

Online Bus Pass Renewable System Using Mobile App

¹Shaik Mahaboob Basha, ²E Sunil, ³S.Gouse

¹Assistant Professor, ²Assistant Professor, ³Associate Professor,

CSE Department, Holymary Institute of Technology, Keesara, Medchal, Hyderabad, Telangana

¹Bashashaik1617@gmail.com, ²e.sunil1820@gmail.com, ³Gouse1210@gmail.com

Abstract: Today's buss pass renewal still uses the traditional ways. Still peoples need to stand in queues for long hours to renew the bus passes either monthly or student. Therefore user needs a smart system which provides real time pass renewal and gives an easy way to do. So we proposed a new android application which overcomes the disadvantages of the current bus pass renewal system. So we proposed the new bus pass renewable an android application system that helps people to get their bus pass related information in an android phone. Using this app user can apply for bus pass renewal option and cancellation options and make online payments. This excludes the need for going to bus station for utilizing pass services. It shows appropriate schemes for various routes for quarterly, monthly and yearly passes. Admin can view user's details and all the transactions being made online. Thus the app is user-friendly and flexible to be used.

Keywords: Bus pass, Android application, SQL Database.

I. INTRODUCTION

This paper 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.

A. Literature Survey

Akanksha Baid et. al [1]. The success of search engines demonstrates that untrained users are comfortable using keyword search to find documents of interest to them. Over the past decade, this success has spawned tremendous interest in keyword search (KWS) over relational databases, in order

to accommodate users who cannot issue a formal structured query or are unaware of the data base schema.

In this paper we argue that as today's users have been “spoiled” by the performance of Internet search engines, KWS systems should return whatever answers they can produce quickly and then provide users with options for exploring any portion of the answer space not covered by these answers. Our basic idea is to produce answers that can be generated quickly as in today's KWS systems, then to show users query forms that characterize the unexplored portion of the answer space. Combining KWS systems with forms allows us to bypass the performance problems inherent to KWS without compromising query coverage. We provide a proof of concept for this proposed approach, and discuss the challenges encountered in building this hybrid system. Finally, we present experiments over real-world datasets to demonstrate the feasibility of the proposed solution [1].

We describe BANKS, a system which enables keyword-based search on relational databases, together with data and schema browsing. BANKS enables users to extract information in a simple manner without any knowledge of the schema or any need for writing complex queries. A user can get information by typing a few keywords, following hyperlinks, and interacting with controls on the displayed results. Examples of the types of data that could be published using BANKS include organizational data, bibliographic data and product catalogs. We have proposed a framework for answering keyword queries, and implemented an algorithm to find query answers incrementally. We have evaluated our prototype in terms of speed and meaningfulness of answers using academic and bibliographic databases. Our observations are that BANKS is practical to use on moderately large databases, and that the results are intuitive and useful [2].

We evaluate the effectiveness of keyword search systems for relational databases. Previous evaluations by researchers have been ad hoc with no standardized datasets or query workloads. The effectiveness of the proposed search techniques is often ignored as researchers focus on the performance aspects of systems. Our evaluation framework is the first designed for this field and provides common workloads for evaluating current and future systems. Standardized evaluation techniques previously enabled rapid progress in the IR community; it is past time for DB&IR

researchers to adopt this evaluation paradigm. Such a framework is essential for objectively evaluating many aspects of these systems—including their performance [3].

We studied finding top-k minimum cost group Steiner trees, denoted GST-k, for l-keyword queries, in a relational database which can be modelled as a graph G, with n nodes and m edges. We observed that l is small, and proposed a new novel parameterized solution to find the optimal GST-1 with time complexity $O(3ln+2l((1+\log n)n+m))$ and space complexity $O(2l \cdot n)$. We conducted extensive studies over large undirected/directed graphs, and confirmed that our algorithm can obtain the optimal GST-1 with high efficiency, and achieve high quality (low performance ratio) and high efficiency for computing GSTK [4].

