Development of an Effective Online Bus Pass Generation System for Transportation Service in Karnataka State

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Abstract: This project aims to provide an effective solution for maintaining Bus pass information using a database. The system has two logins, one for user and other for admin. Online bus pass Generation system is a web application for people to get Bus passes through online. This system was intended to develop an application to perform functionalities like accessing the basic information for authentication and provide Bus pass to a particular person without placing him/her in a queue for a long time. Online bus pass generation system is helpful as it reduces the paper work, time consumption and makes the process of getting bus pass in simple and faster way. User can refill their account and extend the validity every time when the pass expires. Admin can view all users' details and balance through its login. This system is helpful to people to get bus pass from anywhere in the Karnataka state and no need to worry about renewal of the Bus pass.

Key Words: **Login, Apply, Payment, Generation, Notification**

I. INTRODUCTION

This project was created to provide "safe, reliable, time-saving, efficient, comfortable and affordable" services for people is seen as having accomplished this objective, although the cost for providing this service has been substantial. It is heavily subsidized by the government and is reportedly in the red, like most of India's state run road transport undertakings. Because of the drawbacks that are present in the existing system, we got this idea that would help people in a better way. As per the previous system people had to do each and every process manually, but this system helps people to make the work a bit faster. [1]

Customer can buy the bus ticket over the Internet, 24 hours a day throughout the week, this solves the issue of bus ticket being misplaced or stolen. In addition, the online system lets the customers check the availability of the bus ticket before they buy bus ticket. Furthermore, customers no need to pay cash to buy bus ticket because they can pay the bus ticket by using Credit Card (e.g. Master Card, Visa Card). [2]

Hence, there is a need of reformation of the system with more advantages and flexibility. The Bus Scheduling and Booking System eliminate most of the limitations of the existing software.

II. RELATED WORK

Online Bus pass Generation system is already implemented in Andhra Pradesh as "Andhra Pradesh State Road Transport Corporation". The only drawback is the pass application form is available online. It is to be downloaded, get a print, and then it is to be filled and submitted by hand. Online transaction facility is not available. Online Bus pass Generation system is helpful as it reduces the paper work, time consumption and makes the process of getting Bus pass simple and fast. [3]
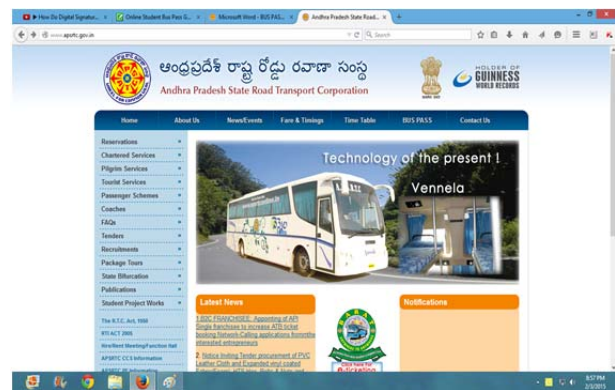

Fig 1: Home page of APSRTC

In Fig 1, different kind of information is provided about the buses, eligibility criteria, fare and timings etc. The drawback is pass is not generated online. [4]

Fig 2: Home page of Tamil Nadu

In Fig 2, we will get the ticket reservation facility, fare and timings of the buses which were developed in Tamil Nadu State Transport Corporation. The facility of Bus pass application is not available. [5]

Fig 3: Home page of Maharashtra

In Fig 3, we will get the ticket reservation facility of the buses which were developed in Maharashtra State Transport Corporation. The facility of Bus pass application is not available. [6]
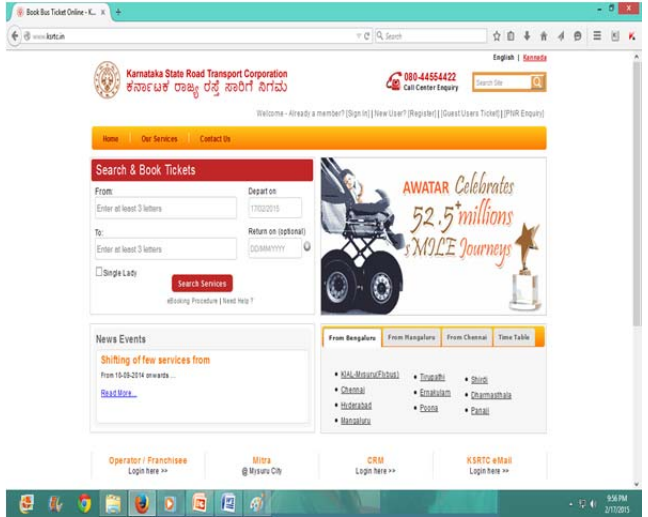

Fig 4: Home page of Karnataka

In Fig 4, we are viewing the web application developed by Karnataka State Transport Corporation. In this pass application forms are not available through online. The process has to be followed manually. Hence time consumption is more.

