

# Android Application for Online Non-Stop Bus Ticket Generation System

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**Abstract:-** This Text describes the application “Online Non-Stop Bus Ticket Generation”. The application is based on Android platform which is user friendly. In Traditional bus travelling system people have to stand in queues to collect ticket. It requires more time which causes manual errors like improper distribution of tickets, few passengers may travel without ticket & bitter conversation for exchange of money.

To reduce these issues, many applications are proposed such as vending machine for ticket booking, E-ticketing application, and smart RFID ticketing; but these systems have even drawbacks too. The main objective of this application is to provide more convenient platform and online cashless reservation and ticket generation system. This application reduces the burden on humans (conductors and admin), smart card use, tickets with papers and which will reflect on passengers to travel with comfort.

This system may rectify many disadvantages in ticket collecting system such as fare is debited from the users account, hence cash is no longer necessary and also passenger’s no longer need to carry the correct change to buy the tickets. The acknowledgement message will be generated on passenger’s mobile phones.

It provides functioning i.e. passenger’s record maintenance and buses information so that their vital data or information can be preserved and can be easily accessed and maintained properly. The purpose of the system is to satisfy the basic requirements of common people and make their journey easy.

**Keywords:-** Agile Methodology, Android studio, RFID, ACF, Ticket vending Machine.

## I. INTRODUCTION

The “Online Non-stop Bus Ticket Generation System” The application is based on Android platform which is more user friendly. In traditional bus transport system people have to stand in queues to collect ticket. It requires more time which causes manual errors like improper distribution of tickets, few passengers may travel without ticket & bitter conversation for money exchange & many other problems.

As we know, nowadays the internet becomes one of the vital sector around the peoples, using the internet peoples have changed the way of life Ex. using the internet peoples make their reservation (bus, railway, flite) easily, which is online and cashless. The online process of bus gives the all details about bus schedule and availability of tickets before book the reservation, with this process passengers will rid easily and can save their valuable time. The problem to traditional system is passengers have to stand in queue (even sometime for longer time) to buy ticket.

This project will reduce the ticket booking tedious job of system paperwork by keeping all the project details of bus ticket booking. This application reduces the burden on humans (conductors and admin), smart card use, tickets with papers and which will reflect on passengers to travel with comfort. It provides functioning i.e. passenger’s record maintenance and buses information so that their vital data or information can be preserved and can be easily accessed and maintained properly. The purpose of the system is to fulfill the basic requirements of common people.

## II. PROCEDURE FOR TICKET GENERATION

### A. Review Stage

Online nonstop bus ticket generation system can help to solve the problem of ticketing system without standing in queue. This application provides easy platform to the passenger to ticket booking efficiently. Nevertheless, passengers can just use their mobile phone and can check ticket availability anytime and anywhere. Moreover, the application will decrease the passenger’s fright of misplacing a bodily ticket. Passengers can see the bus details, check availability, book the ticket, fulfill the details and make payment to confirm a seat, gives the notification to confirm the ticket booking.

[5] The online booking, in general, gives the customer extra information regarding the company, availability of the services, ticketing structure, prices, online payment and booking structure and other services rendered. Besides that, in certain company, handheld mobile communication may bring similar better closer partnerships between a company and its customers [5]

[8] If any customer needs to reserve seat he or she need to call them or walk in to their counter which is Consider as wasting their valuable times. Sometimes the phone line also keeps busy and customers unable to reserve seats for them [8]

**B. Final Stage**

The final stage of this system is by entering details about source, destination, date, time & transaction details then passenger will be able to get online ticket after completion of the process within a few minutes.

**C. Figures**

Passengers are the end user of our system. Passengers can see the bus details, check availability, book the ticket, fulfill the details and make payment to confirm a seat, gives the notification to confirm the ticket booking. Admin is super user of our system. Admin update the bus details and stored in the database in the system.

