Review based on Ticket Collection Using Fingerprint Scanning

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Abstract - *Today, everything in the world is smart and digitalized. Many advances have been made in the transportation sector too. However, public transport buses in India have always been an area where such new advances have turned their faces out. In Past Years, human travels from one location to another takes months and years, with less support of technology and communication tools. Currently, with the effective and efficient mode of transportation, we could travel thousands of a long way with hours and days and communicate across the globe within split of seconds. As the denomination suggests, these are typically designed with the specific purpose of automating the ticketing system, easing public transport use for passengers and adding efficiency to revenue collection operations for this purpose we are developing one app. Whenever we will open this application in our mobile system, we have to just scan the fingerprint of passengers, in which we have to collect the ticket of passengers. Our primary objective is to design ticket-collecting process of the state or local transport vehicles, which will do improvement in comfort, and convenience of passengers' travelling using Fingerprint scanning.*

***Key Words*: Fingerprint Scanner, Android APP, Java Debugger, Android Studio, Smart Phone**

1. INTRODUCTION

Public transport is the leanest and always been popular with the masses. The advancement in transport system has increases in day-to-day life. The transport plays a vital role in individual's life, in making it efficient so we are introducing an android application. The android application has the bus ticket system-using fingerprint scanning. This Manuscript delineates the design & development of a user friendly Online Bus Ticketing System based on Android platform. In current Public transport system, Every Bus needs a conductor to collect money and issue ticket to each passenger; it is time consuming, manual error like improper distribution of ticket, passenger travelling without ticket & currency exchange many other problems. The proposed system provides android application for the passengers to buy their tickets online. During the travel time, we can get the ticket by scanning fingerprint after that display details UIDAI and bank details of the customer and make payment. Message alert as well as ticket receipt will be generated to the passenger as well as to conductor. By this application, we can minimize the usage of paper (Tickets) and there will not be any problem in getting change.

2. PROPOSED METHODOLOGY

PROBLEM DEFINATION:

The process of collecting the ticket charge from passengers is very inconvenient process because there is inconvenient for both passenger and ticket collecting person regarding the change in cash. It becomes so messy and disordered situation when to check documents of senior citizens, monthly ticket cards or any other documents under ticket concession schemes for every time. This process becomes very uncomfortable in crowded situations.

OBJECTIVE OF THE PROJECT:

The sole objective of the project is to move a step forward towards the concept to design Ticket Collecting process of the state or local transport vehicles (ST or buses) which will be used for improvement in comfort and convenience of passengers travelling. The aim of our project is to reduce fraud in ticket collection and to make it digital, where we can reduce the use of paper required for printing ticket as well as we can save the time. When passenger reached to the destination then paper ticket becomes ineffective to that passenger. In this era of technology, India must focus on inculcating an automated system for collecting bus fare. So the methodology will be effective for estimating journey destinations at the disaggregate level and identifies false positives reliably.

3. METHODOLOGIES OFIMPLEMENTATION

BLOCK DIAGRAM:

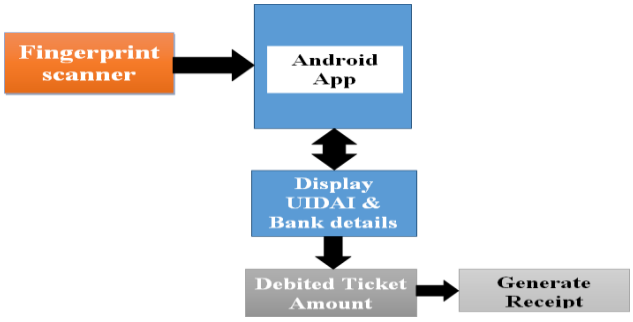

Fig-1 Block diagram of Proposed System

DESCRIPTION:

We are going to implement one device called "Fingerprint Ticket Collector". Using this, ticket fare will be collected by simply scanning the finger on this device. First, when any passenger scan finger on device this device will automatically find all information related to that passenger like age and Bank account details. Almost every passengers Bank accounts details are already linked with **UIDAI (Aadhar)**. After that it will automatically debit money and collected ticket fare will automatically transferred to **MSRTC** bank account. Hence, there will be no any problem of fraud and victimization of any passenger regarding transactions. Then generate Ticket Receipt on customer as well as conductor. Hence, this can beat the problem of checking of documents for every time while applying concessions. This will help to do all process within less time with better convenience. In addition, count of people will be automatically generate database by this device.

