Queue-less Local Railway Ticket Booking Using Wi-Fi Router

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Abstract: In a city like Mumbai where travelling local trains are said to be lifeline, but the system to book a ticket is very tiring. This product will overcome the difficulties faced by the users. This will save lots of time of the user of standing in the long queue and there is no need to carry the paper ticket for user. We are using a Wi-Fi router as a medium of communication between android based client and VB.net server. Wi-Fi router is capable of handling multiple user requests and also there is no need of internet required for router. It is a very powerful technique for taking railway ticket on own android device in very short amount of time. This makes the system less congested. Older system requires carrying cards and ticket losing them causes inconveniences and proves to uneconomical. Also if you have a smart card using its kiosk require to stand in queue during the peak hours. Making the system less effective in providing hassle-free tickets. In this technique, additional functionality such as GPRS/EDGE or 3G/4G technology which uses internet correction, SMS which introduces additional cost and Bluetooth are not required, only Wi-Fi router is needed at stations.

Keywords- Wi-Fi Router, Android, Internet.

1. INTRODUCTION

Travelling in local trains is very cost effective and also time saving as the trains mostly runs on schedule but the most time consuming and painstaking task is to book a ticket for travelling. There are various methods by which one can take ticket of local train. But on most of the time person has no option then to stand in a Queue or use Internet service which increases the cost.

Hence, Wi-Fi based local train ticketing application system is an idea by virtue of which anyone using mobile phones can able to book ticket for local train. And we find this very inspiring in a city like metropolitan cities where time is priceless but they still stand in line for local train ticket and waste their time.

So, we are developing the application in the android operating system because android phones are widely used by the peoples. With the help of this application user will take the railway ticket on their own android device without need to stand in the queue. The M-ticketing application of railways which is available makes the use of internet and GPS services. Also in M-ticketing one cannot book a ticket near the station due to the restriction made by the system. We are using Wi-Fi wireless technology because with the help of Wi-Fi user will get connected to the server and using the application get the response within a few seconds.

There is also no need of the internet facility on your android device so that the cost is also minimized.

2. LITERATURE SURVEY

Indian Railway has become technologically more advanced in past few years. Railways have incorporated much functionality in system to provide better service to the customers. For ticket booking there has been lots of issues to reduce the efforts to book a ticket railways have introduced many technological features like Online ticket booking, Coupons, Smart Cards etc. to book a ticket. For long journeys it introduced a e-ticketing facility wherein user need to browse through a government website to book a ticket and get a printout of the confirmation to show it to the ticket checker whenever asked. But in Local ticket there is still crowds at every counters where tickets are given. To overcome this M-ticketing (Mobile-Ticketing) was introduced in which user can book a ticket form their mobile phones. [2]

There has been a service which uses sms protocol for booking tickets, where any users who has a mobile phone in which there is sms functionality available can use the service. For this the user is required to send a sms for every request and gets the response as a sms. It also reduces the efforts of standing in queue.[3]
An another service for ticket booking in which the ticket is booked from an application and the ticket is generated in the form of QR code (Quick Response code) which is used by the checker to verify the ticket from database for its validity. It also shows the details schedule, routes details and also the cost/expenditure of the trip for the user. The payment can be made through credit cards or through prepaid payment. The users data is also stored on the database.[4]

3. EXISTING SYSTEM

Ticket is a mandatory item for travelling in public transportation system, likewise we also require to book a ticket before we travel in local train.

At present there are various way of taking the local train ticket as shown below:

3.1. Buying of tickets by paying on the counter:

This is the oldest method of buying tickets. In this method the passenger has to pay the required ticket amount at counter and get the ticket. This method is very time consuming when there is a rush on the ticket counter. When there is a big stations like Dadar, Kurla, Kalyan etc. passenger has to waste more time to take a ticket this is the big disadvantage of this system.

3.2. Coupon system:

This method is a bit better as compared to the first one. But this system does not help much to the passengers. For a situation if a person need a ticket of 15 Rs. and has left with lesser denomination coupon like 1 or 2 Rs. it will require quite a long time for punching of coupons. The ink can be erased from the coupon and it can be reused.

3.3. Smart Card Machine:

Smart card machines are good but still there is a queue for getting a ticket during peak hours. The problem with these machines is that the size of the machines is too big and also these machines required high electricity power.

4. PROPOSED SYSTEM

In this system the user will visit the source station ticket counter and then he/she will open our android application. For the first time the user is needed to open an account with railways through which they get unique user ID and should keep their account funded. For adding the money in ones account user can use different techniques provided by the system like we can recharge account at the counter or online through credit card or net banking. On the other side railway will create a master database with the user ID and the amount in the user account.

A Wi-Fi router is installed at every ticket counter, there is no need of internet connection required for router. As the router is connected to the railway server. When user come into the ticket counter area user has to first turn on their Wi-Fi and then user will open his android application which will connect to our Wi-Fi router, and then source station name will automatically come into the application depending on which station the user is using the application to book the ticket.

The users will first have to click on connect button and then user will enter the user id and password. Then he will select the destination and
via route if any and enter the number of tickets required. Then click on submit button then whatever data user has enter will get verified at server side and if there is any wrong data then server will send the error message user. The software will do the calculation of ticket amount will be done after checking the available account balance of that user and verify the user account. If everything found acceptable, then user will receive the message which is act as a ticket.

In case of, recharging an account of a user, the user can recharge his account by directly going to ticket counter or for user convenient we can developed one website with the help of that user can recharge his account. Registration for a new user facility can also be provided online is required.

![Fig 4. Block Diagram](image)

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6. **CONCLUSION**

Our proposed model of application will be feasible for implementation at the work environment. Also it will be user friendly for any group of user be it a beginner or an expert user. This application will be innovative in its own aspect as it will minimize the dependency of user on the other systems. This model proposes High degree of efficiency in the ticket booking System.

7. **REFERENCES**

[1]. Indian Railway

