Smart Bus Pass and Ticket System

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Abstract— PTC Registration and Renewal is a continuous task which is helpful for the travelers who are confronting issues with the present manual work of transport pass Registration and restoration. It additionally expands the legitimacy time frame, habitually Warns to the travelers before culmination of his/her legitimacy period by sending sms. His/her Renewal or Registration should be possible utilizing an online installment or even by utilizing Visa. Administrator individuals can likewise get to the application utilizing their login and they will determine some hint or message to the travelers. This online transport pass registration application will assist travelers with sparing their time and restoration transport goes without remaining in a line for a considerable length of time close to counters. At first travelers need to enlist with the application by submitting subtleties of traveler name, address, portable number, and required subtleties and submit it through on the web. They will check your subtleties and afterward traveler need to login utilizing portable number and passcode. At that point the travelers need to indicate their course and they have to book their buspass. You can even restoration utilizing Mastercard or other wire move strategies. Travelers the individuals who travel now and again can utilize QR code which is put close to the transport driver and they can do their installment. This framework is completely actualized utilizing the portable application.

Keywords: Bus pass, QR code, Ticket Booking, Android App

I. INTRODUCTION

Our project is created to provide time saving, comfortable and safe services for passengers [5]. Due to the drawbacks that are present in the existing system, we got the idea of doing this project of generating the bus pass through online which can help passengers in a better way. In the existing system student had to do each and every process manually, but our project helps passengers to make their work faster and easy. Students can register the bus pass through the online by using the mobile application. This system is also used to save the passengers time. The students can pay to buy bus pass through banking application. The passengers need not visit the counter for any work. As technology is growing fast, so we need to update ourselves to be in touch with new technology. The current process of bus ticketing is very slow and tedious process [1]. Customer needs to stand in long queue for issuing bus pass in bus Depot which is time consuming and this process is hectic to employees in the Depot as well as user. Existing bus pass system has same drawbacks, like pass is regenerated every time. This is a vapid process, which require to reprint the pass every time. And existence system does not provide any security options. This system provides effective software for maintaining bus pass. Digital bus pass generating system is useful for peoples to get their bus pass online instead of standing in long queues to get their bus pass [3]. This system reduces paper work, time consumption and makes the process of issuing pass in simpler and faster way. User can use the pass for long time, just need to recharge their account of digital pass and extend the validity of pass every time when pass is going to expire. No need to print the pass every time. This system performs functionalities like accessing basic information of user authentication. This system provides security option for women by notifying their guardian when pass is scanned [7]. The admin and the conductor of the bus would be able to verify the authenticity of the bus pass by scanning QR code which is provided on the recommended device like android mobile and after scanning it will notify to user when pass is accessed.

II. BACKGROUND STUDY

E-ticketing could be stretched out to significant diversion and touristic locales and in this manner encourage access to significant focal points inside urban communities, making e-ticketing likewise intriguing for voyagers. There is more space for touts to book tickets illicitly and sell them at overstated cost, [4]. Less presentation of innovation, for instance Traveling Ticket Examiner (TTEs) still use pen and reservation diagrams to check the travelers. A traveler can't get the booking after diagram is readied; for example diagram is readied four hours sooner of transport flight; anyway transport may stay empty. Absence of advancement in seat portion, for instance whether traveler has boarded or not his seat stays saved till his goal [6]. A seat can stay empty if traveler has not shown up and in the event that after flight of transport he drops the ticket, at that point loss of income to the Bus Ticketing System.

There is no unique seat designation for waitlisted traveler instead of empty seats, if travelers with saved ticket have not shown up. All the time, each excursion begins with the acquisition of the tickets at a ticket counter or from the machine, for example, PC. It is advantageous to have electronic frameworks which make the undertaking of traveler simple and helpful. The extended utilization of cell phones, their computational capacities and their capacity to associate with the web make them appropriate. A few new advancements have been utilized for this reason. Numerous issues in Indian transport despite everything exist after the appropriation of most recent innovations in electrical, mechanical and business office. One of the issues is, with the holding up list travelers, since they are not ready to get their affirm seat up to their goal because of surge. The Indian Transport has chosen to take care of this issue by expanding the quantity of mentors for holding up list travelers by causing their passes to affirm. Yet the issue proceeds due to non-accessibility of mentors, on the grounds that close around 100000 transports run each day all around India.

