Smart Bus Pass Management System

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Abstract- ***This paper discusses about a software application that helps passengers maintain and renew their bus pass. Many of us rely on bus services for commuting. Daily commuters prefer using bus pass rather than buying a ticket daily. Daily Commuters prefer using a travel pass rather than buying a ticket daily. Once registered and logged in, the user is presented with the following options: the user can click on new pass to get a new pass or renew their existing pass. After choosing the root and the duration of the pass, user will be shown the amount payable. Once payment is done, the renewed pass is updated and can be accessed under the "Current pass" tab. You can find all the transport pass related data online without going to the bus stop. Students and travelers will be able to obtain transportation passes online with the help of this web-based framework, eliminating the need to wait in lines for passes or purchase tickets for each trip. Online credit or professional card payments are supported for the installment.***

Keywords: ***Network servers, Information Systems, Testing, Cellular Networks, Web Server, Computer architecture, Bus operators, Public Transport Services.***

INTRODUCTION

The point of this undertaking is to lessen the responsibility of both the public authority and the recipients/travelers. And furthermore the decrease of documentation process in the restoration and enrollment of the transport passes in the vehicle division is likewise a period lessening work. To get another transport pass the client needs to enroll in the recommended application design, and for the understudies, who are getting to this help need to transfer the pertinent archives, for example, address evidence, photographs to be transferred. After the interaction got finished they are coordinated to do the installment mode.

LITERATURE SURVEY

A. EXISTING SYSTEM

The current transport pass framework experienced numerous functional inadequacies. One of its greatest downsides was that it was not incorporated. Additionally, the interaction was slow, prompting long lines at the counters. Indeed, even subsequent to getting a transport pass made, the workers were expected to convey an ID verification alongside the transport pass, as the past transport pass couldn't be utilized as a character card. This cycle was awkward for the suburbanite.

Fig-1: Current buspass id

Drawbacks of Existing System

Currently, there are certain drawbacks to the system. There are as follows:

- Standing in Queues for collecting or renewing their bus pass at the bus pass counter.
- Wastage of time due to the lengthy wait times at the bus pass counter.
- For renewing their bus passes, they have to take leaves, etc.

Fig-2: Standing in queues at bus pass counter

B. PROPOSED SYSTEM

This online-based transportation pass software will help students and travelers obtain transportation passes online, eliminating the need to wait in queues for passes or acquire a ticket for each excursion. It should be

possible to make the payment online using a credit or professional card.

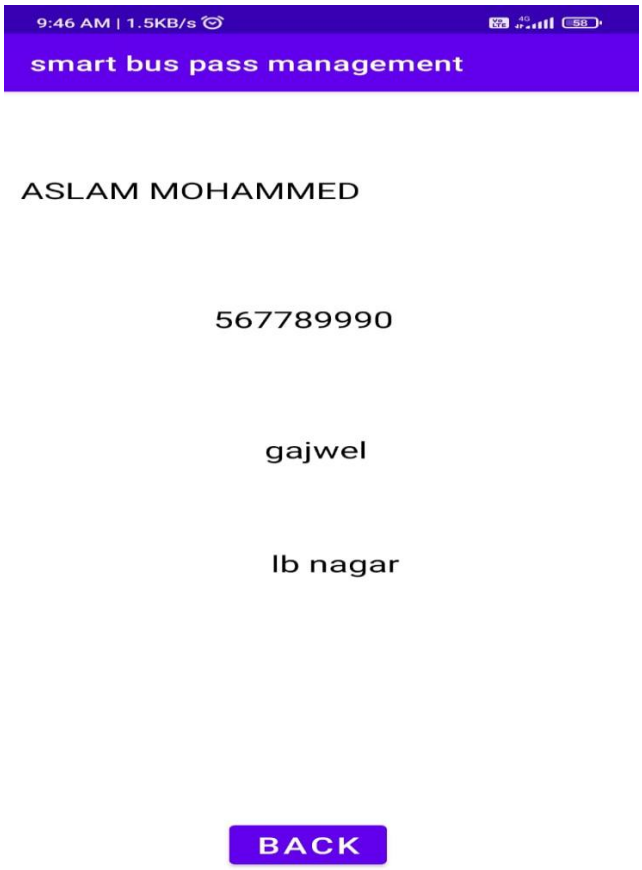

Fig-3: Bus pass generated through android application

METHODOLOGY

As shown in figure 4, the application consists of user login by which he/she are directed to the other page of application which consists of selecting a new pass or current pass. Upon the selection of current pass which displays the name of the passenger, id, source and destination of passenger.

