A Literature Survey On

Title

**“LOCAL TRAIN TICKET BOOKING”**

Third Year of Engineering

In

Computer Engineering

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**Literature Survey Report Content**

**Abstract 03**

**Table of Contents**

**1. Introduction 04**

**2. Literature Survey 05**

**3. Problem Statement 08**

**4. Summary 08**

**5. References 09**

**ABSTRACT**

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| 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 `M-ticket' which fails with suburban(local travel) tickets.  A local train ticketing system project for local trains that allows users to book local train tickets and get ticket receipt online. This local train project provides login rights for normal users and admin. A normal user may login and get a ticket online, print it and travel by train. The ticketing process consists of a ticket booking form. The form allows the user to choose his source and destination. The source is the station from where the user will be boarding the train. Destination is the station he needs to get down at. The project database is already filled with stations on Mumbai western central and harbor line. It can be modified for any other city as needed.  The system also consists of an option to select weather ticket is a single journey or a return ticket and the journey will be commenced on first class or a second class. It also consists of an admin account. The admin may recharge user account balance and check for various journey tickets processed in the system. |
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**INTRODUCTION**

The latest mobile phones such as android based mobile phones, called smart phones, are changing the way we live our lives and has become a very important part of our life. Smart phones change the ways of communication unlike fixed line phones, it provides an advantage of communicating with anyone virtually through video-conferencing, email, etc., and it also provides a facility to store contact numbers, email, in phone memory which reduces the concept of File-System to store personal contacts.

Now a day’s smart phones are acting like a computer, it can be used to store information, documents etc., and can be shared with anyone through internet. These latest smart phones are very helpful for doing business. Company related information and documents can be viewed anywhere and can be shared with anyone. These days android based mobiles phones/ devices are very popular because it provides a large number of utilities for hand-held devices through which it acts as a computer in a pocket. Because of its open-source nature a large number of utilities has been developed and android operating system is getting used in many mobile phones. Because of its small-size, it can be stolen very easily and the confidential-information of any organization or personal details stored in the phone memory can be easily exposed.

Android Local Train ticketing App is basically a way of buying tickets for suburban railway which is an extremely challenging task. This is a simple application which enables users to buy tickets in an efficient manner, with the help of a smart application. The information about a particular user is stored in MySQL database for continuous and easy availability anywhere and everywhere. The information about the tickets and routes are also stored in database and are retrieved when required. The information is transferred in a secured manner as Ticket ID and is received by the user in the form of a ticket in App. Ticket checker is also present to search the user’s ticket information by giving the ticket ID as the input.

**LITREATURE SURVEY**

Android is a Linux-based operating system designed primarily for touch screen mobile devices such as smart phones and tablet computers, developed by Google in conjunction with the Open Handset Alliance. Initially developed by Android Inc., whom Google financially backed and later purchased in 2005,Android was unveiled in 2007 along with the founding of the Open Handset Alliance, a consortium of 86 hardware, software, and telecommunication companies devoted to advancing open standards for mobile devices.

Applications are usually developed in the Java language using the Android Software Development Kit, but other development tools are available, including a Native Development Kit for applications or extensions in C or C++, Google App Inventor, a visual environment for novice programmers and various cross platform mobile web applications frameworks.

Applications can be acquired by end-users either through an app store such as Google Play or the Amazon Appstore, or by downloading and installing the application's APK file from a third-party site. The Play Store application allows users to browse download and update apps published by Google and third-party developers, hosted on Google Play, and is pre-installed on devices that comply with Google's compatibility requirements. The app filters the list of available applications to those that are compatible with the user's device, and developers may restrict their applications to particular carriers or countries for business reasons. As of June 2012, there were more than 600,000 apps available for Android, and the estimated number of applications downloaded from the Play Store exceeded 20 billion. The operating system itself is installed on 400 million total devices. Standard versions for Android are 2.3, 3.1, 3.2, 4.0, and 4.1.

