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Smart Bus Ticket System Using QR Code

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Abstract***: This project provides an effective solution for managing bus pass information using a database. Our system has three login for user, admin and conductor. This system provides web application as well as android application for people to get their Bus passes online. This system is useful for users to get their bus pass online instead of standing in long queues to obtain their bus passes. This system is helpful to reduce the paper work; time consumption and user get the bus pass in simple and faster way. User can refill their account and extend the validity of card when the pass is going to expire. This system provides functionality like accessing basic information of user for authentication and provide Bus pass for the user without placing them in long queues. This system provides security option for user. The conductor in bus would be able to verify the pass by scanning the QR code provided on the pass with a recommended device. The notification generated by the system would be send to the user in form of message such as when where and what time the card was use. This system also provides online payment facility.***

Keywords: Smart bus ticket, QR code, android bus pass, web application;

I. INTRODUCTION

This project is created to provide "safe, reliable, saving, efficient and affordable" services for user. This idea would help the user in a better way. As per the previous system the user had to do each and every process manually, but this system helps user to make the work bit faster. The user can then take print out of this bus pass from their mail id and use them. The bus pass will be differ for different types of users. In this bus pass, all the required details such as candidate name, address, date of birth, mail id, name of the school(government/private), validity period, amount paid (free for government school students) and photo copy of the candidate are provided. Instead of school details, working organization details will be provided in employees bus pass. The renewal process can be done either monthly or yearly as per user wish. Based on that renewal period amount will be deducted.

II. MOTIVATION

In our daily life the college students have their passes with them and they have to carry the passes with them each and every day so it's very difficult to carry the pass every day and it's also difficult for passenger carry ticket so, we motivated that is any facility that can help us that we can booking a ticket and getting a pass for student that according to their destination.

III. PROBLEM DEFINITION

"To develop an android application which can generates passenger ticket as well as student pass using QR code which gives passenger details and student information''

IV. OBJECTIVES AND SCOPE

1) In this project we are proposing QR reader for bus ticket. User can scan QR reader instead of ticket.
2) Digital bus pass generating useful for peoples to get their pass online instead of standing in long queue to get there get Pass.
3) User can use the pass for long time and just need to valid of pass after its expires.
4) The system provides security option for student as well as passenger.

Scope

The scope of our system is based on android Application. The system will generate bus ticket for passenger and student pass for their daily up down in bus. The passenger and logins to the system which takes passengers information and there source to destination were they have to go.

V. PROPOSED SYSTEM

To overcome the drawbacks of an existing system, We Proposed new system which is an "**Smart bus ticket system using android application**". The propose system is invented to overcome drawback of the currently existing system .This system is web base application and android base application for user to bus pass and ticket booking online.

VI. SYSTEM REQUIREMENTS SPECIFICATION

A. Hardware Requirements:

Hardware	Specification
Processor	Intel Pentium 4 Onwards
Hard Disk	As per OS500MB of free Hard-disk space
RAM	512

B. Software Requirements:

Software	Specification
Operating System	Windows XP ,Windows 7 etc.
Developing Tool	Net beans IDE, Android Studio
Database	My SQL 5.0

VII. SYSTEM DESIGN

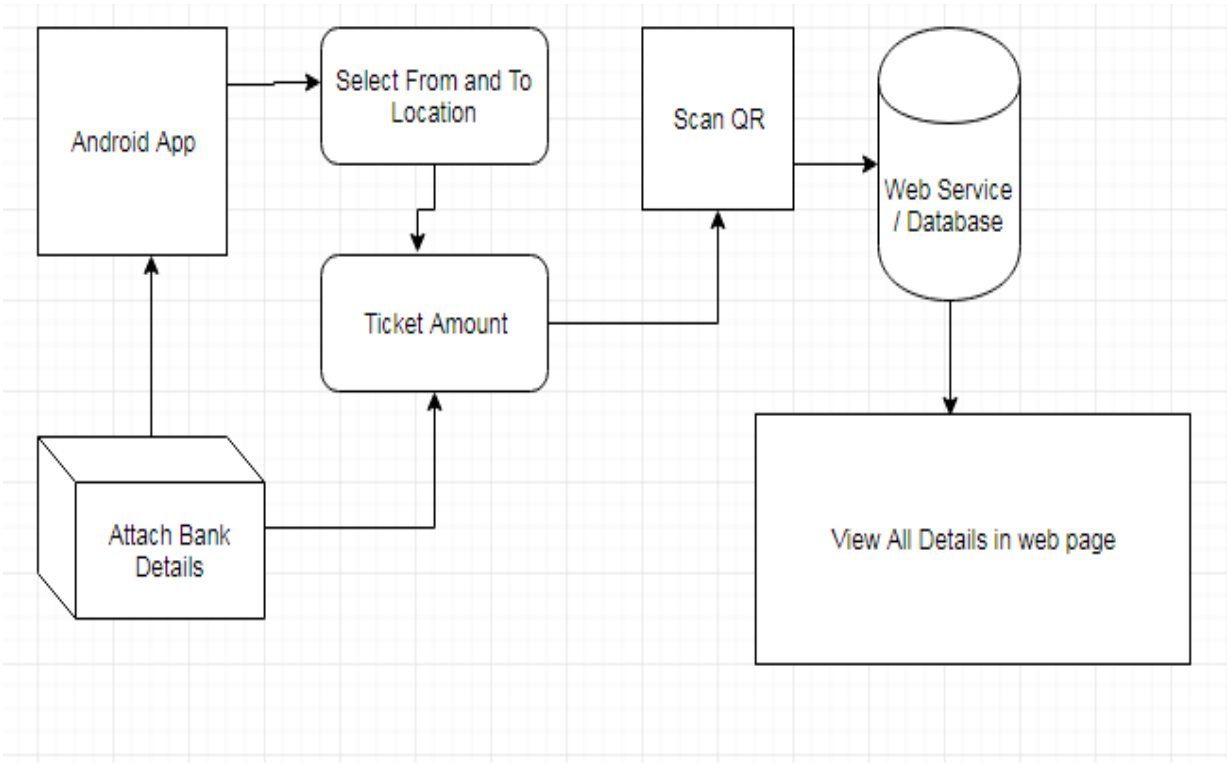
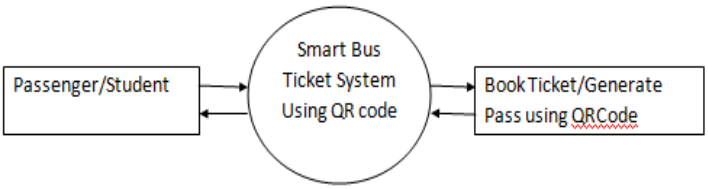