Upon the selection of new pass, the user is directed to a new page where he/she need to add the details of location which indicates the source and destination of the user. Then the user is directed to the payment page, by using a debit card/credit card the user needs to complete the payment. After the payment, the user is again directed to a page consists of new pass/current pass, by selecting the current pass the user can able to generate his pass.

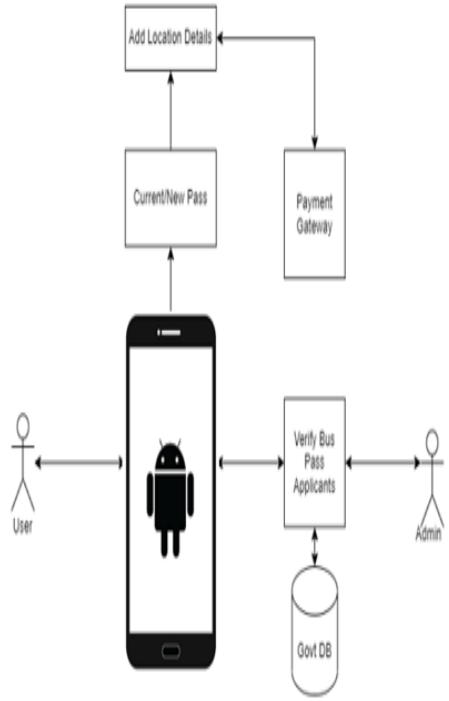

Fig-4: Module design and organization

USE CASE DIAGRAM

Let's now look at the use case diagram for smart bus pass management system.

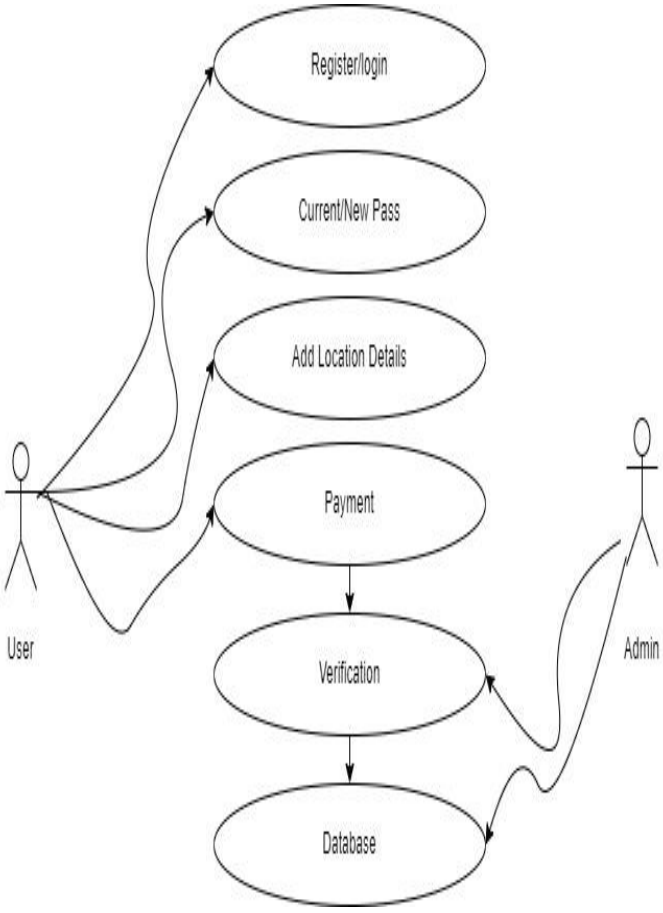

Fig-5: Use Case diagram

RESULT AND ANALYSIS

PERFORMANCE

Passengers as well as the government enjoy using this application. Passengers are benefitted by avoiding to stand in a long line for renewing their pass by skipping their work or school or colleges. This application can help the government by reducing a lot of paper work.

