Local Train E-Ticket Advance Reservation through Internet System and using Wallet System

Bhawesh Kumawat¹, Rekha Kumawat²
Assistant Professor (Computer Science)¹, Assistant Lecturer (Commerce)²
Madhav University, Pindwara Sirohi, India¹
Manikya Lal Verma Shramjivi Girl’s College Dabok Udaipur, Rajasthan, India²

Abstract:
Android are one of the developing platform and every day there is increasing number of user’s. There a number of passengers who regularly travel in local train, those customers have to wait for a long time to take their local train tickets daily, this becomes a tedious process. The local train E-ticket reservation with wallet system helps us to overcome this process. This system saves our estimable time by making complete procedure online. This paper is regarding the solutions of the problems related in consumption of time during the Ticketing Process in Indian Railways and the mode of payment other than the specified by the Indian Railways while taking ticket from their Ticketing Counters. The time consumed for taking tickets is minimized.

Keywords: Android Smartphone, SQLite database, E-Ticket using wallet, Business Application.

I. INTRODUCTION
The Internet plays a vital role and everything in this world is evolving as per the technology and we to adapt to the new technology. We generally face a critical problem of exact currency to be paid while taking railway reservation or unreserved ticket from the railways reservation or ticketing counter or there is sufficient change currency available at the counter at the time of ticketing. Normally the fare incurred during the ticketing is not in a multiple of 10, 50, 100, 500 or 1000. It may be any value like 288, 479, 792 or anything, now, a customer will have a choice to pay exact amount at the time of ticketing or he/she may depend upon the booking clerk for the exact amount to be charged and the balance amount to be returned to the customer.

Many a times, at the time of ticketing the cash available at the customer is not sufficient. It may be due to increase in the train fare or for any unwarranted reasons, but, one has a valid debit/credit card. In such cases, one has to go to the ATM machine first for getting cash then only one is in a position to get the bonafied ticket.

The above two problems i.e. the lack of exact change money and insufficient cash available at the time of ticketing is a problem faced at the ticket counter and it creates a major problem at ticket counter, as it is non resolved problem and may be faced at the time of ticketing only and hence it consumes only the time of the ticketing without any solution or the business to the Indian railways or the ticket to the customer.

It consumes time of the customer and it may happen that one may be in hurry to get train and he may unable to get ticket due to the said problem at the time of ticketing and one has to drop his/her idea to travel with the train of his choice according to his time and interest. This paper describes how the customer can book the tickets without wasting their in standing in the queues for completing the billing process. The application developed here is designed for android versions which run faster. And also the embedded SQLite database is the system. Only registered users can perform login and book tickets. Android allows users to customize the home screen with the shortcuts of the application. The Android applications have an extension That is Android Application package which is a package file format used to install application onto the android phones. The Android programs are built using programming languages like C, C++ or Java. Android is a collection of software components such as Android Runtime, Libraries, Linux kernel, Application Framework and Applications layer where the user can interact with applications like Contacts, Phone, Browser and so on.

II. RELATED WORK
There are number of applications which provide information regarding suburban trains such Users can find trains between stations, find passing by trains for a station and possible to search by train number. But user cannot book or get a ticket in online for suburban train. To overcome this we have proposed a wallet system along with the booking process.

There are several concepts that has been made for booking train tickets. But this concept made our task easier. Some of the other related work that is available only for long journey routes. Local train E-ticket reservation is new to the entire system especially with the wallet system.

E-Wallet scheme is one of the latest additions and it is in development process to the IRCTC website. It allows each users to have wallet account and allows users to deposit money in advance to their wallet accounts and use the deposited money to book tickets on the way. This is very beneficial for frequent train travellers or IRCTC users because you need not enter your card details each time you wish to book a train ticket. Only PAN card verified users can register for the e-wallet scheme.

According to an IRCTC official, the current system takes a relatively long time to get tickets from the counter and if the transaction is made online every time it will also take long time as customer is directed to a bank’s service, from IRCTC service, to make the payment and the again redirected to the IRCTC website.
E-wallet scheme ensures that registered customer is not directed to the bank's server for the payment every time, ultimately saving considerable amount of time and increasing accuracy. The official reveals the new initiative has received good response since its launch in the second week of this month.

This system is under development for long journey trains and not for the local train, the proposed system will be more useful for the local trains also.

III. PROPOSED WORK

The Scope of the project is to minimize the booking time at ticket counters so that the android application allows the customers to pay from mobile itself. In practice, the application can be used widely to enhance the quick booking of tickets using wallet.

