

# A Solution for Customer Security in Indian Cabs

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**Abstract**— This Project deals with the development of an interactive app which functions as a Cab Booking System for customers to smoothly book cabs for travel with some advanced features that are namely accident avoidance and detection system, customer and driver feedback system. This proposed system designed with android and hardware interfaced as user friendly in briefly it explains about hardware which contains obstacle detection and accident detection sensors. This application contain some latest cab booking features like, customers can view available cabs, booking the cabs after verifying cost, driver experience, last travelling time of driver with previous customer feedback etc.,. This Application based management system is designed to handle the entire primary Information required to manage the whole data. Separate database is maintained to handle all the details required for the correct statement calculation and generations. This Paper intends to introduce more user-friendly approach in the various activities such as record updating, maintenance and searching.

## I. INTRODUCTION

Cab Booking System specializing in Hiring cabs to customers. This system is designed as user-friendly which it was combined with android and hardware unit interfacing. The hardware unit designed with Arduino microcontroller and interfaced with sensors namely obstacle detection sensor and vibration sensor(Accident detection). Both sensors result is monitored by controller if any abnormal changes detected it make auto action like control the vehicle and inform the owner about the problem using Bluetooth communication. In android application the customers can view available cabs; register the cabs, view profile of the driver and get details about driver from previous customer feedback and customer decide to book cab .Basically, Cab booking service is a major transport service provided by the various transport operators in a particular city. Mostly peoples use cab service for their daily transportations need. The company must be a registered and fulfils all the requirements and security standards set bythe transport department. Cab Booking System is a web based platform(application) that allows your customers to book their taxi's and executive taxis all online from the comfort of their own home or office. The platform should offer an administration interface where the taxi company can manage the content, and access all bookings and customer information. More and more Taxi companies are looking for integrated taxi booking systems as it makes life much easier for (1) The traveler - this is highly important and in today's internet age people should be able to book taxis online without having to pick up the phone and (2) the taxi company as all their bookings are now managed via an automated system which means they have an electronic record of future and historic bookings

A Cab Booking/Hiring is a system that can be used temporarily for a period of time with a fee. Hiring a car assists people to get around even when they do not have access to their own personal vehicle or don't own a vehicle at all. The individual who want to hire/rent a car must first contact the cab hiring company for the desire vehicle. This can be done online. At this point, this person has to supply some information such as: dates of rental, and type of car. After these details are worked out, the individual renting the car must present a valid Identification Card. Most companies throughout the industry make a profit based of the type of cars. The hiring cabs are categorized into economy, compact, compact premium; premium and luxury & customers are free to choose any car of their choice based on their purse and availability of such car at the time of reservation.

Chandigarh Cab Service is the first site in India, which provides reliable online (web based) cab booking facility to the people in various cities of India., free of cost.

Our Cab Service acts like a bridge between the cab operators & the customers/ users/ people who book a cab. This is the online cab booking service provided to customers. This bridges together the registration travel agencies/ cab operators/ cab owners & the customers.

Our system provides this service i.e. we provide free registration for the cab owners & free service to travels/ customers/ users who go for booking a cab or taxi. Here the traveler can book a cab/ taxi/ car by viewing all the cab details, driver details and pricing details available, according to selected city and area. It is the reliable service provided to both customers and travel agencies. This system supports to provide service with well-conditioned new vehicles, with experience drivers for a happy journey of the customers. This Paper intends to introduce more user friendly in the various activities such as record updating, maintenance, and searching. This service is provided by the young entrepreneur who is living in India. He is feeling something is missing in city to overcome people day to day problems. The following Online Cab Booking having the following services:-

1. Enhance Business Processes: To be able to use internet technology to Paper the rental company to the global world instead of limiting their services to their local domain alone, thus increase their Return on Investment (ROI).

2. Traveler's registration: A registration portal to hold traveler's details, monitor their transaction and used same to offer better and improve services to them.

3. Group bookings: Allows the customer to book space for a group in the case of wedding or corporate parties or meetings.

4. Eco-friendly: The monitoring of the vehicle activity and the overall business becomes easy and includes the least of paper work.

5. Availability: The software acts as an office that is open 24/7.

6. Efficient: It increases the efficiency of the management at offering quality services to the customers.

7. User friendly: It provides custom features development and support with the software's.

8. Security: The subsystem should provide a high level of security and integrity of the data held by the system, only authorized personnel of the company can gain access to the company's secured page on the system; and only users with valid password and username can login to view user's page.

## II. ECLIPSE

Eclipse is created by an Open Source community and is used in several different areas, e.g. as a development environment for Java or Android applications. Eclipse's roots go back to 2001. The Eclipse Open Source community has over 200 Open Source projects covering different aspects of software development

## III. ANDROID

Android is a Linux-based operating system designed primarily for touch screen mobile devices such as smart phones and tablet computers. Initially developed by Android, Inc., which Google backed financially and later bought in 2005, Android was unveiled in 2007 along with the founding of the Open Handset Alliance: a consortium of hardware, software, and telecommunication companies devoted to advancing open standards for mobile devices. The first Android-powered phone was sold in October 2008.