Index maintenance is an interesting direction for future work. It includes two aspects. First, when the graph is updated, we need to maintain the indexes. In general, adding or deleting an edge has global impact on shortest distances between nodes. A huge number of distances may need to be updated for a single edge change, which makes storing distances for all pairs infeasible [5].

II. EXISTING SYSTEM

In the existing system bus pass registration and renewal process are carried out manually. The person has to visit the counter and have to submit the details and then they have to wait for approval. For each and every process there is time limit specified if the person fails to go on time then all the transactions will be cancelled. In this existing system was used to bus details maintain through file. And after bus information are stored to computerize. The Project Metrics has to enter all the details of project, documents, and tasks. And, also the maintenance team information and also efforts estimation. For this purpose the organization maintain the size of the document, source code and update the information about team member's details manually. Which is much of time consuming process and more importantly it is error prone. At present system bus pass collect from depot very rare one. User can facing lot of problems.

A. Disadvantages

1. It is time consuming
2. It consumes lot of manpower to better results
3. It lacks of data security.
4. Retrieval of data takes lot of time
5. Percentage of accuracy is less
6. Reports take time to produce.

III. PROPOSED SYSTEM

The proposed system overcomes the drawbacks in the existing system. In the proposed system user register their details through online and get their unique username and password for further processing. 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 monthly as per user wish. Based on that renewal period amount will be deducted.

A. Advantages

1. To make accuracy and efficient calculations.
2. To provide proper information briefly
3. To provide huge maintenance of records
4. Flexibility of transactions can be completed in time
5. Easily bus pass apply through online.

IV. ARCHITECTURE OF THE PROPOSED SYSTEM

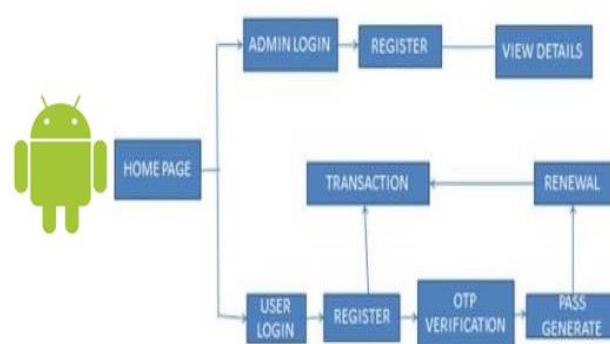


Figure 1. Buss pass system architecture

From the figure 1. we came to know that home page is the first page as we know in this home page we have two domains i.e. admin login and user login. The admin can see details and approve the pass, where as user has to login to register the buss pass.

This process supports existing infrastructure requirements and provides specific recommendations for hardware and network solutions based on existing and projected user needs. Application requirements, data resources, and people within an organization are all important in determining the optimum hardware solution. It is represented using a three tier architecture that comprises of user interface, process management and Database Management System (DBMS). It shows the components of the system, the services they provide and the way they communicate to bring about the system's functionality. The System is very easy to implement.

The system has the following features:

1. It will ensure data accuracy.
2. All the records will be efficiently maintained by SQL Database.
3. The bus pass registration is necessary for the system.

4. Only minimum time needed for the various processing.

A. User Activities

The most common activities carried out by user are illustrated below figure 2.

1. The user can login using username and password.
2. The user can sign up/do registration with the system. The registered user can login to the proposed system.
3. The user can register their bus pass details.
4. The user can also do renewal process of the system.
5. The user can print the bus pass report.

B. Database Activities

1. The depot officer/Database Scheduler will verify all the registered user, and allow them to login the system.
2. The administrator can acknowledge to verify, the user made on the system.

