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ONLINE BUS PASS USING QR-CODE

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ABSTRACT

This project aims at providing an effective solution for maintaining Bus pass information using a database. The system has three logins, one for User and the second for Ticket Checker and third for the 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 QR code provided on the pass with a recommended device..

This system also provides online payment facility. As we know the world is becoming cashless so by implementing it, this system is trying to make people use the different cashless way, and put there one step toward Digital India. There is no other way to have the transaction another then the online. This system provides online payment facility. For online payment we use E-Wallet Application.

I. INTRODUCTION

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. 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 rapid 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. OnlineBus Pass generating system is useful for people to get their bus pass online instead of standing in long queues to get their bus pass. This systemreduces 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 BusPass 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. 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.

ARCHITECTURE DIAGRAM

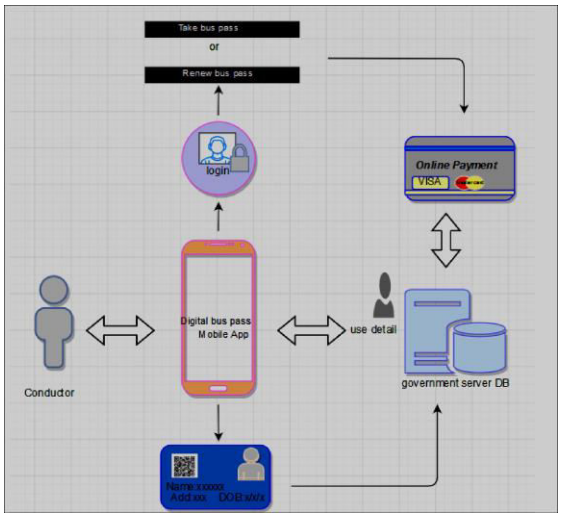


Fig.1. System Architecture

II. RELATED WORK

The online bus pass generation system is alreadyimplemented in Karnataka state as, “Generation system forTransportation service”. The only drawback is the passes to bedownloading every time after renew the pass.

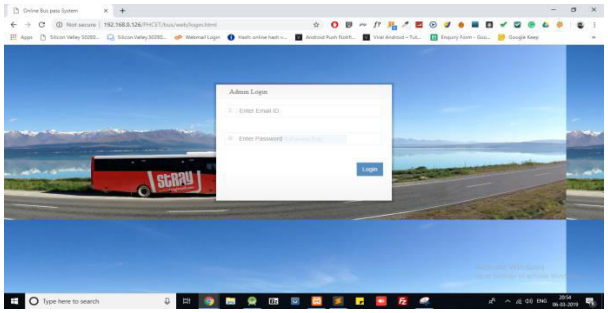


Fig.2. Homepage

This is the first page of the website and we provided loginlink for the Admin.

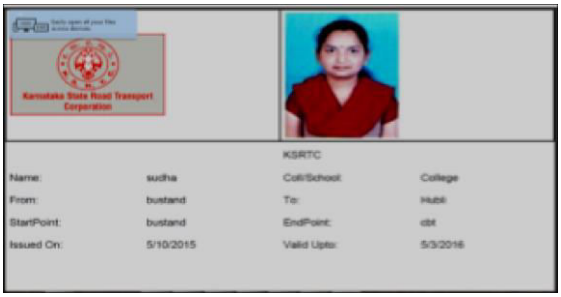


Fig.3. Experimental results

The generated PDF and photo of the applicant provided by them is displayed below which consists of applicant name, source, destination, date of the pass and expired date of the pass.

III. INFORMATION ABOUT QR-CODE

Fig.4. QR code

We are implementing a smartcard for digital bus pass system.We are going to use QR code in our card to fetch the information of the user like username, source, destination, DOB, expiry date etc. In our system, user has to create his profile by visiting the website, after registering he/she will be able to sign in and make payment, for his pass. After the successful payment, QR code will be generated and sent to his email address. Hence, e-mail address is mandatory field. Camera and android third the QR code. When QR code is successfully scanned, we will be able to fetch all the general information of the user as well as the validity of the card.The information fetched by scanning will be verified by the conductor who will be scanning the smart card.