**III. ALGORITHM**

- STEP 1: Enter source and destination click on search bus.
- STEP 2: Passenger will able to see retrieve the data about available buses on that date, time and destination
- STEP 3: Fill required details like number of children, number of adults, number of senior citizens, journey date and journey time. After all this process by calculating total amount for journey will be displayed in amount column
- STEP 4: Select seats according to number of seats entered in previously required details
- STEP 5: Make online transaction by entering debit/credit/master card details like card number, expiry date of card and CVV number.
- STEP 6: If the payment is successfully done by the passenger then admin will reserve a seat for those passenger. To print the ticket, click on next button.
- STEP 7: All the information about ticket details will be shown on the screen like ticket id, amount, journey date and journey time. Take a screenshot of this screen as a ticket.
- STEP 8: If passenger wants to cancel the ticket then he/she can enter details regarding ticket and ticket will gets cancelled without refund. Admin can add this seat to the available seats.

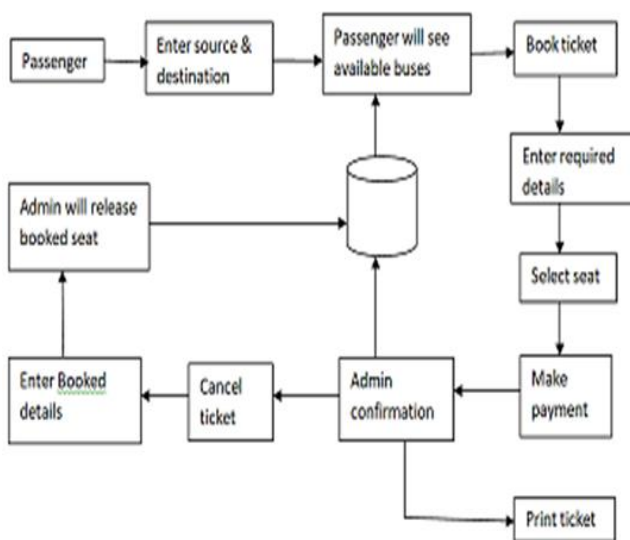


Fig 1:- System Architecture

In second level DFD of ticket booking system in this passengers can see the bus details, check availability, book the ticket, fulfill the details and make payment to confirm a seat, gives the notification to confirm the ticket booking. Admin can generate the report of bus which is ready for departure, update the bus details report in the database, and accept the payment.

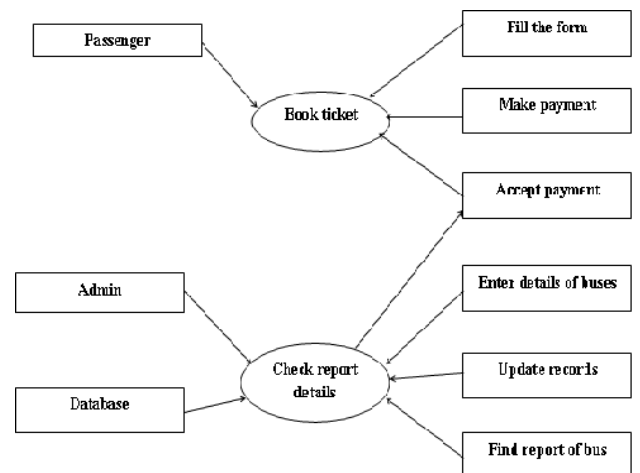


Fig 2:- Data Flow Diagram

**IV. USER LIST**

**A. User: Admin**

Admin is key user of this entire system. He is responsible person to update timetable of the buses and generate the report. Admin will add new driver, new buses and he will update bus information on the system. Admin can accept the payment done by the passengers 20 minutes before the departure time of that bus.

**B. User: Passenger**

Here, passenger can able to get ticket by just entering required details. Passenger will be able to see timetable of the available buses. To receive a notification from the payment gateway, passenger has to make online payment by giving bank details. Once the successful transaction is done

then passenger will receive message of completed successful transaction and receiving notification for ticket generation.