Fig-1 –System Architecture

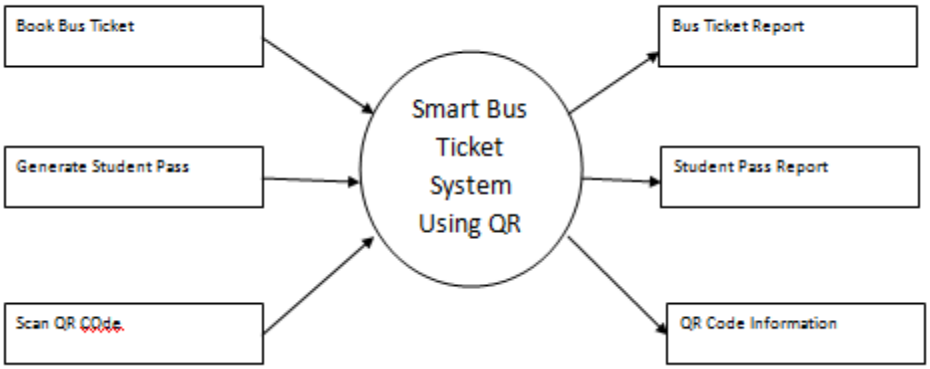
The proposed system is in proposed method, we are introducing QR reader. Here, we will create one android application for select travelling route and generate amount. After generating amount, user has to read that QR image. Then automatically it will send amount from our bank details or wallet. Each conductor having one QR reader and after reading that values automatically it will store in database. Then user will get message for travelling ticket.

VIII. DFD DIAGRAM



LEVEL 0 DFD

In level 0 DFD Passenger and student generate the smart pass and ticket for scanning the QR code and ticket booking .



LEVEL 1 DFD

In level 1 DFD Admin has login to the system for smart bus ticket system using QRcode. After that the User can login to the adminand fill there deatails and also it provide the student pass which gives the QR code then conductor will be scanning the QR code and verify the root generated. After that Admin, User and Paseenger can logout to the system with the help of mobile application.

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IX. IMPLEMENTATION

User registration:
We will create one android application for users. Users can register them in android application. Then user can add bank details with them profile. Users can select from and to location using that android application when users are going to local or government bus and user can generate amount according to that bus.
Location Selection:
A user has to select from and to location and it will generate fare details for based on that location. Then we have enter the count of passengers and we get total amount. After that, we have to use QR scanner for mobile payment.
Web Service:
Web service is like connecting android application and server. Server should run 24 hours and it has to give all the details to database which data's we are getting from users. Then using SOAP protocol we can connect android application to server. If we are using SOAP protocol, it will collect all the details from android application and it will send to server.
Database:
Admin can see all the details of users like where they are rode local bus. Then admin has to analyze those details like users name, from location, to location, amount for bus fare and admin id.
Classification: We have classified that each and every 3 hours using SVM algorithm. Because, whenever reach bus from one place to another place, it has to collect all the details from users who are all using QR scanner in bus. Then we have analyzed the data like when and where we can give another or extra bus for according to that place.

CONCLUSION

Its is a real time project system which is used for user who is facing current system of bus pass registration and renewal .In our system we provide QR code so whatever information related to user is store in QR code .If user wants to

add some new requirement then that can be easily added. as well as the system also provides the booking of ticket for passenger .

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