III. OUR SYSTEM MODEL

QR e-ticket System is basically to purchase the transport pass tickets which are the most testing. This transport pass ticket can be purchased with only a PDA application, where they can convey transport pass tickets in there advanced mobile phone as a QR (Quick Respond) .Customer can enlist for a pass by determining the source and goal .The application will produce the QR code as per the data fill by clients and which will be utilized by the conductor or an approved individual to examine the ticket. The data of every client is put away in a SQLite database for the security reason. Likewise the ticket checker is furnished with a checker application to scan and check for the client's ticket for checking purposes.

Our work presents another technique for creating the Bus go through on the web. In our framework, the traveler can get the subtleties through the portable application. At that point the installment should likewise be possible through net banking. In the event that the pass is lapsed, at that point the warning or message ready will be sent to the traveler.

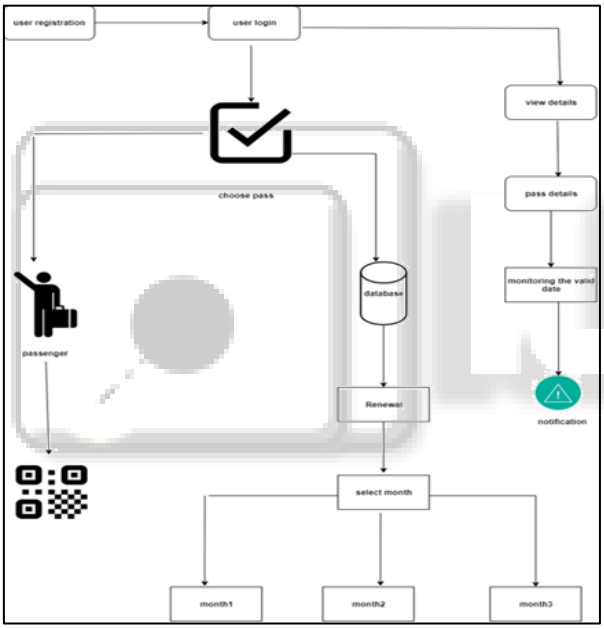

Fig. 1: System Architecture for Proposed Model

A. QR CODE

QR represents Quick Responds. It's essentially equipped for being 360 degrees structure any bearing. It comprise of square spots organized in a square lattice on a white foundation which can peruse by imaging gadget. QR Code can hold up to a large number of alphanumeric characters.

Fig. 2: Sample QR code

We are executing a smart card for advanced transport pass framework. We are going to utilize QR code in our card to get the data of the client like username, source, goal, DOB, expiry date and so forth. In our framework, client needs to make his profile by visiting the site, in the wake of enlisting he/she will have the option to sign in and make installment, for his pass. After the effective installment, QR code will be created and sent to his email address. Consequently, email address is required field. Camera and Android outsider libraries will be utilized to examine the QR code. When QR code is effectively examined, we will have the option to get all the general data of the client just as the legitimacy of the card. The data got by filtering will be checked by the conductor who will examine the smart card.

IV. IMPLEMENTATION

A. Registration

To get online computerized transport pass client need to go numerous through method for that client need to visit the webpage where client need to fill registration structure. In registration client need to give total insights concerning him/her to make another record, subtleties, for example, first name, last name, email address, portable number and secret phrase created by him/her as it were.

Fig. 3: Way of Selection Users/Drivers

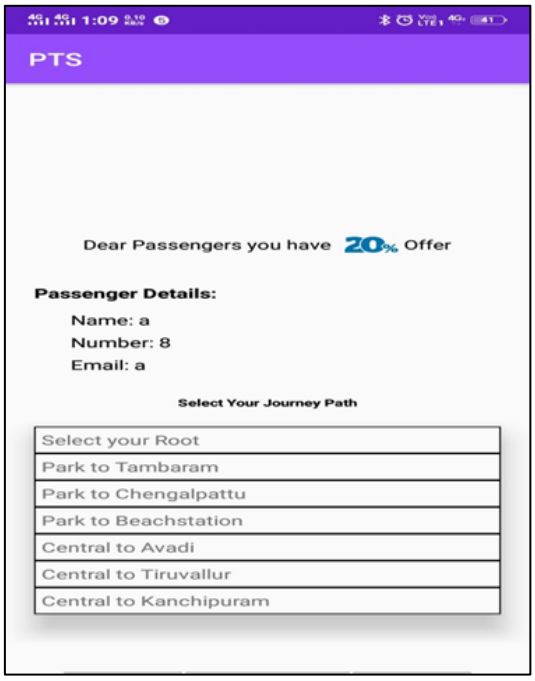

Fig. 4: Android Output for selecting Journey Path

B. Login

This system provides protection of information through the mechanism of unique id (valid email address) and password therefore only authorized people can access the database. After successfully registration, user login to system by using their unique id (email address) and password. If id and password is correct than only he/she will be able to access the system.