IV. INFORMATION ABOUT E-WALLET

Fig.5. E-Wallet

E-wallet is a type of electronic card which is used for transactions made online through a computer or a smart phone.E-wallet is a type of pre-paid account in which a user can store his/her money for any future online transaction. An E-wallet is protected with a password.

E-wallet has mainly two components, software and information. The software component stores personal information and provides security and encryption of the data.E-wallet automatically fills in the user's information on the payment form. To activate the E-wallet, the user needs to enter his password.

E-Wallet is an application which is used by user during the ticket generation process.E-wallet app is used to transfer money from user account to Government account.With help of E-wallet user can also pay money to extend his Bus-Pass for next month.

V. PROPOSED SYSTEM

The proposed system is invented to overcome the drawbackof the currently existing manual system. This system is

web-based application and android based application for user toget bus pass online. OnlineBus Pass consists of six modules:

1. Registration module

To get online digital bus pass user have to go many through procedure for that user have to visit the site where user have to fill registration form. In registration user have to give complete details about him/her to create a new account, details such as first name, last name, email address, mobile number and password generated by him/her only. The email address entered by user at the time of registration is used as unique ID and password to login the system. Only authorized user can have permission to accessthe system.

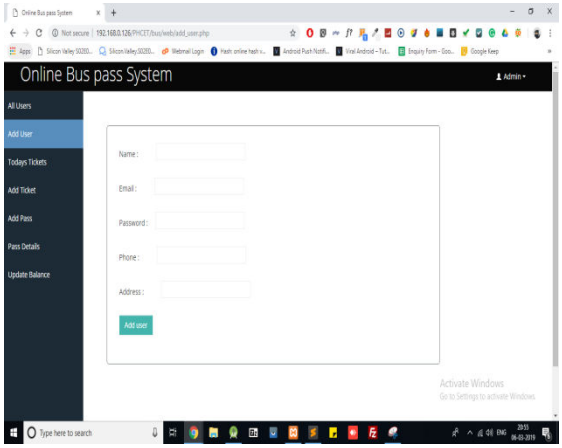


Fig.5. Registration

2. Authentication module

This system provides protection of informationthrough the mechanism of unique id (valid emailaddress) and password therefore only authorizedpeople can access the database. After successfullyregistration, user login to system by using theirunique id (email address) and password. If id andpassword is correct than only he/she will be able toaccess the system.

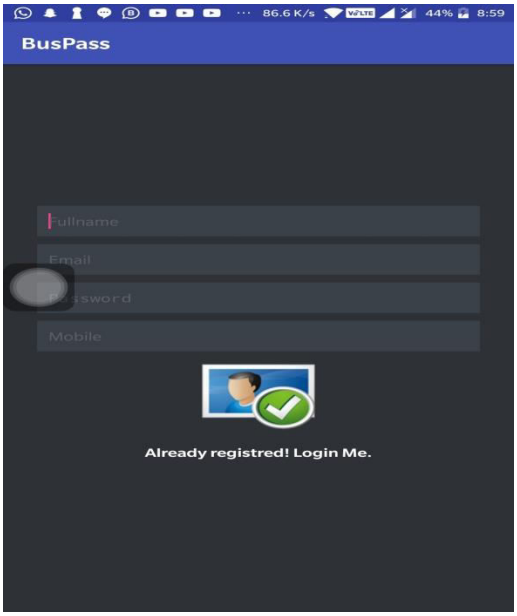


Fig.6. Login page

3. Payment module

As we know the world is becoming cashless so byimplementing it, this system is trying to make peopleuse the different cashless way, and put there one steptoward Digital India. There is no other way to have thetransaction another then the online. This systemprovides online payment facility. For online payment we use E-wallet.