### C. User: Ticket Checker

Ticket checker is the person who can check whether the passenger has completed payment successfully and whether he has confirmed of online transaction or not. If ticket checker wants to see the report about the passengers i. e, how many passengers are travelling, how many senior citizens how many adults and how many children are there then he can get the report by contacting to the admin.

## V. EXISTING SYSTEM

In traditional way, each bus is controlled by a person called conductor. The process done by conductor is to collect money from passenger and hand over the ticket. Originally in traditional system, printed papers are used as tickets. Nowadays, handy machines are used which prints tickets and then handed over to passengers.

There are many drawbacks with this process that passengers are having always fright of taking care of ticket till the end of journey. Also the conductor needs to confirm that all passengers have got tickets or not, this is bit time consuming process and maximum use of paper work is also there. Also the conductor needs to repeat his/her work with respect to each passenger which is a wastage of energy.

### A. Automatic Fare Collection

This is one the machine which is used for booking tickets. Using this machine, it is possible to gather and transfer the data to server. It has an integrated platform to keep passengers flow clearly.

### B. RFID Based Automatic Bus Ticketing

In Recent generation many technologies are introduced and developed in many fields in public welfare and travelling areas. In public travelling(Bus) system one of the advancement is a device of Radio Frequency identification.

This application become popular due to its highly convenient and greater work.

The study highlighted out with a solution on convenient platform, user satisfaction and future work done.

## VI. PROPOSED SYSTEM

In online ticket booking system helps to reduce the work involved in ticket application and database management. All the works and ticket booking application are submitted online and database is to be maintained on the server. Entirely this project objective is to make that booking request in online process. The passengers can view the bus details can fill the form for booking ticket and generate an application for ticket booking and that will be can view the admin directly. Update the all bus details in the

database. This project is an efficient and user friendly android mobile application for booking ticket.

Initially, Admin will update the bus details according to the hierarchy, who will then have access to the Ticket Booking System.

- A. Admin can view the bus details and update bus details, also generate the report.
- B. Passengers can book ticket.
- C. They can check the bus timetable.
- D. They can check the notification of the ticket booking, whether it has been confirmed or not.
- E. Passenger friendliness is provided in the application with various controls.
- F. The system makes overall project management much easier and flexible.
- G. There is no risk of data management at any level while project development is under the process.
- H. It provides high level of security with different level of authentication.

## VII. RESULT AND DISCUSSION

### A. General Introduction

This mobile application provides easy nonstop bus ticketing facility. Firstly, mobile application should be installed on the required android handset. The addition or updation regarding bus details will be done by the admin at the server side. The Email-id and password of admin is necessary to login their account or else if admin is new then admin can do registration first and then login.

### B. Formal Description

If the application is successfully installed on the android mobile, then by clicking on the application following home screen will appear. As shown in following screenshots:



Fig 1: Home Screen Loading the page....

