LITERATURE SURVEY

SMART SOLUTIONS FOR RAILWAY

PANIMALAR ENGINEERING COLLEGE

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Abstract :

One of the biggest challenges in the current ticketing facility is "QUEUE" in buying our suburban railway tickets. In this fast growing world of technology we still stand in the queue or buy with oyster & octopus cards for our suburban tickets, which is more frustrating at times to stand in the queue or if we forget our cards. This paper Android Suburban Railway (ASR) ticketing is mainly to buy the suburban tickets which is the most challenging when compared to booking the long journey tickets through 'Mticket' which fails with suburban(local travel) tickets. Our ASR ticket can be bought with just a smart phone application, where you can carry your suburban railway tickets in your smart phone as a QR (Quick Response) code. It uses the smart phones "GPS" facility to validate and delete your ticket automatically after a specific interval of time once the user reaches the destination. User's ticket information is stored in a CLOUD database for security purpose which is missing in the present suburban system. Also the ticket checker is provided with a checker application to search for the user's ticket with the ticket number in the cloud database for checking purposes.

Keywords:

Android; SQLite; Cloud Database; ASR; QR code

INTODUCTION:

In the past few years there were more advancement in the field of technology. Considering railway department, e-ticket facility was introduced where users browse through a governmental website and book their long journey railway tickets which can be printed out after confirmation to show it to the checker when needed. After which months before a new technology called M-ticketing (Mobile Ticketing) was introduced where customers messaged to the web portal through mobile phones after which a complete web page download to the mobile phone where users can do the same booking process as it was in the e-ticketing facility. Also in foreign countries the use of Oyster cards & Octopus card has become mandatory during travel. But we suffer if we forget our travel cards and we stand in the Queue for our local suburban tickets, which is a place where e-ticketing; m-ticketing was unable lay their foot prints. Android Suburban Railway (ASR) ticketing is mainly to buy the suburban tickets which are the most challenging. Our ASR ticket can be bought with just a smart phone application, where you can carry your suburban railway tickets in your smart phone as a QR (Quick Response) code. It uses the smartphones "GPS" facility to validate and delete your ticket automatically after a specific interval of time once the user reaches the destination. User's ticket information is stored in a cloud database for security purpose which is missing in the present suburban system. Also the ticket checker is provided with a checker application to search for the user's ticket with the ticket number in the cloud database for checking purposes.

FEATURES:

• Dalvik virtual machine optimized for mobile devices

• Integrated browser based on the open source Web
Kit engine.

• Optimized graphics powered by a custom 2D graphics library; 3D graphics based on the penGL ES 1.0 specification (hardware acceleration optional)

• SQLite for structured data storage

• Media support for common audio, video, and still image formats (MPEG 4, H.264, MP3, AAC, AMR, JPG, PNG, GIF)

• GSM Telephony (hardware dependent)

• B1uetooth, EDGE, 3G, and Wi-Fi (hardware dependent)

• Camera, GPS, compass, and accelerometer (hardware dependent)

• Rich development environment including a device emulator, tools for debugging, memory and performance profiling, and a plug-in for the Eclipse IDE

PROPOSED SYSTEM:

The current railway or metro ticketing reservation system is human dependent, time consuming when It comes to ticket booking process and non reliable. The objective of our project is to develop an android Application which will serve as a medium for students/employees/any one to book the tickets to travel through trains. The main motive of the app is to ease the process of ticket booking by avoiding the hectic process to stand in a queue and book the ticket for the short distance travelling in the trains. There are several applications available in the market giving information about the travelling destinations and their fares. But none of these applications include the ticket booking process. Our application differs as it would not only book the ticket but also save the ticket in the form of QR (Quick response) code. This QR code can be scanned through other mobiles and saved as well which can be shown to the ticket checker for validation. Because of this the entire process is very easy. The data about the ticketing and personal information will be securely stored onto the database. This application also includes the fine deduction system wherein if the user tries to extend its journey the fine would be automatically deducted from his account. Also our app would require the user to create an account so that it can be used by multiple users and would be independent of the user devices. The user can log in through any mobile device having the app installed.

LITERATURE SURVEY:

S.NO	TITTLE	AUTHOR	YEAR	DESCRIPTION
1	Urban railway ticketing application.	sadaf Sheikh, Gayatri Shinde, Mayuri Potghan, Tazeen Shaikh.	January2014	They proposed application such as Android, cloud database, MySQL, QR code which will be used for the process of booking a ticket for travel through local trains or metros
2	Android application for local railway ticketing using GPS validation	Snehal Kalbhor , Ashwini Mangulkar , Mrs. Snehal Kulkarni	March2014	They proposed the various techniques for buying metro tickets or local railway tickets through their Smartphone application and introduced ticket checker
3	Android application for ticket reservation with GPS as ticket validation.	Tushar Dongare, Akshay Babar.	April 2014	They provided various techniques for buying tickets through their Smartphone application through GPS facility of android mobile so that passenger can easily get the list of station and he can easily buy tickets.
4	Railway ticketing using GPS in Metropolitan city	Ramadevi. K, Murugan. S, Bharath. S	May 2014	They proposed a mobile ticket application developed for android in which user procure ticket in future.
5	Android railway ticketing with GPS as ticket checke	Neha sandikar, rane dipti, sachin panday	2013	They proposed the various techniques for buying metro tickets or local railway tickets through their Smartphone application and introduced ticket checker.
6	A QR code based processing for dynamic and transparent seat allocation in Indian railway	Manmohan Swarup, Chanchal Sonkar, Vijendra Singh.	2012	They proposed a system through which railway ticket booking is done through website and also from multimedia phones.t
7	Mobile ticketing system	Wan Husani Wan Hussin,Paul Coulton	2011	They proposed a system in which More consumer are expected to engage in mobile commerce transaction, wider adoption of mobile commerce services
8	A secure e-ticketing scheme for mobile device with NFC.	Magdalena,macia,jordi	2010	They proposed an e-ticketing scheme with recoverable anonymity as security requirement and also reusability, in order to allow multivariable tickets.

CONCLUSION:

In this paper we have presented a mobile ticket application developed for Android 1.5 using Java, SQLite, MySQL, and PHP on the server side which can change the way people buy their tickets in future. This kind of ticketing application can be applied to any kind of transport system. Our android app is one of its kinds and fmds huge application to buy sub-urban railway tickets through android mobile. Also our app saves a huge work for our ticket checkers by GPS validation of tickets and also moving from manual ticket checking process to digital ticket checking process by just scanning with his own android mobile to validate the ticket. Hence a huge problem of issuing local train tickets has been solved with our new application. Knowing at what time trains will be available will also ease the user to allot his time accordingly to reach the station, so in our project we will be using GPS here to fmd the location of the user and nearby train station to display the train arrival timings. Still more advance modifIcation can be a Dynamic display of Train locations by fItting GPS devices in trains to show its location in the Google map display which is available in our application. Also as a station level security we can have Hardware devices to validate the QR codes before the user enters or leaves the station, where the user can have access towards platform after being validated by the hardware device.

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