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Travelbud - An Android Application for Bus Commuters

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Abstract: This paper aims at providing an effective solution for maintaining Bus pass information using a database. There is admin login and Commuter login. Android application bus pass generation system would be useful for commuters to get their bus passes by application instead of standing in long queues to obtain their passes. The proposed system is intended to perform activities like accessing basic information for authentication and provide Bus Pass for the commuters without standing them in long queues. The official in the bus, would be able to verify the authenticity of the pass by scanning the PDF provided on the pass with a recommended device.

Keywords: Login, Apply, Payment, Generation, Renewal, Notification, Download.

I. INTRODUCTION

A bus pass project is an android application system that helps passengers to get their bus pass related information in an android phone. Using this system users can apply for bus pass and renewal option and can make payment online. This prohibits the need for going to bus station for getting pass. It also provides appropriate schemes for various routes for quarterly, monthly and yearly passes. Admin will view user's details and all the transactions being made. The system is user friendly and flexible to be used.

II. LITERATURE SURVEY

The existing online bus pass issue system requires the commuters and students to submit the specified documents manually at the bus depots to apply for bus pass.

Once the documents are submitted, it will be verified by the officials present in the depots. This results in wastage of time for the travellers as they would need to go to the bus depots for verification. Once the verification is done, the bus pass would be issued on a specified date as communicated to the user. This becomes a difficult task for the commuters to repeatedly go to the bus depots just for the purpose of getting their passes. This is the common situation in all states. In the state of Andhra Pradesh, the online application form that is created using HTML is implemented already.

In the states of Tamil Nadu and Maharashtra also, the details about the fare and timings of the buses is available for the benefit of the users. But, the online bus pass system is unavailable. The case is the same across some of the other states like New Delhi etc.

III. EXISTING SYSTEM

The bus pass issue system that is currently in existence is a manual process in which students and other commuters are required to submit application forms along with their details filled. These application forms will be verified and then the bus pass is issued to the concerned person after the application form is verified. This is a tedious process, which requires the people to stand in long queues to get their passes. This results in a wastage of for the commuters. Also, the bus pass issue takes place in the current system, only for a limited period of time during the day. The commuters may not be able to acquire their passes once the depots at the bus stands, once the counters are shut down in the evening.

IV. PROPOSED SYSTEM

A. This Project Deals with Solving the above Mentioned Drawbacks and Provides the Following Advantages

1) It would provide a 24 hour issue of bus pass to the people in need for the pass.

2) Facilitates online payment by the user.

3) Eliminates the need for people to stand in long queues and does not result in the unnecessary wastage of time. The online

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B. Payment can be Done by the Commuters in Need of the Pass through any of the Following Ways:

