

## SMART BUS PASS SYSTEM

**Anamika Kumari, Sakshi Narlawar, Ithape Rohini, Priya Bhondwe,  
Prof. Dr. K. A. Malgi**

Information Technology  
Bharati Vidyapeeth's College of Engineering for Women, Pune, India

**Abstract:** *The project Smart Bus Pass System is developed using Active Server Page. Smart Bus Pass System is useful for passengers who are facing problems with the current manual work of bus pass system. His/her registration and renewal can be done through payment gateway. In the manual system the user has to go on particular date and time if they fail then the renewal cannot be done. This online bus pass system will help candidates to save their time and renewal bus pass without standing in a line for hours near counters. Initially user need to register with the application by submitting their details online. The candidate can login with their username and password and renewal is performed.*

**Keywords:** *QR code, Route information, Java, Firebase, Android Studio.*

### 1. INTRODUCTION

The main aim of this project is to reduce the work load of both the government and the passengers. Also the reduction of documentation process in the registration and renewal of the bus passes in the transport department is also a time reducing work, user convenient, helps to pay the beneficiaries for the services what they are accessing in a safe and reliable process. To get a new Pass user has to register in the application. After verification user can login and check the route, and the price accordingly and discounts. Their Data will be stored in QR code and after payment they will get their pass on email. User will get the message two days before the expiry of their bus pass and can renew their bus pass. The Smart Bus Pass System eliminates most of the limitations of the existing system. The Smart Bus Pass System to put it simply, means system can provide pass identification using QR code, Route information, Pass renewal, Cancellation, Updating, and Discounts for different category of people.

## **2. LITERATURE SURVEY**

R.V. Dileep Sarma & D. Gopi Krishna.[3] This Application is mainly aims to give an effective facility of online bus pass system. It also uses database to store information about passenger. Bus pass generation as well as renewal system is provided. It is very useful as it reduces paper work, time consuming and makes process in simple and faster way. In this paper, we propose a facility to take bus tickets and bus passes using android mobile application. This system provides a facility for taking tickets on the go, by just scanning the QR code user can book a ticket and pay online. Students or Customers can easily Apply and renew their existing pass by extending their validity of time when pass.

Pandimurugan V, Jayaprakash R, Rajashekar V, Yogeshwar Singh K. [2] In this paper, Smart pass system is a real time project which will prove to be very much useful and handy for the public who are having issues with the current manual work of bus pass registration and renewal. It also frequently warns the users about their validity or ending period by sending them notification. The proposed project might also get some extra features when it comes to location tracking, the GPS facility can be attached, to each and every MTC bus from which the application users can gain access to the bus.

Akshay K, Abhisek Chowdhury, Keerthana D, Manjula K, Rajeswari S. [4] The proposed system is intended to overcome the major drawbacks of the currently existing manual system. This system is easy to design and implement. It requires very low system resources. It will work in all the configurations. It has got the following features:

- 1) This system will make sure that data is accurate.
- 2) Records will be efficiently and accurately stored and maintained in a DBMS.

## **3. PROBLEM DEFINITION**

This system is intended to overcome the drawbacks of the existing manual system. This project is designed to provide an effective solution of maintaining Bus pass information using android application.

The system enables customer/passenger to purchase bus pass using mobile application without waiting in line. Making an efficient use of QR-code technique for making payment.