IV. ANDROID

The Android operating system (OS) is based on the open Linux kernel. Unlike the iPhone OS, Android is open source, meaning developers can modify and customize the OS for each phone. Therefore, different Android-based phones may have different graphical user interfaces GUIs even though they use the same OS.

V. SQLITE

SQLite is a relational database contained in the C programming library. It is the popular choice for storing the user information within the application and it is stored in the client side. It is the most widely used database. Database created can be accessed by name to any class in the application and it cannot be done outside the application or any other application. It helps the developers in handling data in a simple way with the use of database features.

VI. DEVELOPMENT TOOL & ECLIPSE

Eclipse and Android SDK Tools are integrated development environment (IDE) for designing and developing the Java based applications. Eclipse is a multi-language integrated development environment (IDE) which comprises a base workspace with extensible plug-in systems. The applications are mostly developed using Java and other languages can be used by adding plug-ins.

VII. ANDROID SDK TOOLS

Android Software Development Kit (SDK) which is a set of development tools. They include the tools like debugger, libraries, emulator, tutorials, documentation and sample codes. Eclipse and Net beans supports Android development via plug-in. The older tools and platforms are downloadable content which can be downloaded at any point of requirement. Android applications are packaged file system with .apk file extension which holds the resource files etc.

VIII. WORKING MODULE

Initially the Local Train E-Ticket Application will be loaded in the Google Play Store and ‘n’ number of users can download them via play store. Once if the user has installed the application in their Android device he/she will be notified with the current version and updates available for that application. As soon the user signup and logs in there appears for initial money transaction and then use can check for the wallet amount. Then the user can select their station details and book that ticket using the wallet amount. Finally the tickets will be displayed in a tickets section and the user can view also the previously booked tickets.

Log In Activity:

![Login using IRCTC account](image)

The user can login into their account with their valid username (Bhawesh) and password (946057), the main purpose of this activity is to validate whether the user is a valid user, if the details are valid then the user is allowed to enter into the application else they are not allowed. The login in sub divided into user login and admin login, the user login is for the end user whereas the admin login is only for the admin.

Sign up Activity:

![Registration](image)

If the user is new to the IRCTC application he should enter all the fields given above in order to create a new account the user. Once all the required details are filled, the user gives the option
sign up which stores all the information in the database and it is used during the sign in activity.

User Module:

Once the Sign in activity is completed then the application displays the user module, such as Wallet, Booking, Transaction and Ticket. Each of these activity perform some tasks in ticket booking. Each one the following is a separate activity and each of these activities are inter connected, so that we can book tickets within a few seconds.

Admin Module:

The admin has the privilege to access his account, an admin is given a separate login and once the admin sign in with their account then this activity starts. The admin has to enter the station details and respective fair details it will be added into the database. The admin can also change the station details with their update function.

Booking Activity:

Here the user can give the station details and date for the travel. Once the user entered the station details then the user can check the ticket details and fair details, then the user can proceed to book the ticket, the fair for the ticket will be detected from the wallet.

Wallet work Activity:

The user can check for the amount in their wallet using this activity, once the user makes his transaction then he can check whether the amount has been added to their wallet account and if the user book any ticket then they can check for the remaining and detected amount using this activity.
In this activity the user can check for the station details, date, time of booking the ticket and fair details of the tickets. If the information provided is valid then the user can proceed for booking the tickets in the booking activity.

ADVANTAGES:
I. You need not enter your payment details, every time you wish to book a ticket.
II. The problem of traffic in the internet server can be solved.
III. You can still book train tickets even if your bank website is offline.
IV. It is really useful if you don’t have your own credit/debit card.

LIMITATIONS:
I. Only the administrator should manually update the Station details.
II. Only the Android Users can use the Local train E-ticket reservation system.

CONCLUSION:
In this paper we have presented a Simple method of train ticket reservation system for Android using SQLite Database. The main aim of the application is to make people to easily access their account to book tickets using the wallet without using transaction system every time. This system saves Users estimable time by making complete procedure online. The problem of traffic in the internet can be solved.

FUTURE WORK:
The tickets will be sent to the registered mobile number and e-mail address of the user, if there is active internet connection in the smart phone.

REFERENCES:
- https://www.services.irctc.co.in/beta_htmls/IRCTC_android_App.html
- https://eclipse.org/juno/.
- https://www.services.irctc.co.in/beta/IRCTC%20E%20Wallet%20User%20Guide.pdf
- https://www.irctc.co.in/ticketing/loginHome.jsf
- Approach Paper for Rationalisation of Service Charges levied by banks on Electronic Payment Products (RTGS / NEFT / ECS) and Outstation Cheque Collection. RBI. September 11, 2008.