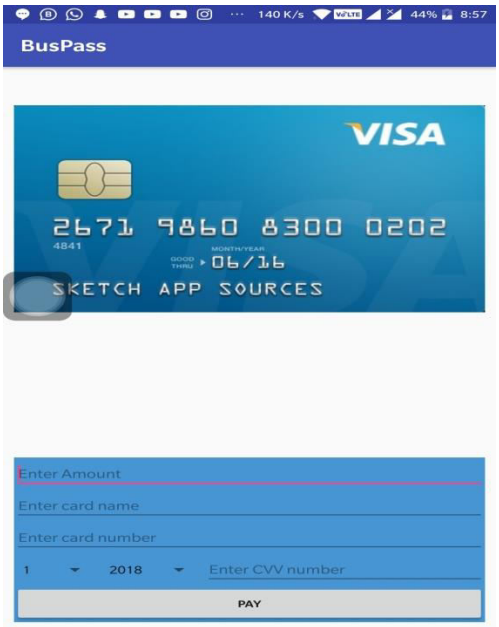


Fig.7. Payment

4. Generation of Online Bus Pass

In our system, once the pass is generated and after having the payment the PDF copy is generated and it is issued to the commuter. The PDF copy can be used by the user as a hard copy or as a soft copy while travelling. The PDF of the pass generated by the system will contain information that is encoded in the form of a QR code.
Smart bus pass consists of:

- Name of user
- Gender of user
- DOB of user
- Photo of user
- Unique QR-code that contain all the basic information about the user

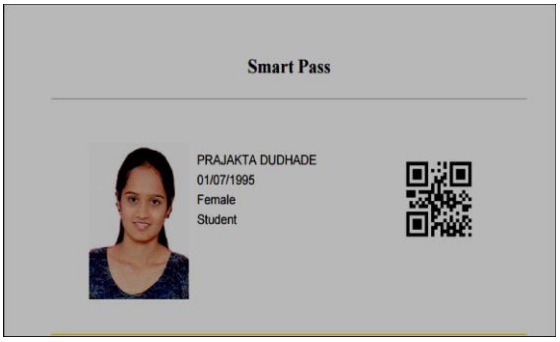
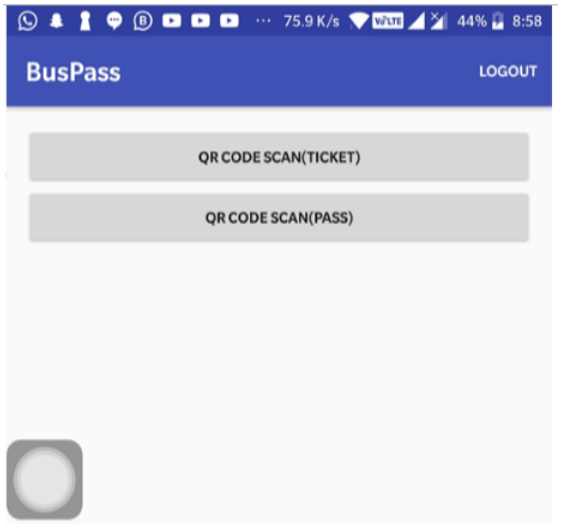


Fig.8. Digital Bus pass

5. Conductor side module

For conductor side, we have created android-basedapplication. By this app conductor can scan the bus passby this he can know the validity of the pass, check thehistory of users. For this, conductor have to login theapp by using bus number and the access key which isprovide by the admin.



VI. CONCLUSION

It is a real time project that would be useful for the public who are facing problems with the currently existing manual system of the bus pass issue and renewal.The proposed system would enable the people to register for the bus pass Online. This system would also enable the users to renew the pass online by updating the details online. Moreover, it would eliminate the paper work that is present in the current system. Further, the verification of the validity of the pass would ensure that the fraudulent activities would not be possible by the users, because the device used for verification would connect to the database wherein the information is stored.
This would ensure safety and minimize the time wastage and would make life easier and comfortable for the users acquiring the pass. Also, this system would enable people to apply for their bus passes any time in the day. That is, it would extend the time of the pass issue beyond the office hours of the travel agency.These are some of the benefits that would be caused by the proposed system.

VII. ACKNOWLEDGMENT

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