Smart Ticket Collection Bus Service

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Abstract:

The idea is to issue ticket digitally .In general, every bus has a conductor who collects cash and issues ticket using a ticket vending machine to each and every patron who boards the bus .It takes a lot of time & human energy and sometime it may happen that manual error may occur (i.e. money defaulters).To overcome this issue, a new system is proposed .The system uses Android based application that would help the patron to book tickets digitally. The person whoever travels can be easily tracked and all the information regarding the traveller is stored in the database for further inspection

Keywords —**Fingerprintsensor, Androidapplication.**

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I. INTRODUCTION

The system is about digital ticket collection .It consists of two phases. The initial phase includes the android application and the final phase includes scanning and verification. Coming to the initial phase, the user has to login by entering confidential information which includes user name, mobile number and email. He also has to link the profile with the bank account .While booking the ticket, the application would ask for the fingerprint and details of all the person who are going to travel .The application also asks for the source and destination location and depending on it generates the amount to be paid. And thus, the application would direct the person to the bank account to deduce the payment. In the final phase there would be a figure print sensor outside the bus, while boarding the bus the person whoever isgoing to travel has to scan his fingerprint which would be verified by the fingerprint present in the database. If the two data matches then the person is allowed to enter the bus

while passing through the sensor present at the door. As soon as the person enters the bus, the sensor senses the person and after some fraction of second the door gets closed and gets ready for the next verification.
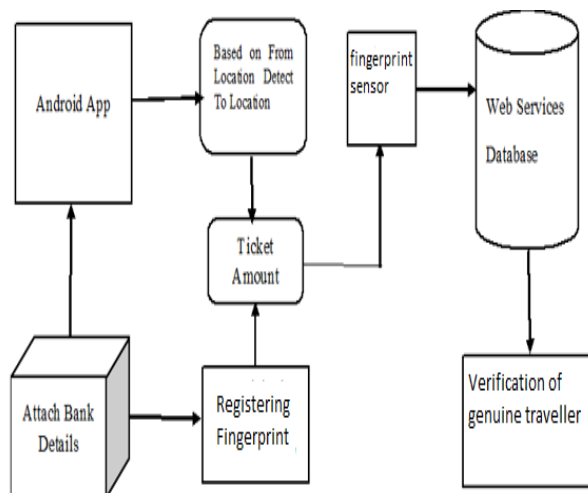
II. OBJECTIVE

1) In today's era the local bus requires hectic work, done by the conductor of the bus. So, the proposed system would help reduce human labour2) Lot of paper get wasted in generating ticket .So, this would eliminate the use of paper ticket (i.e. the ticket would be generated digitally). 3) There is always rush to get into the bus. Using the proposed system rush can be prevented as the number of seats for a bus is fixed. 4) There's always a problem of getting exact change. The system allows the user to generate ticket digitally and do online payment. 5) Every time there is possibility of money defaulters which can be reduced in case of this system as the figure print of the person entering in the bus would be verified by the figure print already present in the database. 6) In some cases the ticket collector may be a culprit in money exchanging .This situation can be prevented as the ticket generation and the payment is done online, prior of boarding the bus.

III. LITERATURE SURVEY

[1]   Smart Ticket Collection System for Public Bus
BySanamKazzi, MurtuzaBagasarawala, Farheen Sheikh, AnamtaSayaidIn this the author talks about Digital India and prepaid Economy, shipment needs to adjust the innovation progression. GPS innovation is being used for following of transport area and arranging. GPS science is being utilized for various bus position and planning. This has already been successfully brought out in various places in republic of India (ex: Ahmadabad(Gujrat), wherever the Indian administrators has created a Global Positioning System accepted bus transport public system to fulfil the movement wants for enhancing the protection and soundness of the system.

[2]   A First-Serve-First-Come Bus-plotting System using Ticket issuing by C. K. SHARMA and S. P. AHUJA. The publisher states that we the humans nevertheless anticipate that there are systems that needs a little improvement in technology of long forgotten in an enhanced efficient way. The model first serve, first come also come provided with a stand by record system and also have standing expanse area as stated by the model of the bus transport unoccupied at that interval of the time. This will also aid the admin side of phase to figure out often occurring according to that time period of call need and rest some bus at time of periods of low call need.