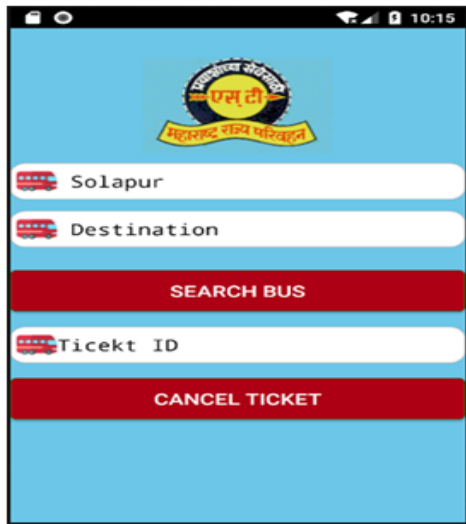


Fig 2:- Bus searching screen  
According to destination it will search buses

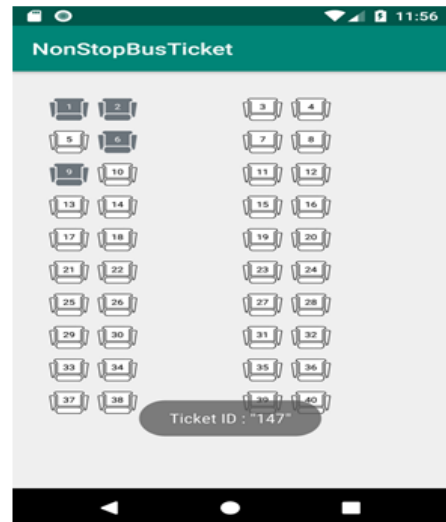


Fig 5:- Seat selection screen  
Passenger can choose their seat

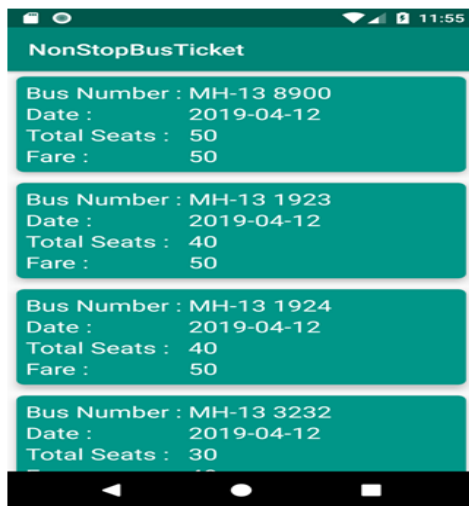


Fig 3:- Available buses  
This page shows all the available buses

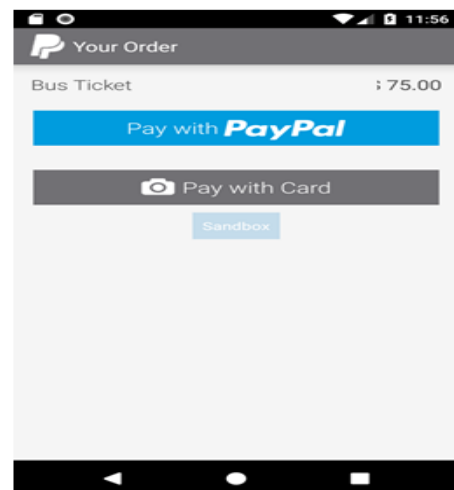


Fig 6:- Online payment screen using PayPal  
Passenger can make online payment through PayPal gateway



Fig 4:- Buy ticket screen  
In this page passengers can fill the details i.e.- book the ticket