#### 4. SYSTEM ARCHITECTURE

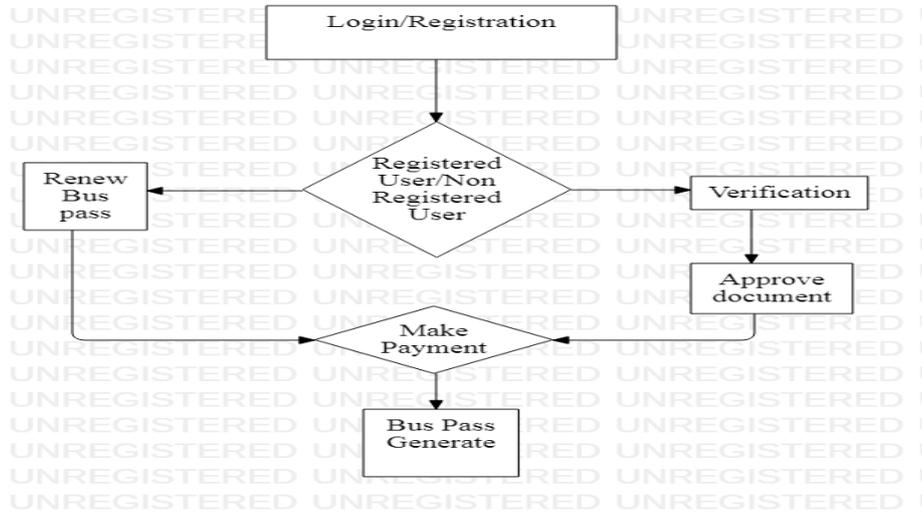
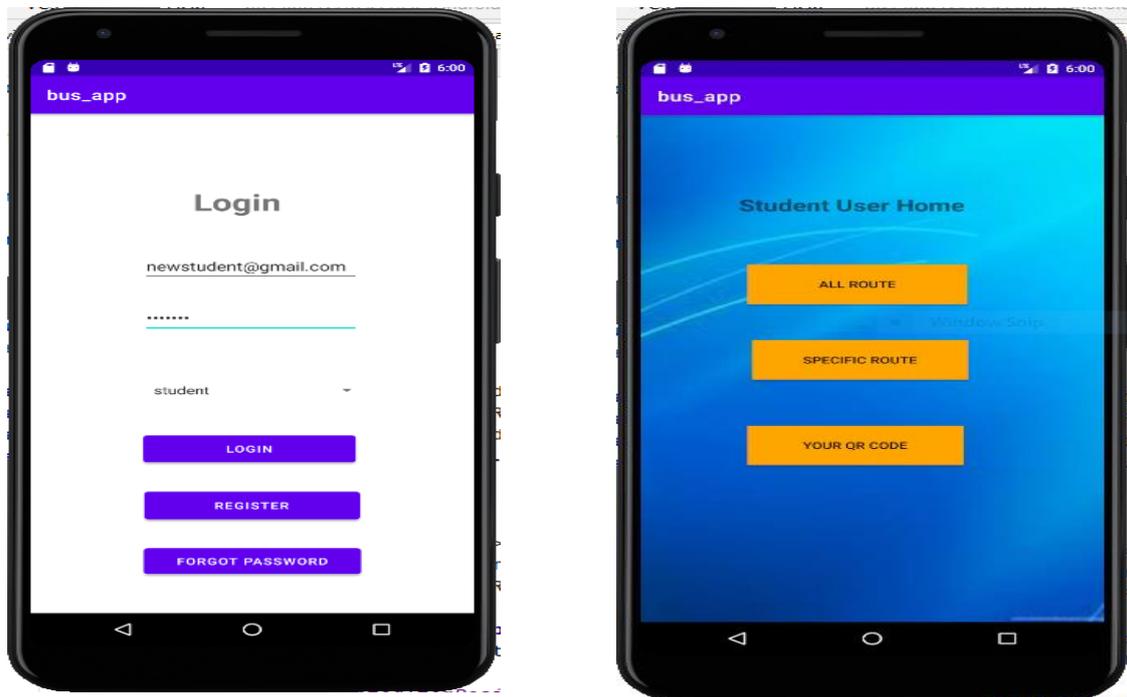