## IV. DATA BASE

SQLite is a relational database management system contained in a C programming library. In contrast to many other database management systems, SQLite is not a client-server database engine. Rather, it is embedded into the end program. SQLite is ACID-compliant and implements most of the SQL standard, using a dynamically and weakly typed SQL syntax that does not guarantee the domain integrity. SQLite is a popular choice as embedded database software for local/client storage in application software such as web browsers. It is arguably the most widely deployed database engine, as it is used today by several widespread browsers, operating systems, and embedded systems (such as mobile phones), among others. SQLite has bindings to many programming languages

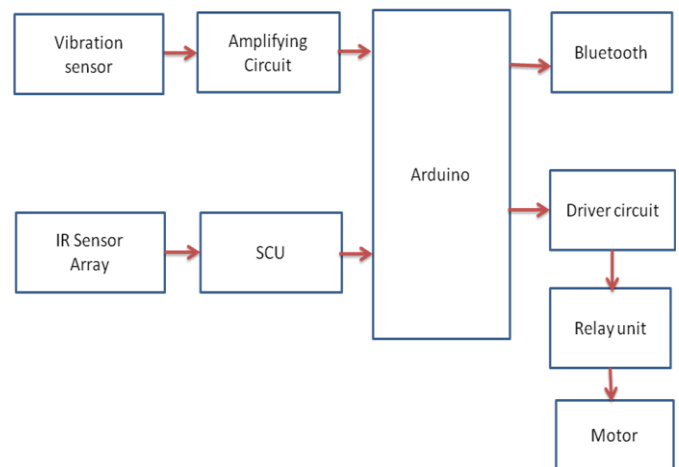
Unlike client-server database management systems, the SQLite engine has no standalone processes with which the application program communicates. Instead, the SQLite library is linked in and thus becomes an integral part of the application program. The library can also be called dynamically. The application program uses SQLite's functionality through simple function calls, which reduce latency in database access: function calls within a single process are more efficient than inter-process communication. SQLite stores the entire database

(definitions, tables, indices, and the data itself) as a single cross-platform file on a host machine. It implements this simple design by locking the entire database file during writing. SQLite read operations can be multitasked, though writes can only be performed sequentially.

Due to the server-less design, SQLite applications require fewer configurations than client-server databases. SQLite is called zero-conf because it does not require service management (such as startup scripts) or access control based on GRANT and passwords. Access control is handled by means of file system permissions given to the database file itself. Databases in client-server systems use file system permissions which give access to the database files only to the daemon process.

Another implication of the server less design is that several processes may not be able to write to the database file. In server-based databases, several writers will all connect to the same daemon, which is able to handle its locks internally. SQLite on the other hand has to rely on file-system locks. It has less knowledge of the other processes that are accessing the database at the same time. Therefore, SQLite is not the preferred choice for write-intensive deployments. However, for simple queries with little concurrency, SQLite performance profits from avoiding the overhead of passing its data to another process.

## ARCHITECTURE DESIGN



## V. MODULES

### A. SPEED CONTROL

The Objective of this project is to develop a system to keep the vehicle secure and protect it by the occupation of the intruders. The main aim of the project to develop a system automatic speed control of vehicle and accident avoidance using vibration sensor and IR sensors. whenever any obstacle is detected in running vehicle depends on distance automatically control the speed of vehicle. And give alarm to driver alert.

## B. VEHICLE MONITORING

A vehicle tracking system combines the use of automatic vehicle location in individual vehicles with software that collects these fleet data for a comprehensive picture of vehicle locations. Modern vehicle tracking systems commonly use GPS technology for locating the vehicle, but other types of automatic vehicle location technology can also be used. Vehicle information can be viewed on electronic maps via the Internet or specialized software.

## C. SIGN UP

This is the first step what user to do. In this module, user wants to create an account in database, to call taxi from system. The registration processes are done by any person non-violating the database privacy rules.

The registration will be permitted by call taxi system administrator. After the registration process completed user can get the authentication code and machine generated user id, by using this only user can login to the call system.

## D. DRIVER AND CUSTOMER LOGIN

In this module user want to register the personal details in the call taxi company database and get the authentication processes to go forward. A login is a set of credentials used to authenticate a user. Most often, these consist of a username and password. However, a login may include other information, such as a PIN number, pass code, or passphrase. Some logins require a biometric identifier, such as a fingerprint or retina scan. Logins are used by websites, computer applications, and mobile apps. They are a security measure designed to prevent unauthorized access to confidential data. When a login fails (i.e., the username and password combination does not match a user account), the user is disallowed access. Many systems block users from even trying to log in after multiple failed login attempts.

## E. NEW BOOKING AND CANCEL BOOKING

In this module authorized drivers can book a taxi from the call taxi system. Here also shows all the details about the driver who also registered in the system. And the system admin give the personal details to the particular driver only after the matching process is done. Now the matching process is done by the admin. After getting the user details, driver can wait the user confirms the booking.

The car owner will be notified of your booking right away. Rides offered with automatic approval are confirmed instantly, so no need to contact several car owners and wait for a reply. For rides offered with manual approval, you set the time limit for the car owner to reply. You'll get the car owner's phone number and all travel details via email and SMS as soon as your booking is confirmed. Instead of just a verbal agreement with the car owner to travel together, you will get formal confirmation, just as when you book a hotel room or plane ticket.

## F. CONFIRM BOOKING

In this process, user will get the information about the distance, time and required fees from the system, then booking can be confirmed or cancelled in the above module.

It may either be a guaranteed or non-guaranteed confirmation. While oral confirmations are virtually worthless, written or emailed confirmations too have stated or implied limitations (such as the period of reservation and how late the person can arrive).

## G. TRANSACTION STATUS

A transaction symbolizes a unit of work performed within a database management system (or similar system) against a database, and treated in a coherent and reliable way independent of other transactions. A transaction generally represents any change in a database.

A transaction record with a PENDING status means that the total amount of the transaction has not been paid. This status should only appear on a transaction record added by a system user from the back end. This may mean there is a partial payment or no payment at all.

## VI. CONCLUSION

As safety and security are the major issues of the customer who opt for company transport services and driver identify and rectified user problem it is company's whole and sole responsibility to provide the safety measures. This application brings a best solution for companies to achieve security.

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