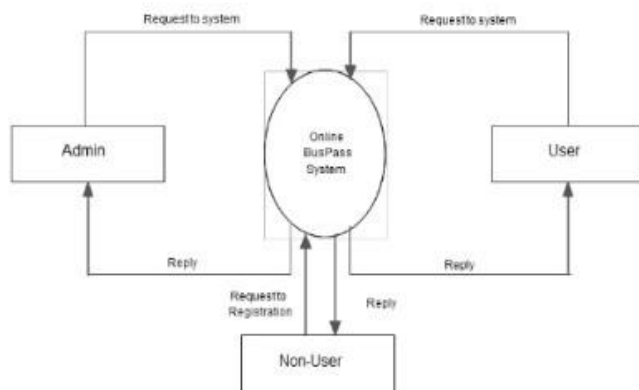


Figure 2. Implementation of Online renewal system

V. IMPLEMENTATION

A. Modules

Our work introduces a new method of generating the Bus pass through online [6]. In our system verification can also be done by sending an otp to student mail. Then the payment can also be done through net banking [7]. There are many modules in our project. They are

1. Registration
2. Verification
3. payment
4. Pass generation
5. Renewal of pass

1. Registration Module

In this the student has to give complete details about him/her to create a new account. After successfully creating the account the user can able to perform the online bus pass

facility. All the transactions are performed based on the student id [6].

2. Verification Module

After registration an OTP code is sent to student's mail. After entering the code he can proceed with next step. Once the user submit their detail, their information can be viewed by admin and he will approve the bus pass. This will allow only authorized students [7].

3. Payment Module

Students can pay the amount for the bus pass through credit card. They can also pay through net banking. The amount paid through online must be secure and it should reach the authenticated user. All the transactions that is done must be committed properly [8]

4. Pass Generation

After providing all the necessary details like nemesis, college name, phone number, photo etc ,the details will be submitted to the admin. The admin verifies and the detail and authenticate them. If the admin approves the user as trusted one then the bus Pass will be generated and send to the student's mail.

5. Renewal of Pass

The student can login to his account for the renewal of bus pass. The student has to enter student id and the necessary details. Then the payment process will be carried out. Once the process is completed the user bus pass will be renewed automatically and send to student's mail[6,8].

B. Results Test Cases

A test case in software engineering is a set of conditions or variables under which a tester will determine if a requirement or use case upon an application is partially or fully satisfied. It may take many test cases to determine that a requirement is fully satisfied.

The following steps are to be followed to design the test cases.

1. Each test case should be uniquely identified and explicitly associated with the class to be tested.
2. The purpose of the test should be stated.
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4. The purpose of the test should be stated.

Test Cases usually have the following components.

Test Case Summary

1. Initial Condition
2. Steps to run the test case
3. Expected behavior/outcome

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in the menu ,it opens a new screen which display "print application form" on clicking the options "cancellation" in the menu ,it opens a new screen which display "cancellation form".