Recently, the handheld devices are gaining major importance since these devices allows one to pay and book tickets in a secured manner through the mobile devices which are Bluetooth enabled. Digital signature ensures security of e-ticketing and e-payment to some extent1. There are mainly two security issues related with all the ticketing systems. One is validation and the other is ticket checking. The problems arising due to these security issues are many and various. One of them is the e-payment. To deal with these problems a new protocol has been given in the previous papers itself2. This protocol aims at providing high level security. Security was offered but the performance of the system. E-ticketing is one of the most popular trading services since it does not involve any paper work for e-ticketing in transport system. It provided the concept of money in the place of real one for all trades and transactions as well.

Then evolved Mobile Ticket or m-ticket. The concept of virtual money is supported by existing Near Field Communication (NFC) device. Then was derived the concept of smart phones which may be considered as a platform for validating the tickets using low cost ticketing device. The cloud platform automatically configures and remembers the user information, and thereby validates the tickets. The smartphones however are accompanied by shortage of data storage, battery and computation capability of the phones. For overcoming this problemMySQL database can be used to store data with complete security along with Android Emulator6. The pressure and time of computation can be reduced with the incorporation of a virtual server in the mobile device. Thus with the introduction of Android devices M-ticket concept was introduced which removes the burden of passengers to stand in queues to book the tickets. Security is ensured by the use of ticket ID. GPS is used for automatic ticketvalidation information during the required points in the journey. All information about the users is stored in database in encoded form thereby ensuring constant availability and security. This smart phone application for ticket booking may be used for any kind of transportation system such as bus, railways, airways etc. The Android application known as the Android Application for Local Railways not only uses all the above features but it uses another application for ticket checking. GPS is used for the validation of tickets from source. It saves lots of time . Ticket checker holds the ticket number in database to retrieved the user information.

**Multitasking**

Multitasking was improved with the release of Android 4.0 "Ice Cream Sandwich". When users hold down a device's home button or press the multitasking button on available devices, a task manager with a list of recently-opened apps appear which users may select to resume use of the application in the status it was last accessed at.

**Advantages:**

There are lots of advantages of Android Operating System. Here is the list of few very important advantages:

* It supports 2D, 3D graphics.
* It supports Multiple Languages.
* Java Support.
* Web Browser support.
* It supports MP4, 3GP, MPEG4, MIDI.
* Additional Hardware Support.
* Audio calling, Video Calling etc.
* Ease of Notification.
* Easy access to thousands of applications via the Google Android App Market
* Numerous applications which allow consumers to help save time and efforts.

**PROBLEM STATEMENT**

At present, the number of smartphone users is increasingly all over the globe at a very high rate; dominated by mainly the android phones. Android phones provide a huge amount of user-friendly facilities which makes life much easier for the user. The facilities range from general calls and messaging to emails, chat rooms, quick-office which invites for a good amount of sensitive and clandestine data being saved and processed in it.

One of the biggest challenges in the current "Local Train Ticket Booking System" is that, the location of the user while booking the ticket as it is for local trains.

Local Train Ticket Booking is a mobile and web based system for storing location in the centralized database along with other information.

**SUMMARY**

The current ticketing system of suburban railway system works manually and is quite time consuming. People may carry android or oyster cards as substitute, but if that is misplaced somehow or if anyone forgets to produce it at the right place these are of no use. The main objective for this project is developing an android application so that passengers can book the tickets directly from their smart phones and a ticket ID to their own phones is enough for travelling a desired distance.

Thus the process of standing in lines to book the tickets and after that carrying the tickets is too problematic.Thus this application carries a ticket ID to validate the ticket. GPS is used to validate the source point of ticket for ticket checker to ensure the ticket. For security reasons the information about every user is stored in database which is to be accessed for each ticket booking for validation purpose. Ticket checker will enter this ID on his app to retrieve all the details of user to check whether ticket is valid or invalid.

**REFERENCES**

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