

Smartphone Application for Ticket Reservation and Validation Using Mobile Network

Pranjali kharwade¹, Isha gujarkar², Vidhi Sharma³, Shweta Holey⁴, Vaibhavi Datey⁵, Vivek Gupta⁶
^{1,2,3,4,5,6}Nagpur University, Bapurao Deshmukh College of Engineering, Sevagram, Wardha, India

Abstract— This paper deals with the android application for ticket reservation and validation using mobile tower network. One of the major challenges in the current ticketing facility is buying ticket standing in the queue. Our application provides the facility for buying the tickets online. Our ticket can be bought with the help of Smartphone application where your railway tickets are carried in your phone in the form of quick response code. The ticketing information of the user is stored in database. It uses the Smartphone facility to validate the ticket and delete it after specific interval of time once the user reaches the destination. This application also includes the automatic fine deduction facility if the user tries to extend the journey. Also the ticket checker is provided with the checker application which is used for the validation of the ticket.

Keywords— Android, Cloud database, MySQL, Quick Response Code.

I. INTRODUCTION

Technology expanded to a huge extent and also is being utilized in the field of transportation in past few years. Few years before E-ticketing came into existence and Passenger used to register through it and buy tickets after which months before came a new technology called as M-ticketing where the customer messaged to the web portal through mobile phones after which the user can do the same booking process. But we face inconvenience and suffer if we forget our travel cards and we stand in the queue for our tickets, which is where m-ticketing-ticketing was unable to lay there footmarks. As a solution to these issues an android mobile application can be made which will comprise of all the functionalities where one can buy tickets and carry your railway tickets in the Smartphone as a quick response code. Users' ticket information is stored in a cloud data base for security purpose which is missing in the present system. This system provides the ticket checker with checker application to search for the users' ticket with the ticket number in the cloud database for checking purposes.

Here QR code serves as the ticket to the user. A QR code is a type of matrix barcode first designed for automotive industries. If suppose the users display is being damaged and not able to scan the QR code due to other reasons like battery failure we have another failsafe option to check the ticket by searching the ticket database with the users ticket number for validation purpose.

II. LITERATURE SURVEY

Sadaf Sheikh, Gayatri Shinde, Mayuri Potghan, Tazeen Sheikh proposed application which will be used for the process of booking a ticket for travel through local trains or metros.

Snehal Kalbhor, Ashwini Mangulkar, Mrs. Snehal Kulkarni proposed the various techniques for buying metro tickets or local railway tickets through their Smartphone application and introduced ticket checker.

Tushar Dongare, Akshay Babar provided various techniques for buying tickets through their smartphone application through GPS facility of android mobile so that passenger can easily get the list of station and he can easily buy tickets

Ramadevi. K, Murugan. S, Bharath. S proposed a mobile ticket application developed for android in which user procure ticket in future

Neha sandikar, rane dipti, sachin panday proposed the various techniques for buying metro tickets or local railway tickets through their Smartphone application and introduced ticket checker

Manmohan Swarup, Chanchal Sonkar, Vijendra Singh proposed a system through which railway ticket booking is done through website and also from multimedia phones

Wan Husani Wan Hussin, Paul Coulton proposed a system in which More consumer are expected to engage in mobile commerce transaction, wider adoption of mobile commerce services.

III. PROPOSE WORK

The current railway or metro ticketing reservation system is human dependent, time consuming when it comes to ticket booking process and non reliable. The objective of our project is to develop an android application which will serve as medium for students/employees/any one to book a ticket to travel through metros or locals. The main motive of the application is to ease the process of ticket booking by avoiding the hectic process to stand in the queue and book the ticket for travelling in the train. There are several applications available in the market giving the information about the travelling destinations and their fares. But none of these applications include the ticket booking process. Moreover the tickets book on the websites has to be saved and printed so as to be shown at the time of boarding. Whereas, our application differs as it would not only book the tickets but also save the ticket in the form of QR code. This QR code can be scanned through the other mobiles and saved as well which can be shown to the ticket checker for validation. Apart from the validation and reservation of ticket we propose a system for the fine deduction where in if the traveller tries to extend his journey then the destination will be traced through mobile tower and the fine will be automatically deducted from the user account. This makes the entire process very easy. The data about ticket and personal information will be securely stored onto the database. Also our application would require the user to create an account so that it can be used by multiple users and would be independent of devices. The user can login to any mobile device having application installed. For buying the tickets the user select source, destination class number of adult and child tickets ticket type like single and source etc.the user browse through the menu option to choose either credit buy option or token buy option which simplifies buy process by remembering the credit card details.

Sr. no	Title	Author	Year	Description
1	Urban railway ticketing application.	Sadaf Sheikh, Gayatri Shinde, Mayuri Potghan, Tazeen Shaikh.	Jan 2014	Android, colud database, MyS QL, QR code
2	Android application for local railway ticketing using GPS validation	Snehal Kalbhor , Ashwini Mangulkar , Mrs. Snehal Kulkarni	March 2014	ASR ticketing, GPS validation, cloud database, QR code format of ticket
3	Android application for ticket reservation with GPS as ticket validation.	Tushar Dongare, Akshay Babar.	April 2014	Android, SQLite, encryption, cloud, GPS.
4	Railway ticketing using GPS in Metropolitan city.	Ramadevi. K, Murugan. S, Bharath. S	May 2014	Android, SQLite.
5	Android railway ticketing with GPS as ticket checker.	Neha sandikar, rane dipti, sachin panday.	2013	Android , SQLite
6	A QR code based processing for dynamic and transparent seat allocation in Indian railway.	Manmohan Swarup, Chanchal Sonkar, Vijendra Singh.	2012	Websites, multimedia phone, GPS validation
7	Mobile ticketing system	Wan Husani Wan Hussin, Paul Coulton	2011	Mobile receipt system, ARM device, m-commerce
8	A secure e-ticketing scheme for mobile device with NFC.	Magdalena, macia, jordi	2010	Security, prive rcy, e-commerce