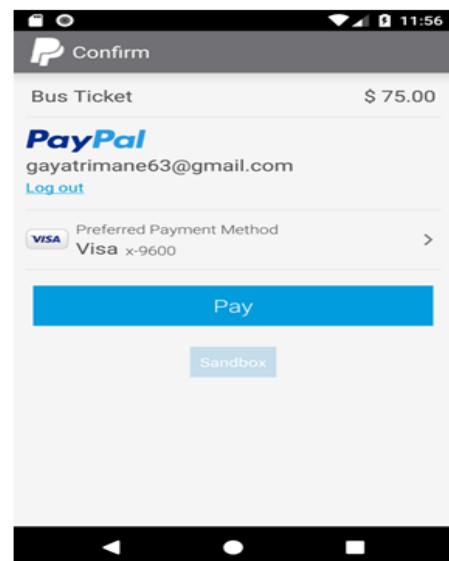


Fig 7:- Pay money using card  
Passenger can also make payment using card

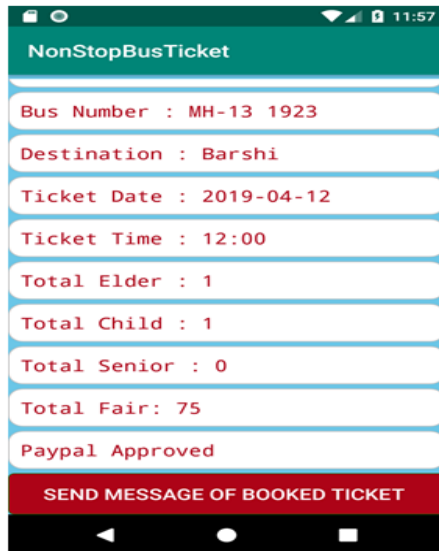


Fig 8:- Ticket screen

This is booked ticket screen .passenger can take the screenshot of the screen and also receive the booked ticket message on their mobile number.

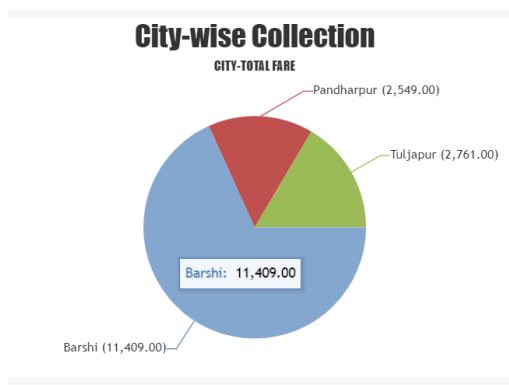


Fig 9:- Pie-chart

This is admin side pie-chart which gets updated after calculating city wise collection. This diagram is enough to know the up to date collection of different cities.

## VIII. CONCLUSION

The Online Non-Stop Bus Ticket Generation System is Android application which provides a convenient platform to passengers, so that they can check ticket online rather than standing in queue. The work has done and shown the information about passenger who booked a ticket, ticket can be generated just by clicking a button. Passengers also can check seat availability and they can reserve seat as their choice.

With this new system, the difficulties encountered with the manual system are overcome. It will also reduce the workload of the staff in ST depot. The system also has the ability to update bus schedule.

## REFERENCES

- [1]. Alaya, S. M.” Development of an Online Bus Ticket Reservation System for a Transportation Service in Nigeria”, 2014 5(12), 9–18.
- [2]. Al-hijaj, A. A. & Jabbar, A. M., & Kh, H. N.” Design and Developing Online Iraqi Bus Reservation System By Using Unified Modeling Language”, May 2013 , Vol-3 No-1,ISSN 2305-1493.
- [3]. Skarica, D., Belani, H., & Illes, S.” Implementation And Evaluation Of Mobile Ticket Validation Systems For Value-Added Services”. SoftCOM 2009 - 17th International Conference on Software, Telecommunications & Computer Networks.
- [4]. J. J. Barry, R. Newhouse, A. Rhee, and S. Sayeda, —”Origin and destination estimation in New York City with automated fare system data”, Transp. Research. Record. Journal of Transportation. Research. Board, vol. 1817, pp. 183–187, January 2002.
- [5]. Ahmed K. Ibrahim & Azman B Ta’a “Mobile – Based Bus Ticketing System In Iraq “, European Journal of Computer Science and Information Technology, Vol.3,No-5,pp.42-55,November 2015.
- [6]. Maiké, J.P. (2014). “Train, bus and museum - Interrelations of diverse actors within integrated E - ticketing schemes”, [http://www.mobiltum.vt.bgu.tum.de/fileadmin/w00bqi/www/Session\\_Poster/Puhe.pdf](http://www.mobiltum.vt.bgu.tum.de/fileadmin/w00bqi/www/Session_Poster/Puhe.pdf) Accessed 16th October 2014
- [7]. Shivaji. Varma. (2010). “Bus reservation system”. Retrieved from <http://shivajivarma.wordpress.com/2010/09/20/dbms-project-bus-reservation> Accessed 19th November 2014
- [8]. Online Bus Ticketing System <https://www.researchgate.net/publication/307930993>