We have compared the existing system of the different states which are nearby Karnataka. [7]

III.PROPOSED SYSTEM

Our work introduces a new method of generating the Bus pass through online. There are several modules:
1) Registration module
2) Login and change password.
3) Apply.
4) Check application and Issue pass.
5) Online Payment.
6) Pass generation.
7) Notification (message alert).

Steps involved in maintaining the user /client information in the database

- Step 1. Login Page.
- Step 2.Web Application for Forms Authentication.
- Step 3. Develop Functions to generate a Hash value.
- Step 4. User Account Database.
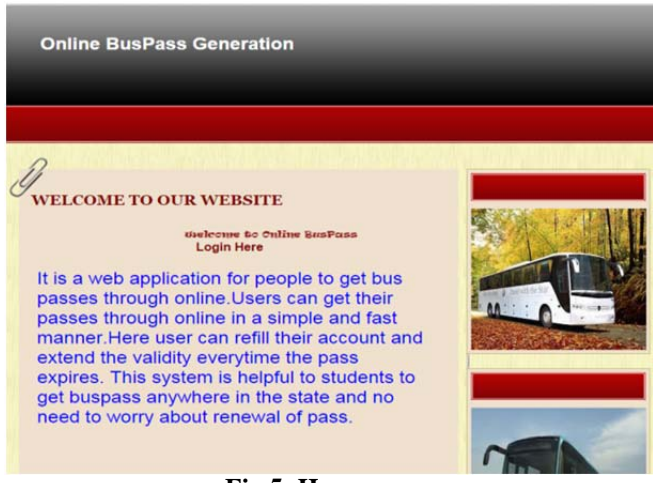- Step 5. Store Account Details in the Database.

Fig 5: Home page

This is the first page of the website and we provided login link for the user.
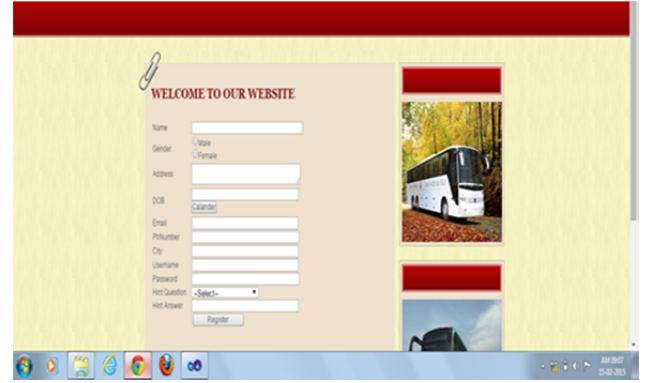

Fig 6: Register page

The user needs to register first by providing all the necessary information of the above fields which are shown in Fig 6.
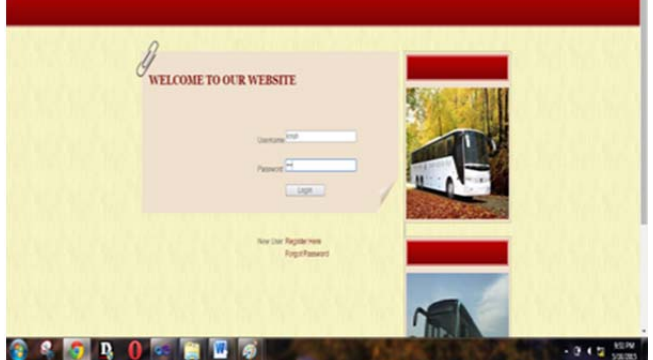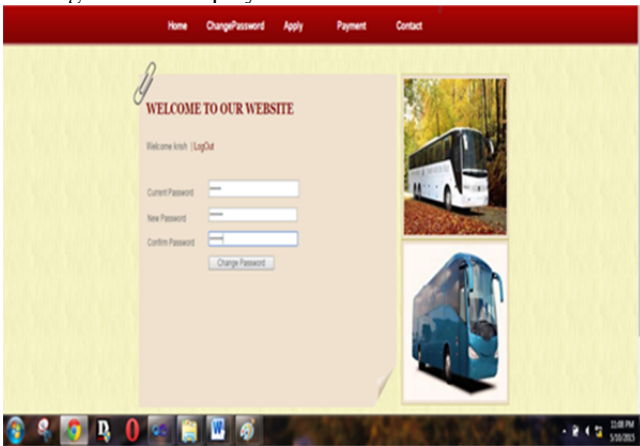