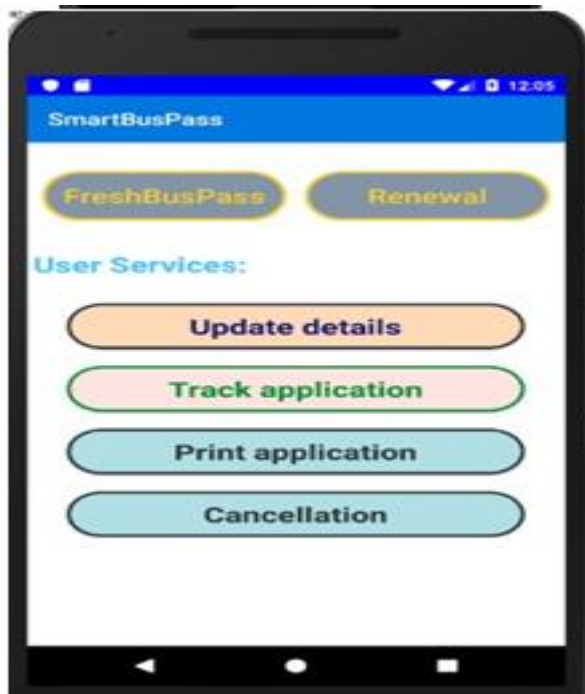


Figure 3. Home Page

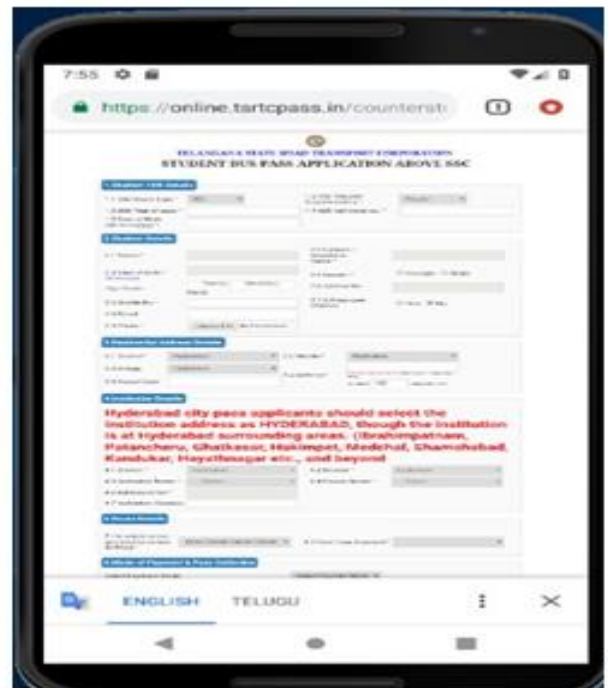


Figure 5. Registration Page.

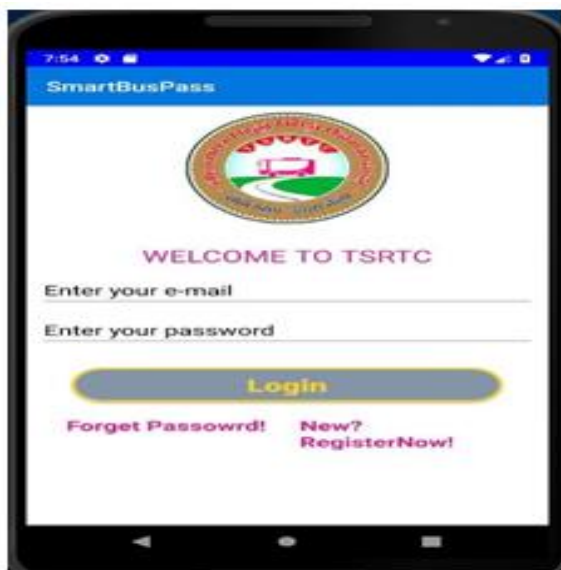


Figure 4. Login Page

From Figure 3 & Figure 4, on clicking the options freshbus pass in the menu it opens a new screen which displays "buspass form" . on clicking the options "track application" in menu ,it opens a new screens which displays "track application form ".on clicking the options "print application"