C. Pass Category

Then after the login it takes the user to the pass category selection page. From there the user can select the pass he/she wants based on his/her criteria. The types of passes available are monthly pass, senior citizen pass and the student pass.

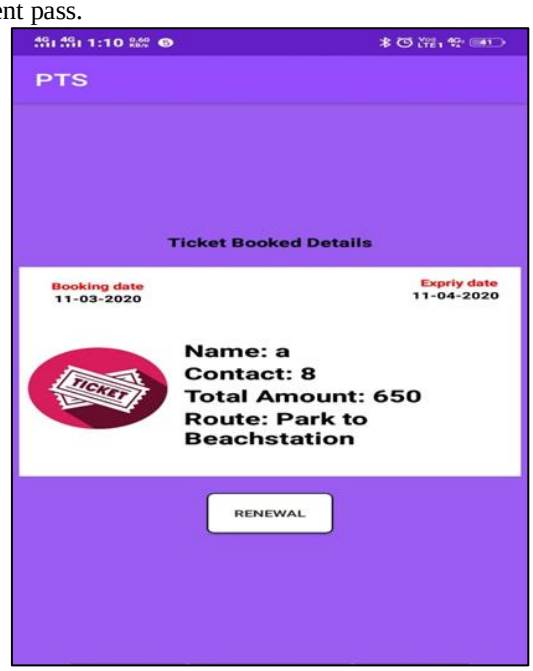

Fig. 5: Bus pass Renewal

D. Payment Interface

After the pass gets selects all the desired details gets updated and then takes the user to the payment gateway where the user needs to fill in his account details for the payment to take place.

Fig. 6: OTP sending

E. QR code module

The QR code is placed at the front of the bus for the passengers those who travel in bus at times can use the code scanner and they can pay the amount.

F. Notification alert

Gives you a popup notification after the pass validation period gets over.

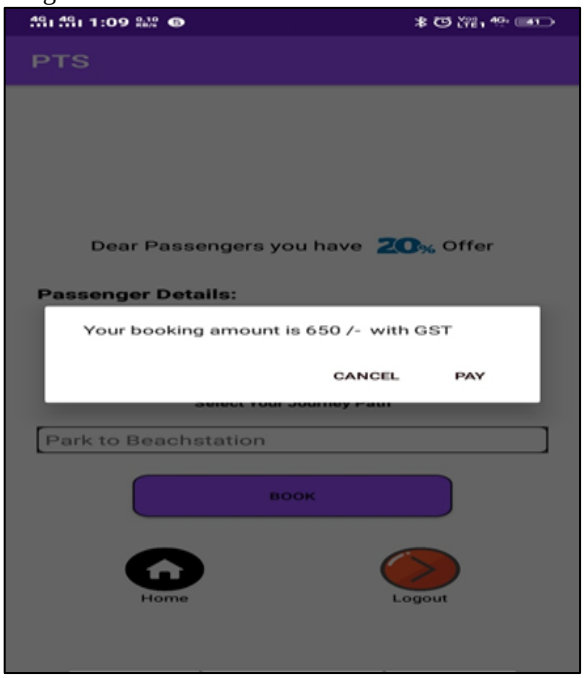

Fig. 7: Booking Successful with GST Report

V. DISCUSSION

The proposed framework would empower the individuals to enroll for the transport pass. It additionally empowers the client to reestablish the pass by refreshing the subtleties. This framework utilizes the versatile android application for transport passes. The traveler and ticket checker will have the android application. The traveler need to sign in the fundamental data like name, address, banking subtleties, source and goal and so on that put away into the database and created as QR code.

VI. CONCLUSION

It is a helpful for client who is confronting current arrangement of transport pass registration and recharging. In our framework we gave actualizing this completely dependent on the versatile application. In the event that the traveler goes now and again, at that point they can utilize the QR code to pay the transport passage and in the event that client needs to include some new necessities at that point that can be handily included. In this way this framework diminishes the time and work for the travelers. The prompt notice will likewise be sent to the traveler for the reestablishment of pass with the goal that they it will be simpler for them to restoration.

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