Fig 1: - System Architecture

#### 5. RESULT AND ANALYSIS

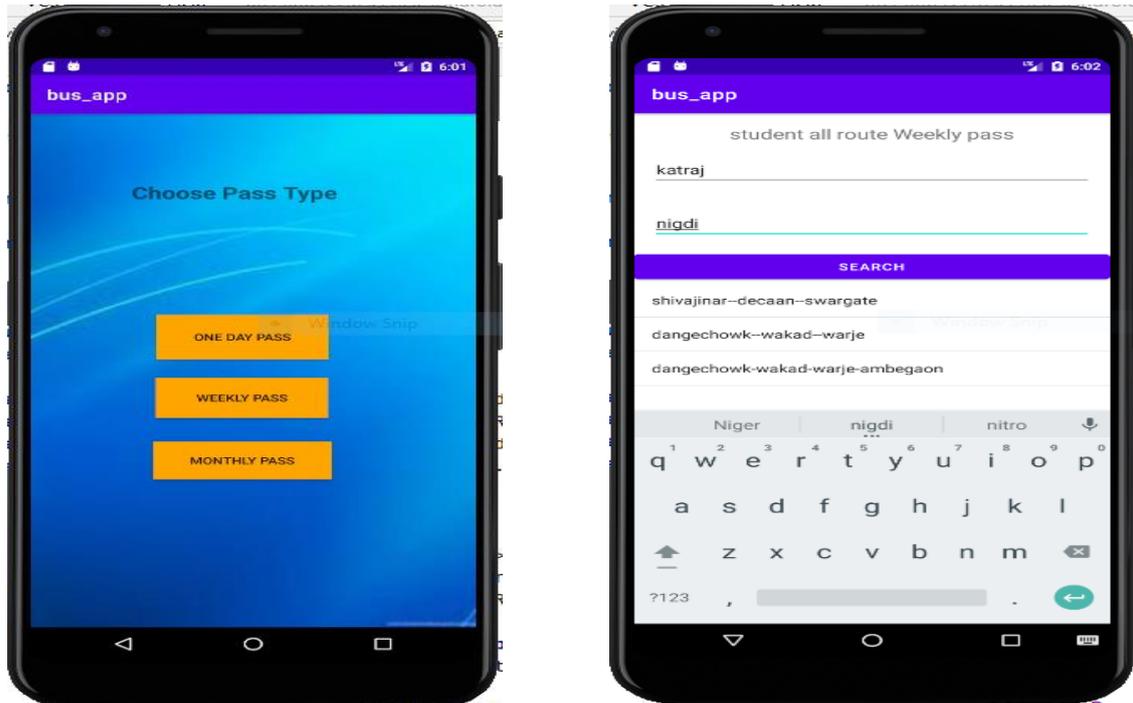


In our project first user will select category like 1) Student 2) Normal 3) Senior Citizen.

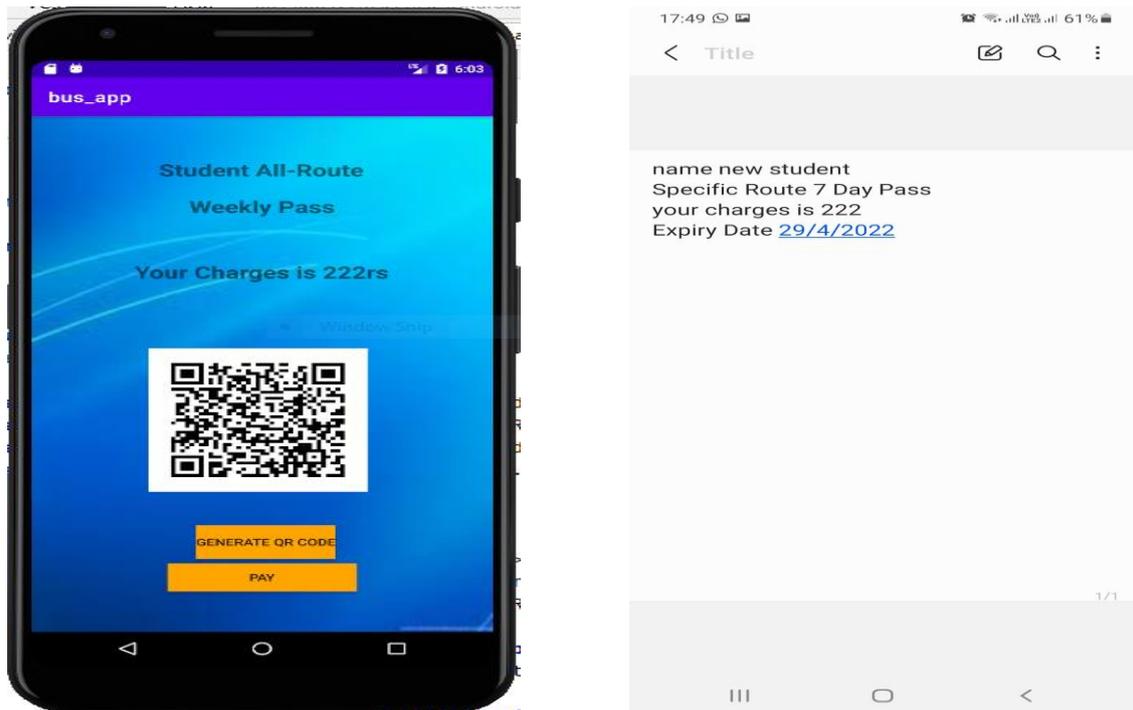
Then Registration will be done accordingly. In registration they will fill details like Name, Email-id, Adhar card No. and Password.

Firebase is used as a backend service. It is real-time database, it provides features like authentication, hosting. It is highly secure, it has JSON storage which means we can add data to the JSON tree, it becomes a node in the existing JSON structure with an associated key. So, we use firebase authentication for login credential.

After login Homepage will open. User can select among 1) All route 2) Specific route 3) Your QR code to renew bus pass.



After that Pass type page will open. In that there are three option 1) One Day Pass 2) Weekly pass 3) Monthly Pass. Then they can search for their route and then QR code page will come from there they can do the payment. Their data will be stored in QR code and user can show it to conductor while travelling.



## 6. FUTURE SCOPE

Smart Bus pass System can be easily implemented under various situations. We can add new features as and when we require like We can add Google map and payment method. Also We can Track the bus and we can add many more routes.

## 7. CONCLUSION

Thus Smart Bus Pass System Project is useful for the people who are facing problems with the current manual work of Bus Pass. It frequently warns the people before completion of his validity period. Here, I have to conclude that it is basic need to manage the data using database management because of user friendly interface. User will feel easy to handle the system and system will have complete information and detail.

## 8. ACKNOWLEDGEMENT

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