

Online Bus Pass Issue & Renewal using QR Code

Aastha Shah¹ Roshan Verma²

^{1,2}Student

^{1,2}Thakur Polytechnic, Kandivali, Mumbai, India

Abstract— This project aims at providing an effective solution for maintaining Bus pass information using database. The system has two logins, one for user and the other for admin. Online bus pass generation system would be useful for commuters to get their bus passes online instead of standing in long queues to obtain their passes. This system is intended to perform functionalities like accessing basic information for authentication and provide Bus pass for the commuters without placing them in long queues. The official in the bus, would be able to verify the authenticity of the pass by scanning the Aztec code provided on the pass with a recommended device.

Key words: Login, Apply, Payment, Generation, Notification

I. INTRODUCTION

Travelling would require the passengers to buy the ticket during the course of travelling. This may be sometimes difficult due to the crowd in the bus and people may not buy the ticket for travelling. Also, the people require to travel longer distances and the cost of the ticket may be higher. For this reason, the government provides the bus pass facility to the people so that, they can avoid buying the ticket each time they use the bus services for travelling.

The bus pass issue system that is currently in existence is a manual process in which students and other commuters are required to submit application forms along with their details filled. These application forms are to be verified and then the bus pass is issued to the concerned person after the application form is verified. This is a tedious process, which requires the people to stand in long queues to get their passes. The previous system leads to a lot of time wastage for the commuters. Also, the bus pass issue takes place in the current system, only for a limited period of time during the day that is until evening. The commuters may not be able to acquire their passes once the depots at the bus stands, once the counters are shut down in the evening. Hence we are proposing web based system that resolves almost all the problems faced by the commuters in the previous manual process.

This method is already exist in some areas of India such as Andhra Pradesh only renewal and we are trying to upgrade this method by adding some extra features such as issuing ticket and a remainder as soon as the pass expires. This application is intended to provide a pass for the new applicant and he can renew that pass once it gets expired. Payment can be done online using credit card. Through this application even public can view bus time table at any time with source and destination without logging in.

II. PROPOSED SYSTEM

A. Proposed System

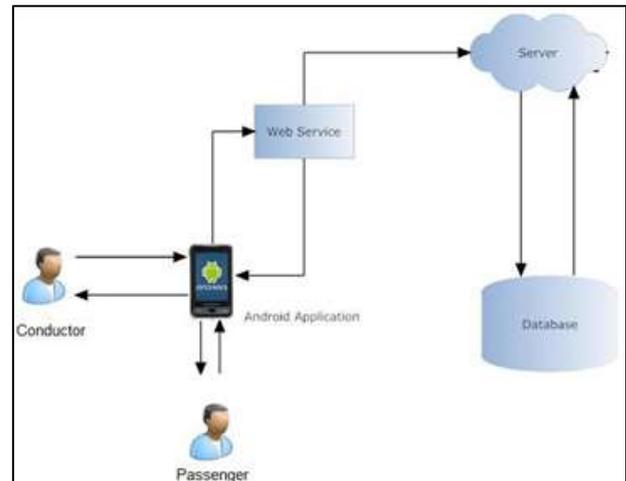


Figure 1: Architecture System

The proposed system is intended to overcome the major drawbacks of the currently existing manual system. The features are as follows

- 1) This online bus pass software system will help students and commuters get bus passes and eliminate the need of standing in queues for passes.
- 2) Public can find all the bus pass related information along with timetable without going to the bus station.
- 3) Minimum time is required to process the details submitted and to generate the bus pass.
- 4) Renewal can be done online with the reference identification that is provided during the registration of the pass.

B. Modules Included in the System

1) Passenger Module

- 1) Passenger has to register.
- 2) Passenger can login into application.
- 3) After login passenger can view his/her profile.
- 4) Passenger can book ticket/pass.
- 5) Passenger has to pay online.
- 6) After paying QR code is generate he/she can see the generated QR code.

2) Conductor Module

- 1) Conductor can login into application.
- 2) Conductor can scan the QR code using scanner.
- 3) After scanning conductor can see the Passenger's details.

III. CONCLUSION

QR-Code technology would be more easily integrated into existing public transport system infrastructures. QR-Code provides all the features which make it a valid technology for mass public transport ticketing: contactless transactions at high speed, stability and simplicity. The proposed solutions based on combinations of standards and technologies using

current contactless infrastructures. Our proposed application will be feasible for novice users as well as professional users. The proposed application will be used for the booking a ticket without standing in queues for travelling through local trains and it's easy for ticket checker to check whether ticket is valid or invalid. This android application reduces the manual work of both ticket bookers and ticket checkers. It is basically the transition from a manual to digital system for ticket booking of as well as ticket checking of bus. Thus the problem associated with BUS train ticket booking has almost solved.

ACKNOWLEDGMENT

The authors would like to acknowledge the reviewers for their valuable comments, which contributed to the clarity of the research and in particular for their suggestions for the statements of applications.

REFERENCES

- [1] K. Ganesh, M. Thrivikraman, J. Kuri, H. Dagale, G. Sudhakar and S. Sanyal, "Implementation of a Real Time Passenger Information System", CoRR abs/1206.0447 (2012).
- [2] B. Caulfield and M. O'Mahony, "An examination of the public transport information requirements of users", *IEEE Transactions on Intelligent Transportation Systems*, vol. 8, no. 1, (2007), pp. 21–30.
- [3] International Conference on Explorations and Innovations in Engineering & Technology (ICEIET - 2016) ISSN: 2348 – 8387 <http://www.internationaljournalsrsg.org> Page 151
- [4] S. Kim, "Security Augmenting Scheme for Bus Information System based on Smart Phone", *International Journal of Security and Its Applications*, vol. 7, no. 3, (2013), pp. 337-345.
- [5] J. Lee, K. Hong, H. Lee, J. Lim and S. Kim, "Bus information system based on smart-phone Apps", in *Proc. of KSCI Winter Conference (2012)*, pp. 219-222.
- [6] S. Chandurkar, S. Mugade, S. Sinha, M. Misal and P. Borekar, "Implementation of Real Time Bus Monitoring and Passenger Information System", *International Journal of Scientific and Research Publications*, vol. 3, no. 5, (2013), pp. 1-5.
- [7] D. M. Bae, "An analysis on the efficiency of bus information systems in Bucheon city", *Journal of Korean Society of Transportation*, vol. 20, (2002), no. 1, pp. 7-18.
- [8] Development of an Effective Online Bus Pass Generation System for Transportation System for Transportation Service in Karnataka State.
- [9] J. Lee, K. Hong, H. Lee, J. Lim and S. Kim, "Bus information system based on smart-phone Apps", in *Proc. of KSCI Winter Conference (2012)*, pp. 219-222.