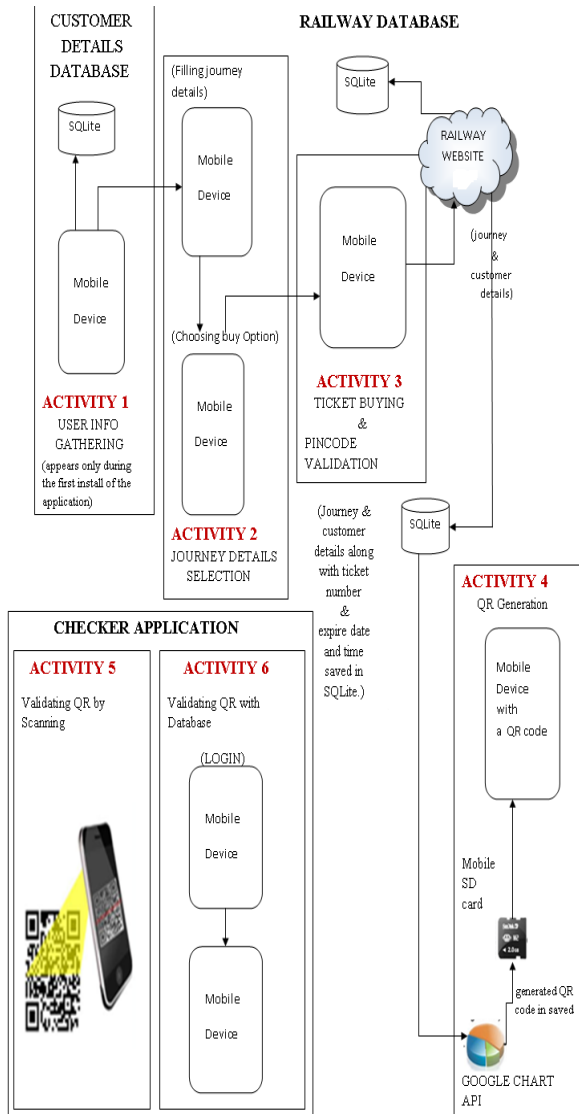


Figure 1. System Architecture

IV. CONCLUSION

This application will gather the information regarding the travelling options between stations along with their timing and fares. This application will combine number of functionalities into one.

Therefore there is no need to download number of application for booking a ticket. Application saves the huge work for our ticket checkers. It replaces the manual ticket checking process with digital ticket checking process by scanning with Smartphone's. It helps station level security, we can have a hardware device to validate the QR code before the user enters or leaves the station

REFERENCES

- [1] Sadaf Sheikh, Gayatri Shinde, Et Al., "Urban Railway Ticketing Application." International Journal Of Advance Research In Computer Science And Software Engineering Vol. 4, Issue 1, Pp. 130-132, Jan 2014.
- [2] Snehal Kalbhor, Ashwini Mangulkar, Et Al., "Android Application For Local Railway Ticketing Using GPS Validation "International Journal Of Emerging Trends In Science And Technology Vol.1, Issue 1, Pp.71-74, March 2014.
- [3] Tushar Dongare, Akshay Babar, Et Al., "Android Application For Ticket Reservation With GPS As Ticket Validation" International Journal Of Emerging Research In Management And Technology ISSN: 2278-9359, Vol-3, Issue-3, March 2014.
- [4] Ramadevi. K, Murugan. S, Bharath. S, Et Al., "Railway Ticketing Using GPS in Metropolitan City." International Journal of Computer Science and Engineering ISSN: 2278-9960, Vol-3, Issue-3, Pp.9-12, and May 2014.
- [5] Neha Sandikar, Rane Dipti, Et Al., "Android Railway Ticketing With GPS as Ticket Checker." Proceedings of National Conference on New Horizons In IT - NCNHIT 2013, Pp.132-134.
- [6] Manmohan Swarup, Chanchal Sonkar, Et Al., "A QR Code Based Processing For Dynamic and Transparent Seat Allocation in Indian Railway."
- [7] Wan Husani Wan Hussin, Et Al., "Mobile Ticketing System "Proceeding Of International Conference On Mobile Business, April 2011.
- [8] Magdalena, Macia, Jordi, Et Al., A Secure E-Ticketing Scheme for Mobile Device with NFC.2010.
- [9] Magdalena, Macia, Et Al., "A Secure E-Ticketing Scheme for Mobile Devices with Near Field Communication That Include Encapability and Reusability." Institute Of Electronics, Information And Communication Engineers, Vol-E93,, Issue
- [10] Jef Neefs, Jeroen Doggen, Et Al., "Paper Tickiting Vs Electronic Tickiting Based On Offline System" International Journal Infinite Innovations In Technology, Vol-1, Issue-4, Pp-2278-9057, April 2013.
- [11] Abdul Makeen Ansari, Aftab Alam, "Next Generation E-Ticketing System "International Journal Of Emerging Research In Management And Technology, Vol-2, Issue-12, Pp-22787-9359, Dec 2013.