[3]   Global Positioning System hold up following city buses & digital Ticket imprinting System by Vijay sing are, Anita Pendolay, Ankita chaudhoury, Parikshith Deshpanday and Prof. Sankalp Sonavani. The model can extensively be used in following buses and also securely and correctness of the model and its traveler. The micro-scale digital ticket imprinting accessory would be started with changing routes according to the terminals. The accessories have an additional benefits with Global Positioning System technology and utilization of GSM has given bids with required essential twist that can make it awfully active .They intended to use the Global Positioning System fixed with IMEI system.

[4]   Mobile Phone accredited Buses Tracking and Ticket   imprinting   System   by   Rakesh Sankarnarayanan and Paule wisely came up with the idea to change the already existing RFID with mobile phone applications. The distortion between existing and new society is importantly the population of traveler. Therefore only a mobile phone application will not be expedient in their scenario. So, the application that is being proposed is more complicated and embedded with much more aspects and actions .The proposed application should deliver as full complete identity such that even if the traveler is not there and the mobile phone application will act as a person itself.

[5] Radio Frequency Identification and Android Based Smart digital Ticket imprinting and Destination   predicting   call   Systemby Dr.PrashoonChowdhoury ,PulaniBalaji ,Dipa deep reddy,SumitGiri, Aritranand Roy Chaudhoury .This is accomplished in many countries across the world but still it is not expedient for those countries which has huge and enormous population as India. The

distortion between the systems is that it still needs a materialistic existence of member inside the bus. They proposes making a Radio Frequency Identification system embedding with Advanced RISC Machine processor which would let travelers transport. Moreover it would account purposes and demands accomplished with journey charges.

IV. INTERGRATED SYSTEM

A. Sign in/Sign up Module

In the module, the person who is using the app for the first time has the convenience of registering himself to the android application by entering his details such as user-name, create password, adhere number, email-id, phone number .For the verification of the phone number, OTP would be send to the phone number which was entered by the user in order to sign up. In order to complete the signup process the user has to enter the OTP. For the customer who already have their account has to just login using name and password.

B. Linking module

In the module the user has to link the application with his bank account, while booking the ticket the amount will be generated depending on source and destination. When the user clicks on pay, it would direct the user to the bank account for further payment. Once the transaction is confirmed the user gets a confirmation message through email.
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C. Finger print sensor

In the module the user has to add the name

,fingerprint of all the people who are going to travel .If the detail of a particular person is already in the database the user don't need to add the detail of that person again, instead he just need to select the detail of the person by clicking on the checkbox.


D. Area selection module

In the module the user needs to enter the from and too address. Depending on the entered data and the number of people traveling, the total amount will be generated. This module is linked with the linking module so that after confirming the area selection, the amount can be generated and the user can easily pay the bill.
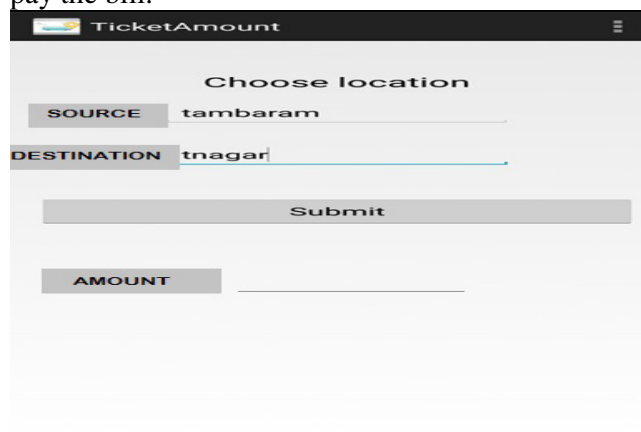