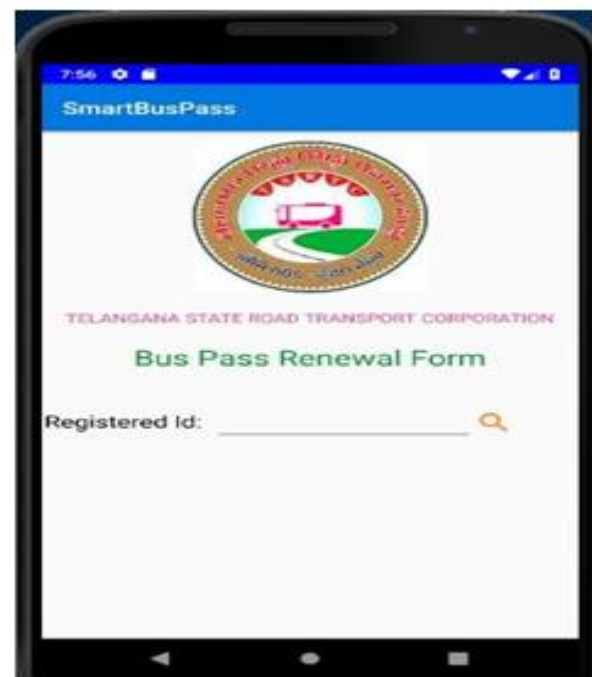


Figure 6. Renewal Page

From Figure 5 on clicking the option "new" in the menu, it opens a new screen which displays registration page and Figure 6. on clicking the option "renewal" in the menu, it opens a new screen which displays renewal page .on clicking the options "update" in the menu, it opens a new screen which displays "update page"

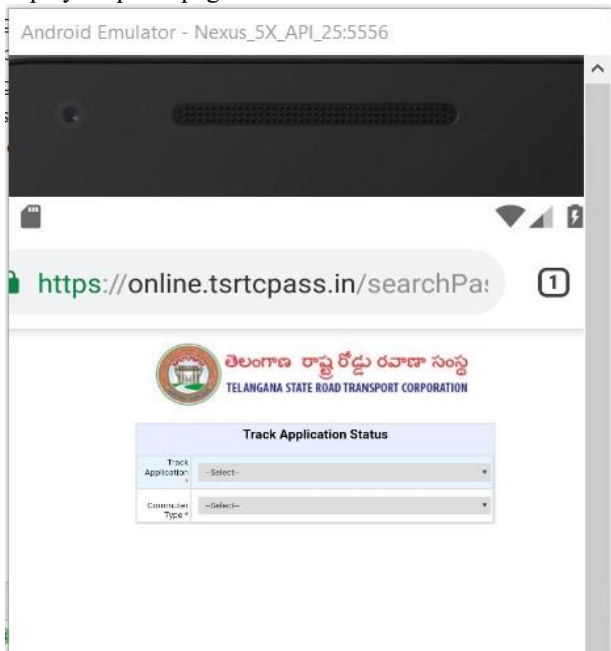


Figure 7. Search Page.

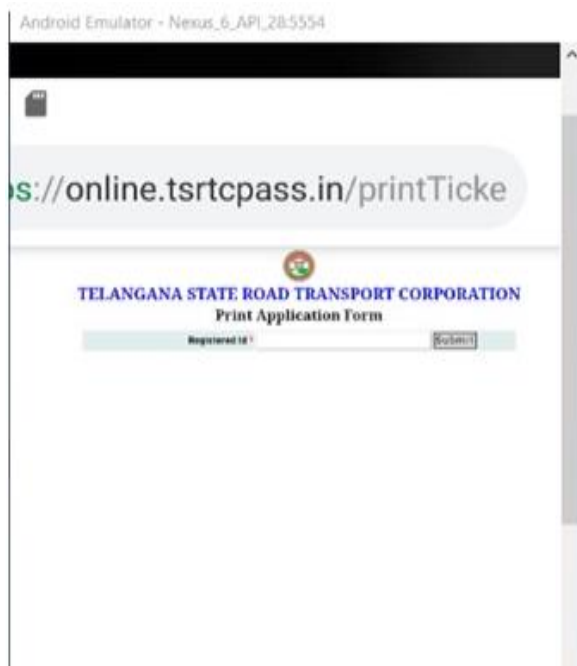


Figure 8. Print Page

From Figure 7. on clicking the options "track application" in menu ,it opens a new screens which displays "search page ". Figure 8. on clicking the options "print application" in the menu ,it opens a new screen which display "print application form".

VI.CONCLUSION

This project is useful for the students who are facing problems with the current manual work of bus pass registration and renewal. It will send an email for the students before completion of his validity period. We can also add the bus information with this application. We can combine this application to online bus ticket booking.

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