

# An Efficient Bus Booking system Using QR Code In Android Application

P.M.Oviya<sup>1</sup>, Endluri Lathapriya<sup>2</sup>, G.Rajasekaran<sup>3</sup>

<sup>1,2</sup>Dept of CSE

<sup>3</sup>Associate Professor, Dept of Computer CSE

<sup>1,2,3</sup>Jeppiaar SRR Engineering College, Padur, Chennai-603103, TamilNadu, India.

**Abstract-** Bus service is the most important function of the public transportation systems. Besides a major role of carrying passengers around, providing a comfortable travel experience is also a key business consideration. In this paper, we creating mobile application for bus ticket. Users can scan QR reader instead of ticket. In this app, after registration profile, we have to attach our bank details through in this app. Then whenever we are going on bus, we have to select from and to location. Then it will generate amount details for per head. After that we have give passenger details. Passenger's details mean count. Then we can scan QR code. So directly money will transfer from our bank details. Then we can get SMS alert for ticket payment proof. Then admin (Conductor) side, they calculate amount details through using web application. Then they can calculate per day amount details for bus ticket information. Then admin can generate per day 3 hours report for checking that crowd condition.

**Keywords-** real time, efficient, smart bus, gps.

## I. INTRODUCTION

Buses are the foremost wide used public transportation in many cities nowadays. The rider flow will partly mirror the collective human quality on a route and therefore the quality of bus service in term of comfort. Current follow in Bus Transit System operators demonstrates that manual data-collection efforts area unit expensive and usually applicable solely in little scale. The utilization of automatic data-collection systems grow speedily and show nice potential. Automatic Fare assortment (AFC) devices that may record payments of rider's exploitation revolving credit, and a GPS embedded On Board Unit (OBU) that may track the bus area unit wide deployed. The solid lines and circles illustrate the segments and stations that the buses already travelled before current time, and therefore the dash lines represent the rest of the trips they'll travel. the matter is that given the time data of AFC dealing records and therefore the OBU traces of the buses, the way to estimate the quantity of riders on every bus and how to predict the quantity within the remainder of the trip within the near future.

## II. PREVIOUS WORK

In the general way, every bus is controlled by a conductor. The conductor will collect money from each passenger and issue ticket. Initially, printed papers or tokens are used as tickets. Nowadays, handheld machines are used to print tickets. This system has many disadvantages. The passenger have to carry the ticket till the end of travel, the conductor should ensure that everyone has got the ticket, [3]the time taken for ticketing is comparatively more and more amount of paper is needed to print the Ticket. Nowadays conductors are trained to operate the handheld ticketing machine. For example, if a passenger wish to travel in bus. He has to carry money with him. Then conductor will collect the money and he will give ticket. This has to repeat for all passengers. This will take more time and waste of human resource as well as energy. Even handheld ticketing machine is comparatively slow and need trained person to operate it. RFID Reader is used to read the RFID tag but destination should be entered by passenger in keyboard , So that amount will be debited automatically from the tag. Here if once destination is arrived, bus stops automatically and intimate with buzzer sound. Fairly such arrangement consumes more time in case of accessing of tag by every individual, so to overcome that, implementation of ticketing system without access is developed in this proposal with addition of application to transfer information about accident occurrence.

## III. PROPOSED SYSTEM

Buses are the most widely public transportation in cities. So we will create one android application for select travelling route and generate amount. And introducing the QR reader and scanner. After generating amount, user has to read that QR image. In this QR image, we give the details of user and it will be secured. Then automatically it will send amount from our bank details or wallet. Each conductor having one QR reader and after reading that values automatically it will store in database. Then user will get message for travelling ticket. After our details will be stored in the database. And we create one link and port number ,and we have to search and analyse the datas. After analysing data ,it will decides to

arrange the buses for timing or not. It will avoid Amount change problem and no hardware debugging. This mobile application is useful for users and it makes comfortable travel experience of the user.

