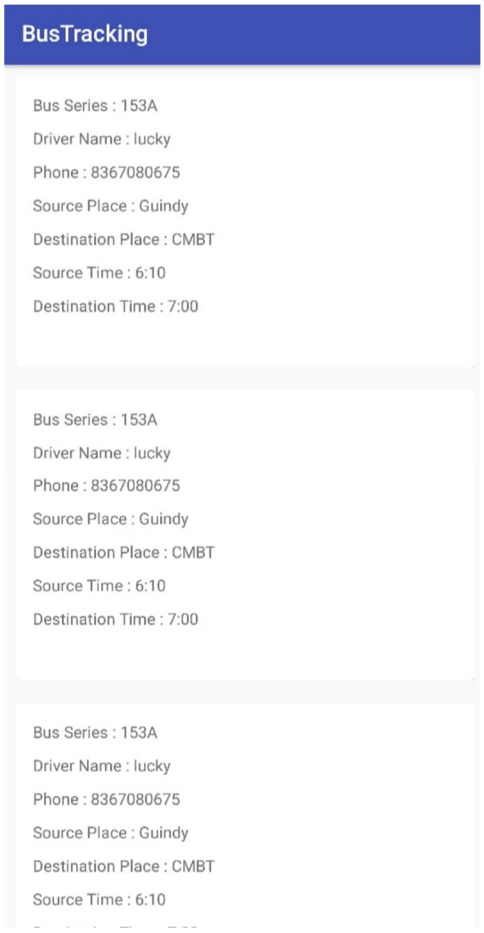


B. *User Module*

1) User have two Search options:
2) Search by bus number.
3) Search by giving from and to details.
4) Search by bus number:
5) user entered the bus number in app it will check number in database via PHP Script.

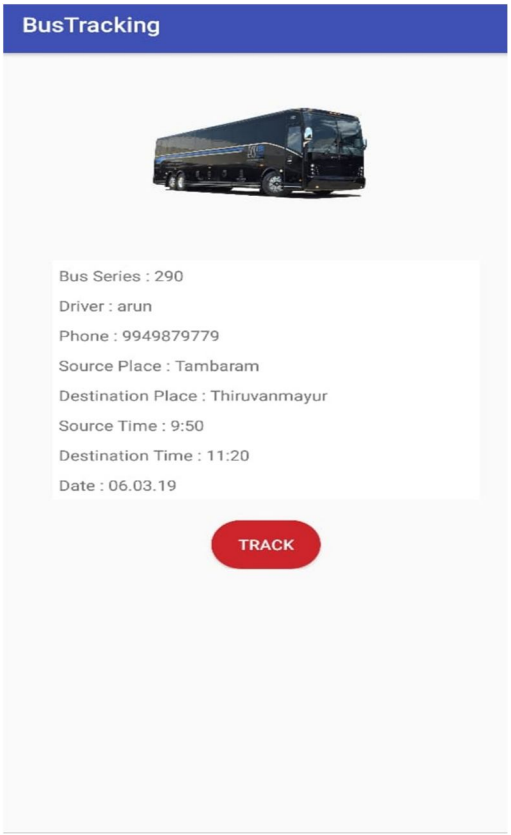
6) If the given number in database it will get the location based on user current location (radius 2km)
7) It will show an option what buses are near to the user location, user can choose any bus and it shows distance and time.
8) Search by from and to details:
9) User enter the from and to details of the user . And that details are checked to the database what are bus available for that route, It will check by PHP script and send details to the device by JSON format.
10) JSON format are converted and display to the User, it display distance and time

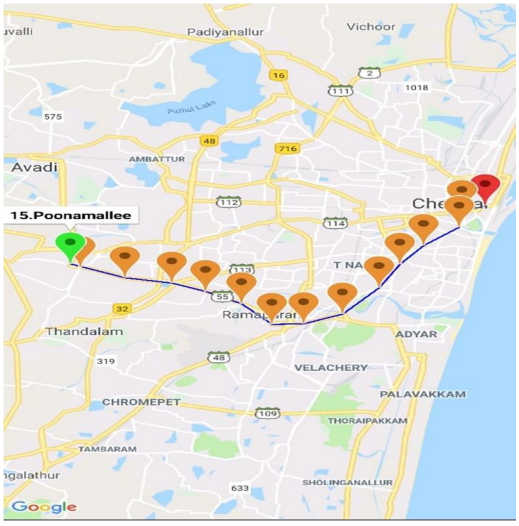




V. EXPERIMENTAL METHODOLOGY

Mobile phones, we implement the mobile phone applications with the android platform. public bus transit system serves millions of bus rides every day covering most parts in the city and we can track the bus from place to place at any time.





