POINT OF SALE DEVICE FOR TICKETING.

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ABSTRACT- Public transport is the most economical and reliable transportation service used by a huge group of people in India. From a recent survey, the data indicated that 68% of Indians rely on public transport for their daily commute. With autorickshaw being one of the main modes of travel. Despite a huge population relying on autorickshaw for their daily commute a fair system for fare's hasn't been established. In the past, the auto-fare system had been the same for more than 3 decades. In 2013, electric meters were introduced and adapted by autorickshaw drivers. Despite the implementation of electric meters, there have been cases of the fare being manipulated by the rickshaw drivers and duping the customers for fare. Looking at this problem and understanding it, we have developed and designed an app which with the help of GPS, various APIs will conclude a fair and accurate fare for the customer. This app would determine the accurate fare and can't be tampered by both driver or customer. Thus, establishing a fair and honest system for a reliable and dependent system.

Keywords- transport, autorickshaw, fare system, drivers, users

I. INTRODUCTION

In metropolitan cities like Mumbai and Delhi, a large set of people rely on autorickshaws for their daily commute. India is one of the most populated countries and largely dependent on public transport. Despite a large chunk of the population dependent on autorickshaws a fair and honest system hasn't been established to estimate an accurate and absolute fare for the journey. There have been instances where the electric meters have been tampered and the fares have thereafter been manipulated by the driver. This causes and results in the development of an unfair and unreliable system. Upon closely examining this problem and understanding the need for it a software application for a basic ticketing system where the payment isn't part of the device is curated, designed and developed. As a use case, the device will provide ticketing to auto-rickshaw travel scenario where the transaction would be fair, unbiased and transparent and can't be tampered with. After examining the need and understanding its use case it was concluded that a build a sale device for ticketing system in which there will be two software applications. One for the traveler (customer) and the service provider (auto rickshaw driver).

II. PROJECT SCOPE

The project which we are creating is a software app for a basic ticketing system where the payment isn't part of the device. As a use case, the device will provide ticketing to auto-rickshaw travel scenario where the transaction happens using cash and no ticket is available. The goal of this project is to overcome the difficulties faced by citizens in terms of an inappropriate fare system in an autorickshaw along with the availability of the autorickshaw. We are building a sale device for ticketing system in which there will be two software applications respectively for traveler (customer) and the service provider (auto-rickshaw driver).

III. EXISTING SYSTEM

In the existing system, Due to very high job prospects in urban cities, the population started travelling through auto-rickshaw have been increased immensely, which resulted in various issues such as queues for rikshaw, unavailability of auto-rickshaws and most importantly is the issue of tampering of fare-system by auto-rickshaw drivers. There is no system which provides QR code method to travel on auto-rickshaws. People are booking their rides through mobile application and manually.

IV. PROPOSED SYSTEM

A. APPLICATION ON CUSTOMER END-

The software application on the customer's ends works in such a way that a customer can easily manage his journey from start to end. All he has to do is create his account by logging in to the application. Then by providing his name and photo he can create his account on the system. At the time of the journey,

the customer has to select the destination he wishes to visit, and with the movement, he enters the destination information on the application he can see the amount of fare he has to pay for the distance (in km) he travels. Along with the normal fares the customer will be provided with the extra fare charges information regarding traffic which he has to pay at the end along with the main fare chargers. After all this, the application will provide a QR code that the customer will have to show to the auto-rickshaw driver in order to take a ride.

B. APPLICATION ON DRIVER END-

The software application on the auto driver's end work as, the drivers will have to first login to the system, where they have to provide some documents e.g.- driving license, for the authentication of himself as he is legitimate. After the login, the driver will get a QR code scanner option to scan the QR code generated on the customer's application. As he scans the QR code he will get the details such as the destination of the customer along with the fare amount and extra fare of traffic as well. The movement he scans the QR code he will get the directions on maps for the destination of the customer.

C. CONNECTIVITY BETWEEN TWO APP-

The main thing between this two-application system is the connectivity that will be provided by the generation of the QR code. The QR code will provide all the information about the customer's destination along with the fare amount and the extra fare chargers regarding traffic, to the auto driver the movement he scans it on his application system.