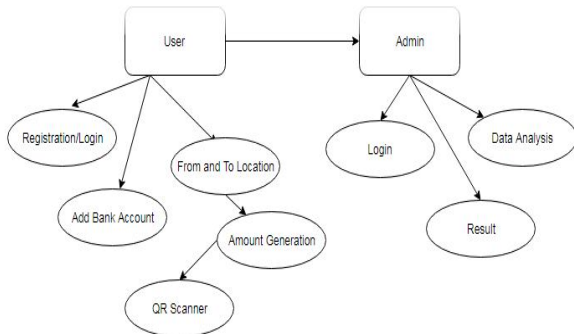


Fig.1 Proposed system data flow diagram

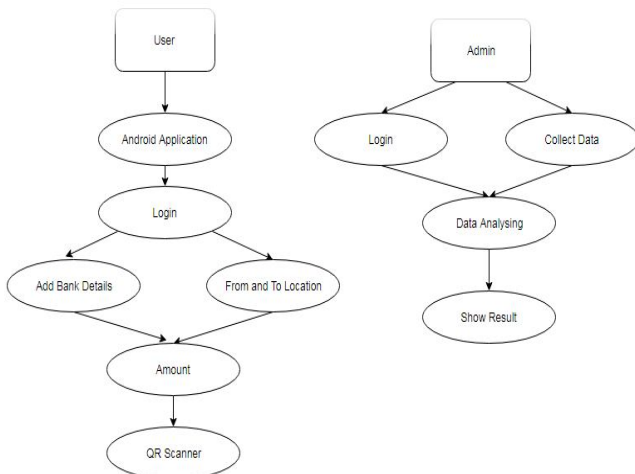


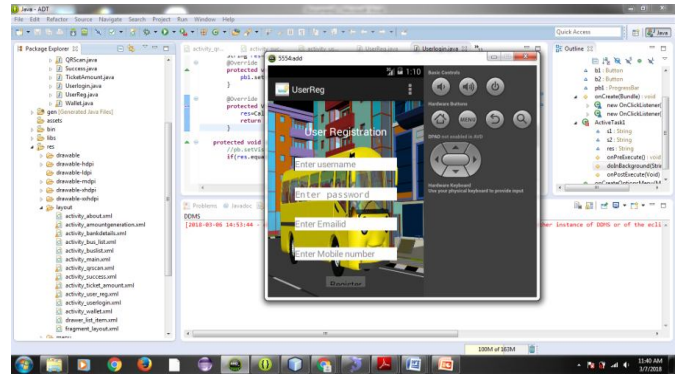
Fig. 2 Proposed system data flow diagram

**IV. SYSTEM IMPLEMENTATION**

The proposed system involves some modules and it can be explained below:

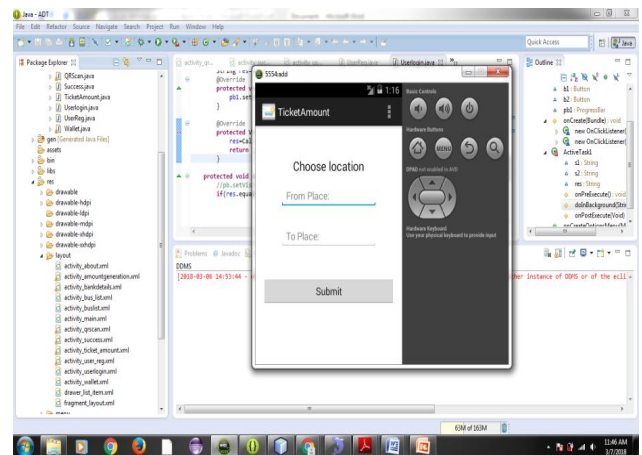
**1)User registration**

We will create one android application for users. Users can register the details in android application. Then user can add bank details with them profile. Users can select from and to location using that android application when users are going to local or government bus and user can generate amount according to that bus.



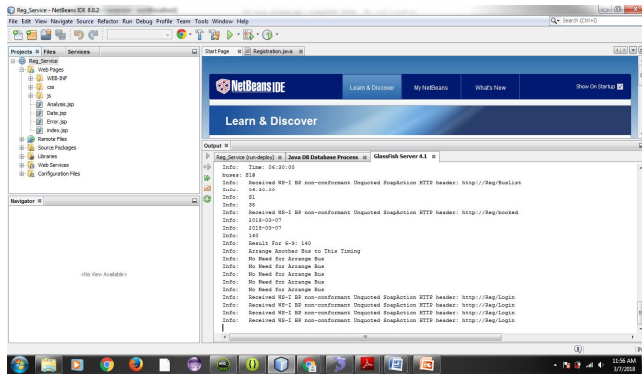
**2)Location Selection**

A user has to select from and to location and it will generate fare details for based on that location. Then we have enter the count of passengers and we get total amount. After that, we have to use QR scanner for mobile payment.



**3) Web Service**

Web service is like connecting android application and server. Server should run 24 hours and it has to give all the details to database which data's we are getting from users. Then using SOAP protocol we can connect android application to server. If we are using SOAP protocol, it will collect all the details from android application and it will send to server.



V. CONCLUSION

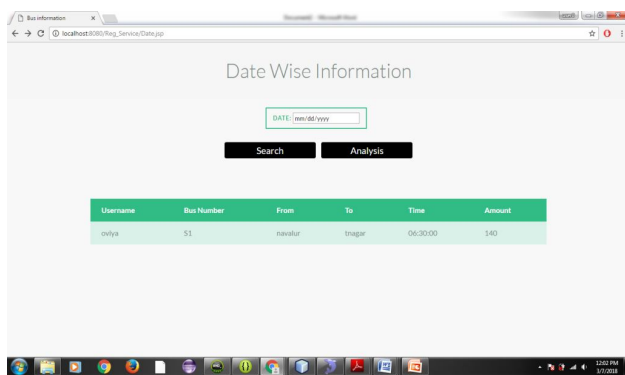
This project may rectify many disadvantage in ticket collecting system and the implementation of sending accident information automatically to the nearest stations may save many life Fare is debited from the recharged amount Cash is no longer necessary, contactless smart cards can be loaded with large amounts of money passengers no longer need to carry the correct change .It will make the passenger comfortable to travel with this user-friendly system.

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Database

Admin can see all the details of users like where they are rode local bus. Then admin has to analyse that details like users name from location, to location, amount for bus fare and admin id.



Classification

We have classified that each and every 3 hours using SVM algorithm. Because whenever reaching bus from one place to another place, it has to collect all the details from users who are all using QR scanner in bus. Then we have analyzed the data like when and where we can give another or extra bus for according to that place.