E. Ticket generation

After the area selection module comes the ticket generation module where, depending on the seat availability, the booking is done and ticket is generated. For this, the user will get a confirmation message to his registered mobile number.
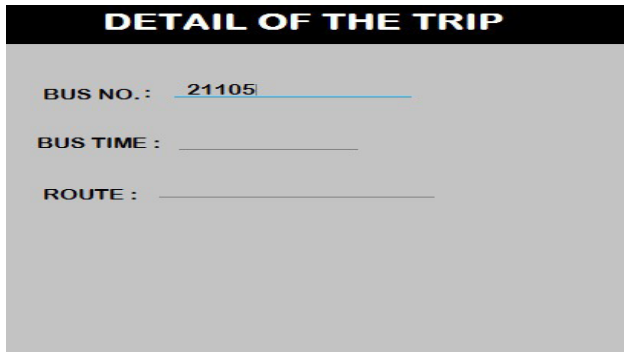
F. Checking module

While entering the bus every individual has to enter his fingerprint .The fingerprint gets cross-verified by the already present fingerprint in the database. If the finger print present in the database gets matched with current fingerprint then the entrance of the bus opens for short period of time and thus the person is allowed to enter the bus. By any chance if the person couldn't get into the bus due to limited time, then the system allows the user to re-enter his fingerprint to get inside the bus.
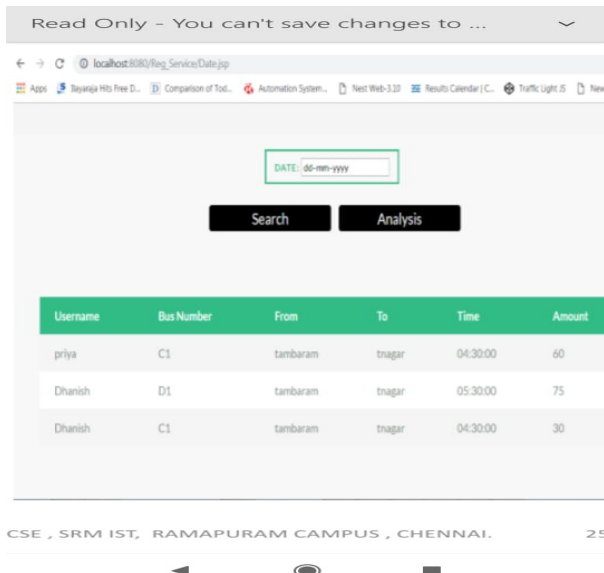

V. ADVANTAGE

- It reduces booking expense by eliminating the need for printing and mailing paper document.
- It decreases the possibility of the ticket getting lost.
- Improves customer convenience.
- Faster and more convenient verification.
- Online ticket booking service is available 24*7.
- Its time saving process.
- It cuts human workload.
- Large amount of paper is saved.
- Makes life easy and comfortable
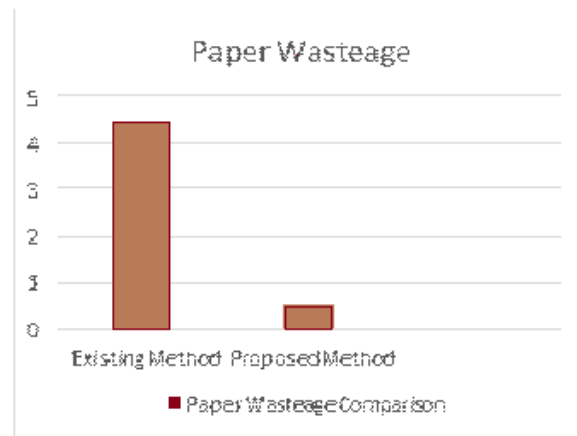
VI. CONCLUSION

The system provides an easy way of booking ticket. It helps to provide an easy access and reduces man power. It has different level of verification which includes Payment verification, ticket verification, defaulter's verification and many more. Using the system the exact amount get deducted from the bank account preventing change related issues. The system aids catching ticket defaulters and provides a new ticketing experience and influences human life to a great extent.

VII. FUTURE ENHANCEMENT

In future, the above concept can be utilized for making our life easy and comfortable .The use of the proposed system would result in no conductor in use and easy way of digital ticket booking in the

following year to come. The system would be able to enhance the digital era and a whole new type of organization of ticketing. It provides a smooth rush free and convenient experience to both the consumer and the ticketing authorities. Although the system is time consuming, from verifying to allowing traveler to enter inside the bus. Even for the customer who are in need of urgent bus services would not be allowed to board the bus.

VII. REFERENCES

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