REQUIREMENT:

HARDWARE:

1. Smart Phone
2. Fingerprint Scanner

SOFTWARE:

1. Programming language: Java
2. Complier: Android Studio

Ticket generating App:

This app is developed to scan the fingerprint of each passenger. As soon as the app is opened, it asks to turn on the Wi-Fi and location on mobile. KIVI Wi-Fi is connected to the internet at each bus. Then after scanning automatically generate UIDAI details and bank details of passenger with the help of bank details we can debited ticket amount of passenger then generate ticket receipt in conductor as well as in passenger. Before implementing the project to Real time, the prototype model is designed to test and validate. The app called MSRTC.

Finger Print Scanner:

Fingerprint Scanner offers very high accuracy, it is the most economical biometric PC user authentication technique, It is one of the most developed biometrics and small storage space required for the biometric template that reduces the size of the database memory required. In our project we are used Mantra MFS100 Fingerprint Scanner to ticket collection from passenger. Fingerprint scanner scans & record the fingerprint and then it is will generate database of passenger in the ST DEPT from fingerprint scanning. From that database, we can search fraud person in the bus. When ticket checker check their fingerprint again after that who one them passenger fingerprint will not match then this person will be declared as fraud.

3.4 Flow Chart:

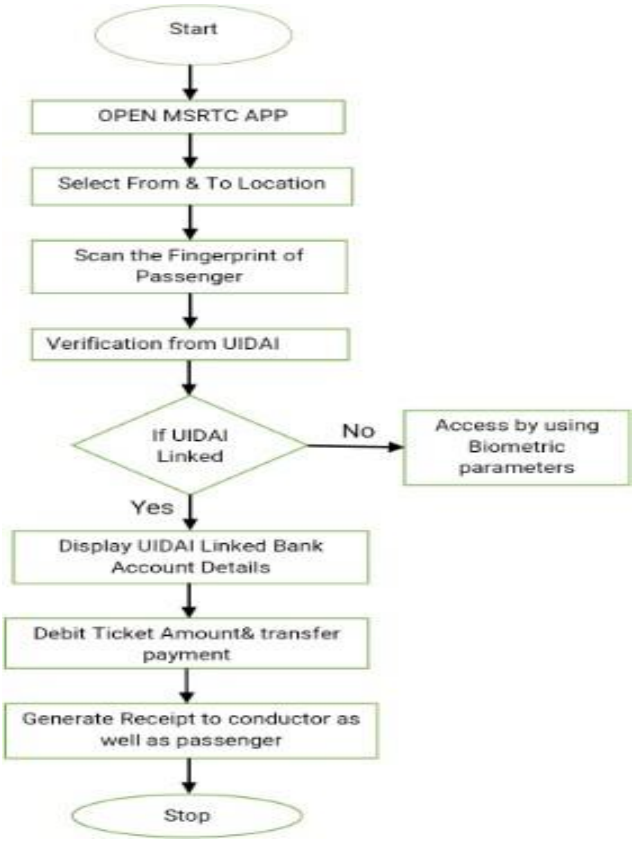

Fig.2 Flow chart of system

4. CONCLUSION

The manual fare collection system has many issues, which are overcome by our proposed system. Automated fare collection system for public transport using this Android App is an innovative idea, which reduces manpower. This smart Device can be implemented in the transport system, which will perform the fare collection automatically. The tickets are generated directly on passenger's mobile phones as well as conductor so paper tickets are eliminated. On that account, it will make the passenger comfortable to travel with this User-friendly system. In case if the crowd in the bus exceeds the number of passengers who can be seated in a bus , then using our device it will easy to collect the money from that source to destination , which can be solved by the transport department.

5. FUTURE SCOPE

The system can further be devised with various new technologies to save Paper, Time, human efforts, increase ticket fare. The system can further be developed as stated earlier in the aim in such a way that In mobile there is GPS sensor, so we will provide live tracking of each and every bus in corner of Maharashtra GPS sensor enable us to show the LIVE SPEED OF BUS, this will be helpful against the driver who drive in fast speed.

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