A. OUTPUT SCREENS

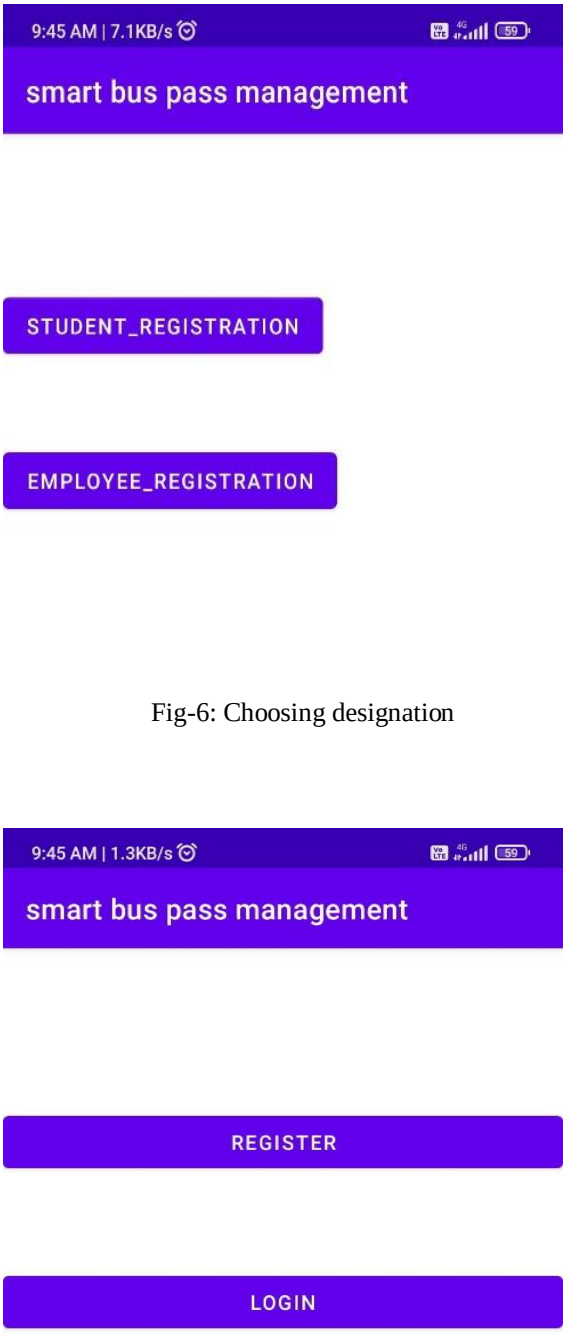

Fig-6: Choosing designation

Fig-7: User's choice

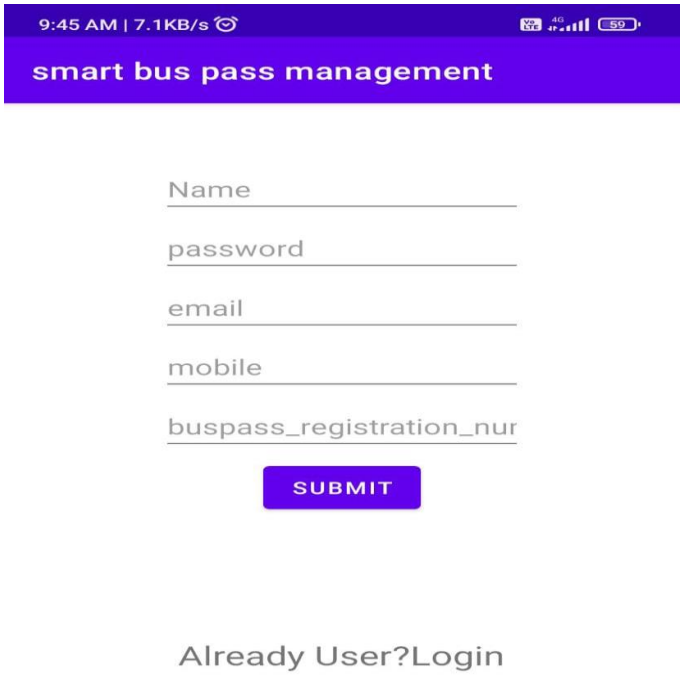

Fig-8: Registration page

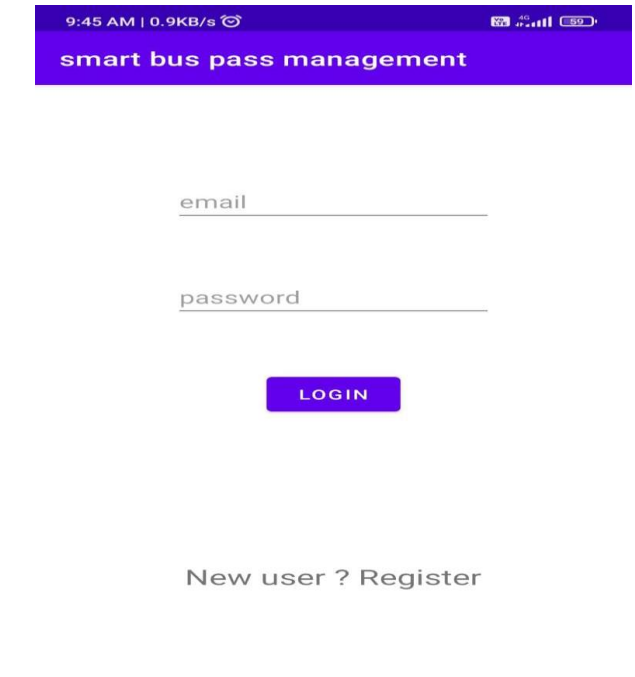

Fig-9: Login page

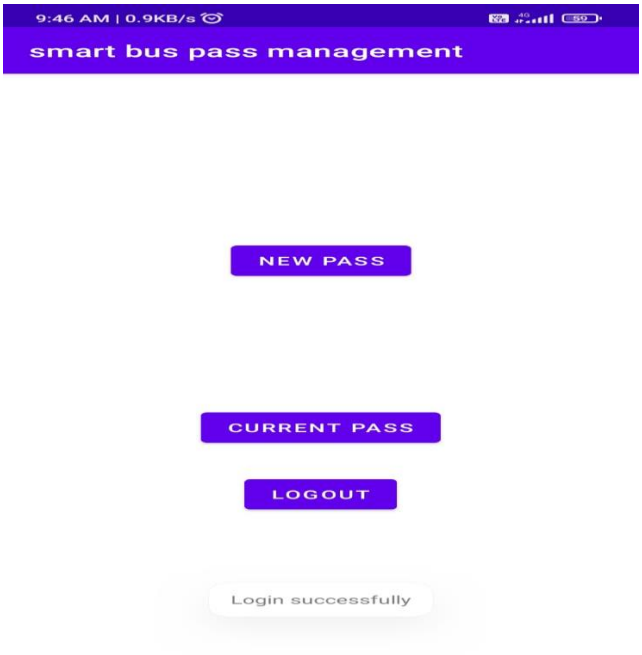

Fig-10: Home page

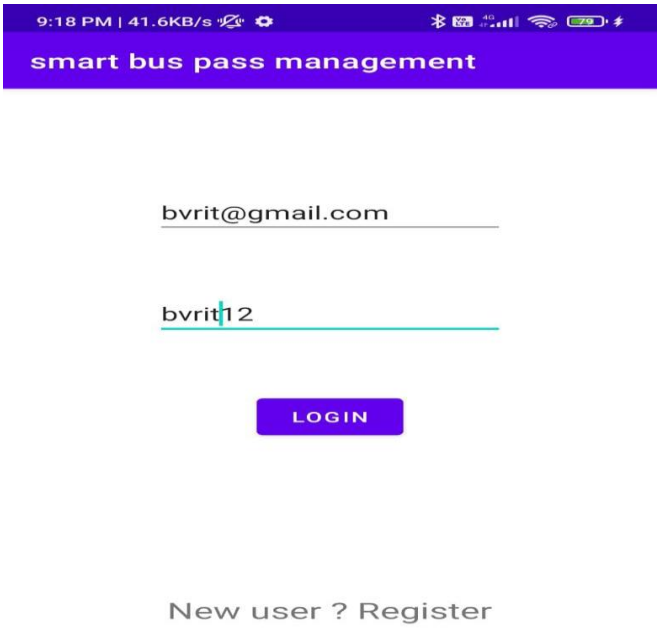

Fig-11: User Login

Fig-12: Admin Login

Fig-13: Choosing source and destination address

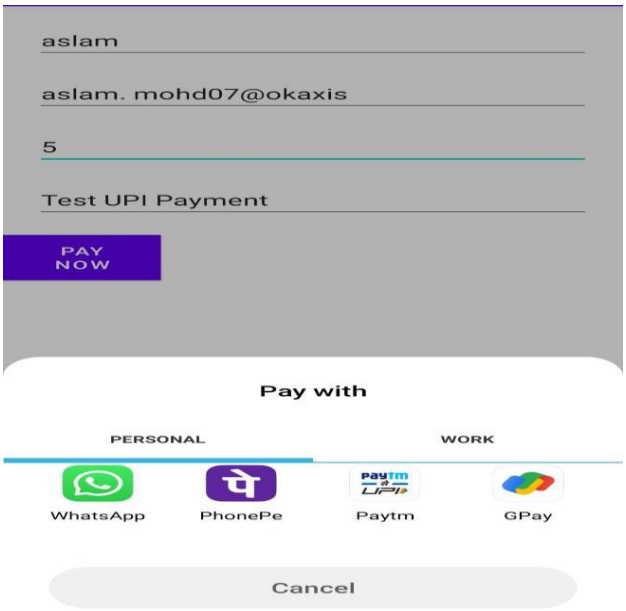

Fig-14: Choosing payment mode

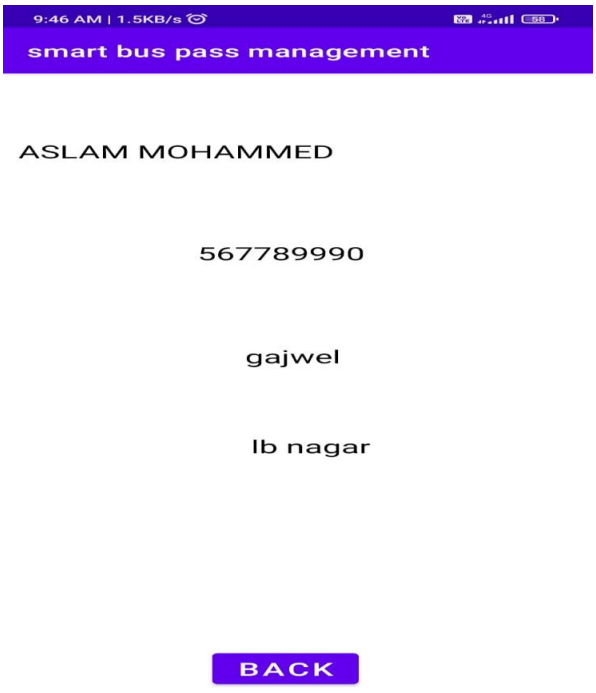

Fig-15: Current pass after payment

B. RESULT ANALYSIS

Based on the result which we obtained was turned out to be good. The analysis is based on the user's bus pass renewal that was successfully submitted by filling their details in the application.

C. CHALLENGES

- Verification of the passengers cannot be done online. Before using this program, they must visit their universities to get their identities validated.
- It needs lots of memory and a big database.

CONCLUSION

Students and other users of the bus will benefit from this online bus pass software solution when renewing their bus passes online. It eliminates the need of going to bus pass counters for renewing or collecting bus passes every month. It eliminates the process of standing in queues for collecting tickets and renewing bus pass at respective bus pass counters. The payment of bus pass can be done online via credit or master card.

A. FUTURE WORK

By using this application, we will try to produce it globally by connecting it to the government database. This application will be utilized globally.

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