Fig 7: Login page

Fig 7 shows after registering, the user can login by entering the username and password. If the password

doesn't match with the password in the database an error message will be displayed.


Fig 8: Change password page

If the user wants to change their password they have to provide the current password and new password to confirm his/her password. The password is in the encrypted form in the database. Changing password option is also provided enhance the security in securing data.
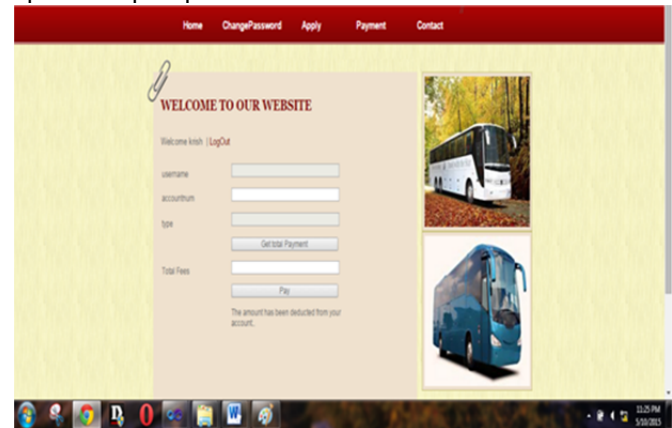

Fig 9: Apply page

After login, user has to apply for the form by providing necessary details to get the pass.
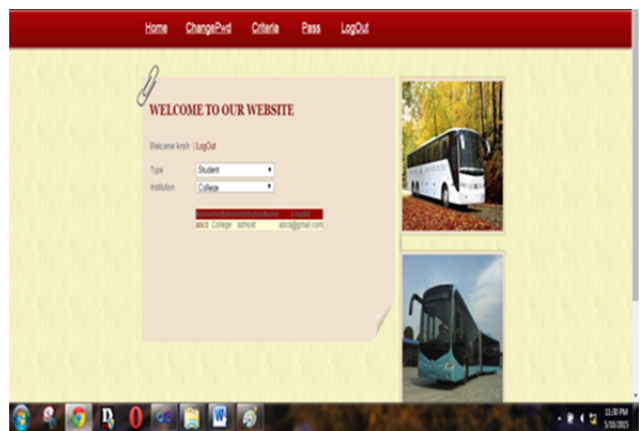
Fig 10: Check application and Issue pass page

The admin can check the received applications, verify and then issue the pass.

After issuing the pass the admin has to generate the pdf and upload the pass pdf to the user/client.

Fig 11: Online payment

Depending upon the criteria specified, the fixed amount will be deducted from users account when the pay button is clicked.

IV. EXPERIMENTAL RESULTS

Fig 12: Generated pdf

The pdf generated consists of KSRTC logo at the top-left and the photo of the applicant at the top-right. The information of the applicant provided by them is displayed below which consists of the applicant's name, source, destination, date of pass issued and expiry date of pass. The renewal of the pass is also made.

V. CONCLUSION

It is a real time project which is useful for the public who are facing problems with the current manual work of bus pass registration and renewal. It also increases the validity period, frequently warns to the people before completion of his validity period by sending Short Message Service or mails. Their renewal or registration can be done using a voucher or even by a credit card. In the due course of time if the user expects more than what this system provides, i.e. if the new requirements can be easily satisfied by enhancing the system without making much of changes.

> ➢ The places and the information relating to the place can be updated.
> ➢ We can use E-Cash system.
> ➢ According to our work new packages like new places developed can be added by the admin.

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