VI. CONCLUSION

Thus by using this local bus transport system we can easily track the local buses without having wasting much time for looking for the required and through this system we can also get to know about the arrival time of these buses in the bus stop and by checking the position of the bus driver we can able to know in which direction was the bus coming to the bus stop. Thus it is an important task for us to design and construct an efficient bus transport tracking system so that the people who want to travel long distances can easily get the correct bus in the bus stand. Thus this was the main objective of the local bus transport tracking systems that were used in the day to day life of the people in the world.

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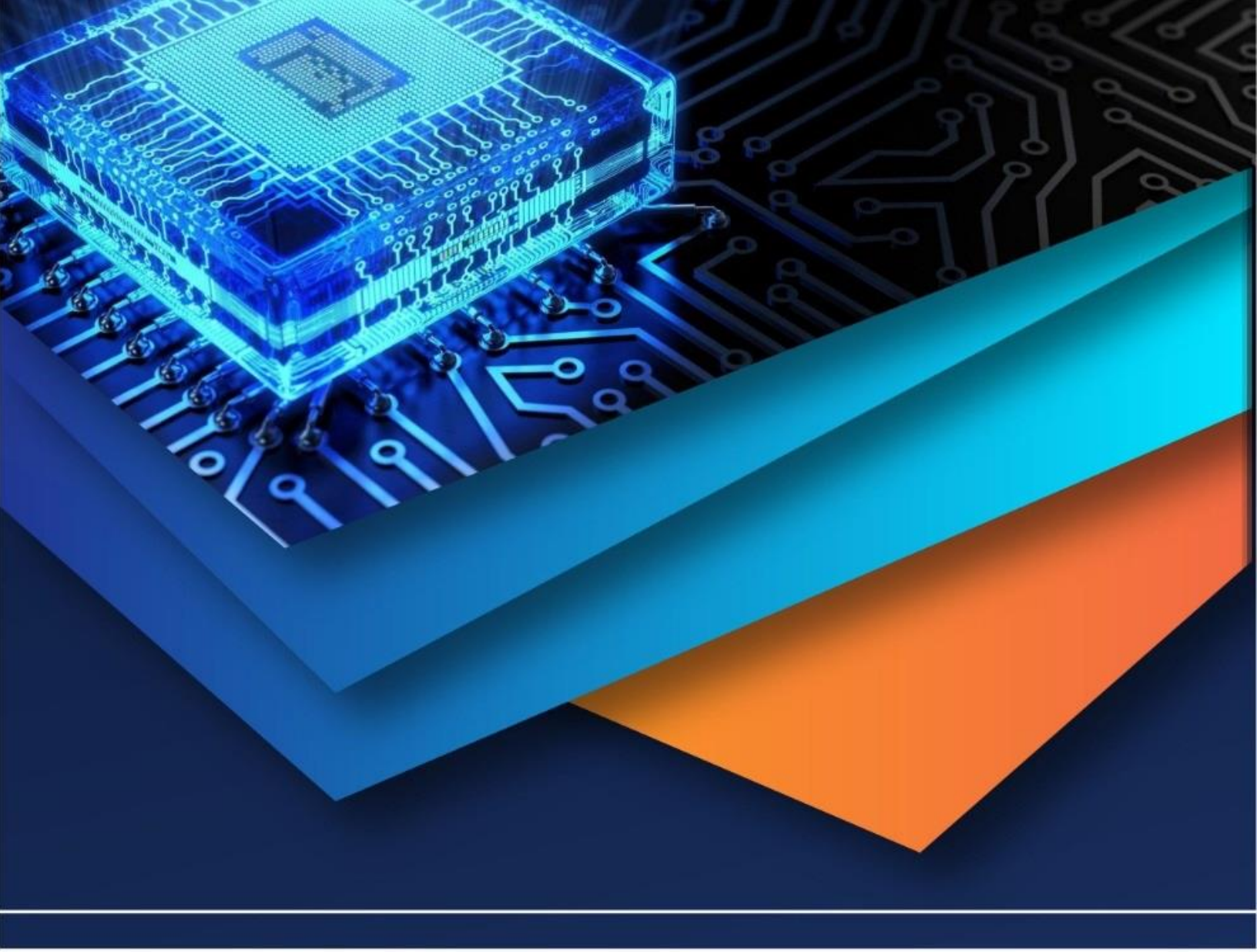

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