D. FARE & EXTRA FARE GENERATION-

The fare generation system is pretty simple in our system. The generation of fares will be based on the distance covered in the journey. As we know the normal auto rikshaw fares start from rupees 21/-, so we are going to calculate the fares as it is been done through the normal auto rickshaw meter. For e.g., the meter on auto rikshaw changes after 1.5 reading, as soon as it goes to 1.6 the amount will change to 23. This is the same system we are going to use in our application. As in there will be 2 rupees/- increment in the amount as per 1 km.Extra fare generation will be based on the time taken in traffic. For e.g., let us say suppose we are having a journey for 10 minutes but it took me about 2 mins extra so for every min there will be 2 rupee's/- charge so the total extra charge here for me will be 2*2= 4 rupees/-

V. DATA MODEL DIAGRAM
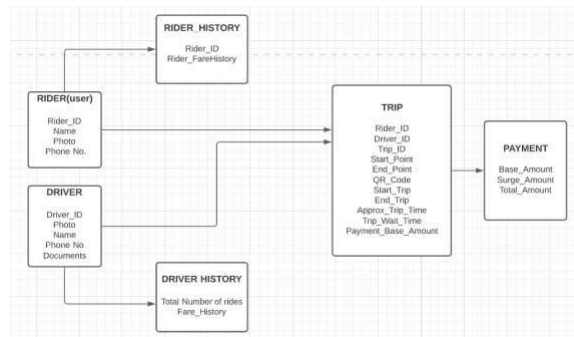
Fig1.0-Data model diagram

VI. BLOCK DIAGRAM (DATA FLOW DIAGRAM).
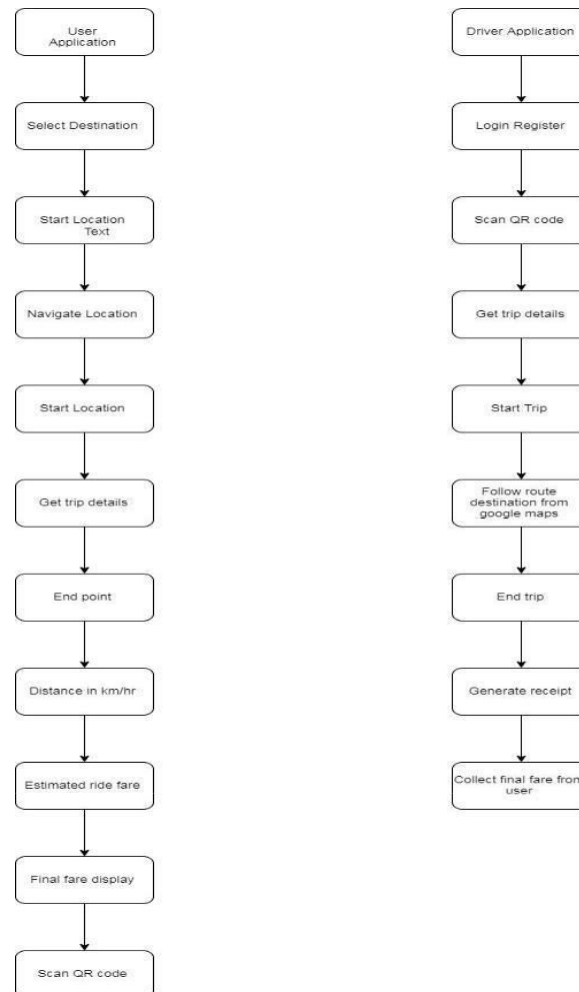
Fig1.1-Block diagram.

VII. FEATURES

➔ Sales monitoring and reporting-Generate traveling reports, capture traveling trends, forecast on the basis of travel trends.

➔ Service provider (auto driver) management - Store employee data (documents) such as Aadhar card, driving license, etc for authentication purposes of the employee and also for their performance to track employee productivity.

➔ Customer relationship & experience-Store's customer data and travel history which is useful for advertising as this data can provide insights on which customer would be interested in your offers.

IX. CONCLUSION

The goal of the project is to create a software application in such a way that it will help in bringing transparency in autorickshaw fares, which will help in making the transport easier safer for the customer, and also for the auto-rickshaw driver.

X. REFERENCE

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