1) Credit card
2) Debit Card
3) Master Card
4) Visa Card

Once the pass is generated and after the payment is done, the PDF copy of the bus pass would be generated and be issued to the commuters. The customers can then download the bus pass and use it for the travel. Also, the PDF of the pass generated would contain information that is encoded in the form of PDF417. This Aztec pattern can then be scanned using a PDF417.
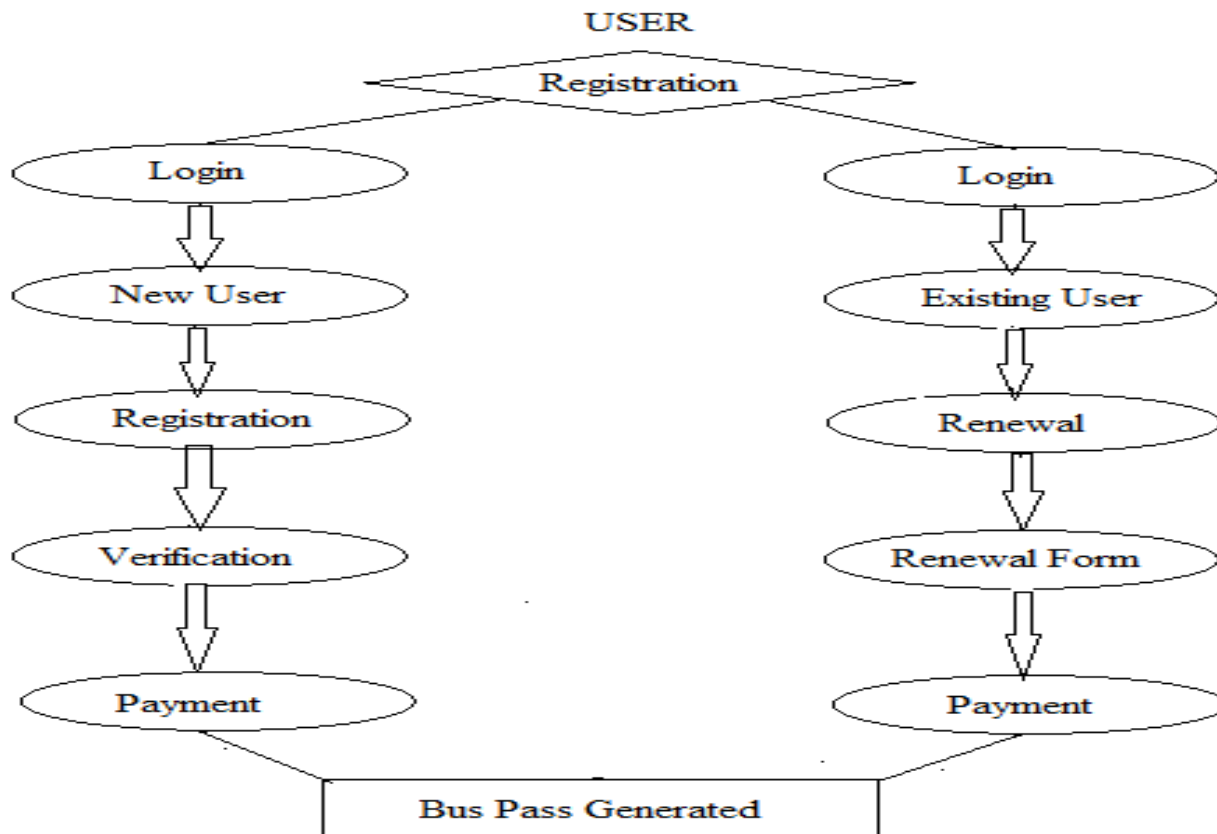

Figure 1 Methodology for Bus Pass

The proposed system will overcome the major drawbacks of the current manual system. As shown in Figure 1.This system is easy to design and implement. It requires less system resources. It will works in all the configurations.

It has got the following features:

This system will make sure that data is accurate.

Records will be stored efficiently and accurately and will be maintained in a DBMS.

Renewal also can be done by application with the reference identification that is provided after the registration is done by the user.

Suppose if the student or any other type of commuter does not require the pass service anymore, he/she can cancel their registration.

It takes minimum time for processing the details and to generate the bus pass.

V.   REQUIREMENTS

A.   Software Requirements

1) Android Studio/Java Eclipse
2) Java Development Kit (JDK)

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3) Key packages
4) Device binaries

B. Hardware Requirements
1) Programming Language: Android, PHP.
2) A 64-bit environment is required for Android 2.3 and newer versions, including the master branch. We can compile older versions on 32-bit systems.
3) At least 100GB of free disk space for a checkout, 150GB for a single build, and 200GB or more for multiple builds.
4) For Linux virtual machine, we need at least 16GB of RAM/swap.

VI. OBJECTIVES

A. Design and Development of
1) Android application for Bus Pass generation.
2) Best Mobile Platform for Inter-Application Integration.
3) To provide Open and Free Platform for commuters.

VII. 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 will enable the commuters to register for the bus pass through android application. This system would also enable the users to renew the pass by updating the details on application. 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 where in 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.

VIII. ACKNOWLEDGEMENT

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